THE UNIVERSITY OF MANITOBA

LIBRARY

AUTHOR ..... BERISH, Clifford M. .....

TITLE ..... THE DEVELOPMENT OF A SELF-REPORT MEASURE OF CLIENT READINESS .....

..... FOR THERAPY .....

.....

THESIS ..... M.A., 1984 .....

I, the undersigned, agree to refrain from producing, or reproducing, the above-named work, or any part thereof, in any material form, without the written consent of the author:

..... Christine D. Iff .....

..... Susan Berne .....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

The University of Manitoba LIBRARIES

THE DEVELOPMENT OF A SELF-REPORT MEASURE OF CLIENT READINESS FOR THERAPY

by

Clifford M. Berish

A thesis
presented to the University of Manitoba
in partial fulfillment of the
requirements for the degree of
Master of Arts
in
Psychology

Winnipeg, Manitoba, 1984

(c) Clifford M. Berish, 1984

THE UNIVERSITY OF MANITOBA

FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a Master's thesis entitled: The Development of a Self-Report Measure of Client Readiness for Therapy

submitted by Clifford M. Berish

in partial fulfilment of the requirements for the degree of Master of Arts

Advisor

External Examiner

Date Sept. 12/83

Oral Examination is:

Satisfactory ☒ Not Required ☐

[Unless otherwise specified by the major Department, thesis students must pass an oral examination on the subject of the thesis and matters relating thereto.]

THE DEVELOPMENT OF A SELF-REPORT MEASURE OF CLIENT READINESS FOR THERAPY

by

Clifford M. Berish

A thesis submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

MASTER OF ARTS

© 1984

Permission has been granted to the LIBRARY OF THE UNIVERSITY OF MANITOBA to lend or sell copies of this thesis, to the NATIONAL LIBRARY OF CANADA to microfilm this thesis and to lend or sell copies of the film, and UNIVERSITY MICROFILMS to publish an abstract of this thesis.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

ACKNOWLEDGEMENTS

Acknowledging the sources of help and support I received during the course of this thesis requires a shift in gears for me -- I generally prefer to complain. Nonetheless, I want to take this opportunity to thank the parties who have been directly involved in this project, and/or have helped make the past few years satisfying enough to enable me to devote the necessary time and energy to this work.

Probably the person most involved with all the various facets and stages of this thesis has been my advisor, John Schallow. From the initial conception and development of the ideas -- to sitting up late into the night writing, re-writing, discussing and arguing about items -- to getting down into the computer terminal trenches -- John has always been willing to lend a hand as editor, clinical judge, data analyst, or what have you. Although at times we seemed to get this mixed up somewhat, John has also been a good friend -- I've especially cherished his readiness to accept and support my personal needs and concerns throughout this endeavour, some of which were often counter-fast- production, so to speak. I would like to express my deepest appreciation to John.

I would also like to thank Marian Aftanas and Jim Burke for taking the time and energy to serve on my thesis committee. Marian's contributions have formed the cornerstones of this work in that it was he who challenged my curiousity to learn, and indeed taught me about measurement in psychology as well as the ins-and- outs of factor analysis. He has served as an item judge and editor, and was most helpful with the handling and analysis of the data. I've especially valued the sense of encouragement that I feel from Marian.

Jim Burke has taught me alot about therapy and values, helping me to explore mine over the years by letting me bounce things off him, and by bouncing things off me at times. Appropriately, at my final oral he questioned me about the value- laden aspects of my interpretations. Jim has been a rare kind of safe and supportive refuge for me in this city, being close enough to always understand and removed enough so that no hidden agendas or conflicting roles interfered with my trust. Jim served as clinical and item judge, editor, and he made a significant contribution to the item pool.

I feel extremely fortunate to have had these individuals on my committee. I don't think I could imagine a more favourable group for myself. I sincerely hope they will all be willing to participate in the next episode!

Bev Diamond, more than anyone over the past few years, has been there for me at all times in an accepting and nurturing way. She has helped with numerous facets of this project including data-punching, proof-reading, organizing references, etc., etc.. On paper I couldn't even scratch the surface of my appreciation of her being the important person in my life during this period.

I want to thank Joe Rallo and Jaye Miles who, along with my committee members, served as clinical and item judges, and proof-read various parts of the manuscript. They both also provided, along with Bev, the consistent day-to- day encouragement and companionship in our comfortable F.A. abodes, that even enabled me to enjoy working at times because of the great company. I am particularly appreciative of Joe's relatively painless way of helping me to become friends with the computer.

Ian Altman and Zipora Malamuth have been consistent providers of moral support-- rewarding and motivating, designing work schedules etc.-- In a word, they have both been like family to me here in Winnipeg. Although off in faraway places, Terry Dushenko and Oren Brenner have also continued to be very important sources of support for me. What can I say about someone who, for instance, picks up on my down moods from thousands of miles away and flies me off on a Caribbean cruise for a week to cheer me up? I thank these close friends.

I would also like to thank my Mom(Viv), Dad(Simmy), sister (Marlene) and my grandparents at this time, for they have all given me a strong sense of myself and where I come from. Knowing they're with me is an irreplaceable source of strength and unique motivation.

Finally, I want to thank the clinicians at the P.S.C. who were willing to let me tap their clinical wisdom during the preliminary stages of the project; As well,Jule Henderson, Pam Herbert, and Robyn Adkins who all did some typing of the manuscript; And especially the Manitoba Mental Health Research Foundation which generously provided funds to finance this project.

ABSTRACT

The empirical literature on the significant ingredients in psychotherapy was briefly reviewed. Client variables such as motivation, responsibility, expectations, hope, etc. are widely believed to be important determinants of therapy process and outcome. They have not, however, been adequately measured in the past in order to enable a fair appraisal of this belief. In the present study, these previously isolated variables were loosely integrated into an overall construct called client readiness for therapy. The components of the construct were supplemented by information obtained from interviews with eight clinicians at the Psychological Service Centre (P.S.C.).

Items were generated, subjected to the scrutiny of a panel of four clinicians, revised, and rewritten until certain criteria were met. The questionnaire was then comprised of 92 "readiness" items and twenty items from the Social Desirability Scale of the Personality Research Form. Each item was attached to a seven point rating scale whose extremes were anchored from strongly agree to srongly disagree.

The questionnaire was administered to a sample of 450 introductory psychology students and a sample of 28 clients

from the P.S.C. and the Counseling Centre. In addition, clients' therapists made four ratings of their clients which were intended to provide process measures for the concurrent validity of the scales.

The student subject data were examined in terms of individual item distributions and each item's loading on social desirability. Seventy-five of the 92 readiness items' distributions were judged to be nice approximations to the normal curve. All items retained for the scales loaded more on their respective factors than they did on social desirability. The correlation matrix of the readiness items was highly significant. A principal axis extraction, varimax rotation factor analysis resulted in an eight factor solution that was considered most appropriate. The six interpretable dimensions were : (1) Current Emotional Distress, (2) Faith in Therapy, (3) External Attribution of Responsibility, (4) Self-Confidence in Client Role, (5) Guardedness, and (6) Fear of Risk-Taking. These concepts are seen as theoretically meaningful, potentially important aspects of the process of change in therapy. Their internal consistency was examined, and found to be adequate.

Unfortunately, the small number of clients obtained precluded the possibility of performing any meaningful analyses at the item or factor level with the clinical sample. The correlations with therapists' ratings were also uninforma-

tive as there was not sufficient variability in their ratings.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS ii

ABSTRACT vi

page

How Effective Is Psychotherapy ? 1
Research Directions on Factors Influencing Psychotherapy Outcome 4
Therapist and Treatment Factors 6
Patient Factors 7
"Match" Factors 8
Statement of Research Problem 8
Therapy Readiness as a Research Variable 9
Previous Attempts to Assess Client Readiness Variables 12
Human Observer as the Standard System of Measurement 15
Summary 21
Independent, Interactive Standard Systems--Projective Tests 22
Summary 27
Test-Initiated Self-Report Standard Systems . . 28
Summary 33
Client Readiness Variables and Therapy Outcome--Conclusion 34
The Choice of a Standard System of Measurement . . 37
Developing the Construct of Client Readiness for Therapy 41
Personal Responsibility 44
Will to Change 47
External Influences 48
Expectations of Change 50
Level of Present Discomfort 52
Psychological Mindedness 54
The Client Readiness Construct--Summary 55

METHOD 56

Developing the Initial Item Pool 56
Testing With University Student Population 60
Subjects 61
Procedure 61
Testing With Clinical Population 63

Subjects 63
Procedure 64

RATIONALE FOR ANALYSES AND RESULTS 66

Item Distributions 66
Significance of the Correlation Matrix 67
Factor Analyses 68
Testing Multivariate Assumptions 72
Interpretation of Factors 73
Factor 1: 73
Factor 2: 73
Factor 3: 74
Factor 4: 76
Factor 5: 76
Factor 6: 77
Factor 7: 77
Factor 8: 77
Internal Consistency 77
Social Desirability 82
Unitized Scale Score Correlations 82
Clinical Data 83

DISCUSSION 86

Item Level Considerations 87
Factor Level Considerations 90
Future Considerations 98
Return to Sanford's Model 100

REFERENCE NOTES 103

REFERENCES 104

Appendix page

A. THERAPY READINESS QUESTIONNAIRE 121

B. COVERING LETTER TO INTRO STUDENTS 126

C. COVERING LETTER TO P.S.C. CLIENTS 127

D. COVERING LETTER TO C.C. CLIENTS 128

E. COVERING LETTER TO THERAPISTS & RATING SCALES . . . 129

F. ITEM ENDORSEMENT FREQUENCY HISTOGRAMS 130

G. CORRELATION MATRIX OF READINESS ITEMS 149

H. 8-FACTOR VARIMAXED MATRIX 159

I. 10-FACTOR VARIMAXED MATRIX 160

J. 8-FACTOR QUARTIMAXED MATRIX 161

K. 8-FACTOR OBLIQUE PATTERN MATRIX 162

L. 27-FACTOR VARIMAXED MATRIX 163

M. ITEM CORRELATIONS WITH FACTORS & S.D. 166

LIST OF TABLES

Table page

1. Factor Correlations from Oblique Rotation 71

2. Factor 1: Current Emotional Distress 74

3. Factor 2: Faith in Therapy 75

4. Factor 3: External Attribution of Responsibility . . 78

5. Factor 4: Self-Confidence in Client Role 79

6. Factor 5: Guardedness 80

7. Factor 6: Fear of Risk-Taking 81

8. Factors 7 and 8 81

9. Intercorrelations of Unitized Scale Scores 84

10. Correlations Between U.S.S. and Therapist Ratings 85

LIST OF FIGURES

Figure		page
1.	Psychotherapy Factors Model	5
2.	Scree Test	69

There exists a veritable potpourri of published information and folklore addressing two major interrelated questions: Is psychotherapy effective, and if it is, what are the significant ingredients thereof? With more than one hundred and thirty different kinds of therapy (Parloff, 1976), over one hundred diagnostic classifications (American Psychiatric Association, 1980), over a dozen different general categories of outcome measures (Smith, Glass, & Miller, 1980), and hundreds of known and unknown variables that come into play in any interpersonal relationship-- it is probably not surprising that many issues have not reached "consensus" status (cf. Kuhn, 1970) among the thousands of individuals involved in the research and practice of psychotherapy.

How Effective Is Psychotherapy ?

> Psychotherapy Faces Test of Worth: Therapists may become eligible for direct federal reimbursement if they prove psychotherapy works (headline in Science, Marshall, 1980, p. 35).

Although some studies evaluating the outcome of psychotherapy and some critical discussions of research issues and findings in the area appeared shortly after World War II (e.g., Brenman, Kubie, Rogers, & Gill, 1948; Muench, 1947; Obendorf, 1948; Obendorf, Greenacre, & Kubie, 1948), it

probably was not until Eysenck's (1952) well-known attack on the effectiveness of psychotherapy that considerable interest and controversy was aroused (Garfield, 1981). A number of responses (e.g., Decharms, Levy, & Wertheimer, 1954; Luborsky, 1954; Rosenzweig, 1954), counterresponses (Eysenck, 1961, 1965), independent reviews (e.g., Bergin, 1971; Meltzoff & Kornreich, 1970) and large-scale studies (e.g., Frank, 1974; Kernberg, Burstein, Coyne, Appelbaum, Horwitz, & Voth, 1972; Sloane, Staples, Cristal, Yorkston, & Wipple, 1975) subsequently appeared. It seemed as though equally valid arguments could be marshalled to answer the question either way, even with the same data, depending on one's biases or points of reference.

In 1977, Smith and Glass introduced their method of meta-analysis to combine and evaluate large numbers of independent studies in an apparently unbiased fashion. Based on 475 controlled studies, and tens of thousands of persons, they derived estimates of 1,766 measured effects for all types of therapy, client, and outcome, and concluded:

> The results show unequivocally that psychotherapy is effective . . . an applicant for therapy who is no better off than average (i.e., is at the 50th percentile) in psychological well-being, compared to all those who have not received psychotherapy, rises to the 80th percentile as a result of psychotherapy. At the end of treatment, he is better off then 80 percent of those who need therapy but remain untreated (Smith et al., 1980, p. 124).

They added further: "In absolute terms, the magnitude of therapeutic effect is greater than most interventions of social science" (p. 124).

Their assertions stimulated considerable discussion (e.g., Eysenck, 1978; Gallo, 1978; Rimland, 1979; Strahan, 1978) but predictably did not satisfy everyone. Reviews and large-scale studies continue to appear (e.g., Erwin, 1980; Garfield, 1981; Garfield & Bergin, 1978; Gomes-Schwartz, Hadley, & Strupp, 1978; Gross, 1978; Phillips & Bierman, 1981; Strupp & Hadley, 1979; Tennov, 1975) and the controversy remains, but the questions and issues have become much more refined (Frank, 1979).

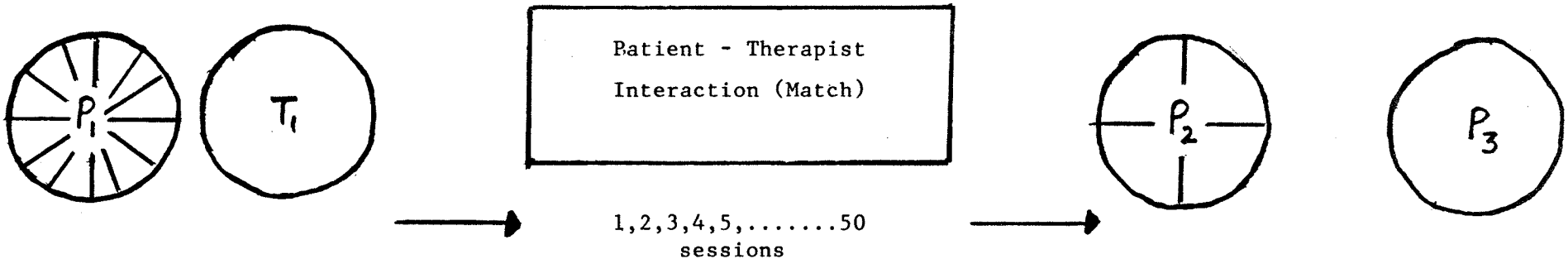
Recently, researchers in this area (e.g., Garfield, 1981; Goldfried, 1980; Parloff, 1979; Phillips & Bierman, 1981) have particularly noted the growing concern from outside forces--questions associated with third-party payments, pressure from governmental agencies and insurance companies, and the growing consumer movement. Clearly, the impetus to prove psychotherapy works, and to find practical answers to what works best, when, and with whom, exists now more than ever. Nevertheless, in its quest to become a science, psychotherapy is still in its infancy. Probably not until more robust methods of identifying, measuring, and controlling the significant variables are devised and widely implemented, will the question of effectiveness be adequately answered for the sophisticated inquirer.

Research Directions on Factors Influencing Psychotherapy Outcome

It is not my intention to review the hundreds of factors related to psychotherapy outcome which have been examined. Rather, I will only give an overview of the area to provide a context in which the factors of interest in this investigation may be more clearly conceptualized. (For a good organizational and balloting review see, for example, Luborsky, Chandler, Auerbach, Cohen, & Bachrach, 1971; for integrative reviews see, for example, Garfield & Bergin, 1978; Gomes-Schwartz et al., 1978; Phillips & Bierman, 1981).

A model initially presented by Sanford (1962) illustrates the classification scheme for dividing relevant factors, which has been most commonly followed in reviews (see Figure 1). Kazdin has stated that "The salient issue in psychotherapy outcome research is the experimental identification of variables that contribute to client change" (1979,p.847). A number of commonly referenced variables are listed as examples. There are "patient (or client) factors", "therapist factors", factors pertaining to the patient-therapist interaction, or, "match factors", as well as "treatment factors" which are distinguished from the therapists' personal characteristics. Both patient and therapist factors may be further differentiated in terms of their existence before as compared with during therapy.

Figure 1
Psychotherapy Factors Model - Adapted from Sanford(1962) and Luborsky et. al (1971)



Before Psychotherapy
(Prognostic Measures)

Therapist
experience
skill
interest patterns
attitudes

Patient
age
social class
education
intelligence
anxiety
adequacy of functioning
motivation
expectations
presence of other affects

During Psychotherapy
(Process Measures)

Patient
likability
experiencing
self disclosure

Therapist
empathy

Patient-Therapist Match
values, sex, field
differentiation
similarities and complememtarities

Treatment Factors
number of sessions
waiting time before therapy
time limited vs. unlimited treatment

Termination One year later
(Outcome Measures)

fear - anxiety
self-esteem
global adjustment
life indicators of adjustment
personality traits
emotional - somatic
addiction
social behaviors
sociopathic behaviors
work-school achievement
vocational-personal development
physiological measures of stress

Therapist and Treatment Factors

Much of the initial outcome research dealt with therapist and treatment factors. This involved attempts to demonstrate the efficacy of certain techniques, as well as tests of the differences between "schools of therapy" at the theoretical level, by comparing them at the procedural level (cf. Goldfried, 1980).

In their recent extensive psychotherapy meta-analysis, Smith et al. (1980) did find evidence for differences among the various classes of therapy. However, when they performed a regression analysis to partial out confounds such as the reactivity of the outcome measure, they found that "on measures that were less susceptible to influence (i.e., by the therapist and/or client) reliable differences among therapies disappeared" (p. 107). Perhaps more interesting was their report that:

> Less than 10 percent of the variation in effect size was determined by client diagnosis, intelligence, age, mode of presentation, therapy modality, therapist experience, internal validity of the experiment, type, time and reactivity of measurement (p. 105).

Other variables, such as client motivation, which they mention, were not included in the regression analysis because standardized measures of them do not exist. Thus investigations into the therapist and treatment factors would seem to need measures of certain other "confounds", in order to prove more fruitful.

Patient Factors

Most of the research regarding patient factors has dealt either with variables which were easily identified, such as age, sex, socio-economic status, educational level, occupation, marital status, etc., or with factors for which some standardized assessments were available, such as I.Q., diagnosis, ego strength, and various measures of adequacy of functioning. Finally of greatest interest to me, there are a number of client variables which are often referred to, but for which no accepted standardized assessments as yet exist. Examples of such variables are motivation, acceptance of responsibility, and expectations of therapy. It is my belief that this latter group of variables seems to manifest itself significantly at the very outset of therapy, and is that which therapists instinctively "work on" in order to help/prepare clients to change, so I will refer to them as client readiness for therapy (change) factors.

Although there is considerable agreement that psychopathology and intelligence are related to therapy outcome, such that "healthier" and more intelligent clients are associated with better outcomes (e.g., Gomes-Schwartz et al., 1978; Luborsky et al., 1971; Smith et al., 1980), these factors may only account for a small (less than 10%) proportion of the outcome variance (Smith et al., 1980). On the other hand, it is not at all clear how much outcome variance, if any, would be accounted for by client readiness factors, if they were adequately measured.

"Match" Factors

Patient-therapist similarities is an area which seems to have recently begun to draw more attention, as researchers' questions have become more refined. Age, sex, social class, interests, values and compatability of orientation to interpersonal relations are some of the factors that have been examined (Gomes-Schwartz et al., 1978; Luborsky et al., 1971). There are strong suggestions that "positive matches" are associated with greater therapist and client satisfaction with the relationship (e.g., Luborsky et al., 1971; Smith et al., 1980), but it is not clear whether this actually produces better therapy outcomes (e.g., Gomes-Schwartz et al., 1978). Although to date only readily available client and therapist measures have been examined in this context, it seems that this line of investigation will ultimately prove quite fruitful. Very preliminary findings suggest that client readiness factors, and therapist attitudes as a function of these factors, may offer more relevant information as to the importance of the client-therapist "match" (cf. Keithly, Samples, and Strupp, 1980).

Statement of Research Problem

In spite of recent innovations in statistical analysis to allow gross combinations of independent studies (Smith et al., 1980), there remains a problem in identifying and measuring the variables which, even collectively, could account

for more than 10% of the variation in psychotherapy effect sizes. Something potentially important is not being adequately tapped. At the same time, there are a number of client variables, such as motivation and expectations, which have received considerable clinical attention, but only sporadic experimental study, and as yet, no accepted, standardized procedures for measuring them have been developed. In order to be able to assess the relative role of these variables in determining psychotherapy outcome, and to enable therapists to act more systematically on these factors, if they are in fact of significance, the development of an assessment scale for the construct of client readiness for therapy has been undertaken.

Therapy Readiness as a Research Variable

Actually "therapy readiness" was introduced as a research variable more than three decades ago by Grant and Grant (1950), who referred to the construct as "the client's attitudinal set at the beginning of therapy" (p. 156). They demonstrated that two trained people could independently rank order recorded first interviews with clients as to the amount of therapy readiness, with an inter-rater reliability estimate of .92. Essentially this showed that whatever the construct was, these two researchers had similar understandings of it, even though they did not share an explicit definition before doing their rankings.

Burnham (1952) studied the construct in more depth. She found that six clinical psychologists demonstrated significant agreement on their assessments of therapy readiness from the protocols of various clinical test batteries. Furthermore, she found that the psychologists' evaluations of therapy readiness correlated significantly with independent psychiatrists' ratings of the clients' "therapy involvement", once the clients were in the therapy situation ($r = .20$, $p < .01$). Most importantly, Burnham had the construct broken into what she called "minor traits" (e.g., "Productivity", "Rigidity", "Motivation for Change", "Energy Level", and "Emotional Depth") and discovered that the agreement tendency was greater for the whole construct of "therapy readiness", than the average of the judges' evaluations of the "minor traits". She concluded that the "Gestalt nature of the concept . . . (is) . . . pointed up" (p. 581).

Unfortunately, as Meltzoff and Kornreich observed (1970): "The concept of therapy readiness has been around for some time, but has never really caught on and achieved widespread applicability" (p. 255). They suggested that the "reason is that it has been ill-defined and conceptually unclear and has been confused with other concepts" (p. 255).

In point of fact, Frank is probably one of the most notable researchers who began to stress, and indeed to demonstrate, the importance of client readiness for therapy vari-

ables such as motivation, expectations, hope, and emotional arousal (e.g., Frank, 1969, 1974, 1979; Rosenthal & Frank, 1958). However, his position became known as "Frank's (1973) concept of nonspecific factors . . . (which) . . . take into account the role of patients' attitudes" toward therapy (Gomes-Schwartz, 1978, p. 1026). In 1969 Frank stated, "I am convinced that it is the nonspecific features of all forms of individual therapy that account for most of their effectiveness" (p. 122). Later, he narrowed the concept back down to aspects similar to Grant and Grant (1950) by suggesting "the major determinants of therapeutic success appear to lie in aspects of patients' personality and style of life . . . (therefore) . . . a first step . . . would be . . . screening out candidates who would be expected to respond favorably to any form of help" (1979, p. 312).

The confusion of the concepts thus seems to have resided in the clear delimiting of therapy readiness as a client variable, while nonspecific factors have been used to refer to any and all of the types of variables from Sanford's classification. For example, Kazdin (1979) wrote:

> Although many theoretical positions have been advanced about how particular treatment procedures lead to change, an ever present interpretation that attempts to account for change among alternative, and often competing, systems of treatment has lurked in the background. That interpretation (with many variations) suggests that some aspect of the administration of treatment, largely independent of what the particular treatment is, may account for change (p. 846).

Kazdin simply referred to "nonspecific treatment factors . . . (as) . . . the variables that extend across different treatments and contribute to change" (p. 846). For the sake of clarity then, client readiness for therapy may be thought of as a subset of nonspecific factors that pertain specifically to client variables.

There are basically two broad categories of information which will be important to review from previous research on client readiness variables. In the first place, I will be analysing the measurement procedures which have been utilized in the past. A thorough understanding of these assessment processes is necessary in order to evaluate the results which have been produced. At the same time, I will focus on the content of the research findings. In particular, I will try to evaluate what has been demonstrated about the relationship of client readiness factors to outcome, and how much outcome variance these variables may account for. Finally, I will attempt to integrate the variables to provide a more comprehensive model of client readiness for therapy.

Previous Attempts to Assess Client Readiness Variables

Previous research measuring client readiness variables has generally not been part of systematic research projects, but rather isolated studies often utilizing relatively unique methods of measurement, the reliability and validity of

which have thus not been adequately demonstrated. Most researchers appear to have been more concerned with determining whether their measure of their construct was predictive of some measure of therapy outcome, rather than with determining whether their construct or their "standard system of measurement" (Aftanas, 1982) had any reliability or construct validity. Consequently, we now have a state of affairs where researchers are discussing whether, for instance, client motivation does or does not constitute a significant factor in the prediction of psychotherapy outcome, before we even have an adequate measure of motivation. Furthermore, given the lack of construct validity, indeed, even construct explication, the implications of a demonstrated predictive validity can be, at best, highly speculative.

Researchers' conceptualizations of these client variables have varied from immediate and temporary feeling states (e.g., Goldstein & Shipman, 1961), to attitudes (e.g., Fischer & Turner, 1970), and personality traits (e.g., Heilbrun, Jr. & Sullivan, 1962). In no cases have researchers attempted to explicitly link their measurement procedures to any specified theory involving the client attributes of interest. Kazdin (1979) has suggested that:

> the relative lack of a clear theoretical base may accord . . . (these) . . . factors a lower research priority . . . (because) . . . Research often places a premium on making predictions about variables that not only produce change but also support a theoretical position about psychopathology or psychotherapeutic change (p. 847).

Frank (1976) addressed this issue similarly, although in his perhaps more confrontative style, suggesting that:

> features which are shared by all therapists have been relatively neglected, since little glory derives from showing that the particular method one has mastered with so much effort may be indistinguishable from other methods in its effects (p. 74).

Thus it is perhaps less surprising to note that less than two dozen studies assessing these factors in relation to outcome may be found in the literature spanning the last 30 years. These studies are categorized in the subsequent review with respect to the relevant dimensions of the measurement process employed, and pertinent information regarding the results of the investigations.

Although practically no two studies are sufficiently similar to be considered replications, there are certain commonalities which allow for an integrative analysis. Aftanas (1982) defines measurement in psychology as the utilization of a standard system (any discriminative process) to map magnitudes of a property or attribute onto a number system. Measurement situations are thereby differentiated according to the type of standard system employed. In the majority of studies assessing client readiness factors, the human observer (i.e., clinical judgement) has been utilized to reflect magnitudes of "motivation" onto some formal numerical system, usually with the aid of rating scales. A few investigations have employed independent standard systems, with which the client interacts (e.g., projective tests), or

which involve complex multistage formats. Finally some test-initiated self-report measures have been tried. The results of these studies are reviewed with an eye to assessing the error inherent in the standard systems as well as their practical utility.

Human Observer as the Standard System of Measurement

Studies utilizing clinical judgement as the standard system have varied significantly with respect to the degree of operationalization of the criteria for judging the observed behavior, as well as the recording latency (i.e., time between observing and rating). Conrad (1952) and Strupp, Wallach, Wogan, and Jenkins (1963) had therapists report on former clients (with whom they had already terminated) and found that the most significant determinant of therapeutic success as judged by these therapists in retrospect, was the client's motivation. Conrad used open ended questionnaires for therapists to record the information, while Strupp et al. used 5-point rating scales. Neither the criteria for motivation nor therapeutic success was operationalized, and the recording latency was, in some instances, as long as two years.

Rosenthal and Frank (1958) had medical students doing intakes and based on the medical students' reports to their supervisors, the supervisors then rated the patient's motivation for treatment on a 3-point scale. They found these

ratings to be the only one of eight characteristics studied which showed a significant relationship to the frequency of judged improvement at discharge. Interestingly enough, however, it was the low motivation group which had the highest rate of improvement, while the group with moderate motivation had the lowest improvement rate. Without explication of their criteria, or even definitions, for rating motivation or improvement, it is difficult to account for these findings.

Siegel and Fink (1962) introduced a slight differentiation to the standard system of measurement by having a whole interviewing clinical team make judgements regarding a patient's motivation--as either good or poor. Although they provide examples of their definitions for good or poor motivation, they do not state in what manner the members of the intake team arrived at a single judgement. The team consisted of a social worker, a psychologist, a psychiatrist, and the psychiatric director of the clinic. Subjects were all outpatients. They found the judgements of patient motivation to be in the expected direction in relation to condition at discharge (improved--unimproved) and the proportion of sessions missed, but their findings did not attain the significance levels they set ($.05 > p < .10$). They claimed for the latter dependent variable that "significant differences would be expected if similar distributions were found in a population 20 percent larger than the one studied" (p.

172), and concluded that there is a need for a more operational definition of patient motivation.

In another effort to provide a clearer definition of motivation, Kernberg, et al. (1972) attempted to describe different components of motivation according to psychoanalytic theory (Appelbaum, 1972), and assess patients accordingly. They found that highly motivated patients did well and patients with low motivation did poorly (Horwitz 1974).

Sifneos and his colleagues in Oslo have provided an even more explicit assessment of the construct (e.g., Sifneos, 1968). Sifneos (1968, 1971, 1975) developed seven explicit criteria for evaluating patients' motivation for psychotherapy, and these were assessed by an intake team. They found that patients who showed good motivation at intake usually did well in psychotherapy of short duration while those who were poorly motivated did poorly. They collapsed the motivation ratings to produce four groups of patients --poor or no motivation, questionable, fair to good, and good to excellent motivation. They did not provide any statistical analyses of their data, but rather presented percentages which showed that 88% of the improved patients had been rated in the fair to excellent motivation range, while only 40% of the unimproved patients were rated in the top two categories for motivation.

These findings should be considered in the light of the strict outcome criteria employed. Sifneos defined therapeu-

tic successes only when both patients' and therapists' independent self-reports clearly indicated improvement. Therapeutic failures were considered as involving a lack of progress in therapy as viewed by both patient and therapist. Finally, "Patients who terminated the treatment on their own initiative were considered as failures even if their therapist thought that some progress had taken place" (p. 275). Although these criteria would produce fewer successes if anything, it adds a dimension of "drop out" prediction criteria, which may not be totally desirable (cf. Heilbrun Jr., 1961, 1962, 1964 described later).

Sifneos's results are very similar to those of Malan (1976), who found that 85% of the patients who scored highest on his outcome criteria were either rated as of initially high motivation, or showed a marked increase in motivation during the first sessions. On the other hand, 40% of the patients who were rated lowest on motivation showed no improvement. Patient's motivation was rated on a 5-point scale. Inter-rater reliabilities ranged from .67 to .82 with a mean of .76.

Keithly et al., (1980) have recently refined Sifneos's procedures and have conducted probably the best controlled study of motivation with the human as the standard system of measurement. First, they added to Sifneos's seven criteria creating a 9-item scale and thereby further explicating the construct of interest. Secondly, they videotaped the ini-

tial interview sessions with clients and then had two independent raters view selected segments of the interview to assess the client's motivation. They reported that guidelines for rating the attributes were established in pilot work, but did not state what these were. Inter-rater reliability for all nine criteria was reported as 0.62 - 0.84 (p. 91). The relationships of initial motivational level to several process and outcome measures were examined.

Both the therapists' and the independent clinicians' ratings of global change were significantly related to initial motivation, providing strong support for the contention that client motivation is an important factor in the determination of therapy outcome. Patient's self-ratings of change showed a positive but nonsignificant relationship. Of the process measures taken (Gomes-Schwartz, 1978), motivation was found to be positively related to the patient's participation, and negatively related to the patient's hostility and the therapist's negative attitude in the third session. This strong relationship between motivation and therapy process diminished, however, as therapy progressed. The authors suggested that other factors appear to mitigate the influence of motivation in later stages of therapy. They point out the likelihood, however, of the therapist-patient interactive effect resulting from the initial patient motivation.

A final variant to efforts to assess motivational variables with the human as standard system has evolved as part of several ambitious efforts to measure all of the variables which were considered to be relevant to psychotherapy outcome. Luborsky et al. (1971) listed all the variables researched in relation to psychotherapy outcome, and Auerbach, Luborsky, and Johnson (1972) constructed a Prognostic Index consisting of 31 such variables, as well as other factors they believed that clinicians use in evaluating patients. They performed a factor analysis which yielded five factors, one of which they labelled Aptitude for Psychotherapy. The highest loading on this factor was achieved by motivation. Assessments for each variable were performed during a semi-structured intake interview, with the aid of a 5-point rating scale. Auerbach et al. (1972) and Luborsky, Mintz, Auerbach, Christoph, Bachrach, Todd, Johnson, Cohen, & O'-Brien (1980) found three of their main factors to be predictive of therapy outcome, but Aptitude for Psychotherapy was not. However, Rounsaville, Weissman and Prusoff (1981), using the same Prognostic Index but different outcome measures, found the Index overall and Aptitude for therapy in and of itself to be related to outcome. In all of these studies, however, motivation is combined with the variables labelled "insight, secondary gain, anxiety tolerance, patient's expectations, interviewer's prediction and attractiveness" (p. 66) to obtain Aptitude for Psychotherapy.

In a similarly large scale study by Frey III, Heckel, Salzberg and Wackwitz (1976), pretherapy measures were obtained from the Child Scale. It is a list of 15 variables considered important for family therapy with a family, which are assessed by the intake interviewers and also rated on 5-point scales. In this case, however, motivation was a variable in its own right, and was found to be the only variable which significantly predicted therapists' ratings of improvement. Motivation ratings from intake in this study also significantly predicted parents' ratings of success at termination.

Summary. Although most investigators did not specify what they considered motivation to be or how they judged it, the majority of the research reported a relationship between motivation and outcome (one study produced contradictory results). The few studies which did specify some explicit criteria for rating aspects of motivation (e.g., Keithly et al., 1980; Sifneos, 1968) provided the most compelling results. Clearly, the possibility that in the earlier studies different investigators may have been considering different aspects of the patient's behavior when they were measuring motivation is one way to understand the inconsistent results. In fact, only Keithly et al. utilized two independent raters. Other biases become likely as well in studies where retrospective ratings were used, particularly when a therapist rates his client's initial motivation two years after terminating the client (cf. Arkes, 1981).

The utilization of the human as a standard system for measuring such an inobservable attribute of clients, although useful in initially determining whether motivation is related to outcome, does not lend itself very easily to a more in depth exploration of the construct. As long as implicit judgement is used as the standard system, a highly standardized assessment can never be achieved. Nevertheless, the gradual development of more explicit criteria for human raters has led to the identification of several dimensions of the motivational process--the constructs which will ultimately need to be integrated in order to develop a comprehensive assessment of a client's readiness for therapy.

Independent, Interactive Standard Systems--Projective Tests

While the aforementioned assessment strategies rely on the clinician to make judgements about magnitudes of targeted attributes, the measurement processes to be described in this section all utilize some standard stimulus-test-situation with which the client interacts, and the elicited behavior is then scored and interpreted according to (ideally) clear, explicit, standard instructions. Thus the standard system, developed in its idealized form, would be independent of the human judgement process. Further, since these measurement procedures force the researcher to explicate and operationalize the constructs of interest, the studies using independent, interactive standard systems have focussed in

on relatively specific components of the client's readiness for therapy.

Brady, Reznikoff and Zeller (1960) used two projective tests from their Psychiatric Attitudes Battery (Reznikoff, Brady, and Zeller, 1959) to assess patients' expectations of improvement; one reportedly involved six of the 21 incomplete sentences comprising their Sentence Completion Attitudes Test, while the other consisted of two picture cards--their Picture Attitudes Test. A score of 1, 2, or 3 was assigned to each item (card or sentence) to indicate a high, moderate or low expectation of improvement. They stated that the scoring reliability has been published elsewhere, but on checking, it is only reported for a separate sample of 675 altogether different items! It appears to range from .7 to .88. Patients, although initially rated on an 8-point scale, were classified as either improved or unimproved for their analyses, as were the expectations collapsed into the categories of either high or low. Their chi-square analyses revealed no significant effects for either of their projective measures. However, it is noteworthy that the heterogeneous patient sample they selected were all in-patients, and many of the patients had electroshock therapy, insulin-coma, psychotropic drugs, and all participated in a variety of avocational and social rehabilitation programs at the hospital. Therefore, it cannot be properly considered a study of psychotherapy effects.

Richert (1976) used Reznikoff et al.'s (1959) Sentence Completion Attitudes test with clients who sought therapy at a Counseling Center. He, however, in contrast to Brady et al., reportedly used 16 items from the test, and considered it to be a measure of the client's attitude toward therapy. Richert reported that the items were scored on a 3-point scale for the favorableness or positiveness of the attitude, and that inter-rater reliability was .72. Three outcome measures were utilized, two of which Richert considered measures of cognitive change and one which he considered the client's acceptance of himself. Richert claimed his data suggested a "positive linear relationship between attitude toward therapy and cognitive change" (p. 441). Attitude toward therapy did not appear to be related to the measure of client acceptance of self.

Although the Richert and Brady et al. studies appear to differ essentially only in terms of their different subjects (outpatients receiving psychotherapy and inpatients receiving a variety of treatments other than therapy, respectively), I am hesitant to integrate their findings for the following reasons. In the first place, Brady et al. reportedly used six items from the Sentence Completion Test while Richert, claiming to replicate their measure, used sixteen items. This raises the question as to whether the two measures may indeed be considered the same. Furthermore, Brady et al. labelled their measure expectations of improvement

whereas Richert labelled it attitudes toward therapy. Finally, and most unexplainably, Richert utilized another measure (to be discussed in the next section on self-report measures) which he called Degree of Change Expected (DCE), and reported a nonsignificant relationship between the Sentence Completion Test items and his DCE measure (a label very similar to that label used by Brady et al. for the Sentence Completion items)! Therefore, I am skeptical about combining these two studies to conclude that where therapy with outpatients is concerned (Richert study), as opposed to inpatient treatment, the positive relationship between client expectations and therapy outcome can be brought to light. Instead, I think these two studies, taken together, may more properly be considered as a good illustration of the problems involved in the area due to the complete lack of construct validity, indeed even consistency in the meanings of the labels attached to the variables.

Two other investigations have been reported which utilized content-analytic procedures to investigate the client readiness variables of hope (Gottschalk, 1974) and acceptance of responsibility (Schroeder, 1960).

Schroeder used the Gilbert Self-Interview Test (See Schroeder, 1960), on which the client spends about 3 minutes describing his/her "real attitudes and feelings both good and bad" and "problems, if any" relating to 10 broad topics (p. 468), to elicit client behavior on tape. She developed

five categories of client statements which related to the client's acceptance of responsibility in his/her life, scored either "plus" (as the active agent), "minus" (as the recipient of an agent's activity) or "check" (when neither of the above applied). Inter-rater reliabilities ranged from .69 - .94 for scoring the statements. The reliability of the sum of all responsibility statements (the total score) was .94. The other variables examined were "difficulty", which was defined as those clients who "do not really 'get into' therapy" or take a long time (p. 469) -- scored on a 2-point scale; and "movement", based on the Hunt-Kogan Movement Scale (See Schroeder, 1960) -- scored as high or low for the analyses. Her results showed that high responsibility scores, difficult therapy, and high movement were all positively associated with each other ("Movement" is considered a measure of change in therapy.). Schroeder concluded that her measure of responsibility should be "sharpened" and that "motivation be investigated in conjunction with responsibility for predicting therapy outcomes" (p. 471).

Gottschalk had subjects produce 5-minute speech samples in response to standard instructions pretending to be a study of speaking habits ". . . about any interesting or dramatic personal life experiences . . ." (p. 779) to study the "hope" evidenced in the subject. Hope was defined as:

> a measure of optimism that a favourable outcome is likely to occur, not only in one's personal earthly activities but also in cosmic phenomena and even in spiritual or imaginary events (p. 779).

He developed seven content categories, four scored plus and three scored minus. All his raters were trained until they achieved an inter-rater reliability of at least .85. Gottschalk specified that he considered the dimension measured more of a psychological state than a trait, and provided numerous construct validational studies. Of relevance to the present paper is an investigation with patients at a Mental Health Crisis Intervention Centre. He found that pretreatment Hope scores significantly predicted relative degrees of improvement in psychological, interpersonal, vocational, and somatic malfunctioning, measured as changes in Psychiatric Morbidity scale scores (Gottschalk, Mayerson, & Gottlieb, 1967). Once again, the treatment of clients in crisis may not be an adequate representation of the process of therapy. Nonetheless, Gottschalk's Hope scale is one of the few relatively validated standard systems utilized to assess client readiness variables.

Summary. The sparse research employing independent, interactive standard systems is even more inconsistent than when human observers have been utilized. This may be a function of the small number of studies, however, since the utilization of these standard systems represents an attempt at standardization of the assessment procedures, over and above clinical judgement. Major difficulties with these projective techniques center around the scoring reliabilities, which although ideally should approach one, never do

in practice. Due to the theoretically unlimited response options, it is unlikely that scoring reliabilities could ever be perfected. A further problem with these standard systems concerns the assumption of client projection and the validity attributed to it, but not empirically demonstrated. There is little research evidence to indicate that any of the formal aspects of responses to sentence completion items are systematically related to any personality-relevant behaviors, or to support the use of impressionistic or clinical analyses of the content of the responses, even for the more developed versions of these standard systems (Lanyon & Goodstein, 1971). On the other hand, the more structured approaches to content analysis have been demonstrated to be useful (Lanyon & Goodstein, 1971). However, their precision is related to their specificity, and thus they are not likely to be fruitful for measuring multidimensional constructs, such as client readiness for therapy. Finally, the research with these standard systems points to some additional components of the overall construct system such as responsibility and hope.

Test-Initiated Self-Report Standard Systems

These assessment procedures are differentiated from the previous categories because, in this case, a structured test with limited response options (cf. Wiggins, 1973) is employed to initiate self-reports from clients. Thus respon-

dents are assumed to adopt a self-analysis perspective in order to reply to the test's questions (Aftanas, 1982). Standard systems in this measurement situation vary with respect to their construction---empirical vs. theoretical. The theoretical tests vary with regard to the degree of construct validity, if any, that has been established.

Heilbrun, Jr. (1961,1962,1964) and Sullivan (Heilbrun, Jr. & Sullivan, 1962) developed a "Counseling Readiness Scale" (CRS) consisting of the Adjective Check List (ACL) (Gough, 1960) to help identify clients who would "remain in counseling long enough for some benefits to accrue" (1962, p. 112) and those who would leave prematurely. The scale was derived empirically, based on a contrasted groups strategy where the groups were either "drops" or remainers.

> A drop subject was one who: (1) failed to keep his initial screening appointment; (2) failed to meet with his assigned counselour despite a mutual agreement in the screening interview to begin personal counseling; or (3) met with his assigned counselour but terminated on his own initiative prior to the sixth interview (Heilbrun, Jr. & Sullivan, 1962, p. 112).

The measurement procedure involved clients checking off those adjectives they considered self-descriptive from the ACL. Initially, it was found to differentiate significantly between terminators and remainers for males but not females (1962). In a subsequent validational study the discriminatory power for females was improved (1964). Of particular interest was the finding that counseling-ready males and females tend to ascribe cross-sex characteristics (of the time) to themselves.

There are 52 adjectives for males and 37 for females which are keyed from the 300 items on the ACL. Although their studies indicate that the drop-remainer groups can be discriminated, the overall predictive accuracy varies from 59% for males, to 72% for females, and from 57% for drops to 79% for remainers (1964).

Due to the empirical nature of the test it is difficult to know what these results mean for the constructs of interest. If they can be taken at face value, then it appears that the scales measure some aspect of self-acceptance or non-acceptance, and this may be related to the client's degree of conformity (in his/her evaluation) to the sterotyped male-female role attributes. Further, if this is so, then it might be expected to become of limited utility in contemporary society where such sex-role stereotypes are in a state of change.

A further problem with the Counseling Readiness Scale involves the "outcome criterion", which in terms of the test's construction, was established as staying in therapy for more than five sessions. Although it has been a common belief for some time that a client can only benefit from therapy if s/he continues to attend, and conversely, will not benefit if s/he drops out, Smith et al. (1980) found in their meta-analysis that length of stay in treatment did not significantly correlate with successful outcome. In Smith et al.'s meta-analysis, however, the clients did remain at least long

enough to complete outcome measures. In any case, the criterion for the Counseling Readiness Scale's aforementioned contrasted groups strategy may not be an adequate criterion of successful therapeutic outcome.

Nonetheless, this outcome criteria was again employed by Cartwright, Lloyd, and Wicklund (1980) who combined the ACL-Counseling Readiness Scale with intake workers' assessments and also found that potential "drops" could be screened. Sixty-two percent of those predicted to drop out of therapy did do so. The remaining 37 percent predicted to drop did not. However, in this study the criterion was extended to nine hours of therapy instead of the 5th session. The human standard system addition did not appear to improve upon the accuracy of the Counseling Readiness Scale as used by Heilbrun.

A type of self-report standard system which has been utilized on several occasions involves two separate administrations of a self-report measure under different conditions, which the researchers combine to produce a distinct hypothetical construct. Goldstein and Shipman (1961) used self-report measures to a symptom-intensity inventory under a "present self" (PS) test taking orientation and "expected self" (ES) orientation to create a construct of patient expectancies of outcome. They found that the patients' perceived symptom reduction after only one session of therapy (readministering the symptom-intensity inventory) was sig-

nificantly predicted by the discrepancy between the PS and ES measures. It is not known whether this expectancy effect would also hold for longer therapy durations.

Richert employed a similar measurement process to assess what he labelled "degree of change expected" (1976, p. 439). Butler-Haigh Q sorts, involving a nine-category forced-distribution sort, were performed by subjects under present-self and expected-self after therapy instructions. Richert found a significant positive relationship between the degree of change expected and patient's satisfaction at the end of therapy. Interestingly, Goldstein and Shipman had reported a curvilinear relationship between patient expectations and perceived symptom reduction, whereas Richert's data showed a linear relationship between expectancies and satisfaction. Richert suggested the possibility that prolonged contact with the therapist in his study may have offset the impact of disappointment attendant upon failure to meet overly high initial expectations. In addition, the largest degree of change expected in his study was 1.55 on a 2-point scale, so the absence of curvilinearity might have resulted from the lack of expectations high enough to engender the disappointment that Goldstein and Shipman posit as essential for a decrease in perceived improvement.

Cartwright and Lerner (1963) employed a similar self-report system to investigate a variable they called "need to change". Ten personal constructs were obtained for each

client by administering Kelly's Role Construct Repertory Test (Kelly, 1955). Clients then rated themselves on a 5-point scale under "present-self" and "ideal-self" orientations for their ten personally relevant contructs--the discrepancy creating the "need to change" variable. Outcome was measured by having therapists rate clients' "integration", "organization (defensive versus open)" and "present life adjustment" on nine-point scales after the second interview and after the last interview. A further component to the improvement score was the therapists' ratings of outcome, again on nine-point scales. Cartwright and Lerner found that their pretherapy measure significantly predicted outcome in nondirective therapy.

Summary. Clearly the greatest advantage of the self-report measures is that the scoring reliability approaches one. This is possible because there is no need for the judgement of a clinician to obtain the formal quantities of the attributes of interest. At the same time, however, the biases inherent in the subject's self-assessment, such as social desirability (e.g., Crowne & Marlowe, 1964; Edwards, 1967) are introduced into the pool of potential standard system error. Many test construction techniques have been developed which attenuate these biases (cf. Cronbach, 1970; Wiggins, 1973), but they cannot be eradicated completely.

It is interesting to note that all of the self-report measures which have been utilized have proved to be good

predictors of the criterion with which they were associated. These measurement procedures appear to be the simplest to empirically validate, but the construct validity for these standard systems has been conspicuously absent. In one study investigating the construct validity of the self-ideal discrepancy (Grigg, 1959) the concept was not related to several other constructs which "by theory" should have been associated. The empirically constructed CRS is even more questionable in terms of the meaning of the construct.

Nevertheless, the utilization of test-initiated self-report standard systems can be the least time-consuming, simplest, and most readily standardized measurement procedures available to assess client readiness variables. A test constructed in accordance with Loevinger's (1957) strict criteria, which would develop the construct such that the meaning of a response to the test could be validly and reliably understood, would offer not only a clarification of the concepts involved in client readiness, but a practical, usable assessment instrument (Cronbach, 1970; Wiggins, 1973).

Client Readiness Variables and Therapy Outcome--Conclusion

In view of the relative paucity of studies addressing this issue, and the inconsistent results which they have generated, only speculative conclusions can be offered from an integrative analysis. In spite of widespread popular belief regarding the importance of client readiness variables,

the empirical data suggests that the issues are not unequivocal. Poor measurement procedures particularly preclude the possibility of interpreting the findings with any confidence. It may be that the strength of the relationship between client readiness variables and outcome varies with the component variable chosen for investigation, the standard system utilized to measure the attributes of interest, as well as the outcome criteria employed. Clearly, at least some researchers are utilizing some measurement procedures which are tapping some client variables that are related to their therapeutic outcome criteria.

The proportion of the outcome variance that is accounted for by client readiness variables is difficult to assess from previous research. There are only several studies which have provided enough data from which this may be calculated. In Richert's (1976) study, the degree of change expected by patients accounted significantly for 22% of the patient satisfaction outcome measure. Gottschalk's Hope scale measure (1974) accounted for only 7% of the significant changes reported on the psychiatric morbidity scores of their crisis clients. In probably the best controlled study, Keithly et al. (1980) found their measure of motivation accounted for 42% of the therapist's overall assessment of improvement and as much as 44% of the independent clinician's assessment of improvement. It is noteworthy that both Rickert and Gottschalk focused on different, but rather

specific components of client readiness, while in the Keithly et al. study the nine explicit categories of motivation could be considered a much broader assessment of the content area encompassed by client readiness variables. In the study by Frey III et al. (1976) the motivation variable was not explicated and it is therefore unclear what was being assessed. In any case, it accounted for 19% of the therapists' outcome ratings and 13% of parents' ratings of improvements.

Clearly an important question at this point is whether, for instance, the 40 plus % of the variance Keithly et al were able to describe would add significantly to the meagre 10% which Smith et al (1980) could account for. I believe the studies reviewed indicate that there is more interpretable variance to be tapped. In order to be able to assess the role of these variables in relation to outcome to answer this question however, the construct of client readiness for therapy needs further explication. The development of a multidimensional standard system specifically designed for the measurement of these attributes would provide a means for investigating their construct and predictive validity in a standardized, systematic format.

The Choice of a Standard System of Measurement

In view of the previous attempts to assess client readiness variables, a test-initiated self-report standard system is proposed as the most advantageous direction to pursue at this point in time. Lanyon (1970) discussed some of the strong points of this measurement process, which he and others often refer to as the inventory technique, as follows:

> Perhaps the greatest . . . (strong point) . . . is economy of professional effort. An inventory can be administered, scored, and at times interpreted by a person who has no training in psychology other than specific instruction about the inventory itself. Inventories are amenable to use on an ongoing routine basis: they can be group administered or self-administered; they require a minimum of special provisions such as space and equipment, and their administration can be interrupted if necessary. Also, their format readily permits the use of mechanical rules for making specific decisions or interpretations (p. 2).

In addition to these practical benefits accrued from the ease and simplicity involved in administering, scoring, and interpreting self-report inventories, these standard systems afford the widest range of information about a person's life to the measurement process. Past and present behavior can be utilized as a source of data; many more incidents of current behavior than could be observed can be "tapped"; and moods and feelings can be sampled.

Historically, the evolution of these standard systems has seen them take several forms. The first test-initiated self-report standard system was developed by Woodsworth during WWI to expedite the mass psychiatric screening undertak-

en to mobilize manpower for the war. It was called the Personal Data Sheet and consisted of 116 questions concerning "neurotic tendencies". The only criterion for inclusion of an item was the presumed (rational) relevance of each item to neurotic symptomatology (Cronbach, 1970; Wiggins, 1973). In the area of therapy readiness, the only measure of this type reported in the literature was developed by Fey (1954). He simply devised six items which he felt were reflective of a person's "expressed attitudes of readiness for therapy" (p. 269). He provided one sample item: "I'd welcome a chance to have some personal counseling" (p. 269). Thus Fey appears to have merely assumed the existence of a one-to-one correspondence (or at least a probabalistic correspondence) of the self-reports to the hypothetical internal state (Buchwald, 1961).

The standard system became more refined as a later wave of researchers began to incorporate the techniques of item analysis and factor analysis, still under the correspondence assumption, into their test construction, to measure traits of all kinds. Perhaps the best known example of these standard systems is the Sixteen Personality Factor Questionnaire (Cattell, Eber, & Tatsuoka, 1970). In the area of client readiness for therapy there have been no tests constructed from this viewpoint although a trait clustering approach seems to have guided Burnham's (1952) conceptualization of therapy readiness.

As these approaches developed, critics began to question the validity and invariance of the measurement process. Essentially the correspondence assumption was shown to be rather naive, and numerous other sources of response variation were articulated and demonstrated (e.g., Berg, 1967; Edwards, 1957; Jackson & Messick, 1962).

In apparent reaction to all the criticisms of the correspondence assumption regarding the numerous sources of error variance, an empirical approach to test construction was initiated. In this view, the only thing considered important was the predictive validity of a test. Thus the responses to a personality inventory item gain "meaning" only through some demonstrated correlation with criterion variables (Wiggins, 1973). The best known example of a test developed in this approach is the MMPI (Hathaway & McKinley, 1951). The shift in emphasis was clearly articulated by Buchwald (1961) as follows:

> The psychologist who operates from the instrument (empirical) viewpoint has his attention focused on what he can conclude about the subject on the basis of the subject's verbal utterances rather than on what the subject can tell him (p. 464).

Thus the relevance of an item must be demonstrated beforehand, and this is done through the technique of contrasted groups. Heilbrun's (1962) Counseling Readiness Scale was constructed with this approach, as described earlier. The major problems with this approach center around the difficulties involved in conceptualizing what is being measured.

Neither the rational nor the empirical approaches provide an explicit frame of reference for evaluating the content of self-reports. The rational approach assumes a one-to-one correspondence between verbal reports and hypothetical internal states, but does not attempt to assess this. The empirical proponents don't even attempt to relate to the content, and focus instead on establishing R-R relationships.

Since the term construct validity was introduced by a committee of A.P.A. (APA, 1954), Cronbach and Meehl (1955) and particularly Loevinger (1957) have extended the theoretical implications of construct validity by proposing that "all scientific issues in test construction, validation, and use be evaluated from the construct point of view" (Wiggins, 1973, p. 398). In this approach, a response to a structured test represents a manifestation of an underlying personality construct; it puts an emphasis on theory to provide an explicit frame of reference for evaluating the content of self-reports. Essentially it has produced a call for measurement to be based in an interlocking system of laws which relate constructs to one another and to observable properties of the environment (cf. Cronbach & Meehl, 1955; Torgerson, 1958). The best example of a test constructed from this viewpoint is the Personality Research Form, developed by Jackson (1967). With respect to the concept of client readiness for therapy, these demands are particularly appropriate. Not only has no standard system been developed with

this approach, but the research that has been conducted on this construct has tended to focus in on smaller components of client readiness, with almost no regard for the total concept conceived by Grant and Grant (1950) or Burnham (1952). Therefore, the substantive or construct approach (Loevinger, 1957; Wiggins, 1973) has been adopted as the test construction strategy to be employed in developing a test-initiated self-report standard system for the measurement of client readiness for therapy.

Developing the Construct of Client Readiness for Therapy

There are many stages involved in the development of a self-report test with the "construct approach" (Loevinger, 1957; cf. Wiggins, 1973, ch. 9). The first stage naturally consists of generating and selecting test items. In contrast to the empirical approach, but not unlike the correspondence approach, the initial item pool should be derived on the basis of the items' judged relevance to theory (e.g., Duff, 1965; Goldberg & Slovic, 1967; Loevinger, 1957; Norman, 1963; Wiggins, 1966, 1973). In addition, the initial pool should, ideally, be broader in scope than the anticipated test by including content dictated by competing theories as well as content judged to be irrelevant by one's own theory. Thus the item selection process itself serves as a mini-test of the theory (Wiggins, 1973).

The University of Manitoba LIBRARIES

Although in many of the studies previously reviewed the researchers did not clearly define the variables they examined, their results suggest several components which may be expanded upon. In this section, I will be integrating the various conceptualizations of client readiness factors in order to provide an explicit theoretical base for the construct.

The terms "readiness for therapy" and "motivation for change" refer to constructs involving partly circular logic. Their meanings have been essentially empirically defined. Thus the client who is "ready" for changing in therapy, is one who goes to therapy and changes some aspect of his/her life. In order to clarify the construct, therefore, the specification of those attributes and/or circumstances of a person, which significantly predispose him/her to changing in therapy, is needed.

"Therapy-readiness" and "motivation" have each been used with slightly different meanings (cf. Silverman, 1964) and thus far in this paper have not been differentiated. Meltzoff and Kornreich (1970) stated with regard to therapy readiness: "Although it undoubtedly includes motivational variables it should be a broader concept than 'motivation for therapy', since one who is motivated is not necessarily 'ready'" (pp. 255-256). This apparently fine discrimination was somewhat extended by Silverman (1964), who, in pointing out the different conceptualizations of motivation held by

Madsen (1959), Littman (1958) and Peters (1958), stated that "they agree that all behavior is causally determined but stress that not all causes are necessarily motives" (p. 214). He maintained that non-motivational causal factors can be found in the physical (somatic) and social (environmental) spheres, which seems to imply that those factors outside the person's control should be considered non-motivational. In any case, the distinction is not a very clear one. Moreover, in order to really clear up these definitional issues, and to thoroughly specify which client attributes are significant ingredients to the therapy process and outcome, a comprehensive theory of personality, change, and particularly therapy would be necessary. Understandably, this is well beyond the scope of this paper, and especially the knowledge of the author. At this point in time, I will be concerned with noting those attributes which previous researchers have posited as, or preferably found to be, indicants of a person's predisposition to change in therapy.

Some further clarification is necessary to explicitly narrow back down the scope of the construct. As discussed earlier, client readiness factors will refer only to the client's "attitudinal set" at the beginning of therapy (Frank, 1979; Grant & Grant, 1950). A simple reason for excluding client attributes such as intelligence, adequacy of functioning, and ego strength (e.g., Barron, 1953; Klopfer, Kirkner, Wisham, & Baker, 1951; Newmark, Finkelstein, &

Frerking, 1973) is that measures of these factors already exist, and have been incorporated into Smith et al's 10% variance estimate, to some extent. However, an applied consideration has also guided this choice. Several researchers have already demonstrated the potential effectiveness of pretherapy sessions designed specifically to better prepare clients in terms of some attributes hypothesized to be of importance for successful therapy (e.g., Cartwright et al., 1980; Heitler, 1976; Lorion, 1974a, 1974b). Thus I will be limiting the present conceptualization to client attitudinal variables which seem possibly to be ultimately amenable to some pretherapy client preparation and/or for which self-report standard systems do not already exist.

Personal Responsibility

One of the factors suggested by the work of several different researchers involves the notion of personal responsibility. In the Grant and Grant (1950) study one of the researchers had devised an informal rating procedure--questions she used to cue herself-- involving the dimensions she envisioned as part of therapy readiness. Two out of six of her questions seem related to this issue: "What amount of work does the client assume he is going to do in proportion to the contribution of the therapist?" and, in reference to the client's anxiety "Is this anxiety seen by the client as related to himself, to the external situ-

ation, or to both" (p. 156). Keithly et al. (1980) used one category explicitly for this issue, which they called "taking personal responsibility for seeking help" (p. 96). This variable has also been focused on by Schroeder (1960), (described earlier). In addition, Saltzman, Luetgert, Roth, Creaser, and Howard (1976) found that self-report process measures of client responsibility (made both by clients and therapists from the third session) were significantly related to therapeutic outcome in their study. They defined responsibility as the client's recognition and acceptance of the responsibility for solving his/her own problems and changing his/her own behavior, rather than relying on his/her therapist to do this (p. 547).

As can be seen from the various aforementioned conceptualizations, there appear to be several aspects to this variable, which may or may not be the same. One involves the client's acceptance of responsibility for coming to therapy in the first place. Another seems to consist of the client's expectations regarding the relative amount of "work" or responsibility s/he and the therapist are to assume in their joint endeavour. Finally, the client's more general view regarding the amount of control and responsibility s/he has in her/his life may also be an aspect of this factor. The research reviewed would suggest a positive linear relationship between degree of client responsibility and success of outcome. However the relationship might not

be quite so simple. Two additional considerations are noteworthy.

Clinical evidence suggests that there are some clients who assume too much responsibility for the "problems" which they experience, and consequently suffer from too much guilt. These cases are exemplified by the rape victim who blames herself for the incident, or the young child who sees his/her parents divorce as an indication of his/her "badness". In therapy situations such as these and others, a goal is often to help the client feel less responsible. Thus it is conceivable that extremely high "responsibiity" might mitigate against the hypothesized positive results of a strictly linear relationship. Therefore in a very heterogeneous sample, one might find that the relationship between responsibility assumed by the client and positive therapy outcome is somewhat curvilinear.

The other issue pertaining to this variable is the orientation of the particular therapist involved. It seems possible that a highly directive, authoritarian therapist might actually fare much better with a client who expects the therapist to assume much of the responsibility for their endeavour. Thus the relationship between client responsibility and outcome could vary with the average directiveness of the sample of therapists selected. These possible influences need to be empirically explored, but should nonetheless be kept in mind when selecting client and/or therapist samples.

Finally, it would be interesting to see how measures of this variable would relate to Rotter's I-E measure.

Will to Change

This factor is meant to refer to the force within the client, of which s/he is aware, and does summon of free choice to direct him or herself towards the goal of changing. This may be most similar to the popular understandings and usages of the term motivation. Sifneos (1968) created a category which he called "desire for change" and Siegel and Fink (1962) similarly suggested examining the strength of the client's expressed wishes for therapy. Essentially this seems to be a fairly straightforward consideration in that the more importance the client attaches to therapy, and the more s/he claims to want to change, the more likely a successful outcome ought to be.

Complications, however, have arisen in previous attempts to assess this factor where self-report measures were not utilized. These have centered around the choice of indicators hypothesized to reflect this hypothetical construct. Sifneos (1968) suggested in his scheme that the client's willingness to make reasonable sacrifices for therapy was an indication of this factor. His clients were charged fees and this was interpreted as an indication of the client's will to change. To my mind, there may very well be a difference between assessing the client's expressed subjective

report of the sacrifices s/he would make for therapy (or to change), and assessing the sacrifices s/he has made in order to obtain therapy. Empirical results are needed to clarify this issue.

External Influences

This factor refers to the forces outside the client which may influence his/her changes in therapy, such as the opinions of significant others, external contingencies upon therapy such as monetary and time sacrifices, or legal repercussions. The importance of external influences has been suggested perhaps most by the conclusions of Frank (1974), who found that if therapy affected clients' present patterns of living favorably, they remained in treatment; whereas if it seemed to have an adverse effect, they dropped out.

> The deciding factor which required clarification in order to make more accurate predictions was found in life history information bearing on how remaining in treatment served to balance or upset the equilibrium of currently pressing issues in patients' lives (Gliedman, Stone, Frank, Nash Jr., & Imber, 1957, p. 592).

This suggests that if a client's going to therapy was for example, opposed by his/her family, and the family created pressure on the client not to change, successful therapy outcome would be less likely. Similarly, if a family was very much in favor of a client's changing in therapy, and for instance lavished all sorts of reinforcements on the client for his/her changes, successful therapy outcome would

be more likely. Indeed, the theories presented by a number of family therapists who refuse to treat an individual from a family without the whole family system involved, would corroborate this rationale (e.g., Haley, 1976; Madanes, 1981; Whittaker, 1979).

However, Siegel and Fink (1962) suggested that a client who comes to therapy in spite of opposition from his/her family should be considered of high motivation, and therefore as constituting a greater likelihood for therapeutic success. (It may be recalled that their measure of "motivation" did not relate significantly to outcome.) In addition, Sifneos (e.g., 1968) has stated that the monetary and time sacrifices a client makes for therapy should be considered as signs of high motivation, and thereore of greater likelihood for a successful therapy outcome. This discrepancy of viewpoints is somewhat similar to that encountered regarding the component of the client's "will to change", discussed previously. It will also need to be clarified empirically.

It will be interesting to see how the three aforementioned variables correlate with one another. An instance which illustrates their potential interdependence involves the source of referral of a client. For example, when a client comes for therapy claiming s/he is only there because "my doctor referred me", it is generally assumed that the client does not possess a strong will to change. In this

case, the client is also not assuming any responsibility for coming to therapy. Thus these two variables may be interrelated. Furthermore, the doctor might be considered an external influence in this case. This points to the possibility that the force of any external influences on the client may be dependent on the client's responsibility.

Expectations of Change

In their assessments of client "motivation", both Sifneos (1968) and Keithly et al. (1980) included categories on the client's expectations of the results of therapy. Similarly, Grant and Grant (1950) asked "What is the subject's aim in therapy?" (p. 156). The studies by Brady et al. (1960), Goldstein and Shipman (1961), and Richert (1976) all focused rather specifically on the patient's expectations as well.

There appear to be three rather separate components to the variable of client expectations of change. One involves the extent and manner in which the client specifically expects to change in therapy -- the client's goals for him or herself. These might be considered realistic or unrealistic, highly ambitious or easily attainable, etc. The aforementioned investigators seem to have been concerned with this aspect. Richert's research (1976) suggests that the more the client expects to change, the more s/he will believe that change has occurred. Goldstein and Shipman's (1961) study points to the possibility that with particular-

ly high expectations, a more curvilinear relationship may exist.

An additional aspect of this factor concerns the client's expectations of the change process itself. Thus the client's expectations of his/her therapist, and the workings of a therapeutic relationship, may be relevant here. Frank's (1974) report of therapy results obtained over a 25 year study strongly emphasized the importance of the "mobilization of the patients' hopes for relief" (p. 331). Bergman (1958) has written at length about the important role of "faith" in psychotherapy, while Gottschalk (1974), (described earlier) has provided some empirical evidence for the significance of a set of patient expectations which he called "hope". Regardless of the particular label attached to the variable, these researchers have all suggested that positive, optimistic client expectations associated with the prospect of being involved in therapy is a good sign of client readiness for change.

The work of Fischer and Turner (1970) suggests a number of other aspects to this factor. They developed a scale to assess attitudes toward seeking professional help for psychological disturbances, consisting of 29 items which partitioned into four factors. Their fourth factor which they labelled "confidence in the mental health professional (9 items) " (p.84),would seem to relate to the current discussion of expectations of therapy. Their scale provides the

most clear and explicit suggestions for generating an initial item pool.

A final component to this factor of client expectations may be thought of as involving somewhat more generalized expectations of the client regarding change. In this respect, the client's fear of the unknown, willingness to take risks, and perhaps even feelings associated with the idea of changing are pertinent.

Level of Present Discomfort

This factor is suggested by the work of Grant and Grant (1950) and particularly by Keithly et al. (1980) who created a category which they labelled "level of felt distress" (p. 96). It may also have been involved in the studies which examined the discrepancy between the clients' present self and ideal self descriptions to create what was labelled a "need to change" variable (e.g., Cartwright & Lerner, 1963). In fact, it is entirely conceivable that Heilbrun's (1962) Counseling Readiness Scale -- based on the Adjective Check List -- may have reflected the client's level of discomfort via his/her self-descriptive selection of adjectives. It was pointed out previously that a trend towards cross-sexual attributions was found among both the male and female "counseling-ready clients". Therefore it does not seem like an overly large step to hypothesize that insofar as Heilbrun's clients believed they should live up to the male and female

stereotypes of the time, and the counseling-ready ones described themselves as not doing so, these clients may have been thereby expressing a higher level of discomfort with themselves.

It would be particularly interesting to see how this variable interacts with the components of client expectations of change (e.g., relief) and the client's beliefs about his/her responsibility and control over his/her life. The work of Frank (e.g., 1974) and Bergman (1958) would suggest that the more faith the client has in his/her therapist, or perhaps therapy in general, the more relief of present discomfort the client will experience. In this case it might be true that the greater the discomfort the more likely a client will be to have faith in psychotherapy. This relationship will be difficult to assess however, as it is likely that the potential clients -- people with high levels of distress -- who don't have any faith in psychotherapy, will not ever show up for therapy and thus not be included in a sample of clients.

With this factor it would seem to be particularly important to obtain a type of measure from the client such that the client would report his/her level of felt distress relative to other times in his/her life.

Psychological Mindedness

This factor is suggested by three of Sifneos's (1968) categories: the patient's ability to recognize that symptoms are psychological; ability to introspect and report honestly about oneself; and an active curiosity about oneself. The client's attitudes regarding personality and change may be of particular importance here as well. For instance, if a client maintains the belief that a personality is innate, it would seem unlikely that s/he would be willing to assume any responsibility for changing him or herself, in order to alleviate any problems. Fischer and Turner's (1970) attitude scale would appear to contain some items which would overlap with this component, particularly from their interpersonal openness factor. It would be interesting to see what sort of relationship this component had with therapeutic outcome. Although the hypothesis of previous researchers appears to be for a linear relationship, it seems that there might be some high end cut-off point around which too much client psychological mindedness might not be a positive indication of client readiness to change.

Related to this component, although perhaps also related to the aspect of the client's goals is the degree of the client's awareness of what needs to be changed. While perhaps not always, the process of change often requires an awareness of what needs to be changed, in order to be imple-

mented. The level of the client's awareness of what s/he wants to be changed may thus be an indication of his/her readiness for change. At the same time, it has been suggested that a very high scoring client on this dimension -- the apparent "know-it-all" -- may be a poor therapy prospect (Lebow, 1982).

The Client Readiness Construct--Summary

The purpose of the previous discussion has been to point up various components and dimensions of the construct, so they may be adequately sampled in the generation of items for a Therapy Readiness Scale. Many of these components appear to overlap to a large extent.

In summary then, the purpose of the present investigation is to develop a self-report test to assess the numerous components of the client readiness construct. It is believed that by generating items which will adequately represent the various previously unintegrated conceptualizations of the relevant factors, and by studying their relationships with one another and in relation to an external criterion, a more integrated, comprehensive theory of client readiness for change may be developed, and the beginning of a validated self-report test will be produced.

METHOD

The present study involved three stages. In the first stage questionnaire items were generated, assessed, and revised. In the second phase the questionnaire was administered to a large sample of university students and analyzed. As a third and as yet preliminary phase, the questionnaire was given to a small sample of outpatient clients along with a short rating form to the clients' therapists. Each stage will be presented separately.

Developing the Initial Item Pool

The first list of approximately 100 items was generated from several sources. First, an individual interview was conducted with eight clinicians (psychologists) who were staff members at the Psychological Service Center at the University of Manitoba. Their average postdoctoral experience was twelve years, ranging from three to thirty. They were selected so as to represent a variety of theoretical perspectives including psychoanalysis, client-centered therapy, behaviorism, systematic eclecticism, existentialism, and structural family therapy. About 20-30 minutes were spent with each clinician in which they were asked what typified clients they considered "ready to change in therapy" and what contraindicated this.

These interviews tended to produce several common themes. As a whole,clinicians agreed that good clients were in pain, had gone to a significant degree of trouble to get in to see a therapist, had clear realistic ideas of what they wanted from therapy, were easily able to show their emotions, had come to therapy of their own choice, were prompt, had a good social network of friends and good resources generally. The clinicians stated they were less optimistic with clients whose goals seemed more focused on changing others, who were very intellectualized and/or defensive, who seemed to believe in a "miracle cure", or who seemed to lead a life of continual crisis so that they were likely to quit as soon as the current situation subsided. Certain issues were raised only by individual clinicians,such as how much initiative the client showed during the session, whether the client had the capacity to stick to a certain issue in therapy rather than jumping around,the capacity to generate many possible solutions to their personal/interpersonal problems and whether clients were too glib. These variables were then integrated with the set of constructs described in the introduction of this thesis, which was itself based largely on variables which previous investigators have found or speculated to be important for client readiness for therapy.

A first list of items was written, guided by the domains discussed in the introduction, and those gleened from the interviews. These items were then given to several clini-

cians who were all familiar with the set of constructs to be measured to see which items they considered relevant, and for additional items to be written by them. Most items were written to be situationally-relevant to the client in therapy, in contrast to creating a more general attitudinal survey. The importance of situationally-specific personality measures has been underscored elsewhere (c.f. Magnusson and Endler, 1977). In essence this approach attempts to get away from the notion of traits which are consistent in an individual across situations, and focuses instead on trait-situation interactions. For instance, to say one assumes responsibility may be meaningless if a situation is not specified. The groundwork for these differentiations was explained in the sections of the introduction integrating the various aspects to the constructs. It will be recalled that responsibility was hypothetically divided into several realms:in relation to life in general(a general trait), in relation to seeking therapy (situation specific), and in terms of the relative amount of work done by the client in therapy(somewhat general but to a large extent, situation specific).

In addition, ten items were adapted from Fischer and Turner's (1970) research scale which is meant to measure a person's attitudes toward seeking help, and twenty items were adapted from the Social Desirability Scale of the P.R.F. (Jackson, 1967). The items from the social desirabil-

ity scale were included so that a factor of social desirability would be created. This would be necessary to analyse the impact of this potential response bias, and was desired as a criterion to be used in later decisions about retaining items. It should be noted that although the S.D. items are in a true/ false format on the P.R.F., they were attached to rating scales in this questionnaire, as described hereinafter for the readiness items.

All "readiness" items were attached to seven point continuous rating scales, anchored from "strongly agree" to "strongly disagree" and presented to four independent judges (clinicians) for assessment. Judges were instructed to respond to each item twice: Once as though they were the most "ready to change" client they could imagine, and subsequently as though they were the "least ready to change" client they could imagine. Items for which at least three of the four judges agreed on the direction of the variable were retained. Other items were rewritten if the judges could indicate what ambiguities they perceived, and then retested for agreement. A number of items had to be discarded because of a lack of agreement. Finally, 92 "readiness" items and the 20 social desirability items were retained for the initial version of the questionnaire, such that the keying direction of the items was equally balanced.

All items were written on index cards and grouped according to their apparent similarity of content and type of question. They were then ordered, one from each file successively, so that no two items asking close to the same thing would appear together. For instance, items #34 "No one can really make me change--I have to want to change." and #99 "No one can really make another person change--they have to want to." were thought to be tapping the same attribute. However, in order to determine empirically what the difference between the self-referant type of item versus the general other-referant type of item style was, it was thought that both should be included, and inserted relatively far apart. The social desirability items were inserted at every 5th item (#5,10,15...) The questionnaire was typed and photoreduced so that it fit onto four and one half pages, as shown in Appendix A. This version of the questionnaire was used to obtain the results reported here.

Testing With University Student Population

The design of this part of the study was based on an untested assumption that a large sample of university students would not differ significantly in their responses from actual clients, such as to alter the factor pattern of the questionnaire. Naturally, this will need to be empirically determined. At this time, no reason to assume that they should be the same is offered, nor is it readilly apparent why they should differ.

Subjects

The questionnaire was administered to 450 regular session, introductory psychology students at the University of Manitoba. They received experimental course credit for being in class at the time the questionnaire was administered, whether they chose to complete a questionnaire or not. The sample was drawn from seven different sections of the course, spanning six instructors. There were 233 male (51.8%) and 217 female (48.2%) subjects. Thirty subjects indicated that they had been in therapy or counseling before (6.7%). Nine subjects had at least one "joke" inscribed on their completed questionnaires (2.0%). The mean age of subjects was 19.75 years with a standard deviation of 2.99 years. The age range extended from 17 to 46 years. The only restriction placed on subjects' participation was that they be fluent in English.

Procedure

The experimenter contacted introductory psychology instructors and arranged to visit their classes at specified times. Students were informed that they would receive credit for merely being there and were individually asked if they would complete a questionnaire. Most students completed the questionnaires. The only instructions given were the ones written on the covering letter(see Appendix B) --these

were read aloud by the experimenter once all those students who chose to participate had received a questionnaire. The instructions to subjects were "to answer these questions the way you imagine you would if you were in the situation of seeking counseling or psychotherapy." . The only question which came up several times from participants was whether they were to purposely present themselves as they imagined "patients" would be like, or whether to answer as themselves now, and just use their imaginations for the specific questions involving therapy-specific information (e.g., One participant explained that it was difficult to answer item #21 "I was under pressure from others to come into therapy."). Participants were told to use the latter strategy, and answer as they feel/think now.

All data was collected and coded on the questionnaires themselves. Information on subjects' age, sex, and whether they had been in therapy before was gathered on face sheets. A "joker" category was also created for coding which was mostly comprised of participants who, on the face sheet at "SEX:_____", wrote, for instance "as often as possible" or some comment like that. One subject drew pictures all over the questionnaire after answering only 20 items, while one subject was observed to be randomly answering the items without reading them. In all, nine subjects were coded as "jokers" and their data was similarly included in the raw data files. Missing data was coded and handled differently, depending on the analyses to be performed.

Testing With Clinical Population

This part of the study was designed for two purposes. One was to try to determine the validity of the assumption involved in the previous stage. In addition, it was desired to begin some construct validational work with the questionnaire, of an exploratory nature. For this latter purpose, global therapist ratings of clients were included.

Subjects

The clinical sample was drawn from clients at the Psychological Service Center (P.S.C.) and the Counseling Center, both of the Univeristy of Manitoba. The P.S.C., which is used as a training center for therapists in clinical psychology and social work, is a free outpatient clinic serving Winnipeg. The Counseling Center is meant to serve only students, and is free as well. Clients were recruited via their therapists, who were asked if they had clients who would participate.

At this time data for only 28 clients have been collected. Clients from all stages of therapy were included. The mean number of sessions was 31.5 with a standard deviation of 52. The range was from 2 to 208 sessions. In terms of months of therapy time reported, the mean was 24, standard deviation 51.7, and the range extended from 1 to 240. The age range of clients was from 16 to 53, with a mean of 29.9

and standard deviation of 8.3. The average therapist age was 36.5 with a standard deviation of 7.9. The range extended from 24 to 52 years of age. Seven clients were male (25%), while 17 clients were female(60.7%). There were 4 clients who did not indicate their sex(14.3%). Conversely, 17 therapists were male(60.7%), and 11 were female(39.3%).

Procedure

The experimenter contacted all therapists at the P.S.C. individually to explain the research and recruit them, and therefore their clients, as participants. At the Counseling Center, the Director recruited therapists at a staff meeting.

Instructions explained to individual therapists were as contained on the covering letter (Appendix E). Clients were told this was a study to see what their thoughts and feelings about coming for therapy were (see Appendices C & D). The experimenter had no contact with clients. Both therapists and clients were instructed to hand their respective forms in directly to the receptionists at each setting, so the research remained independent of the therapy process insofar as client confidentiality was maintained.

The only issue which surfaced which was not contained on the covering letter was that of timing. Therapists were instructed to complete their ratings as close as possible to

the same time as when clients filled out the questionnaire. If clients took the questionnaires home with them (it was suggested that, if possible, they be completed while at the centers), therapists were told that they must ensure that their ratings were done during the same inter- session interval as the clients completed their questionnaires. This was considered important particularly for clients who had only a few sessions.

RATIONALE FOR ANALYSES AND RESULTS

The data from the introductory psychology students comprised the major portion of this study. Preliminary findings from the clinical data will be presented as well, although its collection is still underway and will be described more fully in a later paper.

The purpose of this study was essentially exploratory, to assess the construction of, and relationships between components of client-readiness for therapy as theorized. In order to do this, an interpretable factor analytic solution was necessary. To have confidence in the factors extracted, however, first the individual items and then their correlations needed to be examined.

Item Distributions

The distributions obtained for each item were examined. Means, variances, ranges, standard errors, kurtosis, skewness, and the minimums and maximums were all computed. Endorsement frequency histograms were constructed for each item and are presented in Appendix F. Of the 92 readiness items, 15 distributions were noted to be appreciably different from the normal distribution. Seventy-seven readiness

items looked like nice approximations to the normal curve distribution. The 15 items were either truncated, which could attenuate their correlations, or they were very heavily skewed, making them of little discriminating utility as well as jeopardizing the correlations. These 15 items were all noted, so they could be dealt with as described hereinafter.

Significance of the Correlation Matrix

The correlation matrix of the 92 readiness items was computed (see Appendix G). Gorsuch (1974) has noted that several studies (e.g., Armstrong and Soelberg, 1968; Horn, 1967; Humphreys, et al., 1969) have shown that random data often give results that can be interpreted in a factor analysis. Thus, he cautions that "the correlation matrix should always be tested for significance" (p. 136). Bartlett's (1950) Chi-square test of significance of a correlation matrix was utilized for this step. The correlation matrix obtained from the sample of 450 subjects was found to be highly significant, and therefore suitable for meaningful factoring (Chi square = 15156.38, d.f. = 4186, $p < .01$).

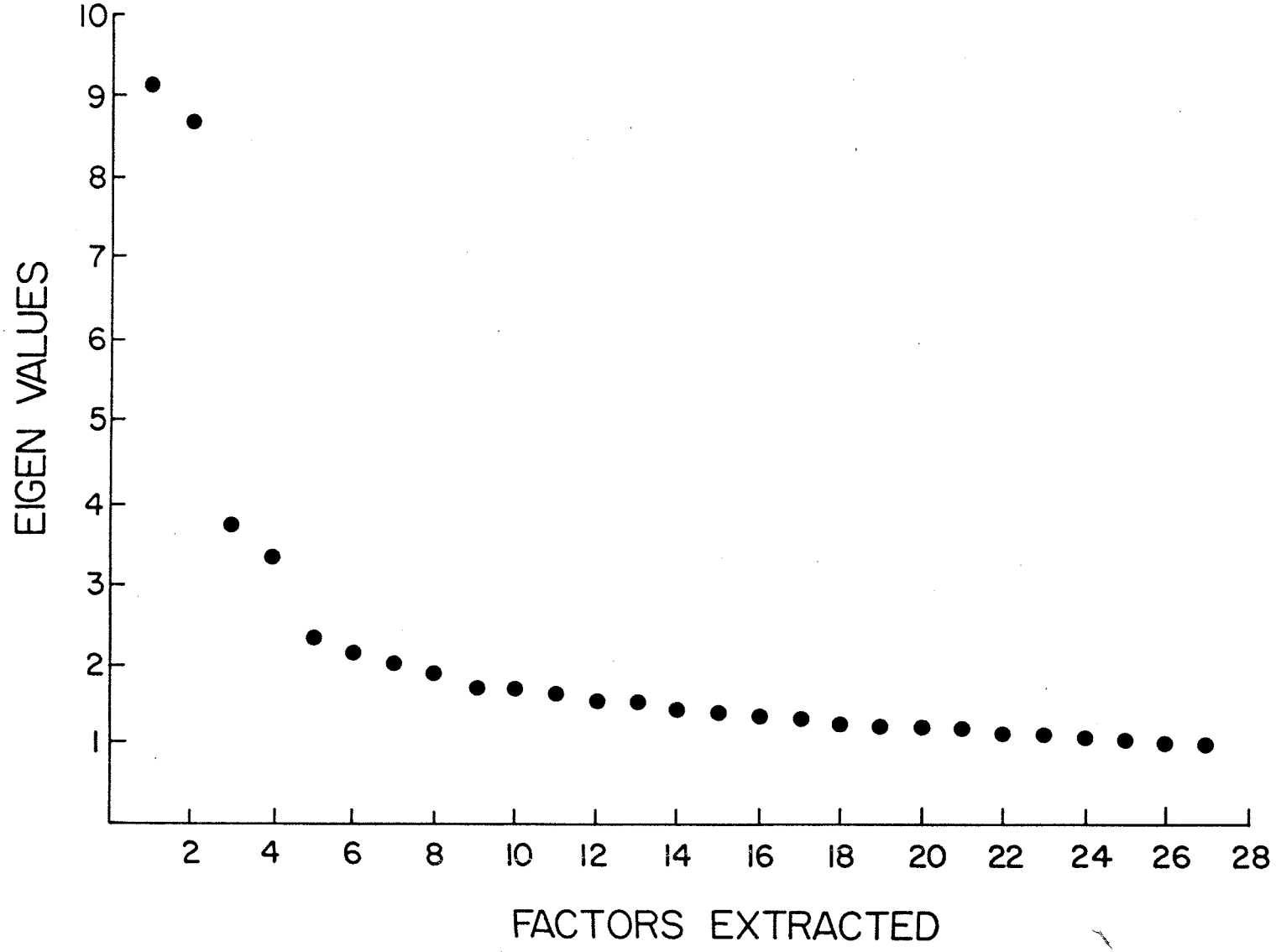
Factor Analyses

Several decision points were made in these analyses involving the communality estimation, the extraction procedures, the number of factors to retain and the rotation of the factor solution. The rationale for each choice along with the comparative results from exploring several options is presented.

Principal factor solutions were performed since these extraction procedures account for the most variance with the fewest factors, and reproduce the correlation matrix with the greatest accuracy for a given number of factors (Gorsuch, 1974). Both the component model and the common factor model were examined.

For the common factor model, squared multiple correlations (S.M.R.'s) were used as communality estimates because with this large a number of variables the chances of a variable overlapping with a common factor over and above the overlap with other variables is largely decreased, and so the S.M.R.'s should closely approximate the true communalities. In the component model the diagonal elements were filled with ones. Both solutions extracted 27 factors with eigen values greater than one, and produced identical scree tests. Clearly with this large a sample of variables and subjects, the initial communality estimation is not an influencing factor on the solutions when both are principal factor extractions.

Figure 2
SCREE TEST



Research has shown that using the root ≥ 1 criterion gives a fairly consistent number of factors as a function of the number of variables (Gorsuch, 1974). However, Gorsuch notes that this is usually very inappropriate for item analyses, where the number of variables is high and the criterion thus overestimates the number of factors which are of interest (p. 149). Cattell's scree test was used to determine the number of factors to retain (Cattell, 1966; Cattell and Jaspers, 1967). The plot is shown in Figure 2. Four factors are seen to be a clear minimum, and the graph indicates that eight or ten factors should be retained for examination.

Principal factors were then extracted for both the eight factor and ten factor solutions, and varimax and quartimax rotations were performed on each. It was determined that the additional two factors were uninterpretable in any case, while the first eight factors extracted were virtually the same for both solutions, so the eight factor solution was adopted. (The Factor Matrices for the ten and eight factor solutions are presented in Appendices H, I, & J).

With eight factors, an oblique rotation was performed with delta set at zero. This delta value is known to produce a fairly oblique solution (Nie et al, 1975). Nonetheless, this rotation produced essentially the same factors as the orthogonal rotations, and showed that the factors were

only negligibly correlated. The factor correlations derived from the oblique simple structure rotation are shown in Table 1. (See Appendices J & K for comparison of oblique and orthogonal item loadings on the factors).

TABLE 1

FACTOR CORRELATIONS FROM OBLIQUE ROTATION

	FAC1	FAC2	FAC3	FAC4	FAC5	FAC6	FAC7	FAC8
FAC1	-							
FAC2	.19	-						
FAC3	.04	-.10	-					
FAC4	-.03	.17	-.17	-				
FAC5	.10	-.13	.15	-.07	-			
FAC6	.19	-.04	.10	-.18	.03	-		
FAC7	-.17	-.08	-.11	-.08	-.07	-.05	-	
FAC8	-.11	.10	-.20	.08	-.07	-.08	.09	-

NOTE. These correlations are based on a rotation of each entire factor, with delta set at zero. N=450 student-subjects.

Thus an eight factor solution, based on S.M.R. communality estimates,with principal factoring and varimax rotation was considered most appropriate and meaningful, and adopted for further analyses. The factor matrix for this solution is shown in Appendix H. The interpretations of the factors are presented after the additional item test-analyses which follow directly.

Testing Multivariate Assumptions.

As noted earlier, there were nine subjects flagged as "jokers" and fifteen items which deviated markedly from the normal distribution. Since the analyses are based on the assumption of a multivariate normal distribution, two additional runs were performed, each one excluding these potential sources of error from the data. The factor analysis which excluded those nine subjects and one which excluded those fifteen items both produced virtually the same factors as the analysis with all the data. Thus a fair degree of confidence may be put into the factor pattern emerging, insofar as the methodological and statistical assumptions are concerned.

Interpretation of Factors

The items which loaded $\geq$ 0.30 on a given factor were retained and are presented for each factor separately. Maximum weight for the interpretations was, however, assigned to items having substantially higher loadings than this minimum.

Factor 1:. This factor has 17 items loading on it (see Table 2). It has been labelled "Current Emotional Distress". It appears to reflect a feeling on the part of a person that s/he is very much in need of help. Indeed this feeling may border on desperation for some people. The high scorer on this factor would be feeling much emotional pain, confusion, and fear. Moreover, this seems to be combined with an open acknowledgement of being unhappy and dissatisfied with the current state of his/her being. Finally this factor would seem to be tapping an element of fear regarding an inability to cope, and loss of control.

Factor 2:. This factor has 24 items loading on it(see Table 3). It has been called "Faith in Therapy". It appears to reflect a feeling or attitude of optimism, trust, and hope on the part of the person in regard to the therapeutic enterprise. The high scorer would believe that therapy can and will help her/him, and significantly, is willing to pay a price(financial, emotional, etc.)in order to obtain this help.

TABLE 2

FACTOR 1: CURRENT EMOTIONAL DISTRESS

Item #	Loading	Item Content
110	.74583	I feel like things are falling apart in my life.
84	.74063	I feel more emotional pain now than just about any other time in my life.
52	.72481	I feel more confusion now than just about any other time in my life.
41	-.68073	I feel quite content with the way I am now.
33	.62974	It's very important to me that I change something about the way my life is going right now.
12	-.61883	I feel more satisfied with my life now than ever before.
74	.61280	I feel that I am not in control of my life.
6	.55907	I often feel like I simply can't cope with all the hassles in my life.
28	.51568	At times I am afraid to let others know what I am really feeling.
83	.47177	I have a lot of difficulty developing trust in others.
68	.44212	At times I am afraid to admit to myself what I am really feeling.
8	.36335	My current problems are a lasting result of my childhood experience.
27	.36143	I am ashamed of elements of my past.
79	-.34840	I believe that I am now as effective a person as I will ever be.
97	-.34770	Emotional difficulties tend to work out by themselves.
18	-.31950	I would discuss my therapy with my family if they were interested.
58	.31005	I usually act the way I do because other people make me act that way.

NOTE. Cronbach's alpha = .87248; 17 items

TABLE 3

FACTOR 2: FAITH IN THERAPY

Item #	Loading	Item Content
59	.73715	I believe that a therapist will be able to help me solve my problems.
77	.59958	I am optimistic that the outcome of my therapy will be positive.
49	.57418	If a fee was charged for therapy I would be willing to pay.
64	-.55260	I don't expect to feel better when I've finished therapy.
112	.50848	I expect to be somewhat changed after therapy.
26	.50424	I expect my therapist to help me to uncover things about myself, about which I am now unaware.
11	.48421	I believe that my therapist will maintain strict confidentiality regarding our discussions.
7	.48296	A skilled therapist might be able to convince me to change my mind about some things.
42	.47846	I would willingly confide intimate matters to a therapist if I thought it might help me.
23	.45232	I think therapy will be a shared responsibility between myself and my therapist.
2	.44860	My current problems are a lasting result of my childhood experience.
31	.42751	I feel that therapy is/will be one of the most important things I have done in my life.
43	-.39891	I don't really believe anyone can be of help to me -- I have to do it all on my own.
76	.38687	I would willingly confide intimate matters to a therapist if I thought it might help someone I care about.
81	.38361	I would be prepared to make big changes in my life situation (e.g., move, change jobs, etc.) if it seemed important.
89	.37710	It's important to me that my therapist get to know me well, in order for me to work with him/her.
91	.37702	I expect to be a different person after therapy.
62	.36770	A person with an emotional problem sometimes might not solve it alone; he/she is likely to resolve it with professional help.
101	.36474	If my therapist gave me homework assignments to do between sessions, I would have the time to do them.
39	-.35076	Therapy involvement is a sign of personal weakness.
92	.34236	I believe that the important people in my life will support the changes I want to make.
37	-.32430	I don't think my therapist could possibly be wiser than me.
109	-.31753	I was forced to come to therapy against my will.
106	-.30844	A person with a strong character can get over mental conflicts by him/herself, and would have little need of a therapist.

NOTE: 24 items; Cronbach's alpha = .85353

Factor 3:. This factor has 19 items loading on it (see Table 4). It has been labelled "External Attribution of Responsibility". The high scorer on this factor would attribute the responsibility for his/her life situation, personality, problems and their solutions outside him/herself--onto other people and/or circumstances. This probably reflects a feeling of blamelessness, victimization, and a lack of power and control. Indeed there would appear to be a reluctance, if not open resistance in a high scorer to assume personal responsibility, and perhaps even to examining one's own feelings to some extent.

Factor 4:. This factor has 9 items loading on it (see Table 5), but it is more difficult to interpret than the others. It has been labelled "Self-Confidence in Client Role". This factor appears to measure an attitude or feeling of knowing what one wants, feeling confident about knowing how to get it, and feeling in control of whether it happens or not. A high scorer would probably believe they know what changes they need to make, and know that it's up to them ultimately to make them.

Factor 5:. This factor has 7 items loading on it (see Table 6), and has been labelled "Guardedness". It seems to represent a fear of disclosing too much for fear of being judged negatively. The high scorer would be affected by the negative stigma around being in therapy. In addition, the

high scorer might be reluctant to ever open up completely to a therapist.

Factor 6:. This factor has only 5 items loading on it (see Table 7). It has been called "Fear of Risk-Taking". The high scorer would be someone who is afraid to take risks, which would likely be related to a fear of newness and change. Even with the relatively few items in this factor its interpretation seems more evident than the fourth factor.

Factor 7:. This factor has only 5 items loading on it, and an appropriate interpretation is not at all evident. Thus it has been considered uninterpretable and exluded from further investigations (See Table 8).

Factor 8:. This factor is only a dubious doublet, with low loadings only. It is uninterpretable, and has also been dropped from further analyses (See Table 8).

Internal Consistency

All items having loadings ≥ 0.30 were included in the computations of Cronbach's alphas for each interpretable factor. Negatively loading items were reflected where necessary. When an item loaded on more than one factor, it was retained for each factor and recoded appropriately for each calculation. The coefficients obtained are presented along with the factor loadings for each factor in Tables 2-8.

TABLE 4

FACTOR 3: EXTERNAL ATTRIBUTION OF RESPONSIBILITY

Item#	Loading	Item content
88	.60581	I believe that the solution of my problems will depend mostly on other people or circumstances.
32	.54468	I believe that my problems are mostly due to other people and circumstances.
82	.51724	I believe that my problems are mostly due to circumstances beyond my control.
98	.50404	I believe that personal misfortune is a punishment for a sinful life.
102	.47168	A skilled therapist could trick me into changing even if I didn't want to.
17	.47046	I believe that a therapist will be able to tell me the "secret formula" for the solution of my problems.
22	.46390	Regardless of what I or my therapist might do, one cannot alter what is fate.
58	.45136	I usually act the way I do because other people make me act that way.
39	.41985	Therapy involvement is a sign of personal weakness.
69	.41894	Keeping one's mind on a job is the best solution for taking care of personal worries and concerns.
109	.37752	I was forced to come to therapy against my will.
104	.37010	I believe that emotional feelings only get in the way of solving personal problems.
72	.36388	I am afraid that a therapist will know many things about me that I do not.
48	.35396	A lot of talking about one's feelings and problems just makes things worse.
54	.34476	I insist on knowing the details of my therapist's personal life if I am to work with him/her.
66	.33646	I think that heredity has played the most important role in determining what I am like.
34	-.33358	No one can really make me change -- I have to want to change.
79	.31897	I believe I am now as effective a person as I will ever be.
21	.31174	I was under pressure from others to come into therapy.

NOTE. 19 items; Cronbach's alpha= .82215

TABLE 5

FACTOR 4: SELF-CONFIDENCE IN CLIENT ROLE

Item #	Loading	Item Content
87	.50531	I have known exactly what needs to be done for my life to be better for quite a long time already.
92	.44903	I believe that the important people in my life will support the changes I want to make.
103	.41827	I want to know myself as deeply as possible.
34	.40065	No one can really make me change -- I have to want to change.
93	-.37466	I have no idea at all what changes I'd need to make in myself to feel better.
99	.37397	No one can really make another person change -- they have to work too.
47	.34997	I sometimes like to do things in a new way just for the different experience.
76	.33969	I would willingly confide intimate matters to a therapist if I thought it might help someone I care about.
14	.32039	I have some ideas about what changes I would like to make in my life.

NOTE. 9 items; Cronbach's alpha= .680

TABLE 6

FACTOR 5: GUARDEDNESS

Item #	Loading	Item Content
56	.46835	There are experiences in my life that I would not discuss with anyone.
105	.45644	There are certain problems which should not be discussed outside one's immediate family.
94	.44072	There are certain problems which should not be discussed or shared with anyone.
111	.38550	There is something admirable in the attitude of a person who is willing to cope with his/her conflicts and fears without resorting to professional help.
106	.35828	A person with a strong character can get over mental conflicts by him/herself, and would have little need of a therapist.
53	.34429	I feel uneasy about seeing a therapist because of what some people would think.
28	.32127	At times I am afraid to let others know what I am really feeling.

NOTE. 7 items; Cronbach's alpha= .66716

TABLE 7

FACTOR 6: FEAR OF RISK-TAKING

Item #	Loading	Item Content
96	-.57088	I consider myself someone who is willing to take risks at times.
67	.55545	I am generally afraid to try new things.
61	-.35175	A lot of things seem to be changing in my life now.
47	-.31665	I sometimes like to do things in a new way just for the different experience.
29	.30440	I'd rather be safe than sorry when it comes to personal risks.

5 items; Cronbach's alpha= .57592

TABLE 8

FACTORS 7 AND 8

Item #	Loading	Item Content
(Factor 7)		
71	.41276	I have/had already tried some ways of helping myself before coming in for therapy.
3	.40283	I believe that my problems are, to a fair extent, my own making.
9	.32688	I expect therapy to involve many sessions.
13	.30618	I think I will require a very specific type of therapist.
103	.30296	I want to know myself as deeply as possible.

5 items; Cronbach's alpha= .43079

(Factor 8)		
4	.33317	This really seems like a bad time in my life for a change.
44	-.30365	There are books I can buy which would eliminate the need for a therapist.

NOTE. 2 items; Cronbach's alpha= .25506

Social Desirability

A further important phase to the item analyses was the examination of the item correlations with social desirability. The twenty S.D. items from the P.R.F. (half of them reflected) were combined to form a social desirability scale. At the same time, the items for the first six factors were combined to calculate unitized scale scores for each factor. Subsequently, each item's correlation with social desirability and with each of the six factors was computed. Happily, all readiness items retained for the scales correlated more with the factor/s to which they were supposed to belong, than they did with social desirability (See Appendix M). Thus all items were retained through this hurdle.

Unitized Scale Score Correlations

Since the eventual use of this test will involve the total scores for each factor, and to be practical they will likely need to be easily hand scored, it was considered appropriate to examine the unitized scale scores. These were calculated and the correlations between the factors were examined for these different conditions. The results are presented in Table 9. As can be seen, ignoring the weighting of the items as such changes the relationships of the factors. These unitized scale scores appear to be more correlated than the factors were in the oblique rotational factor

analysis. Thus they must be treated with caution as their meaning is suspect because the effect of unitization has altered the composition of the factors. It is interesting to note the quite high correlations with Social Desirability.

Clinical Data

Unfortunately the small sample size of clients at present precludes the possibility of performing any meaningful analyses at the item or factor level. Although virtually no power exists for the predictions which were planned, some correlations are presented in Table 10. As can be seen the results show no indications of any association between the factors found with the student sample and the therapist ratings, beyond what would be expected by chance. Note that the therapist ratings used were highly correlated.

The factors appear to be more independent here than they seemed from the correlations described above. It is extremely difficult to draw any inferences from this data due to the unitization of the scale scores as well as the very small sample size.

TABLE 9

INTERCORRELATIONS [a] OF UNITIZED SCALE SCORES FOR STUDENT DATA

	FAC 1	FAC 2	FAC 3	FAC4	FAC5	FAC 6
FAC 1	-					
FAC 2	.14**	-				
FAC 3	.25**	-.32**	-			
FAC 4	-.21**	.43**	-.44**	-		
FAC 5	.30**	-.31**	.43**	-.16**	-	
FAC 6	.26**	-.02	.23**	-.33**	.13**	-
SDES	.67**	-.16**	.51**	-.44**	.31**	.35**

NOTE. All correlations are computed for N= 442,443,444, or 445.

[a] rounded to 2 decimal places.

** $p < .01$

TABLE 10

CORRELATIONS[a] BETWEEN UNITIZED SCALE SCORES AND THERAPIST RATINGS FOR CLINICAL DATA[b]

	T1	T2	T3	T4	RED	FAC1	FAC2	FAC3	FAC4	FAC5	FAC6	SDES
T1	-											
T2	.76**	-										
T3	.43**	.67**	-									
T4	.68**	.81**	.72**	-								
RED	.80**	.91**	.81**	.95**	-							
FAC1	.12	.03	-.28	-.18	-.11	-						
FAC2	.07	.05	-.17	.09	.00	.23	-					
FAC3	.28	.12	.15	.16	.20	.18	-.10	-				
FAC4	.20	.27	.42**	.32*	.35*	-.18	.25	-.15	-			
FAC5	.13	.08	.01	.06	.07	-.06	-.13	.37*	.18	-		
FAC6	-.08	-.26	-.39*	-.36*	-.33*	.17	.12	.19	-.47**	.18	-	
SDES	.42**	.39*	.17	.06	.06	.37*	-.30	.37*	-.32*	-.05	.18	-
CRED	.01	.12	.12	.15	.15	.22	.39*	-.54**	.43**	-.62**	-.65**	-.21

NOTE. T1 ... T4= Therapists' ratings; FAC1 ... FAC6= Unitized Scale Scores (U.S.S.) for factors one through six; SDES= Social Desirability Unitized Scale Score; RED= Sum of therapists' ratings; CRED= Sum of U.S.S.;

[a] rounded to 2 decimal places.

[b] N=28.

* $p < .05$.

** $p < .01$.

DISCUSSION

This study has completed several preliminary steps in developing a veridical and valid self report test which is intended to measure a client's readiness for therapy. The contribution, to this point, has been to generate a set of "good" items which appears to measure a person's level of felt distress, faith in therapy, acceptance of responsibility, self-confidence in regard to therapy, willingness to self- disclose in therapy and willingness to take personal risks. There remain, however, several crucial matters which still need to be empirically investigated before the implications of this research can be fully ascertained.

With regard to the individual items, it must be noted that good items refer to those which so far have been found suitable to be part of the standard system. In this study, the face validity of the items, their distributions, the common variance underlying their correlations, their relationships to social desirability, and the ultimate interpretability of their interrelationships have all been analysed, and a large proportion of the pool has met the criteria specified for each successive test. These are by no means final tests of the items, for their utility with other populations than the student population which was sam-

pled, and their relationship to some meaningful external criteria (e.g. therapy outcome) has yet to be determined. In all probability these further tests will produce some changes in the evaluations of certain individual items.

Item Level Considerations

Even with the data collected so far, several important test construction issues have arisen on the item level which are noteworthy. It will be recalled that fifteen items were temporarily discarded and the pool reanalysed to ensure that their nonnormal distributions were not affecting the factor pattern. Of those fifteen items with distributions markedly differing from that of the normal curve, several were very high loaders on the factors extracted from the principal axis solution. For instance item #110 "I feel like things are falling apart in my life," had a very flat distribution, which might artificially alter its correlation with other normally distributed variables. Nonetheless, it was the highest loading variable on the first factor extracted. This raises the question of whether this item is indeed reflecting the distribution that exists in the population of people, and even if it is, what are the relative merits of retaining it. At this stage of the test's development, a decision has been made to retain such items since they clearly possess good discriminative potential, and to see if future research supports the notion that this variable is indeed platykurtic in the larger population of interest.

Items with heavily skewed distributions, however, are another matter. For instance both items #99 "No one can really make another person change -- they have to want to" and #34 "No one can really make me change -- I have to want to change" are negatively skewed (people tend to agree much more than disagree with the statements). These items are therefore not very good discriminators since only about 6-8% of subjects disagreed at all. It may well be the case however, that this is indeed representative of the general population's attitudes; this needs to be determined. Moreover, it must be seen how integral a discrimination this provides in predicting the external criteria deemed to be of importance. If hypothetically, it was found that the 6-8% of the clients who disagreed with this statement were found to be extremely poor risks in therapy, then it might be considered worthwhile to retain these items. If, on the other hand, the contribution of these variables to the prediction of external criteria was negligible, then clearly it would be preferable to discard them because of the troublesome nature of their distributions. Tangentially, these two items correlated .51, suggesting that the difference in the style of the items is not that important. On the other hand, because of their skewed distributions, this correlation may not be an accurate representation of their relationship.

A further reason for retaining some of the discriminating, although nonnormally distributed items which load high-

ly on factors, is that eventually it will be the total scores for the factors or even the test as a whole which will be used as the predictor variable/s. Since it has been found that the violations of the normality assumption by certain items has not altered the factor pattern, and the combination of a number of items together to form a factor produces a normal distribution for the factor as a whole, then even when one or two items are not normally distributed, their inclusion does not appear to present any problems.

At this stage of the item analysis, the social desirability test was simply checking to see if an item correlated more with its factor than with the social desirability factor. This ensures that the items are measuring something over and above desirability of the response, but does not at all free the items from this potential bias. Although it is not considered possible to eliminate this confound from the self-report test situation, as discussed earlier in this paper, it may be feasible and desirable to set somewhat of a more stringent criterion in terms of the relative magnitudes of the items' correlations with S.D. and a given factor. In the very least, at future decision points to discard items, this would be worth looking into.

An additional acceptance/rejection criterion for the items which should be incorporated in future work with this

test is the reading level of the items. In this study the sample minimum age range was sixteen years of age. To determine just how low an age range would be appropriate, the tests for reading level should be administered. It may be that certain items' reading levels are much higher than the majority of the questionnaire items, and would preclude using some subjects who might be considered important to be included. Thus this criteria for each item would be valuable information for future work.

To summarize the conclusions from the item-level analysis to this point, it is felt that the items have stood up very well under the tests which have been analysed. There are certainly more than enough adequate items to encourage further development of the questionnaire. At the same time, there are several additional item characteristics which should be examined at this level when proceeding with future work.

Factor Level Considerations

At the factor-level analysis, the results have been quite encouraging as well. Factor one, Current Emotional Distress, is a theoretically important concept to theories of change in therapy, and has been found by other researchers as well (e.g. Cartwright and Lerner, 1963; Fisher and Turner, 1970). The factor possesses some nice high loadings,

and the internal consistency is very adequate. There are, perhaps, too many items loading on this factor at present. However, in the twenty-seven factor solution using all factors with eigenvalues > 1.0, there were less items(l1 > 0.4; l3 > 0.3) loading on the factor, suggesting that it may be streamlined still. Moreover, the alpha-if-item-deleted from the internal consistency analysis indicated that six items should be dropped from the factor. This was not done at present because the alpha would not have changed significantly.

This factor most relates to what was called Level of Present Discomfort in the Introduction. It was also an important criterion for the clinicians interviewed who stressed the concept of client pain as an indication of readiness to change. Indeed, this construct is intuitively appealing as an important ingredient for "motivation" to change.

It might be informative in the future to see how this factor correlates with the F scale on the MMPI, for which a high score is often interpreted as a "cry for help". Moreover, it would certainly be interesting to validate this factor by assessing its relationship to measures of self concept such as the Tennessee perhaps, for if the interpretation is correct then a high score here might correlate highly with low self concept. If it doesn't indeed, it

would suggest perhaps an important mediating variable of self-deception awareness, such that acknowledging certain things to oneself is an important construct in and of itself. The high correlation with social desirability from the unitized scale score analysis may be suggestive of low self esteem as well, since it could be argued that a low self concept could make it more important to a person to present him/herself in a socially desirable fashion. Of course, these are highly speculative notions at this stage.

The second factor, Faith in Therapy is also an integral part of some theories of change, particularly in the writings of Frank (e.g. 1973, 1974, 1976). Favourable expectations in regard to the therapeutic enterprise have been found under a variety of experimental conditions to be related to outcome (e.g. Goldstein and Shipman, 1961; Richert, 1976) This factor seems closely related to the construct of Positive Expectations of Change/Therapy discussed in the Introduction. It is similiar to Fischer and Turner's (1970) factor which they called Confidence in the Mental Health Profession.

Note that this factor also contains items suggesting that a willingness to pay a price for receiving therapy is closely related to having favourable expectations: If one believes in the "power" of therapy, one is willing to pay for it. This is strikingly similiar to concepts elaborated by

Sifneos and his collegues who literally considered the fee payment of their clients in constructing motivation ratings. It should be stated, however, that in this questionnaire, it is only the expressed willingness to pay a price which has been measured, and as pointed out in the introduction, this may differ from actual payments in the overall assessment of readiness to change.

This factor contains numerous items, indeed perhaps too many at this stage, with some nice high loadings and good internal consistency. Future work with this factor might aim at differentiating some of the themes within the factor and perhaps evolving two factors out of this. With the twenty-seven factor solution, however, seventeen items were loaded greater than 0.30 as well. This suggests that there is indeed one underlying construct for all of these items, and perhaps merely cutting down the size of the one factor would be more likely to maintain the interpretability of the entire factor pattern.

Factor three can be generally thought of as assumption of personal responsibility, but the direction of the loadings from these analyses specifically focused on the External Attribution of Responsibility and Control, for which it has been named. This is especially nice to find since only Schroeder (1950) has previously investigated this construct, even though it plays a prominent role in many theories of

therapy, particularly humanistic ones. Responsibility was discussed in the Introduction, and was expected to form a dimension of a broader scope, so as to encompass the internalizing of responsibility as well. It is puzzling that the factor turned out so unidirectional.

It would be interesting to see how this factor relates to self concept. Do people who reject responsibility for their lives concomitantly feel powerless, helpless and hold themselves in low esteem. Or, alternatively, do they reject responsibility in order not to "get down on themselves" for bad things which they have done, by conceiving them as things which happened to them, thereby maintaining their self concept in good shape. Clearly this would be somewhat complicated to investigate, but necessary to explore as part of the construct validational process. It is likely that this factor should correlate with Rotters I-E scale, and it would be informative to see how much shared variance there is. This would also be an important construct validational step. The internal consistency of this factor and its loadings and size are considered very adequate. It is curious to examine the lower loadings on this factor for they appear to represent a dearth of psychological mindedness. Although no factor turned out to be psychological mindedness as was theorized, the structure of this factor suggests the remote possibility that it might be a second order factor.

The fourth factor does not totally conform to any of the constructs previously theorized, and it does not contain any very high loadings. For these reasons its interpretation should be made with more caution. It has been conceptualized as Self-Confidence in Client Role, or purposeful self-assurance vis-a-vis therapy, for this seems to underly the higher loading items. However, this interpretation does not seem as solid as the ones for the aformentioned factors, nor does it readily associate with previously investigated variables. Moreover, the internal consistency of this factor at present is less than desirable. Certainly it will be increased when additional items are created to load on this factor, but, in contrast to the other factors, it is not readily apparent what sort of additional items to create for this factor.

The most plausible interpretation in terms of the constructs presented in the Introduction appears to be conceptualizing this factor as a combination of Psychological Mindedness and Will to Change. The possibility that this factor may represent an overconfidence component, such as the "glibness" mentioned by one of the clinicians interviewed, and therefore a contraindication of therapy readiness seems unlikely given that it correlated most with the therapists ratings of client readiness. The clinical data may not warrant its use for interpretations at this point in time though.

It may be the case that this factor is simply a statistical artifact, or it may be that in breaking down the circular and inexplicit notions of motivation and therapy readiness, this factor has emerged as a component not previously explicated. It will be necessary to write numerous items to represent the possibilities of this factor's interpretations, and see how they will load on it in future work, before more can be said about this construct.

The fifth factor was smaller than desirable at this stage and will need to be supplemented with additional, new items as well. This would also, in all likelihood, raise its internal consistency to a more acceptable level. Nonetheless, it seems to be readily interpretable as Guardedness, or more generally, willingness to self-disclose in therapy. This construct was touched upon in the initial theorizing, as part of Expectations and especially Psychological Mindedness, and has been investigated/found previously (e.g. Fisher and Turner,1970). Fischer and Turner interpreted their somewhat different factor as stigma tolerance, because I believe, they were looking at the public's attitudes toward therapy quite generally. In this case, with more therapy-specific content in items, and more consistent with the overall construct, it has been interpreted as the willingness to self-disclose in therapy. It would be informative to see how this factor would correlate with Rotters measue of interpersonal trust.

The last factor which is considered interpretable is Fear of Risk-Taking. This is a new variable which has not been previously investigated, although it was mentioned in the Introduction as part of the client's expectations of the process of change. In view of this and the small number of items and lower than desirable internal consistency, this factor must be interpreted cautiously. If indeed, it reflects a person's readiness to take personal risks, this would theoretically suggest the person has a higher tolerance for the anxiety inherent in being at personal risk. This might be related to self concept as well, for most theories of mental health posit a readiness to face the unknown as reflective of mental health. In these analyses, the factor was found to be loading inversely, such that it represents the unwillingness to take risks. Thus it might be tapping into some fear of personal risk, which is likely to be more evident in individuals who might already feel too much at risk. This interpretation is somewhat corroborated by the finding that it correlates with Factor one, which was also hypothesized to be related to low self-concept.

Based on the above interpretations, it is suggested that factors one, two, and four all seem to reflect client readiness directly. On the other hand, factors three, five, and six would need to be reflected, as they seem to inversely reflect magnitudes of readiness for therapy and change.

Future Considerations

Naturally these interpretations will have to be validated by future work. Several crucial research steps come to mind immediately. Underway at this time, is the collection of data on the same questionnaire from a client sample. It simply must be determined whether the factors are invariant between the student and client populations. Ultimately it is the client population which will be of interest and so this is considered a priority.

An additional important validational step involves the likert-type adaptation of the T/F Social Desirability scale from the P.R.F., which was employed in this study. Administering the items in both formats would serve the purpose of ascertaining the robustness of the content of the S.D. items, and it is expected that the construct would be found to be stable for both formats.

If the factors are found to be invariant, it will then be important to assess the convergent and discriminant validity of the test. One study which would be worthwhile would involve rating clients at intake by therapists, on the constructs involved in this test as well as some constructs which theoretically should not correspond to these measures. This would provide the opportunity to see if this other standard system converged with the test, while also seeing if the other, theoretically unrelated constructs, could be

discriminated. A problem with this, however, would be the use of the human standard system, but it seems to be the only other standard system available for this type of study.

At the same time, as has been mentioned all along in this paper, it will be informative to administer this test along with the numerous other tests which already exist, and see how they relate. This would certainly provide invaluable information for determining the meaning and scope of the constructs involved.

Finally, a most important step in ascertaining the utility of the test will involve administering it with a client sample, and following the process and outcome of therapy, to see how the measure relates to these criteria of interest. Indirectly, this will provide a stringent test for the interpretation of the constructs as well, and if the aforementioned work was done first so that it was already fairly sure what was being measured by the test, this type of study could shed some important light on the significant ingredients to the therapeutic process.

It is here that the implications of this study can be best appreciated by looking ahead and assuming for the moment, that the questionnaire does prove to be predictive of outcome in psychotherapy. If all the factors were found to account for significant portions of the outcome variance, this would suggest a refinement to theories of the stages in

therapy. For instance, let us assume that it was found that a certain degree of distress, responsibility, faith in therapy, etc. was required to possess a reasonable chance of a successful outcome in therapy. Clients might be so assessed as to obtain values of these attributes and then referred to therapists to prepare them for change in terms of these readiness components specifically. It is hoped that this might lead to the clearer identification of the common, significant ingredients in psychotherapy (c.f. Goldfried,1980).

These concepts could be refined in much the manner that the circular, unclear notion of "readiness" and "motivation" has potentially been clarified in this investigation.

Return to Sanford's Model

Let me return to the larger overview/context of this study, as presented earlier in this paper. The variables being measured by the self report test developed herein are intended to supplant the category of "patient factors" from Sanford's (1962) classification scheme (see page 5). Understandably, it will be important to determine how this measure of client readiness correlates with the other measures in this category such as ego strength, I.Q., severity of psychopathology and other measures of adequacy of functioning. It has been intended to develop a measure which can

account for some variance over and above the approximately 10% which the already existing variables appear to account for (Smith, et. al., 1980). Therefore it must be determined whether this test contributes something beyond those variables.

In the therapist and treatment factors category, it is suggested that this measure of client-readiness for therapy could be added to the variables used to match treatment groups in research comparing therapies. This would surely provide a better comparison of the therapies, once this test is more polished. It might also be possible that one would find an interaction between different therapies and less and more ready to change clients. Some interventions might be more suitable to the client who is quite ready to change while others may be just as effective with initially resistant clients. At a time when researchers are trying to become more refined in the match of treatments to problems, this seems worth examining to maximize successful assignment of clients and therapists.

As a final thought, I would like to comment on the aforementioned goal of highlighting the common, significant ingredients underlying the extensive potpourri of therapies. I do not believe any amount of research will reduce therapy (or, perhaps lift it in some minds) to any sort of mechanical process. As long as it involves people who are develop-

ing a relationship, one of a therapist's feet will always be in the Arts. It may, however, make the training of therapists much more viable, and could potentially lead to sufficient accountability in the field to enable psychotherapy to become firmly planted on the health insurance/Medicare maps. This, of course, will be of great importance to the graduates in the next few years, if they wish to establish private practises!

REFERENCE NOTES

Aftanas, M. S. Observation, scaling and measurement. Unpublished manuscript, University of Manitoba, 1982.

Lebow, M. Personal communication, Fall, 1981.

Whittaker, C. Family therapy workshop. Health Sciences Centre, University of Manitoba, Winnipeg, Manitoba, Winter, 1979.

REFERENCES

American Psychiatric Association. Diagnostic and statistical manual of mental disorders. (3rd ed.) Washington, D.C.: American Psychiatric Association, 1980.

American Psychological Association. Technical recommendations for psychological tests and diagnostic techniques. Psychological Bulletin, 1954, 51-2, part 2.

Appelbaum, A. A critical re-examination of the concept of 'motivation for change' in psychoanalytic treatment. International Journal of Psycho-Analysis, 1972, 53, 51-59.

Arkes, H. R. Impediments to accurate clinical judgment and possible ways to minimize their impact. Journal of Consulting and Clinical Psychology, 1981, 49-3, 323-330.

Armstrong, J.S., and Soelberg, P. On the interpretation of factor analysis. Psychological Bulletin, 1968, 70-5, 361.

Auerbach, A. H., Luborsky, L., & Johnson, M. Clinician's predictions of outcome of psychotherapy: A trial of a prognostic index. Americal Journal of Psychiatry, 1972, 128-7, 830-835.

Barron, F. An ego-strength scale which predicts response to psychotherapy. Journal of Consulting Psychology, 1953, 17, 327-333.

Bartlett, M.S. Tests of significance in factor analysis. British Journal of Psychology, 1950, 3-2, 77.

Berg, I. A. (ed) Response set in personality assessment. Chicago: Adline, 1967.

Bergin, A. E. The evaluation of therapeutic outcomes. In S. L. Garfield & A. E. Bergin (Eds.) Handbook of psychotherapy and behavior change: An empirical analysis. New York: Wiley, 1971.

Bergman, P. The role of faith in psychotherapy. Bulletin of the Menninger Clinic, 1958, 22-23, 92-103.

Brady, J. P., Reznikoff, M., & Zeller, W. W. The relationship of expectation of improvement to actual improvement of hospitalized psychiatric patients. Journal of Nervous and Mental Disease, 1960, 130, 41-44.

Brenman, M., Kubie, L. S., Rogers, C. R., & Gill, M. Research in psychotherapy: Round table 1947. American Journal of Orthopsychiatry, 1948, 18, 92-118.

Buchwald, A. M. Verbal utterances as data. In H. Feigl & G. Maxwell (Eds.) Current issues in the philosophy of science. New York: Holt, 1961, pp. 461-468.

Burnham, C. A. Reliability and validity of psychologists' evaluation of therapy readiness. Dissertation Abstracts, 1952, 12, 581.

Buss, A. H. The effect of item style on social desirability and frequency of endorsement. Journal of Consulting and Clinical Psychology, 1959, 23, 510-513.

Butcher, J. N., & Tellegen, A. Objections to MMPI items. Journal of Consulting Psychology, 1966, 30, 527-534.

Cartwright, R. D., & Lerner, B. Empathy, need to change, and improvement in psychotherapy. Journal of Consulting Psychology, 1963, 27-2, 138-144.

Cartwright, R., Lloyd, S., & Wicklund J. Identifying early dropouts from psychotherapy. Psycotherapy: Theory, Research, and Practice, 1980, 17-3, 263-267.

Cattell, R.B. The scree test for the number of factors. Multivariate Behavioral Research, 1966, 1-2, 245.

Cattell, R.B., & Jaspers, J. A general plasmode for factor analytic exercises and research. Multivariate Behavioral Research Monographs, 1967, 67-3.

Cattell, R. B., Eber, H. W., & Tatsuoka, M. Handbook for the sixteen Personality Factor Questionnaire. Champaign, Illinois: Institute for Personality and Ability Testing, 1970.

Conrad, D. C. An empirical study of the concept of psychotherapeutic success. Journal of Consulting Psychology, 1952, 16, 92-97.

Cronbach, L. J. Essentials of psychological testing. 3rd ed., New York: Harper and Row, 1970.

Cronbach, L. J., & Meehl, P. E. Construct validity in psychological tests. Psychological Bulletin, 1955, 52, 281-302.

Crowne, D. P., & Marlowe, D. The approval motive: Studies in evaluative dependence. New York: Wiley, 1964.

Decharms, R., Levy, J., & Wertheimer, M. A note on attempted evaluations of psychotherapy. Journal of Clinical Psychology, 1954, 10, 232-235.

Duff, F. Item subtlety in personality inventory scales. Journal of Consulting Psychology, 1965, 29, 565-570.

Edwards, A. L. The social desirability variable in personality assessment and research. New York: Dryden, 1957.

Edwards, A. L. The social desirability variable: A review of the evidence. In I. A. Berg (Ed.) Response set in personality development, Chicago: Adline, 1967.

Erwin, E. Psychoanalytic therapy: The Eysenck argument. American Psychologist, 1980, 35, 435-443.

Eysenck, H. J. An exercise in mega-silliness. American Psychologist, 1978, 33, 517.

Eysenck, H. J. The effects of psychotherapy: An evaluation. Journal of Consulting Psychology, 1952, 16, 319-324.

Eysenck, H. J. The effects of psychotherapy. In H. J. Eysenck (Ed.) Handbook of abnormal psychology, New York: Basic Books, 1961.

Eysenck, H. J. The effects of psychotherapy. International Journal of Psychiatry, 1965, 1, 97-178.

Fey, W. F. Acceptance of self and others, and its relation to therapy-readiness. Journal of Clinical Psychology, 1954, 10, 269-271.

Fischer, E. H., & Turner, J. L. Orientations to seeking professional help: Development and research utility of an attitude scale. Journal of Consulting and Clinical Psychology, 1970, 35, 79-90.

Frank, J. D. Common features account for effectiveness. International Journal of Psychiatry, 1969, 7, 122-127.

Frank, J. D. Persuasion and healing: A comparative study of psychotherapy. (rev. ed.) Baltimore: John Hopkins Press, 1973.

Frank, J. D. Therapeutic components of psychotherapy: A 25-year progress report of research. Journal of Nervous and Mental Disorders, 1974, 159, 325-342.

Frank, J. D. Restoration of morale and behavior change. In A. Burton (Ed.) What makes behavior change possible? New York: Brunner/Mazel, 1976.

Frank, J. D. The present status of outcome studies. Journal of Consulting and Clinical Psychology, 1979, 47-2, 310-316.

Frey III, J., Heckel, R. V., Salzberg, H. C., & Wackwitz, J. Demographic variables as predictors of outcome in psychotherapy with children. Journal of Clinical Psychology, 1976, 32-3, 713-721.

Gallo, P. S., Jr. Meta-analysis -- A mixed meta-phor? American Psychologist, 1978, 33, 515-517.

Garfield, S. L. Psychotherapy: A 40-year appraisal. American Psychologist, 1981, 36, 174-183.

Garfield, S. L., & Bergin, A. E. (Eds.) Handbook of psychotherapy and behavior change: An empirical analysis. (2nd ed.) New York: Wiley, 1978.

Gliedman, J. J., Stone, A., Frank, J., Nash, E., & Imber, S. Incentives for treatment related to remaining or improving in psychotherapy. American Journal of Psychotherapy, 1957, 11, 589-598.

Goldberg, L. R., & Slovic, P. Importance of test item content: An analysis of a corollary of the deviation hypothesis. Journal of Counseling Psychology, 1967, 14, 462-472.

Goldfried, M. R. Toward the delineation of therapeutic change principles. American Psychologist, 1980, 35, 991-999.

Goldstein, A. P., & Shipman, W. G. Patient expectancies, symptom reduction, and aspects of the initial psychotherapeutic interview. Journal of Clinical Psychology, 1961, 129-133.

Gomes-Schwartz, B. Effective ingredients in psychotherapy: Prediction of outcome from process variables. Journal of Consulting and Clinical Psychology, 1978, 46, 1023-1035.

Gomes-Schwartz, B., Hadley, S. W., & Strupp, H. H. Individual psychotherapy and behavior change. Annual Review of Psychotherapy, 1978, 29, 435-471.

Gorsuch, R.L. Factor Analysis. W.B. Saunders Co., Toronto, 1974.

Gottschalk, L. A. A Hope Scale applicable to verbal samples. Archives of General Psychiatry, 1974, 30, 779-785.

Gottschalk, L. A., Mayerson, P., & Gottlieb, A. The prediction and evaluation of outcome in an emergency brief psychotherapy clinic. Journal of Nervous and Mental Disease, 1967, 144, 77-96.

Gough, H. C. The Adjective Check List as a personality assessment research technique. Psychological Reports, 1960, 6, 107-122.

Grant, J. D., & Grant, M. Q. "Therapy Readiness" as a research variable. Journal of Consulting Psychology, 1950, 14, 156-157.

Grigg, A. E. A validity test of self-ideal discrepancy. Journal of Clinical Psychology, 1959, 15, 311-313.

Gross, S. J. The myth of professional licensing. American Psychologist, 1978, 33, 1009-1016.

Haley, J. Problem-solving therapy. San Francisco: Jossey-Bass, 1976.

Hathaway, S. R., & McKinley, J. C. The Minnesota Multiphasic Personality Inventory. (rev.) New York: Psychological Corporation, 1951.

Heilbrun, A. B., Jr. Male and female personality correlates of early termination in counseling. Journal of Counseling Psychology, 1961, 8, 31-36.

Heilbrun, A. B., Jr. Psychological factors related to counseling readiness and implications for counselor behavior. Journal of Counseling Psychology, 1962, 9, 353-358.

Heilbrun, A. B., Jr. Further validation of a counseling readiness scale. Journal of Counseling Psychology, 1964, 11, 290-292.

Heilbrun, A. B., Jr., & Sullivan, O. J. The prediction of counseling readiness. Personnel and Guidance Journal, 1962, 41, 112-117.

Heitler, J. B. Preparatory techniques in initiating expressive psychotherapy with lower-class, unsophisticated patients. Psychological Bulletin, 1976, 83, 339-352.

Horn, J.L. On subjectivity in factor analysis. Educational and Psychological Measurement, 1967, 27-4, 811.

Horwitz, L. Clinical prediction in psychotherapy. New York: Aronson, 1974.

Humphreys, L.G., Ilgen, D., McGrath, D., & Montanelli, R. Capitalization on chance in rotation of factors. Educational and Psychological Measuerment, 1969, 29-2, 259.

Jackson, D. N. Personality Research Form Manual. Goshen, New York: Research Psychologists Press, 1967.

Jackson, D. N. Balanced scales, item overlap, and the Stables of Augeas. Educational and Psychological Measurement, 1967, 27, 502-507.

Jackson, D. N. A modern strategy for personality assessment: The Personality Research Form. London, Ontario: University of Western Ontario, Department of Psychology, 1966.

Jackson, D. N., & Messick, S. Response styles and the assessment of psychopathology. In S. Messick & J. Ross (Eds.) Measurement in personality and cognition. New York: Wiley, 1962, pp. 129-155.

Jackson, D. N., & Messick, S. Response styles on the M.M.P.I.: Comparison of clinical and normal samples. Journal of Abnormal and Social Psychology, 1962, 65, 285-299.

Kazdin, A. E. Nonspecific treatment factors in psychotherapy outcome research. Journal of Consulting and Clinical Psychology, 1979, 47-45, 846-851.

Keithly, L. J., Samples, S. J., & Strupp, H. H. Patient motivation as a predictor of process and outcome in psychotherapy. Psychotherapy and Psychosomatics, 1980, 33, 87-97.

Kelly, G. A. The psychology of personal constructs. Vols. 1 & 2, New York: Norton, 1955.

Kernberg, O. F., Bernstein, C. S., Coyne, R., Appelbaum, A., Horwitz, H., & Voth, T. J. Psychotherapy and psychoanalysis: Final report of the Menninger Foundation's psychotherapy research project. Bulletin of the Menninger Clinic, 1972, 36, 1-276.

Klopfer, B., Kirkner, F. J., Wisham, W., & Baker, G. Rorschach Prognostic Rating Scale. Journal of Projective Techniques, 1951, 15, 425-428.

Kuhn, T. S. The structure of scientific revolutions. (2nd ed.), Chicago: University of Chicago Press, 1970.

Lanyon, R. I., & Goodstein, L. D. The assessment of personality. New York: Wiley, 1972.

Lanyon, R. I. Development and validation of a psychological screening inventory. Journal of Consulting and Clinical Psychology Monograph, 1970, 35-1, (part 2), 1-24.

Littman, R. A. Motives, history and causes. In: Nebraska Symposium on Motivation. Lincoln: University of Nebraska Press, 1958, pp. 114-168.

Loevinger, J. Objective tests as instruments of psychological theory. Psychological Reports, 1957, 3, 635-694 (monograph no. 9).

Lorion, R. P. Social class, treatment attitudes, and expectations. Journal of Consulting and Clinical Psychology, 1974 a, 42, 920.

Lorion, R. P. Patient and therapist variables in the treatment of low-income patients. Psychological Bulletin, 1974 b, 81-6, 344-354.

Luborsky, L. A note on Eysenck's article, "The effects of psychotherapy: An evaluation". British Journal of Psychology, 1954, 45, 129-131.

Luborsky, L., Chandler, M., Auerbach, A. H., Cohen, J., & Bachrach, H. M. Factors influencing the outcome of psychotherapy: A review of quantitative research. Psychological Bulletin, 1971, 75, 145-185.

Luborsky, L., Mintz, J. Auerbach, M., Christoph, P., Bachrach, H., Todd, T., Johnson, M. Cohen, M., & O'Brien, P. Predicting the outcome of psychotherapy: Findings of the Penn Psychotherapy Project. Archives of General Psychiatry, 1980, 37, 471-481.

Madanes, C. Strategic family therapy. San Francisco: Jossey-Bass, 1981.

Madsen, K. B. Theories of motivation: A comparative study of modern theories of motivation. Copenhagen: Munksgaard, 1959.

Magnusson, D, & Endler, N.S. (eds.) Personality at the Crossroads: Current Issues in Interactional Psychology.

Malan, D. H. Toward the validation of dynamic psychotherapy: A replication. New York: Plenum, 1976.

Marshall, E. Psychotherapy faces test of worth. Science, 1980, 207, 35-36.

Meltzoff, J., & Kornreich, M. Research in psychotherapy. New York: Atherton, 1970.

Muench, G. A. An evaluation of non-directive psychotherapy by means of the Rorschach and other tests. Applied Psychology Monographs, 1947, 13, 1-163.

Newmark, C. S., Findelstein, M., & Frerking, R. A. Comparison of the predictive validity of two measures of psychotherapy prognosis. Journal of Personality Assessment, 1973, 38, 144-148.

Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K., & Brent, D. H. Statistical package for the social sciences. (2nd ed.) McGraw Hill, 1975.

Norman, W. T. Relative importance of test item content. Journal of Consulting Psychology, 1963, 27, 166-174.

Obendorf, C. Failures with psychoanalytic therapy. In P. H. Hock (Ed.), Failures in psychiatric treatment. New York: Grune & Stratton, 1948.

Obendorf, C. P., Greenacre, P., & Kubie, L. Symposium on the evaluation of therapeutic results. International Journal of Psychoanalysis, 1948, 29, 7-33.

Parloff, M. B. Shopping for the right therapy. Saturday Review, 1976, Feb. 21, pp. 14-16.

Parloff, M. B. Can psychotherapy research guide the policy maker? A little knowledge can be a dangerous thing. American Psychologist, 1979, 34, 296-306.

Peters, R. S. The concept of motivation. New York: Humanities Press, 1958.

Phillips, J. S., & Bierman, K. L. Clinical psychology: Individual methods. Annual Review of Psychology, 1981, 32, 405-438.

Reznikoff, M., Brady, J. P., & Zeller, W. W. The Psychiatric Attitudes Battery: A procedure for assessing attitudes toward psychiatric treatment and hospitals. Journal of Clinical Psychology, 1959, 15, 260-265.

Richert, A. J. Expectations, experiencing and change in psychotherapy. Journal of Clinical Psychology, 1976, 32, 438-444.

Rimland, B. Death knoll for psychotherapy? American Psychologist, 1979, 34, 192.

Rosenthal, D., & Frank, J. D. The fate of psychiatric clinic outpatients assigned to psychotherapy. Journal of Nervous and Mental Disease, 1958, 127, 330-343.

Rosenzweig, S. A transevaluation of psychotherapy -- A reply to Hans Eysenck. Jounal of Abnormal and Social Psychology, 1954, 49, 298-304.

Rounsaville, B. J., Weissman, M. M., & Prusoff, B. A. Psychotherapy with depressed outpatients: Patient and process variables as predictors of outcome. British Journal of Psychiatry, 1981, 138, 67-74.

Saltzman, C., Luetgert, M. J., Roth, C. H., Creaser, J., & Howard, L. Formation of a therapeutic relationship: Experiences during the initial phase of psychotherapy as predictors of treatment duration and outcome. Journal of Consulting and Clinical Psychology, 1976, 44, 546-555.

Sanford, N. Discussion of papers on measuring personality change. In H. Strupp and L. Luborsky (Eds.) Research in psychotherapy Vol. 2, Washington, D.C.: American Psychological Association, 1962.

Schroeder, P. Client acceptance of responsibility and difficulty of therapy. Journal of Consulting Psychology, 1960, 24, 467-471.

Siegel, N., & Fink, M. Motivation for psychotherapy. Comprehensive Psychiatry, 1962, 3, 170-173.

Sifneos, P. E. The motivational process: A selection and prognostic criterion of psychotherapy of short duration. Psychiatric Quarterly, 1968, 42, 271-279.

Sifneos, P. E. Change in patients' motivation for psychotherapy. American Journal of Psychiatry, 1971, 128, 718-721.

Sifneos, P. E. Evaluating the results of short-term anxiety-provoking psychotherapy. Psychotherapy Psychosomatic, 1975, 25, 217-220.

Silverman, S. The role of motivation in psychotherapeutic treatment. American Journal of Psychotherapy, 1964, 2, 212-229.

Sloane, R. B., Staples, F. R., Cristal, A. H., Yorkston, N. J., & Whipple, K. Psychotherapy versus behavior therapy. Cambridge, Mass.: Boston University Press, 1975.

Smith, M. L., & Glass, G. V. Meta-analysis of psychotherapy outcome studies. American Psychologist, 1977, 32, 752-760.

Smith, M. L., Glass, G. V., & Miller, T. I. The benefits of psychotherapy. The John Hopkins University Press, 1980.

Strahan, R. F. Six ways of looking at an elephant. American Psychologist, 1978, 33, 693.

Strupp, H. H., & Hadley, S. W. Specific vs. nonspecific factors in psychotherapy: A controlled study of outcome. Archives of General Psychiatry, 1979, 36, 1125-1136.

Strupp, H. H., Wallch, M. S., Wogan, M., & Jenkins, J. W. Psychotherapists: Assessments of former patients. Journal of Nervous and Mental Disease, 1963, 137, 222-230.

Tennov, D. Psychotherapy: The hazardous cure. New York: Abelard-Scheiman (Thomas Y. Crowell), 1975.

Torgerson, W. S. Theory and methods of scaling. New York: Wiley, 1958.

Tseng, W., & McDermott, J. F., Jr. Psychotherapy: Historical roots, universal elements and cultural variations. American Journal of Psychiatry, 1975, 132, 378-384.

Walker, C. E. The effect of eliminating offensive items on the reliability and validity of the M.M.P.I. Journal of Clinical Psychology, 1967, 23, 363-366.

Wiggins, J. S. Substantive dimensions of self-report in the M.M.P.I. item pool. Psychological Monographs, 1966, 80-22, Whole No. 630.

Wiggins, J. S. Personality and prediction: Principles of personality assessment. Philippines: Addison-Wesley, 1973.

++embed f=tables nosequence

Appendix A
Therapy Readiness Questionnaire

Answer each item by circling the number which best indicates how you feel/think. The numbers represent the same points from Strongly Agree. . . Strongly Disagree throughout the questionnaire. Do not leave out any questions.

	STRONGLY AGREE				DISAGREE		STRONGLY DISAGREE
1. I mostly do not remember my dreams.	1	2	3	4	5	6	7
2. I assume that my therapist will know more than me about solving personal problems.	1	2	3	4	5	6	7
3. I believe that my problems are, to a fair extent, my own making.	1	2	3	4	5	6	7
4. This really seems like a bad time in my life for a change.	1	2	3	4	5	6	7
5. I always try to be considerate of the feelings of my friends.	1	2	3	4	5	6	7
6. I often feel like I simply can't cope with all the hassles in my life.	1	2	3	4	5	6	7
7. A skilled therapist might be able to convince me to change my mind about some things.	1	2	3	4	5	6	7
8. My current problems are a lasting result of my childhood experience.	1	2	3	4	5	6	7
9. I expect therapy to involve many sessions.	1	2	3	4	5	6	7
10. I often take some responsibility for looking out for newcomers in a group.	1	2	3	4	5	6	7
11. I believe that my therapist will maintain strict confidentiality regarding our discussions.	1	2	3	4	5	6	7
12. I feel more satisfied with my life now than ever before.	1	2	3	4	5	6	7
13. I think I will require a very specific type of therapist.	1	2	3	4	5	6	7
14. I have some ideas about what changes I would like to make in my life.	1	2	3	4	5	6	7
15. In the long run humanity will owe a lot more to the teacher than to the salesman.	1	2	3	4	5	6	7
16. I think I probably spend less time than other people thinking about my life.	1	2	3	4	5	6	7
17. I believe that a therapist will be able to tell me the "secret formula" for the solution of my problems.	1	2	3	4	5	6	7
18. I would discuss my therapy with my family if they were interested.	1	2	3	4	5	6	7
19. I often make decisions that are based more upon what I can do so I will lose the least, than on what I can do to gain the most.	1	2	3	4	5	6	7
20. Nothing that happens to me makes much difference one way or the other.	1	2	3	4	5	6	7
21. I was under pressure from others to come into therapy.	1	2	3	4	5	6	7
22. Regardless of what I or my therapist might do, one cannot alter what is fate.	1	2	3	4	5	6	7
23. I think therapy will be a shared responsibility between myself and my therapist.	1	2	3	4	5	6	7
24. It is more important what one does than what one feels about what one does.	1	2	3	4	5	6	7
25. I have a number of health problems.	1	2	3	4	5	6	7

		TRONGLY AGREE			AGREE		ISAGREE	TRONGLY ISAGREE
26.	I expect my therapist to help me to uncover things about myself, about which I am now unaware.	1	2	3	4	5	6	7
27.	I am ashamed of elements of my past.	1	2	3	4	5	6	7
28.	At times I am afraid to let others know what I am really feeling.	1	2	3	4	5	6	7
29.	I'd rather be safe than sorry when it comes to personal risks.	1	2	3	4	5	6	7
30.	I often have the feeling that I am doing something evil	1	2	3	4	5	6	7
31.	I feel that therapy is/will be one of the most important things I have done in my life.	1	2	3	4	5	6	7
32.	I believe that my problems are mostly due to other people and circumstances.	1	2	3	4	5	6	7
33.	It's very important to me that I change something about the way my life is going right now.	1	2	3	4	5	6	7
34.	No one can really make me change -- I have to want to change.	1	2	3	4	5	6	7
35.	I am seldom ill.	1	2	3	4	5	6	7
36.	It is probably best not to know everything about oneself.	1	2	3	4	5	6	7
37.	I don't think my therapist could possibly be wiser than me.	1	2	3	4	5	6	7
38.	I can pinpoint an event which led to my decision to seek therapy.	1	2	3	4	5	6	7
39.	Therapy involvement is a sign of personal weakness.	1	2	3	4	5	6	7
40.	I almost always feel sleepy and lazy.	1	2	3	4	5	6	7
41.	I feel quite content with the way I am now.	1	2	3	4	5	6	7
42.	I would willingly confide intimate matters to a therapist if I thought it might help me.	1	2	3	4	5	6	7
43.	I don't really believe anyone can be of help to me -- I have to do it all on my own.	1	2	3	4	5	6	7
44.	There are books I can buy which would eliminate the need for a therapist.	1	2	3	4	5	6	7
45.	My memory is as good as other people's.	1	2	3	4	5	6	7
46.	The problems I want to talk about in therapy are of relatively recent origin	1	2	3	4	5	6	7
47.	I sometimes like to do things in a new way just for the different experience.	1	2	3	4	5	6	7
48.	A lot of talking about one's feelings and problems just makes things worse.	1	2	3	4	5	6	7
49.	If a fee was charged for therapy I would be willing to pay.	1	2	3	4	5	6	7
50.	I am not willing to give up my own privacy or pleasure in order to help other people.	1	2	3	4	5	6	7
51.	What I choose to do can determine what my life will be like.	1	2	3	4	5	6	7
52.	I feel more confusion now than just about any other time in my life.	1	2	3	4	5	6	7

		STRONGLY AGREE		AGREE		DISAGREE		STRONGLY DISAGREE
53.	I feel uneasy about seeing a therapist because of what some people would think.	1	2	3	4	5	6	7
54.	I insist on knowing the details of my therapists' personal life if I am to work with him/her.	1	2	3	4	5	6	7
55.	Most of my teachers were helpful.	1	2	3	4	5	6	7
56.	There are experiences in my life that I would not discuss with anyone.	1	2	3	4	5	6	7
57.	I expect that therapy will be quite uncomfortable at times.	1	2	3	4	5	6	7
58.	I usually act the way I do because other people make me act that way.	1	2	3	4	5	6	7
59.	I believe that a therapist will be able to help me solve my problems.	1	2	3	4	5	6	7
60.	We ought to let the rest of the world solve their own problems and just look out after ourselves.	1	2	3	4	5	6	7
61.	A lot of things seem to be changing in my life now.	1	2	3	4	5	6	7
62.	A person with an emotional problem sometimes might not solve it alone; s/he is likely to resolve it with professional help.	1	2	3	4	5	6	7
63.	I should not postpone leading my life the way I want to.	1	2	3	4	5	6	7
64.	I don't expect to feel better when I've finished therapy	1	2	3	4	5	6	7
65.	My life is full of interesting activities.	1	2	3	4	5	6	7
66.	I think that heredity has played the most important role in determining what I am like.	1	2	3	4	5	6	7
67.	I am generally afraid to try new things.	1	2	3	4	5	6	7
68.	At times I am afraid to admit to myself what I am really feeling.	1	2	3	4	5	6	7
69.	Keeping one's mind on a job is the best solution for taking care of personal worries and concerns.	1	2	3	4	5	6	7
70.	I often question whether life is worthwhile.	1	2	3	4	5	6	7
71.	I have/had already tried some ways of helping myself before coming in for therapy.	1	2	3	4	5	6	7
72.	I am afraid that a therapist will know many things about me that I do not.	1	2	3	4	5	6	7
73.	A lack of physical exercise is often at the root of emotional problems.	1	2	3	4	5	6	7
74.	I feel that I am not in control of my life.	1	2	3	4	5	6	7
75.	I am able to make correct decisions on difficult questions.	1	2	3	4	5	6	7
76.	I would willingly confide intimate matters to a therapist if I thought it might help someone I care about.	1	2	3	4	5	6	7
77.	I am optimistic that the outcome of my therapy will be positive.	1	2	3	4	5	6	7
78.	I prefer not to be observed by others while awaiting my therapy session.	1	2	3	4	5	6	7
79.	I believe that I am now as effective a person as I will ever be.	1	2	3	4	5	6	7
80.	I believe people tell lies any time it is to their advantage.	1	2	3	4	5	6	7

		STRONGLY AGREE						STRONGLY DISAGREE
81.	I would be prepared to make big changes in my life situation (e.g., move, change jobs, etc.) if it seemed important in therapy.	1	2	3	4	5	6	7
82.	I believe that my problems are mostly due to circumstances beyond my control	1	2	3	4	5	6	7
83.	I have a lot of difficulty developing trust in others.	1	2	3	4	5	6	7
84.	I feel more emotional pain now than just about any other time in my life.	1	2	3	4	5	6	7
85.	Rarely, if ever, has the sight of food made me ill.	1	2	3	4	5	6	7
86.	I would discuss my therapy with my friends if they were interested.	1	2	3	4	5	6	7
87.	I have known exactly what needs to be done for my life to be better for quite a long time already.	1	2	3	4	5	6	7
88.	I believe that the solution of my problems will depend mostly on other people or circumstances.	1	2	3	4	5	6	7
89.	It's important to me that my therapist get to know me well, in order for me to work with him/her.	1	2	3	4	5	6	7
90.	I find it very difficult to concentrate.	1	2	3	4	5	6	7
91.	I expect to be a different person after therapy.	1	2	3	4	5	6	7
92.	I believe that the important people in my life will support the changes I want to make.	1	2	3	4	5	6	7
93.	I have no idea at all what changes I'd need to make in myself to feel better.	1	2	3	4	5	6	7
94.	There are certain problems which should not be discussed or shared with anyone.	1	2	3	4	5	6	7
95.	I am always prepared to do what is expected of me.	1	2	3	4	5	6	7
96.	I consider myself someone who is willing to take risks at times.	1	2	3	4	5	6	7
97.	Emotional difficulties tend to work out by themselves.	1	2	3	4	5	6	7
98.	I believe that personal misfortune is a punishment for a sinful life.	1	2	3	4	5	6	7
99.	No one can really make another person change -- they have to want to.	1	2	3	4	5	6	7
100.	Many things make me feel uneasy.	1	2	3	4	5	6	7
101.	If my therapist gave me homework assignments to do between sessions, I would have the time to do them.	1	2	3	4	5	6	7
102.	A skilled therapist could trick me into changing even if I didn't want to.	1	2	3	4	5	6	7
103.	I want to know myself as deeply as possible.	1	2	3	4	5	6	7
104.	I believe that emotional feelings only get in the way of solving personal problems.	1	2	3	4	5	6	7
105.	There are certain problems which should not be discussed outside of one's immediate family.	1	2	3	4	5	6	7
106.	A person with a strong character can get over mental conflicts by him/herself, and would have little need of a therapist.	1	2	3	4	5	6	7
107.	I am willing to look at the possibility that some of the ways I have "always done things" has contributed to my problems.	1	2	3	4	5	6	7

	STRONGLY AGREE		AGREE		DISAGREE		STRONGLY DISAGREE
108. I feel that only a therapist near to my own age will be effective for me.	1	2	3	4	5	6	7
109. I was forced to come to therapy against my will.	1	2	3	4	5	6	7
110. I feel like things are falling apart in my life.	1	2	3	4	5	6	7
111. There is something admirable in the attitude of a person who is willing to cope with his/her conflicts and fears without resorting to professional help.	1	2	3	4	5	6	7
112. I expect to be somewhat changed after therapy.	1	2	3	4	5	6	7

Appendix B

Covering Letter to Introductory Psychology Student Subjects

Dear Participant:

This is a study to help to develop a questionnaire to be administered to people initially presenting themselves for counseling or psychotherapy. If you have never been in counseling or psychotherapy, what I would ask you to do is to answer these questions the way you imagine you would if you were in the situation of seeking counseling or psychotherapy. If you have had counseling or psychotherapy, what I would ask you to do is to answer these questions the way you would have just before you began therapy. Of course your answers to these questions are anonymous and confidential.

As you read each question, you might find it helpful to ask youself (cue yourself with) "how would I feel/think if I were now seeking therapy?".

Age:

Sex:

Have you ever been in psychotherapy/counseling? _____ (yes/no)

After you turn in the questionnaire, if you would be interested in receiving a brief description of the general results of the study (i.e., not your personal results), there will be address labels at the front of the room, on which you should provide your mailing address.

Thank you for your participation,

Sincerely,

Appendix C

Covering Letter to P.S.C. Clients

Dear P.S.C. Client,

The attached questionnaire is part of a study to find out what thoughts, feelings, and related attitudes clients have when coming for counseling or psychotherapy. There are no "right" or "wrong" answers; it is your feelings and thoughts that are important here. What I would ask you to do is to take approximately 15 minutes of your time to answer the questions. Please answer the questions based on how you feel or think at this time.

Of course your answers to these questions will be treated confidentially. This means that scores will only be used in group form, and no one individual's scores will be examined. Your identity will remain anonymous.

Your therapist will be asked some questions about you too, because I am also interested in seeing what his/her perceptions are. Your therapist will definitely not see your questionnaire. Of course the service you receive here is in no way related to whether you choose to complete the questionnaire to help with this study, nor will your service be related to how you answer the questions.

After you turn in the questionnaire, if you would be interested in receiving a brief description of the general results (i.e., not your personal results), there will be address labels at the front desk on which you should provide your mailing address.

Thank you for your participation. I think you will find the questions interesting. You can drop off the questionnaires at the front desk the next time you come in.

Sincerely,

Cliff Berish
Graduate Student in Clinical Psychology
John R. Schallow, Ph.D.
Director of Clinical Training

Age: _____

Sex: M/F (circle)

Date: _____

Approximate time in therapy:

_____ years _____ months _____ weeks

Approximate number of sessions to date:

_____

Appendix D

Covering Letter to Counseling Centre Clients

Dear Counseling Center Client,

This questionnaire is part of a study being conducted to find out what thoughts, feelings, and related attitudes clients have when coming for counseling. There are no "right" or "wrong" answers, it is your feelings and thoughts that are important here. What I would ask you to do is to take approximately 15 minutes of your time to answer the questions. Please answer the questions based on how you feel or think at this time.

Of course your answers to these questions will be treated confidentially. This means that scores will only be used in group form, and no one individual's scores will be examined. Your identity will remain anonymous.

Your counselor will be asked some questions about you too, because I am also interested in seeing what his/her perceptions are. Your counselor will definitely not see your questionnaire. Of course the service you receive here is in no way related to whether you choose to complete the questionnaire to help with this study, nor will your service be related to how you answer the questions.

After you turn in the questionnaire, if you would be interested in receiving a brief description of the general results of the study (i.e., not your personal results), there will be address labels at the front desk on which you should provide your mailing address.

Please note that the questionnaire was originally designed for use in a more clinical setting. Hence, the terms "therapy" and "therapist" are present throughout the questionnaire. When you see these terms please merely substitute the words "counseling" and "counselor" for them in your mind.

Thank you for your participation. I think you will find the questions interesting. You can drop off the questionnaires at the front desk the next time you come in.

Sincerely,

Cliff Berish
Graduate Student in Clinical Psychology
John R. Schallow, Ph.D.
Director of Clinical Training

Age _____

Sex: M/F (circle)

Approximate time in counseling:

_____ years _____ months _____ weeks

Approximate number of sessions to date:

_____

Appendix E

Covering Letter to Therapists & Rating Scales

Dear Counselor/Therapist,

Thank you for taking the time to participate in this research. I am basically trying to validate a questionnaire I have constructed, which is designed to measure a client's readiness for therapy (change). As a preliminary step, and the one you have been asked to help in, I am interested in seeing how the questionnaire your client/s has/have filled out will relate to some ratings I will ask you to make about your client/s. The rating scales shouldn't take you more than 5 minutes per client.

Naturally, your ratings will be treated totally confidentially, as will the questionnaires completed by clients. If you are interested in the general results of the investigation, there will be address labels at the front desk, on which you should provide your mailing address.

You can drop off the ratings at the front desk. Thanks again for your cooperation. If you're rating more than 1 client you may find it helpful to put the client's initials on this form so you will remember which form is for which client.

Sincerely,

Cliff Berish

Your: Age: _____ Approx. length of experience

Sex: M/F (circle)

_____ years _____ months

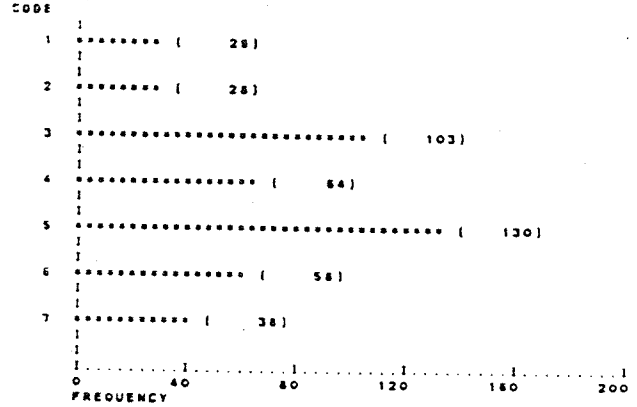
orientation: _____

I would rate this client's desire to change him/herself as:	1. very high	2.	3. high	4.	5. low	6.	7. very low
I would predict the likely outcome in therapy with this client will be:	1. very negative	2.	3. negative	4.	5. positive	6.	7. very positive
I would rate this client's readiness to become involved in a therapeutic relationship as:	1. very low	2.	3. low	4.	5. high	6.	7. very high
I would rate my personal satisfaction from working with this client as:	1. very high	2.	3. high	4.	5. low	6.	7. very low

Appendix F

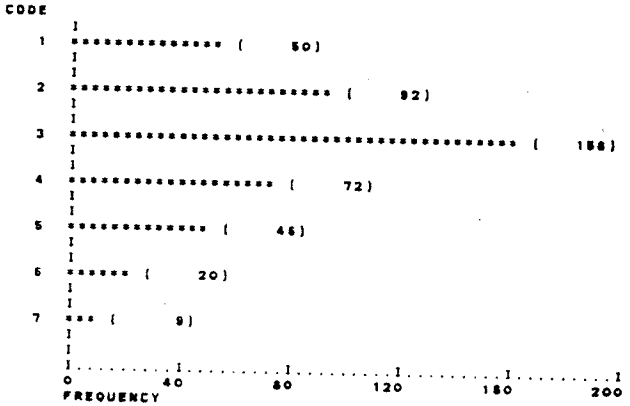
Item Endorsement Frequency Histograms

R1



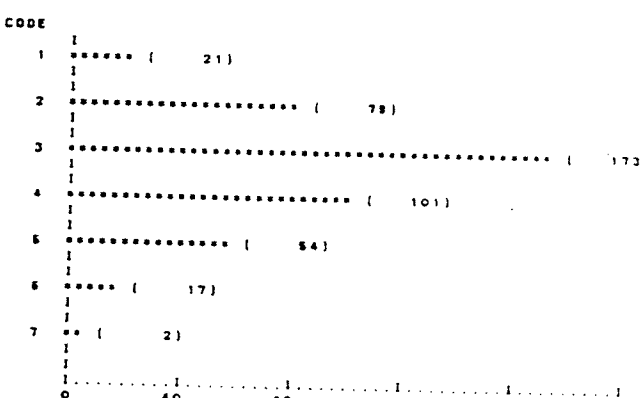
VALID CASES 450 MISSING CASES 0

R2



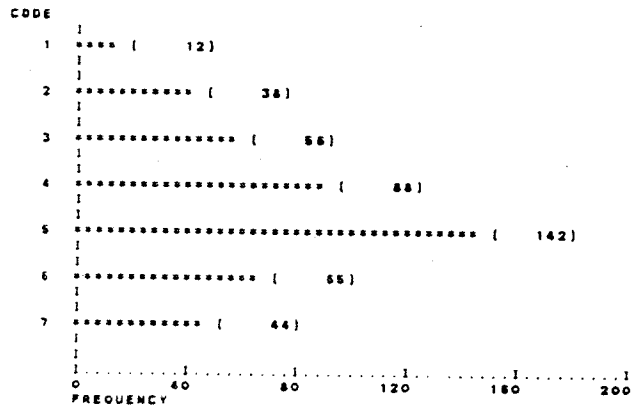
VALID CASES 447 MISSING CASES 3

R3



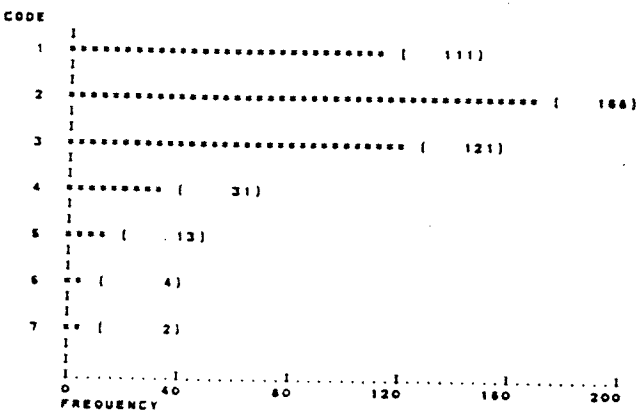
VALID CASES 447 MISSING CASES 3

R4



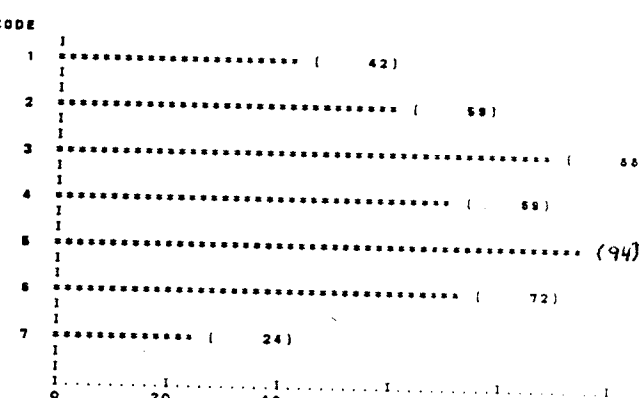
VALID CASES 445 MISSING CASES 5

R5



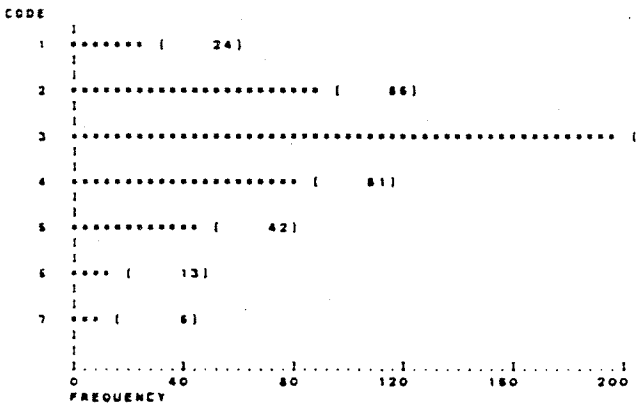
VALID CASES 450 MISSING CASES 0

R6



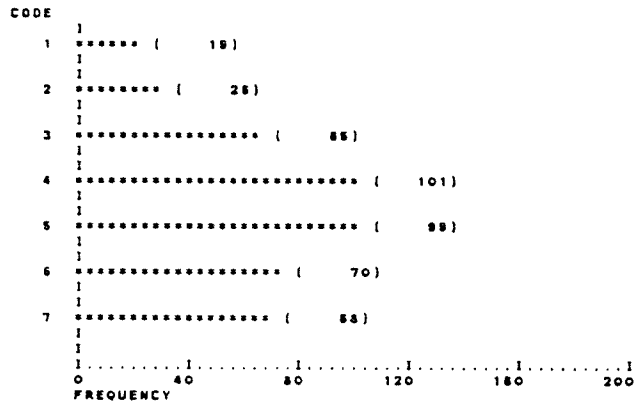
VALID CASES 448 MISSING CASES 2

R7



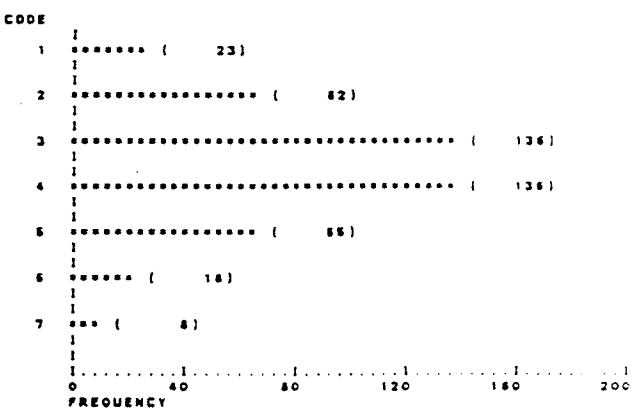
VALID CASES 448 MISSING CASES 1

R8



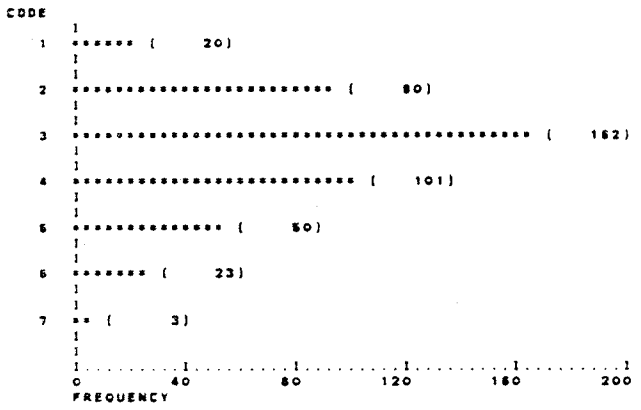
VALID CASES 448 MISSING CASES 2

R9



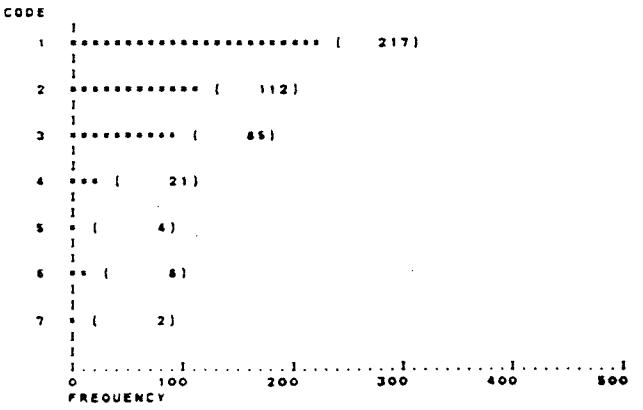
VALID CASES 448 MISSING CASES 2

R10



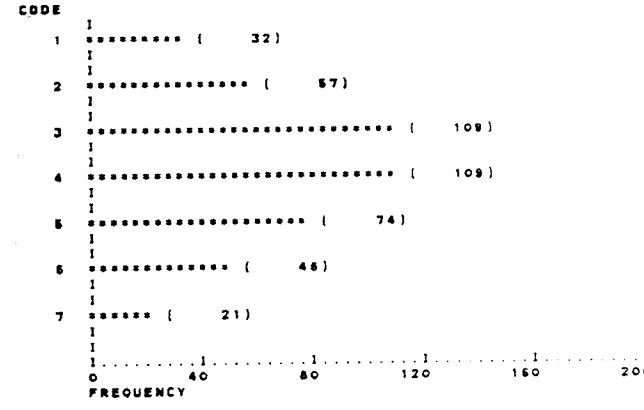
VALID CASES 449 MISSING CASES 1

R11



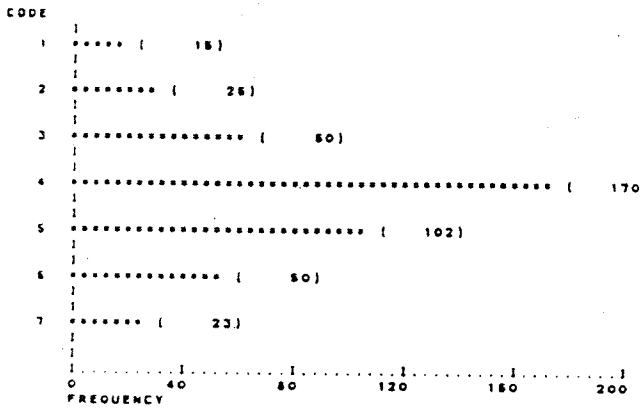
VALID CASES 449 MISSING CASES 1

R12



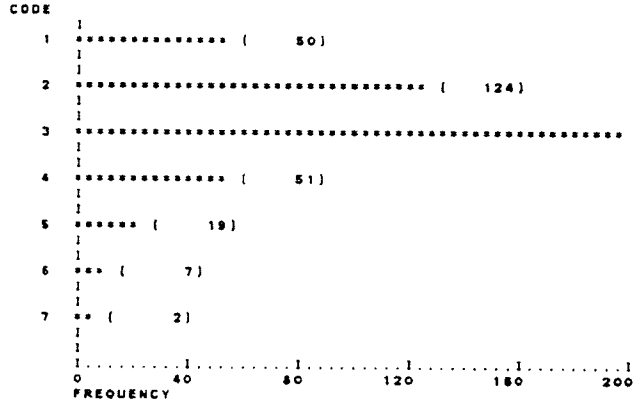
VALID CASES 448 MISSING CASES 2

R13



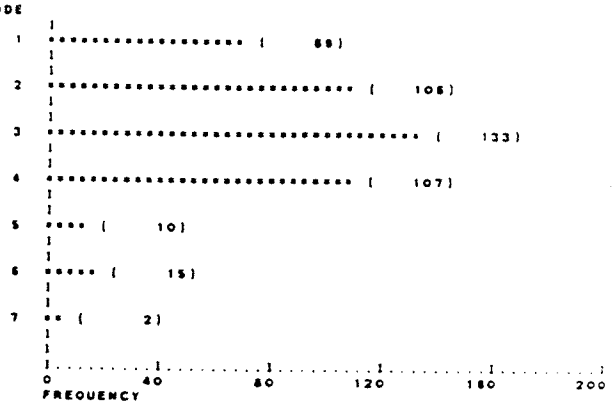
VALID CASES 446 MISSING CASES 4

R14



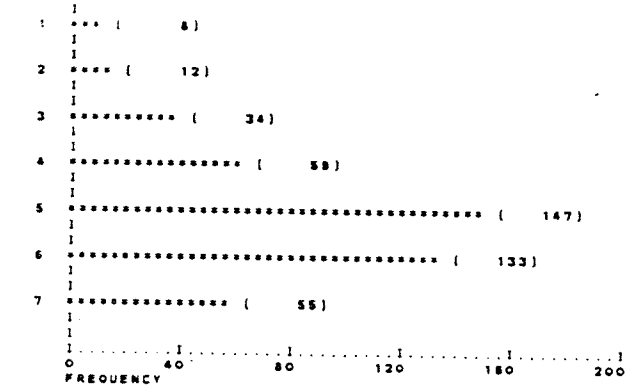
VALID CASES 448 MISSING CASES 2

R15



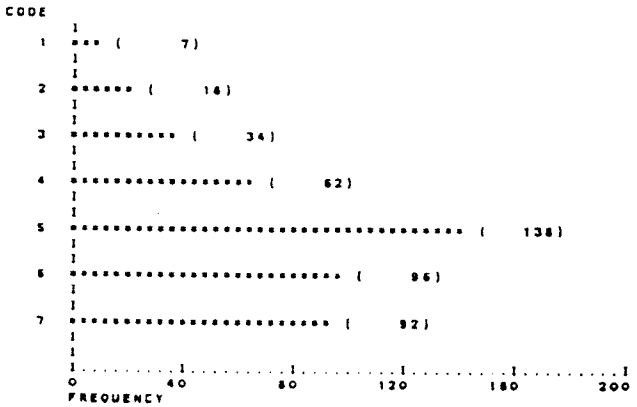
VALID CASES 442 MISSING CASES 8

R16



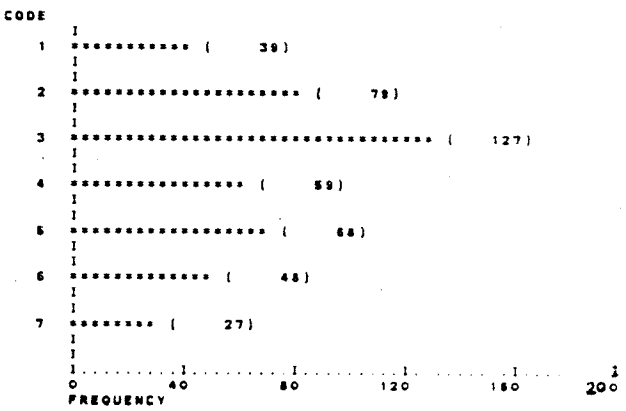
VALID CASES 448 MISSING CASES 2

R17



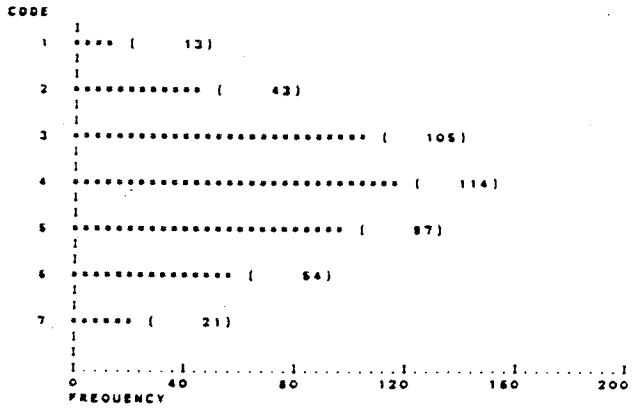
VALID CASES 447 MISSING CASES 3

R18



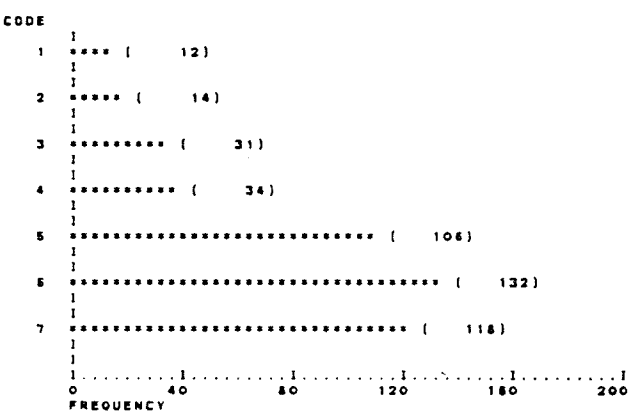
VALID CASES 447 MISSING CASES 3

R19



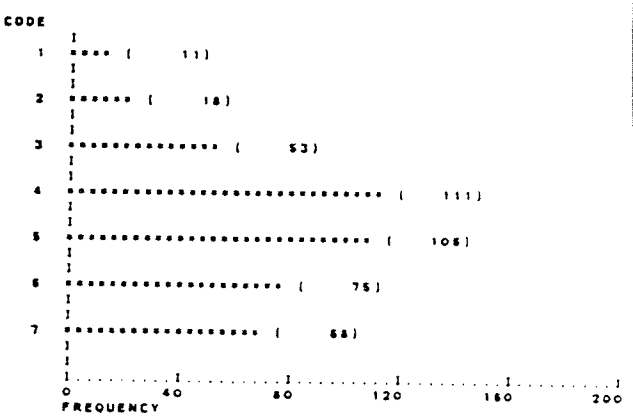
VALID CASES 447 MISSING CASES 3

R20



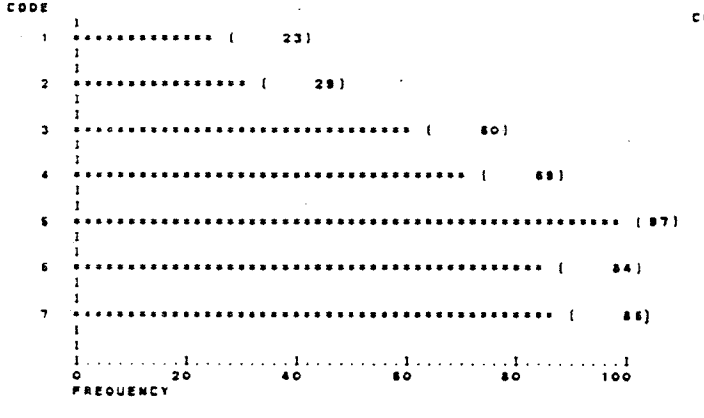
VALID CASES 447 MISSING CASES 3

R21



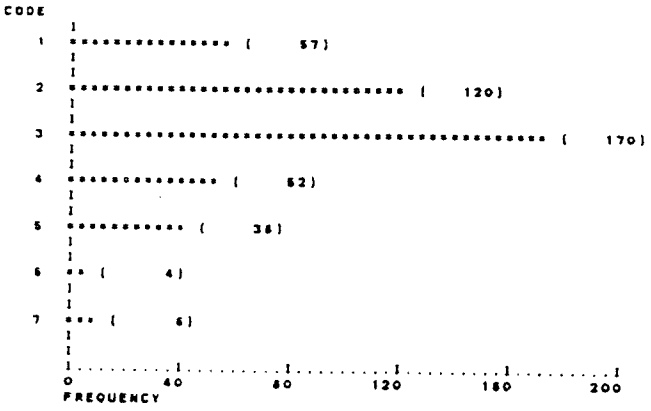
VALID CASES 442 MISSING CASES 8

R22



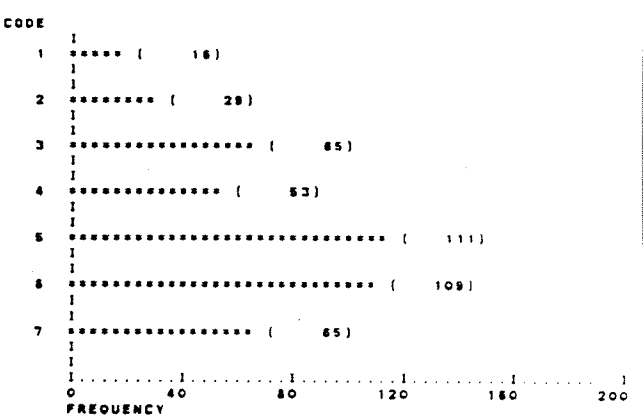
VALID CASES 448 MISSING CASES 2

R23



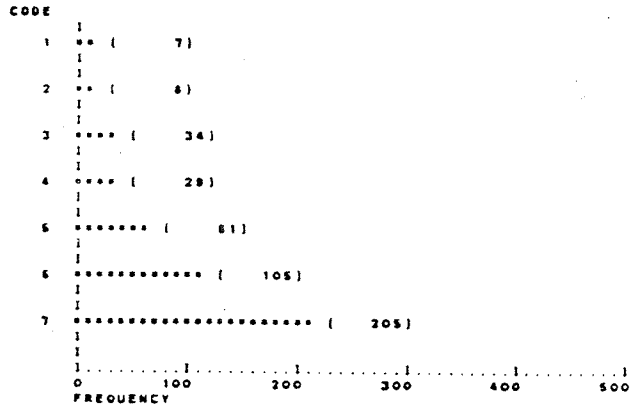
VALID CASES 447 MISSING CASES 3

R24



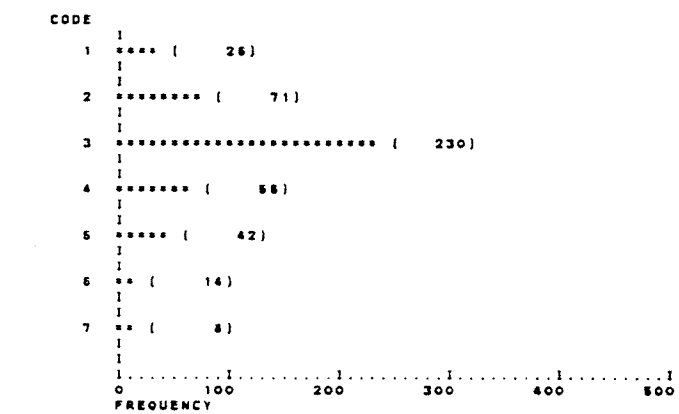
VALID CASES 448 MISSING CASES 2

R25



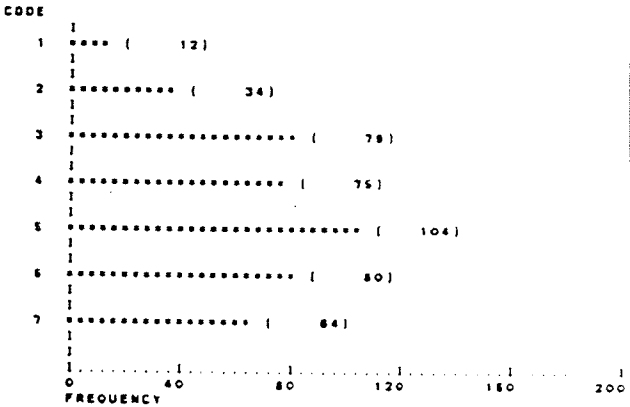
VALID CASES 448 MISSING CASES 1

R26



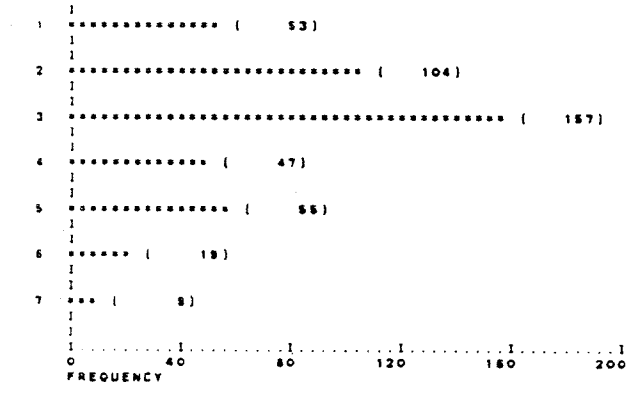
VALID CASES 447 MISSING CASES 3

R27



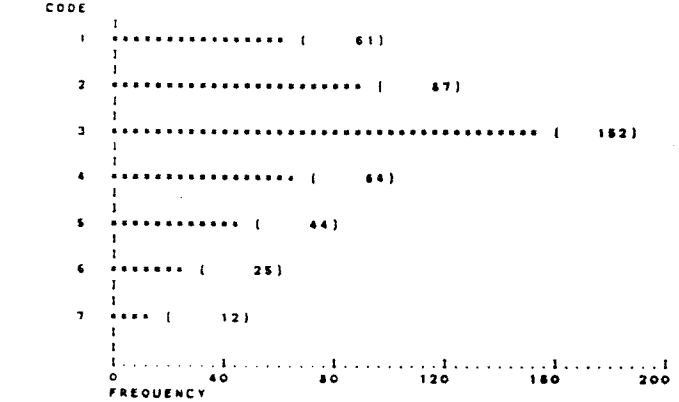
VALID CASES 448 MISSING CASES 2

R28



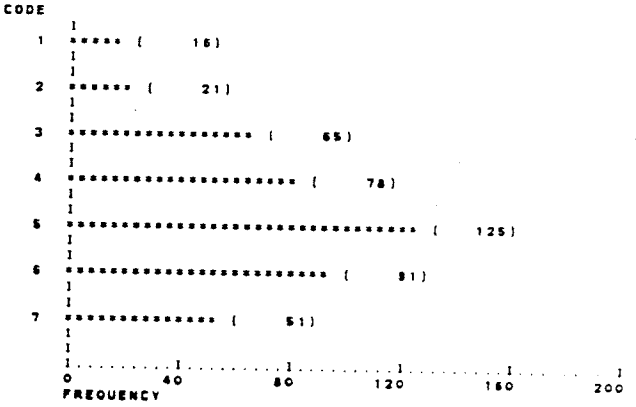
VALID CASES 444 MISSING CASES 6

R29



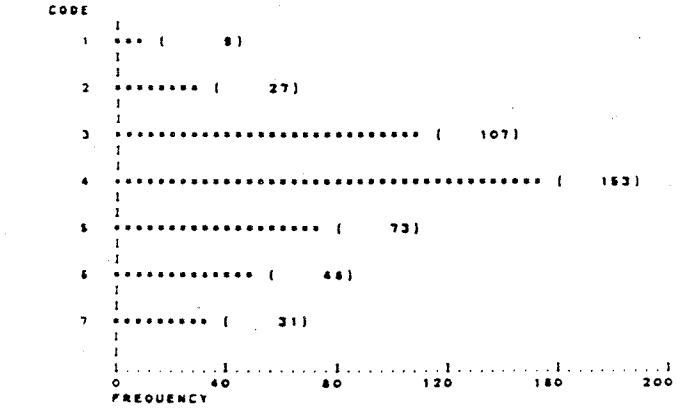
VALID CASES 445 MISSING CASES 5

R30



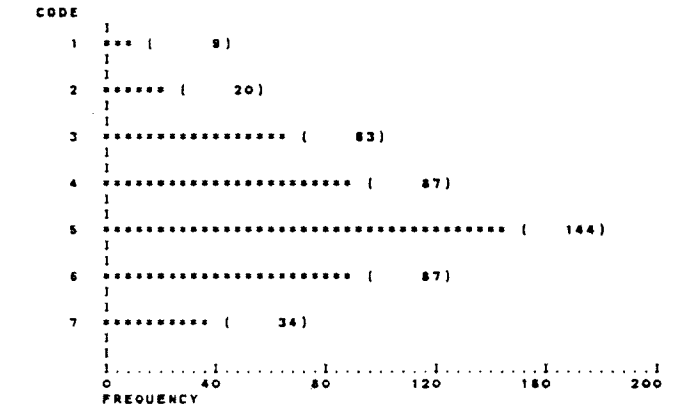
VALID CASES 447 MISSING CASES 3

R31



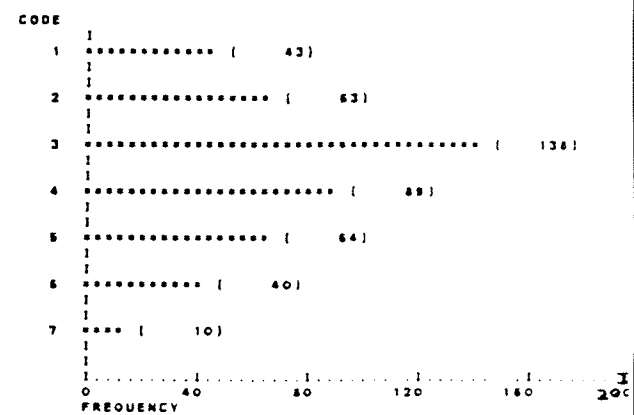
VALID CASES 446 MISSING CASES 4

R32



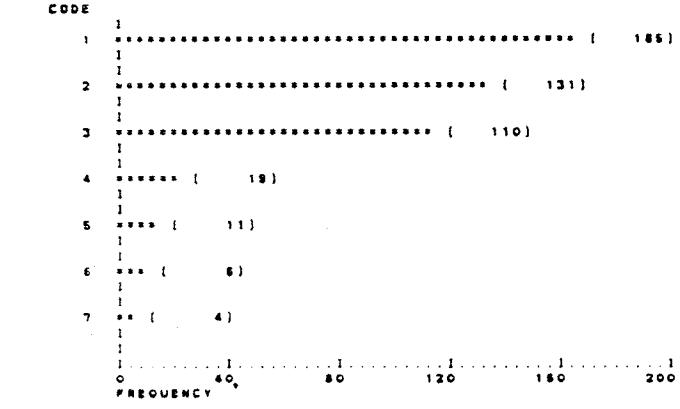
VALID CASES 444 MISSING CASES 6

R33



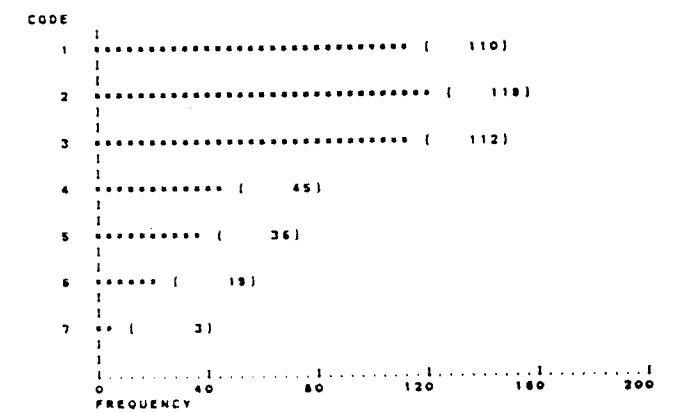
VALID CASES 447 MISSING CASES 3

R34



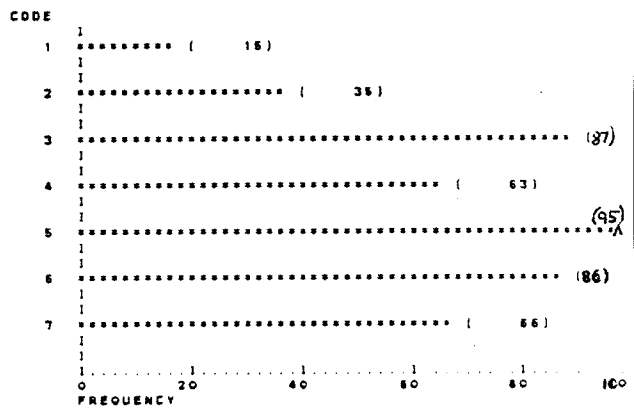
VALID CASES 446 MISSING CASES 4

R35



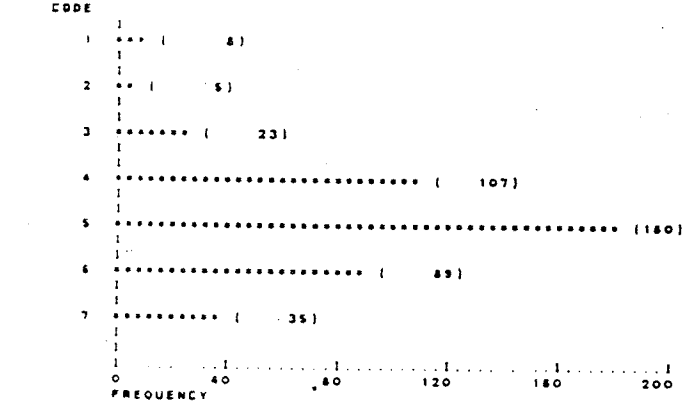
VALID CASES 444 MISSING CASES 6

R36



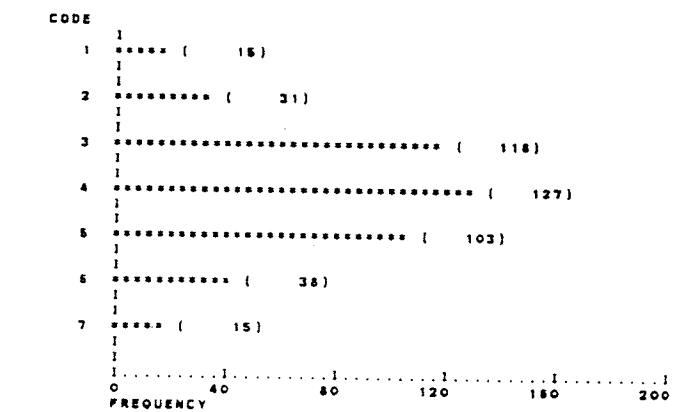
VALID CASES 447 MISSING CASES 3

R37



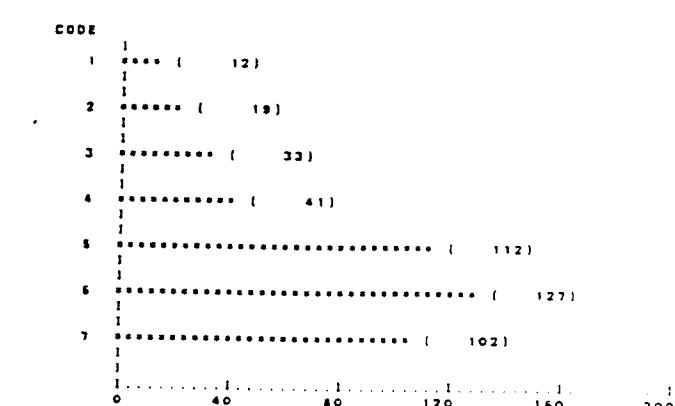
VALID CASES 447 MISSING CASES 3

R38



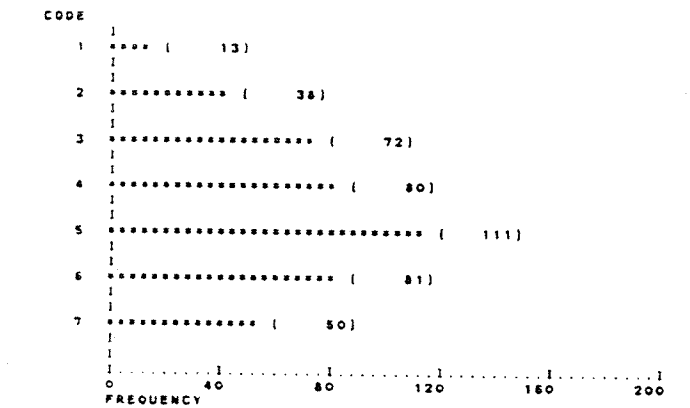
VALID CASES 445 MISSING CASES 5

R39



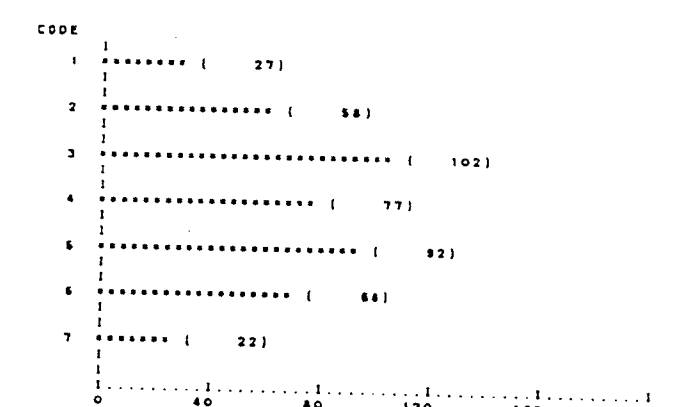
VALID CASES 446 MISSING CASES 4

R40



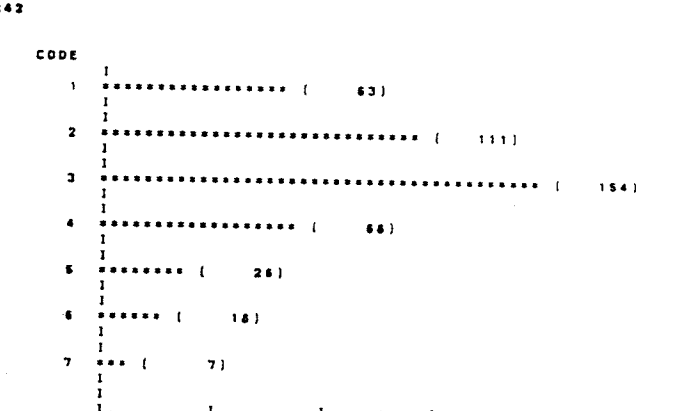
VALID CASES 445 MISSING CASES 5

R41



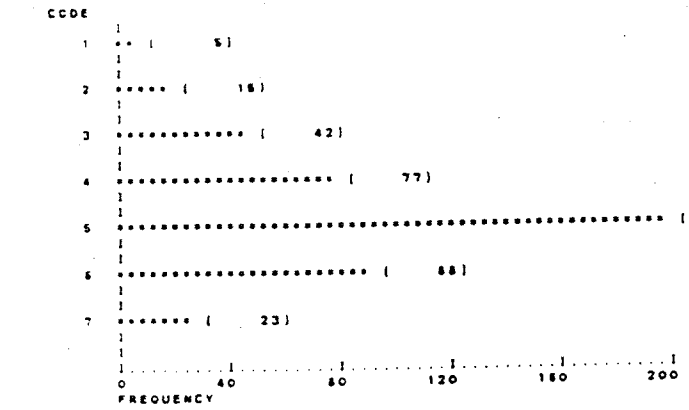
VALID CASES 446 MISSING CASES 4

R42



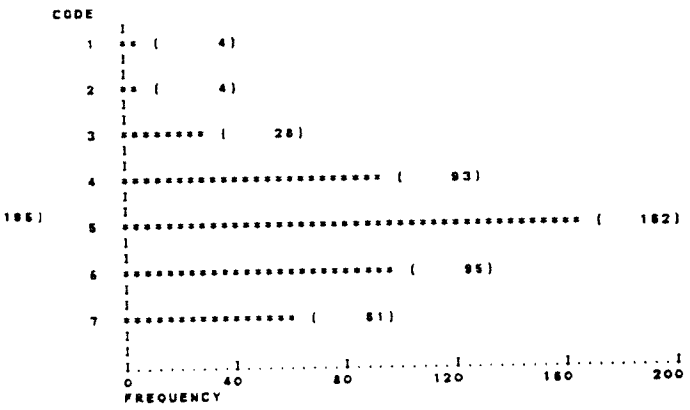
VALID CASES 447 MISSING CASES 3

R43



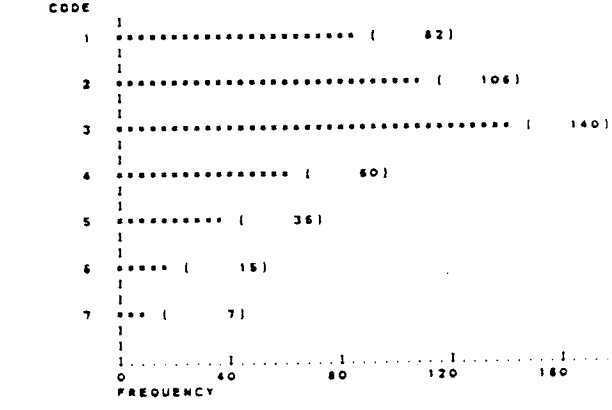
VALID CASES 445 MISSING CASES 5

R44



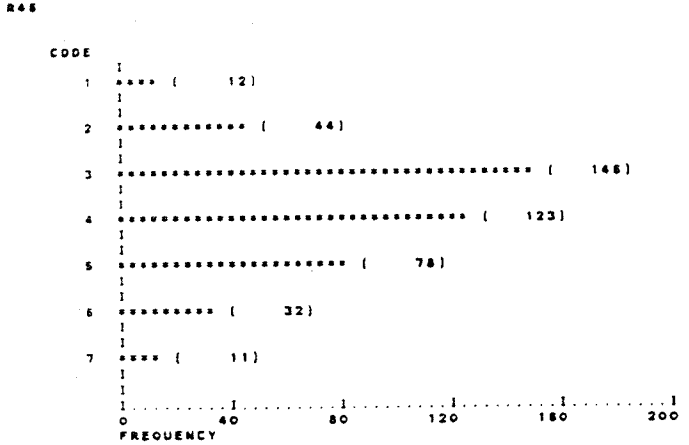
VALID CASES 447 MISSING CASES 3

R45



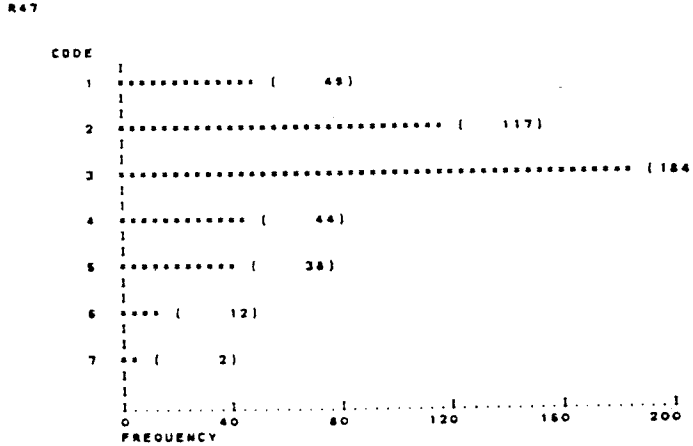
VALID CASES 446 MISSING CASES 4

R46



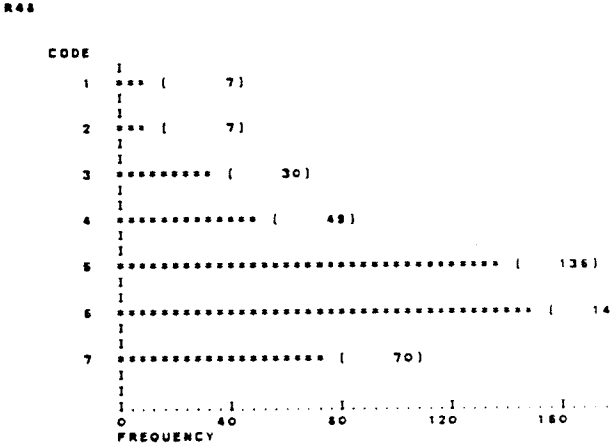
VALID CASES 446 MISSING CASES 4

R47



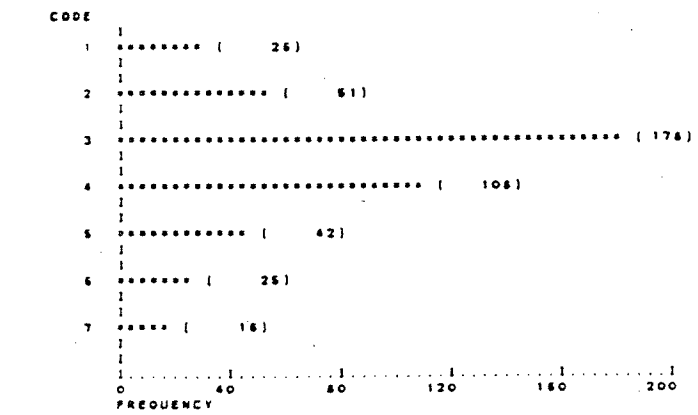
VALID CASES 446 MISSING CASES 4

R48



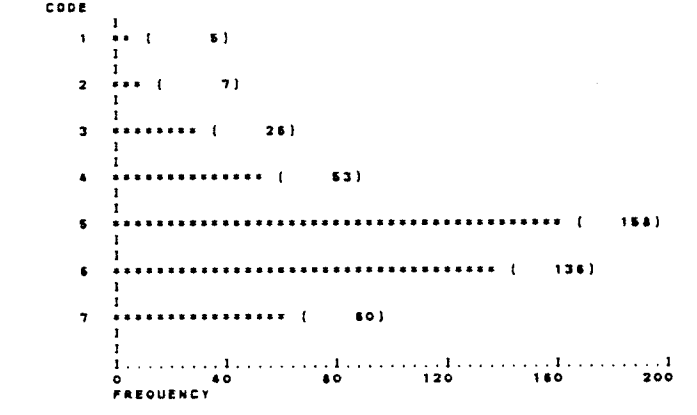
VALID CASES 446 MISSING CASES 4

R48



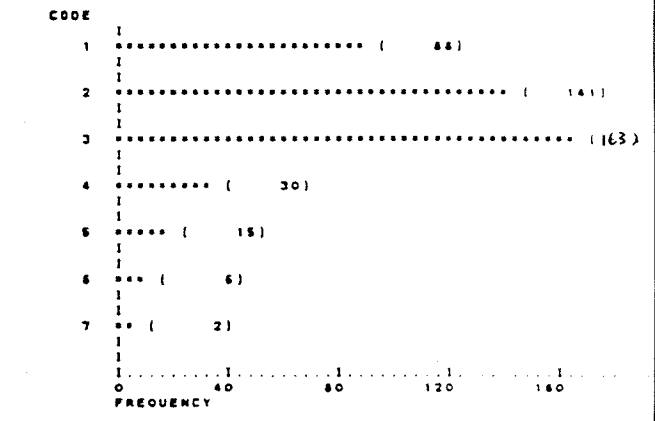
VALID CASES 446 MISSING CASES 4

R49



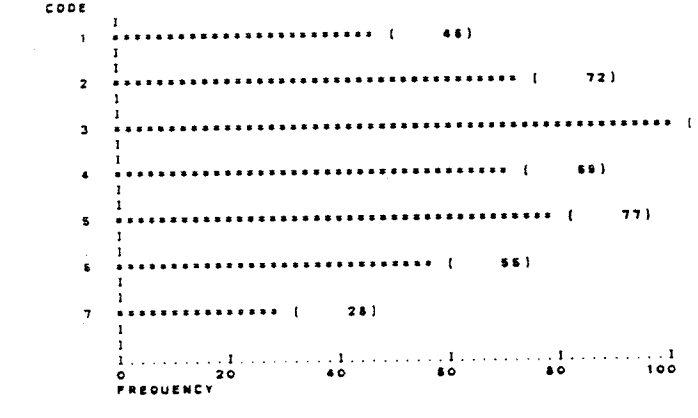
VALID CASES 445 MISSING CASES 5

R51



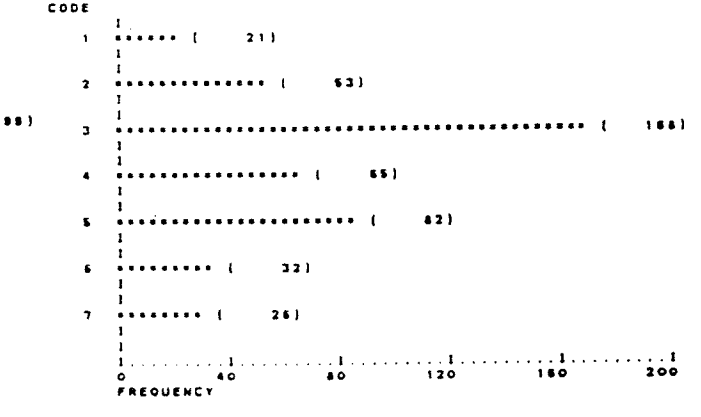
VALID CASES 445 MISSING CASES 5

R52



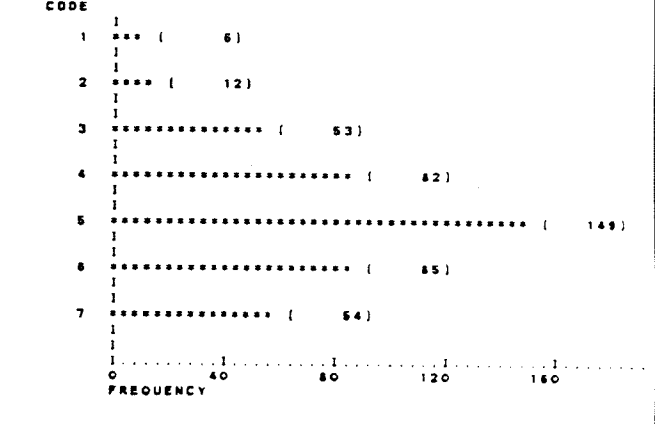
VALID CASES 446 MISSING CASES 4

R53



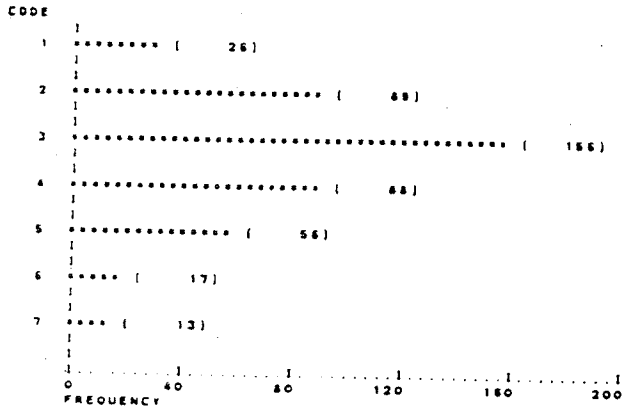
VALID CASES 447 MISSING CASES 3

R54



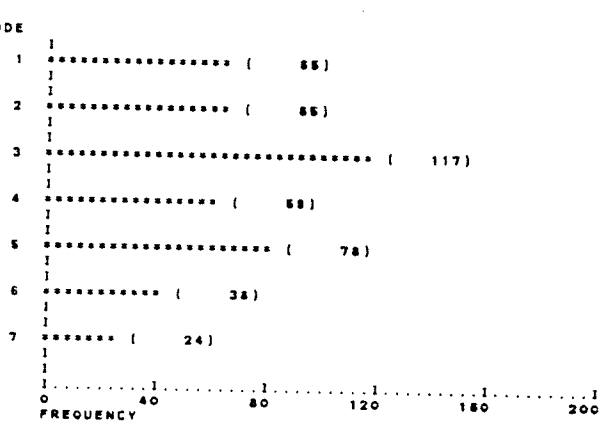
VALID CASES 441 MISSING CASES 9

R55



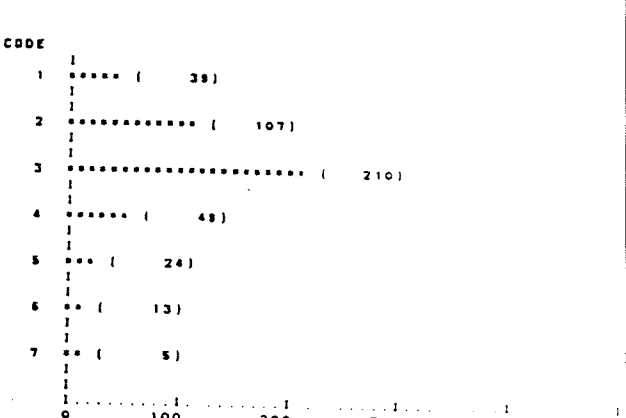
VALID CASES 445 MISSING CASES 5

R56



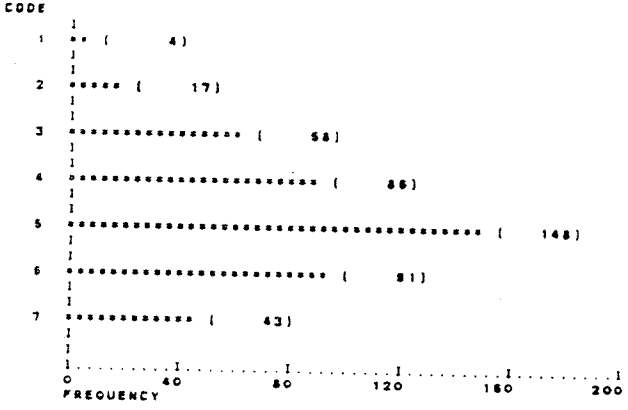
VALID CASES 446 MISSING CASES 4

R57



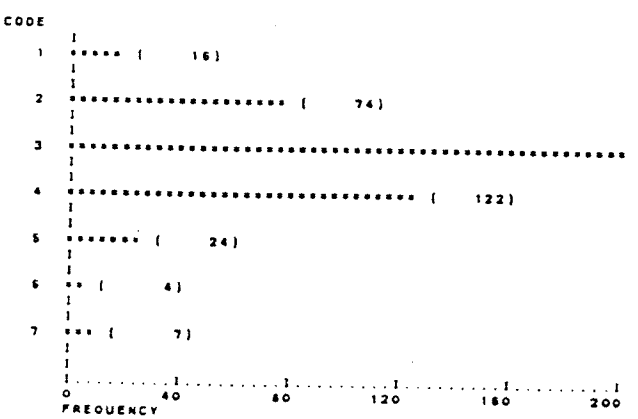
VALID CASES 447 MISSING CASES 3

R58



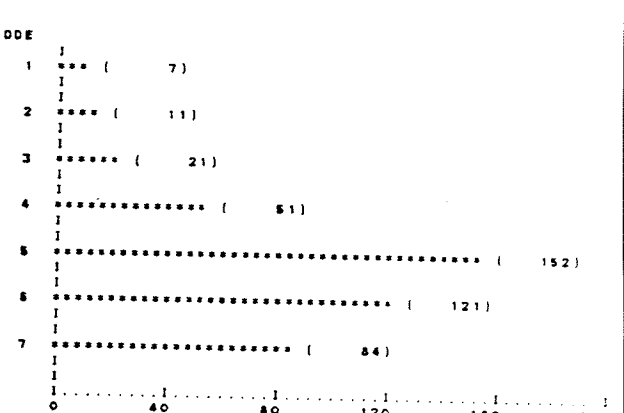
VALID CASES 447 MISSING CASES 3

R59



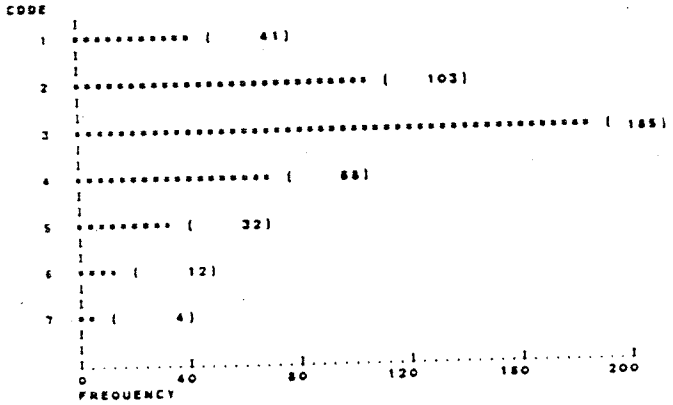
VALID CASES 447 MISSING CASES 3

R60



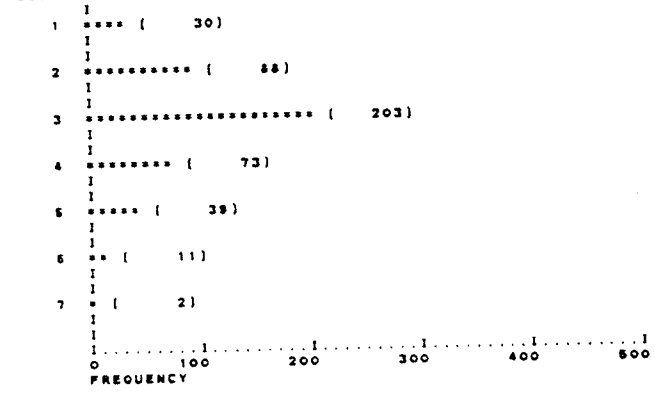
VALID CASES 447 MISSING CASES 3

R61



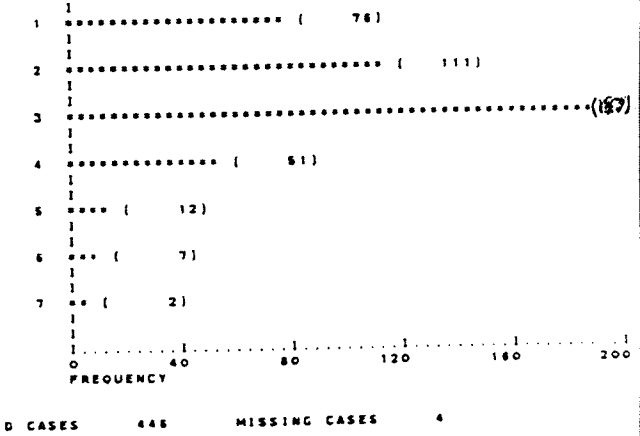
VALID CASES 445 MISSING CASES 5

R62



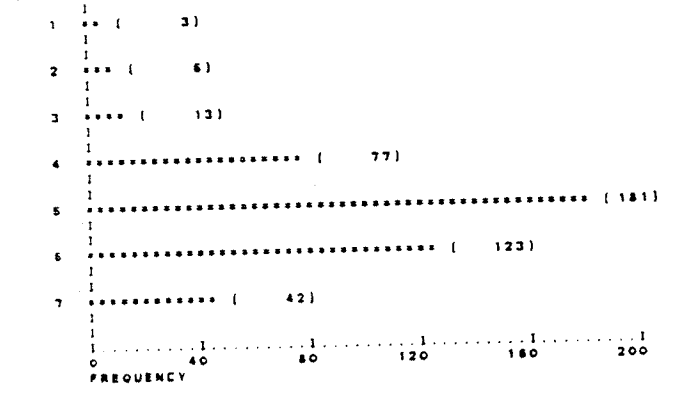
VALID CASES 446 MISSING CASES 4

R63



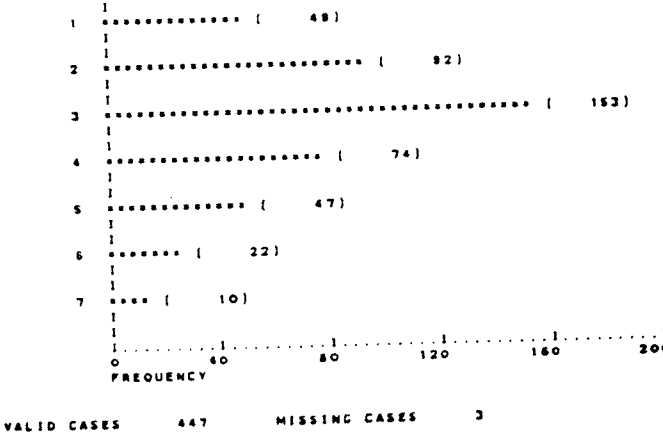
VALID CASES 446 MISSING CASES 4

R64



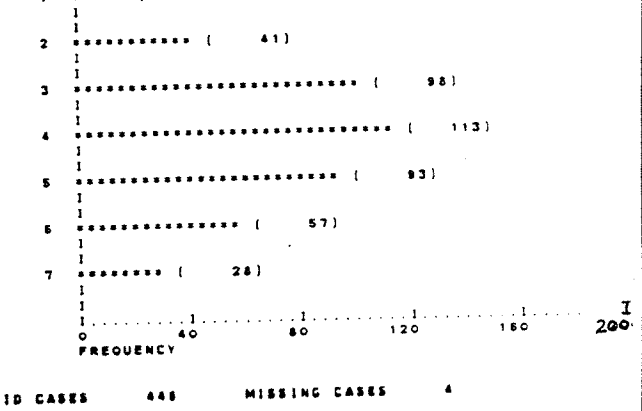
VALID CASES 445 MISSING CASES 5

R65



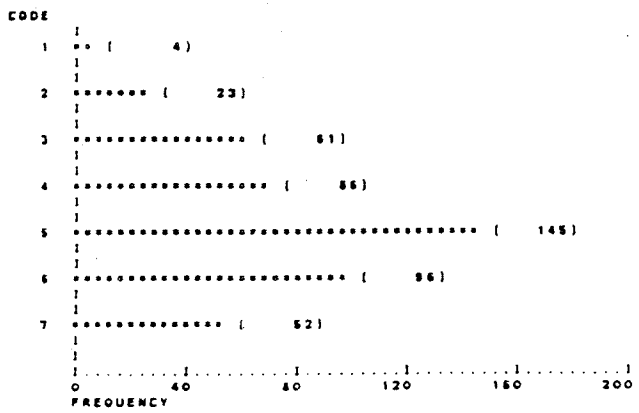
VALID CASES 447 MISSING CASES 3

R66



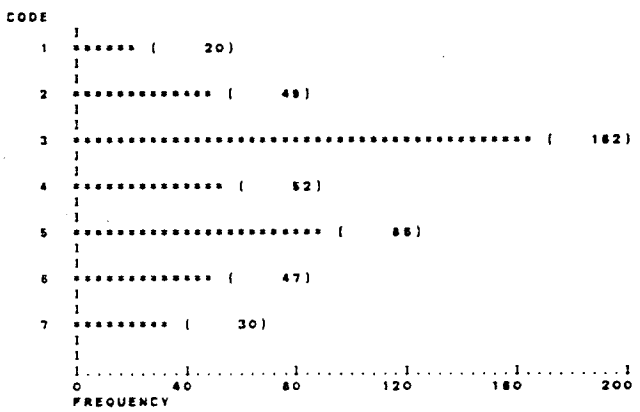
VALID CASES 446 MISSING CASES 4

R67



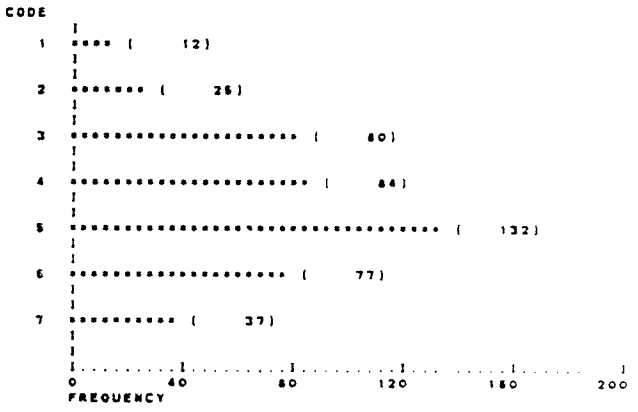
VALID CASES 447 MISSING CASES 3

R68



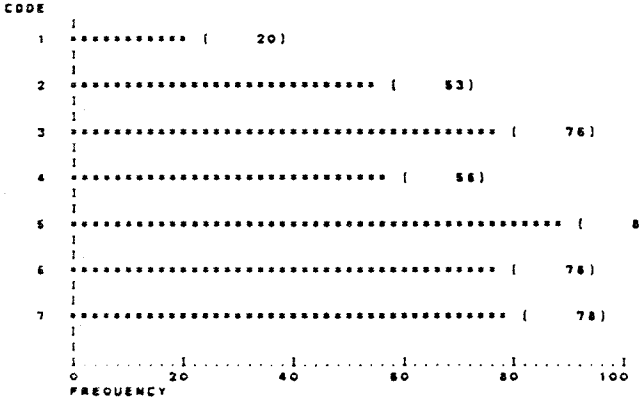
VALID CASES 446 MISSING CASES 4

R69



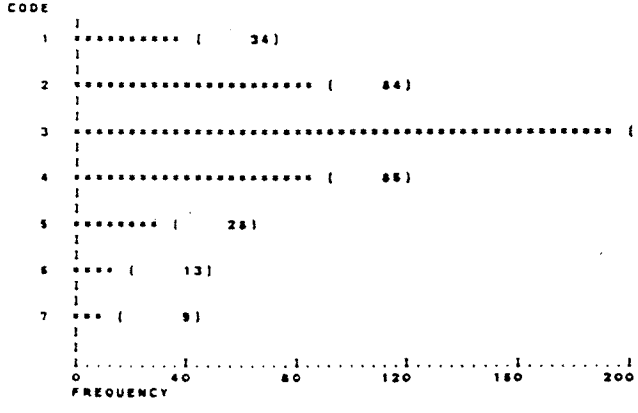
VALID CASES 447 MISSING CASES 3

R70



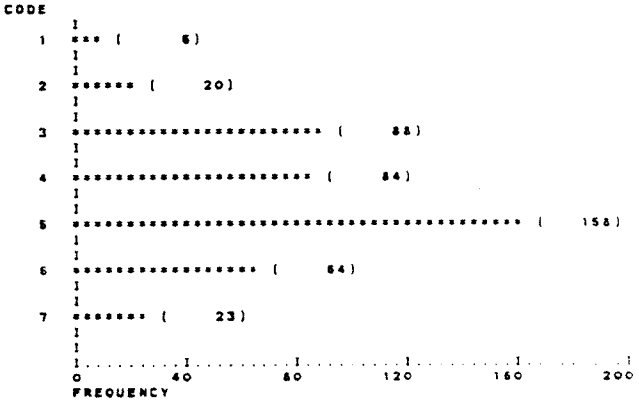
VALID CASES 447 MISSING CASES 3

R71



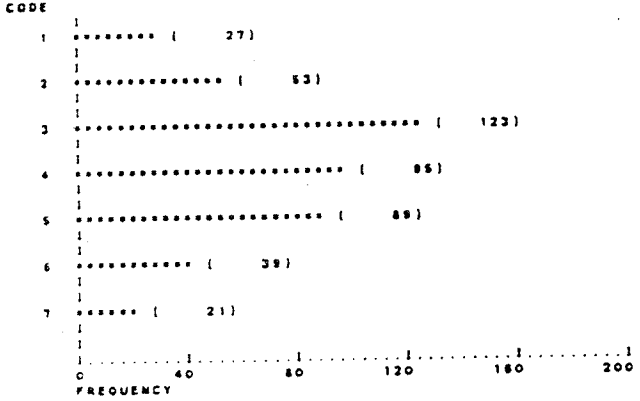
VALID CASES 445 MISSING CASES 5

R72



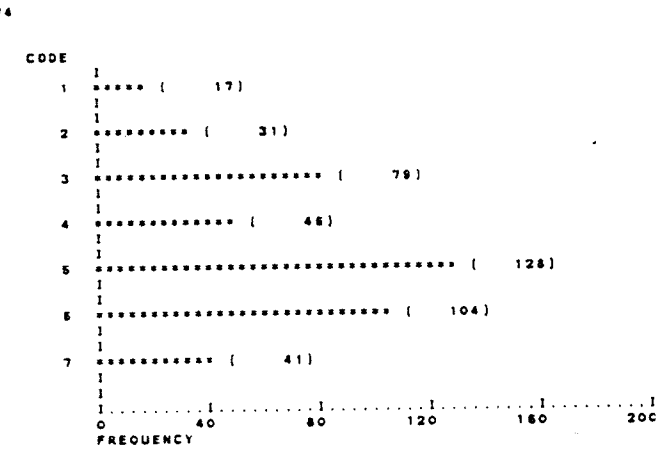
VALID CASES 443 MISSING CASES 7

R73



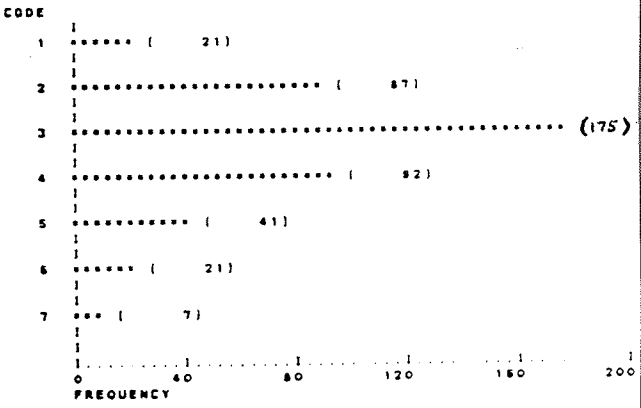
VALID CASES 447 MISSING CASES 3

R74



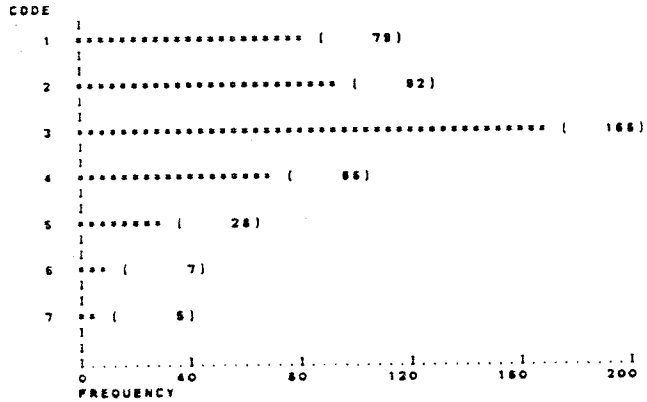
VALID CASES 446 MISSING CASES 4

R75



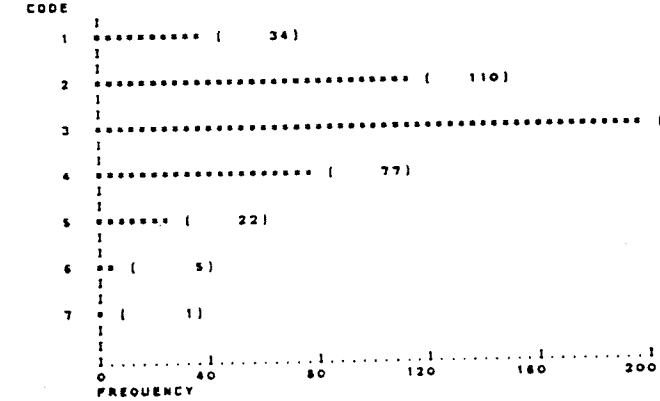
VALID CASES 444 MISSING CASES 6

R76



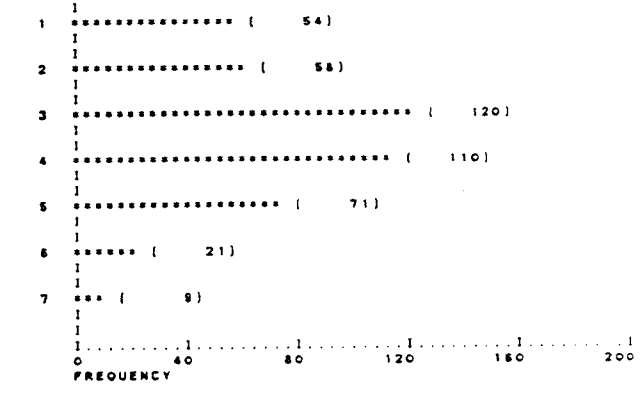
VALID CASES 443 MISSING CASES 7

R77



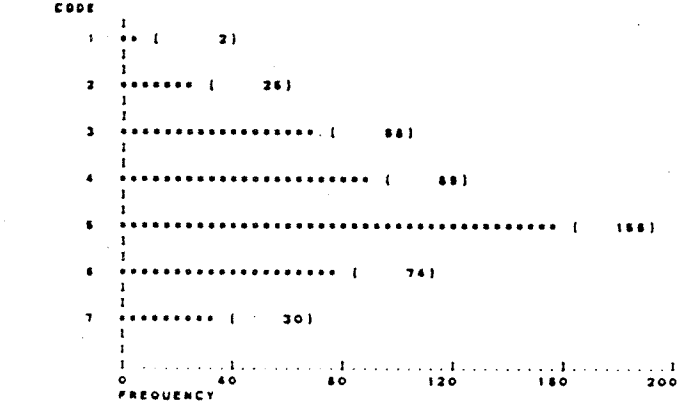
VALID CASES 445 MISSING CASES 5

R78



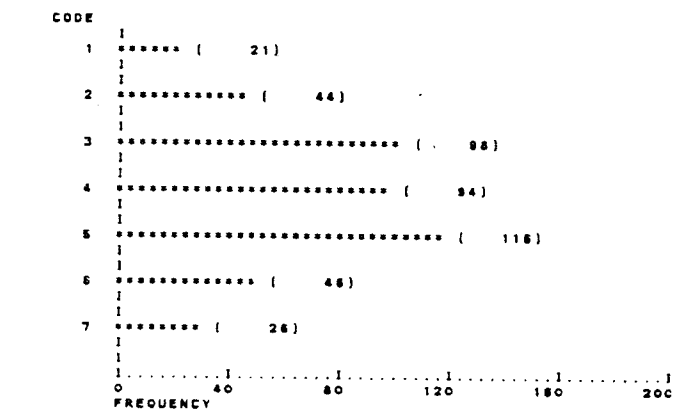
VALID CASES 443 MISSING CASES 7

R79



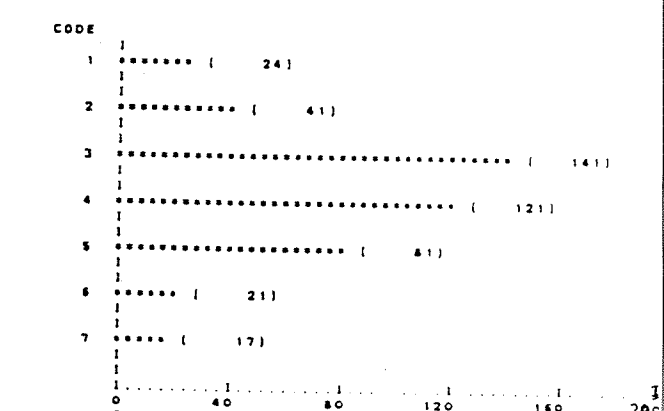
VALID CASES 444 MISSING CASES 6

R80



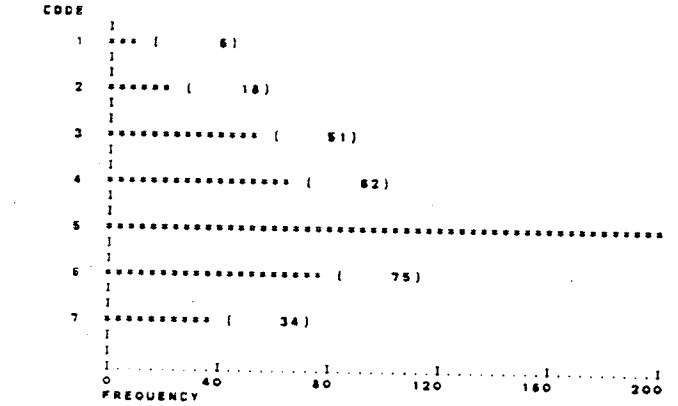
VALID CASES 445 MISSING CASES 5

R81



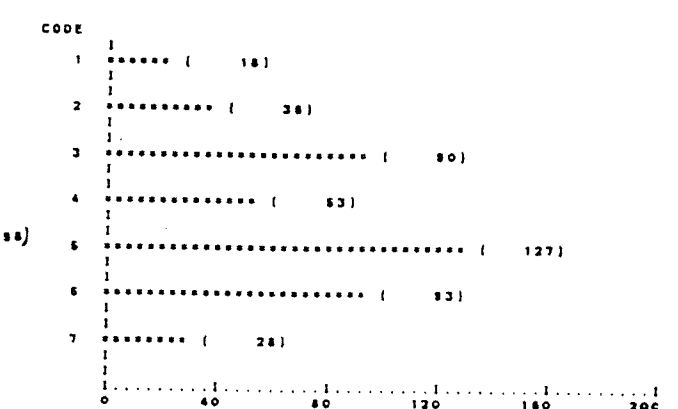
VALID CASES 446 MISSING CASES 4

R82



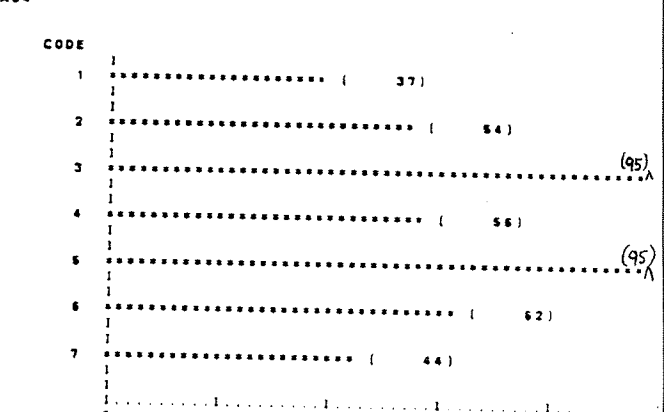
VALID CASES 444 MISSING CASES 6

R83



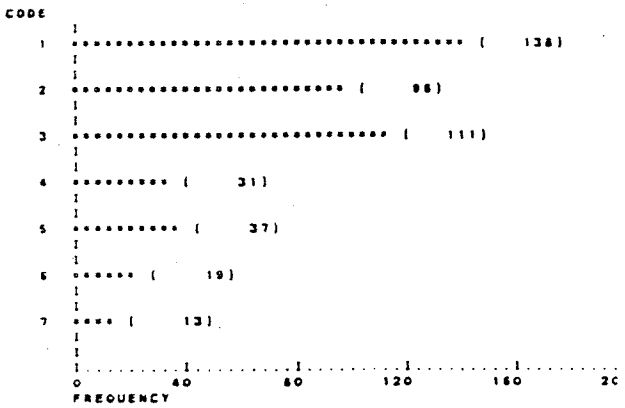
VALID CASES 445 MISSING CASES 5

R84



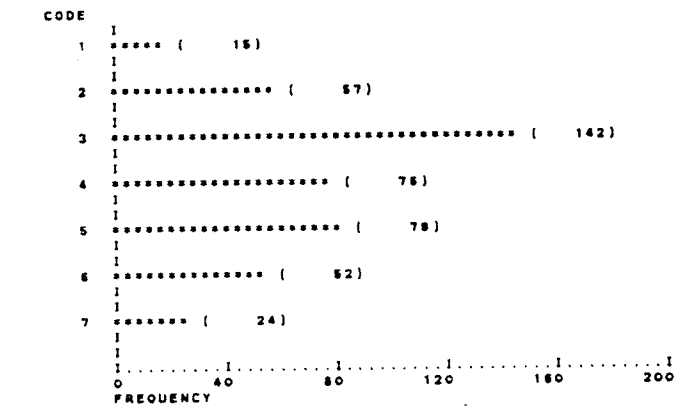
VALID CASES 443 MISSING CASES 7

R85



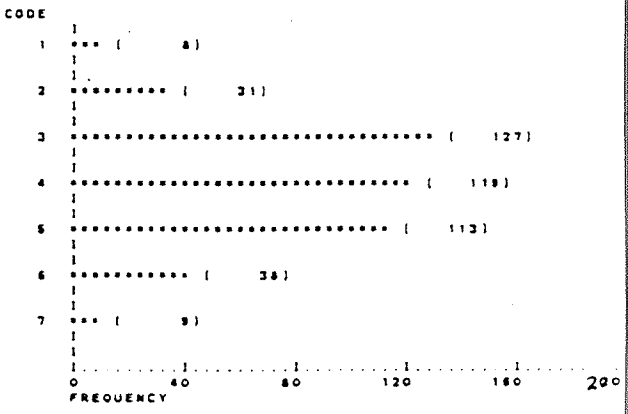
VALID CASES 445 MISSING CASES 5

R86



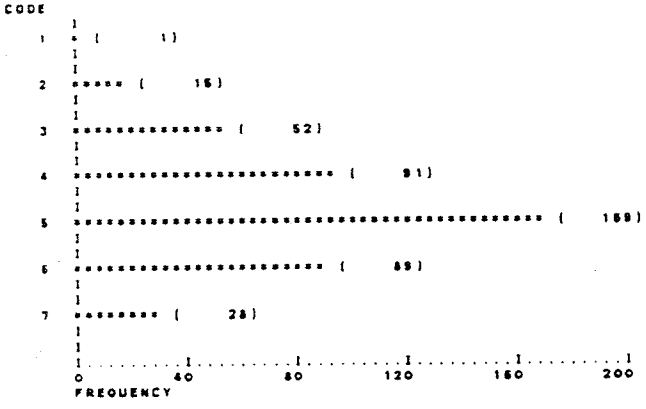
VALID CASES 445 MISSING CASES 5

R87



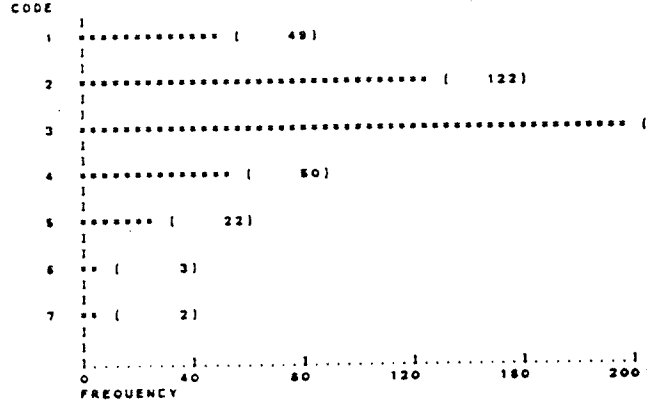
VALID CASES 445 MISSING CASES 5

R88



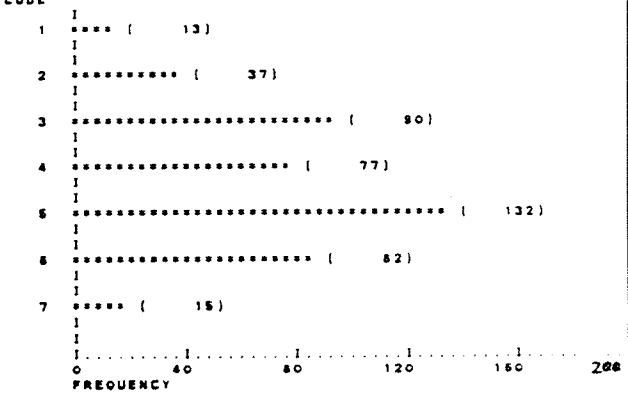
VALID CASES 445 MISSING CASES 5

R89



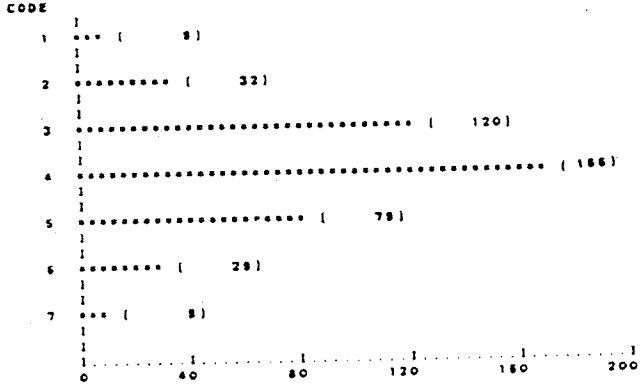
VALID CASES 444 MISSING CASES 5

R90



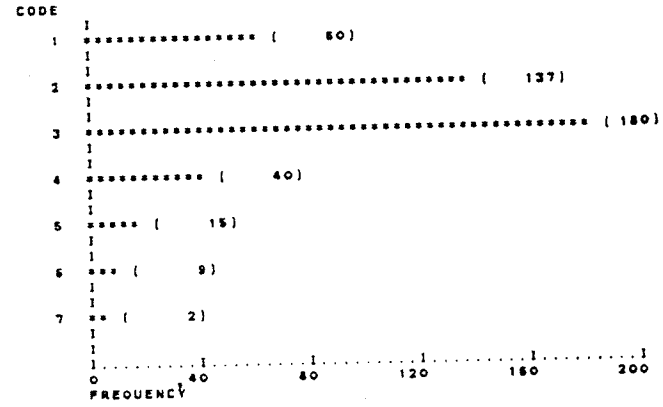
VALID CASES 446 MISSING CASES 4

R81



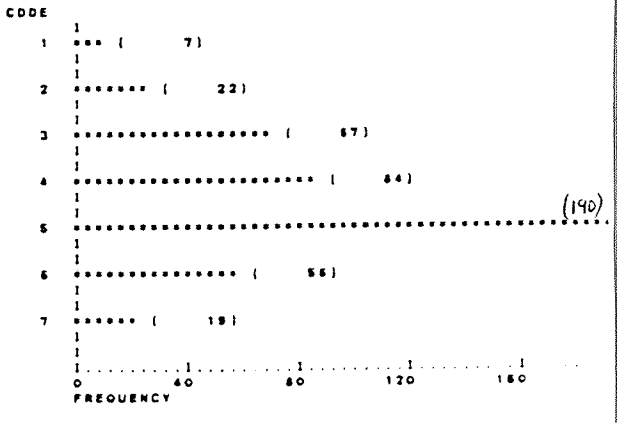
VALID CASES 444 MISSING CASES 6

R82



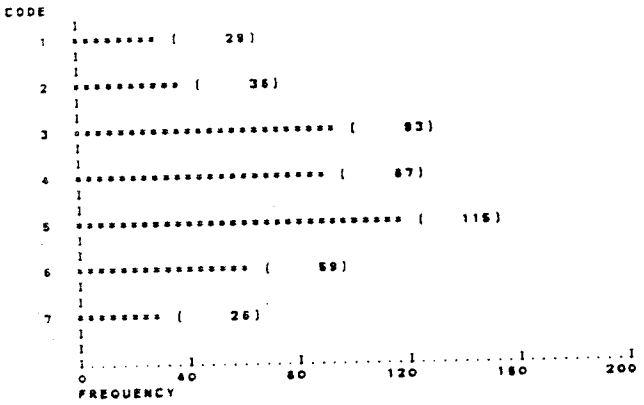
VALID CASES 443 MISSING CASES 7

R83



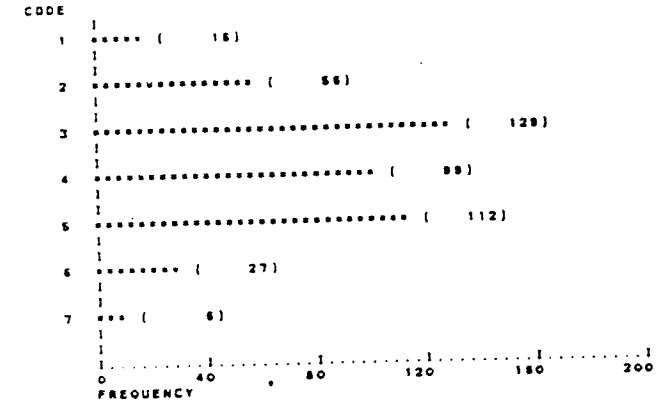
VALID CASES 445 MISSING CASES 5

R84



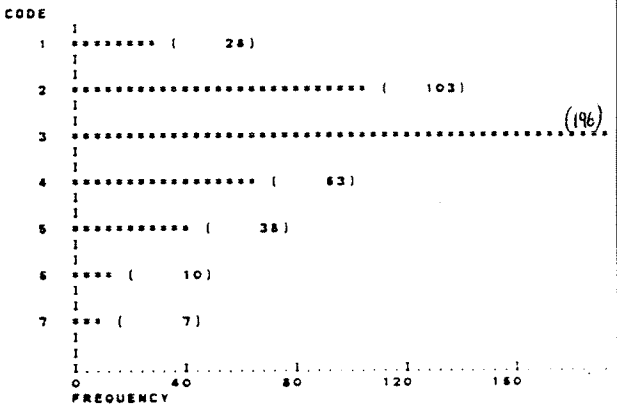
VALID CASES 445 MISSING CASES 5

R85



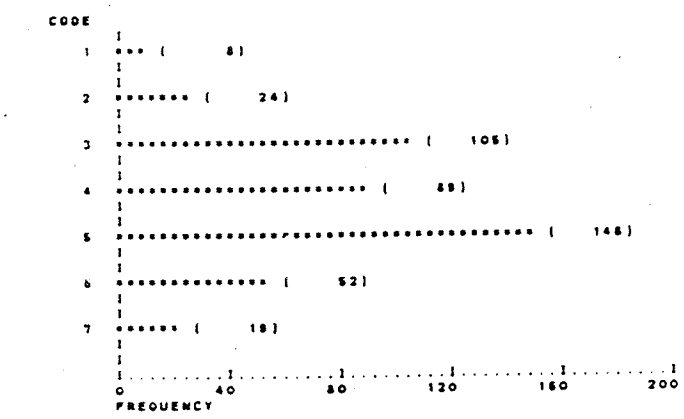
VALID CASES 445 MISSING CASES 5

R86



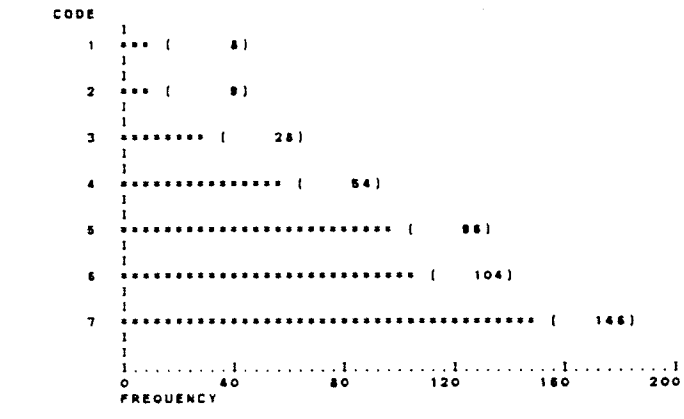
VALID CASES 445 MISSING CASES 5

R97



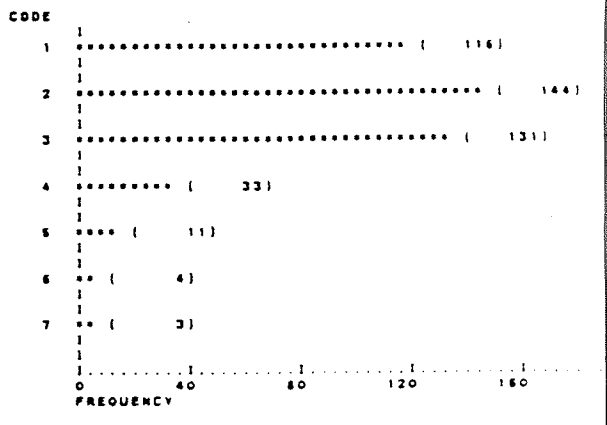
VALID CASES 443 MISSING CASES 7

R98



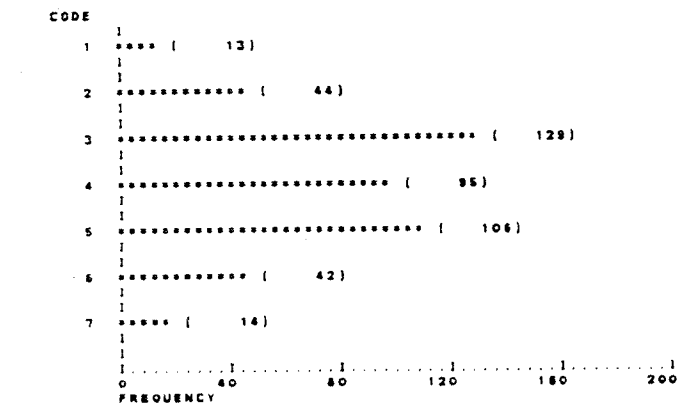
VALID CASES 445 MISSING CASES 5

R99



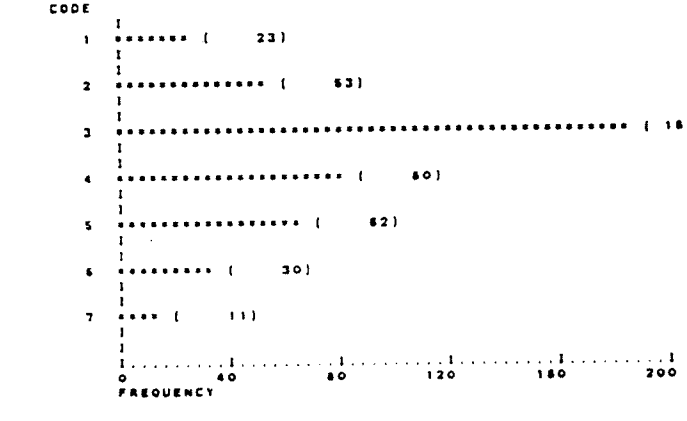
VALID CASES 442 MISSING CASES 8

R100



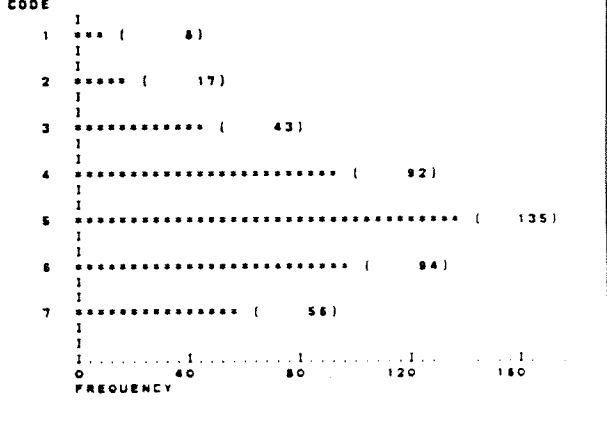
VALID CASES 443 MISSING CASES 7

R101



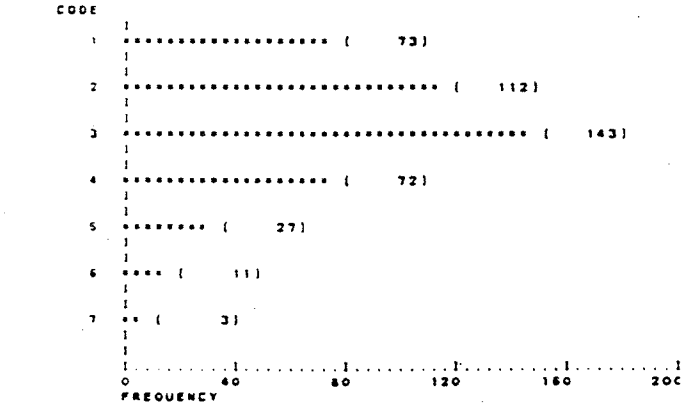
VALID CASES 443 MISSING CASES 7

R102



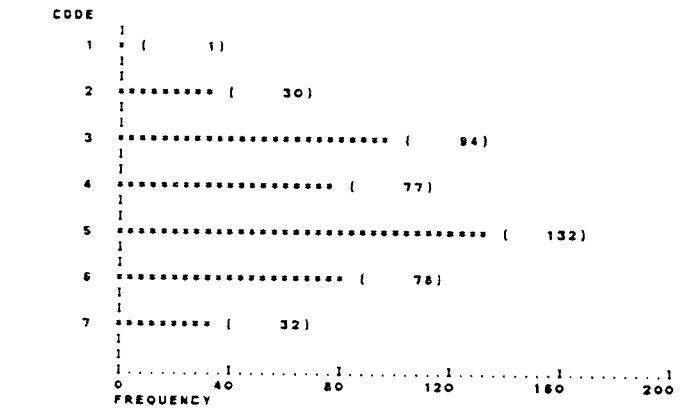
VALID CASES 445 MISSING CASES 5

R103



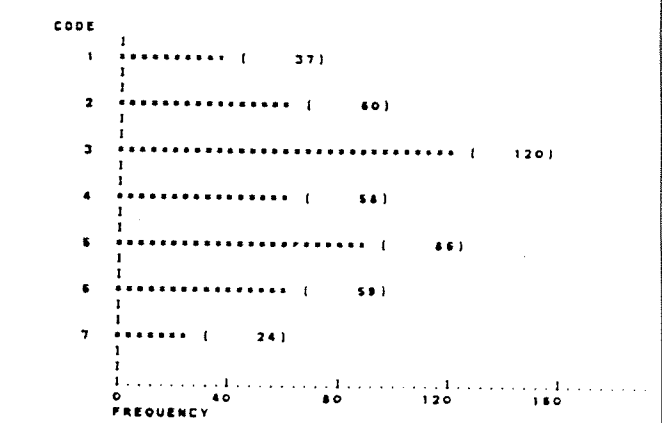
VALID CASES 441 MISSING CASES 9

R104



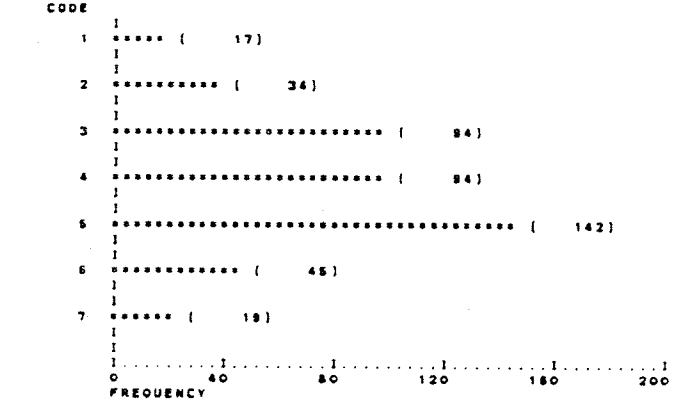
VALID CASES 444 MISSING CASES 6

R105



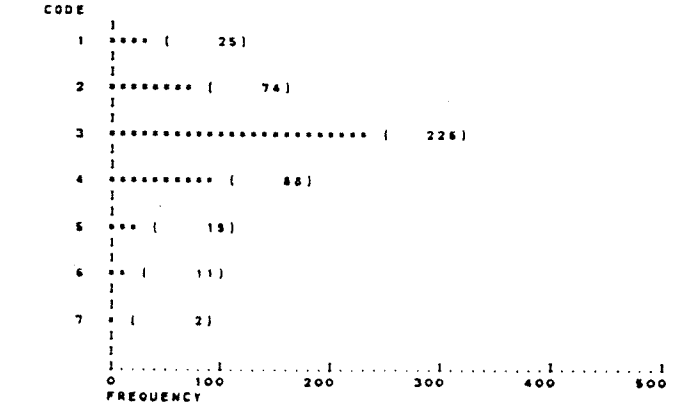
VALID CASES 444 MISSING CASES 6

R106



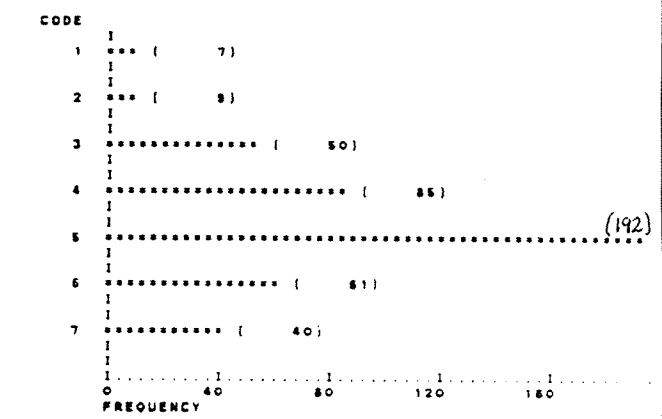
VALID CASES 445 MISSING CASES 5

R107



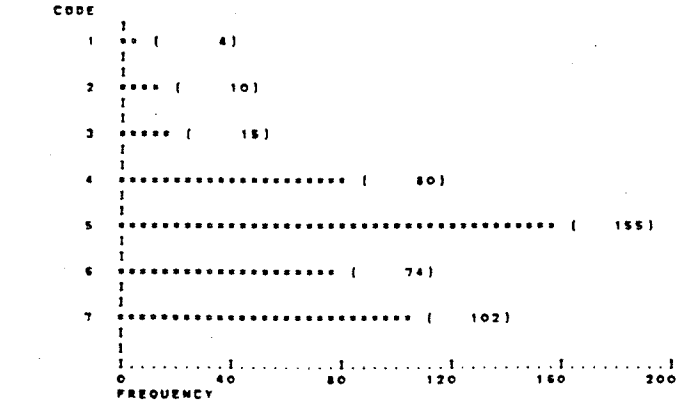
VALID CASES 445 MISSING CASES 5

R108



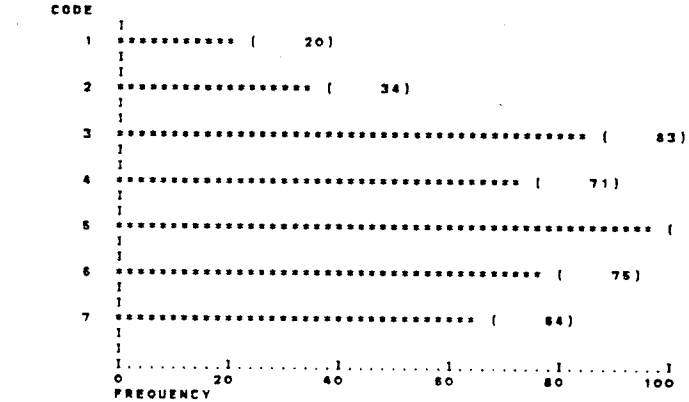
VALID CASES 444 MISSING CASES 6

R109



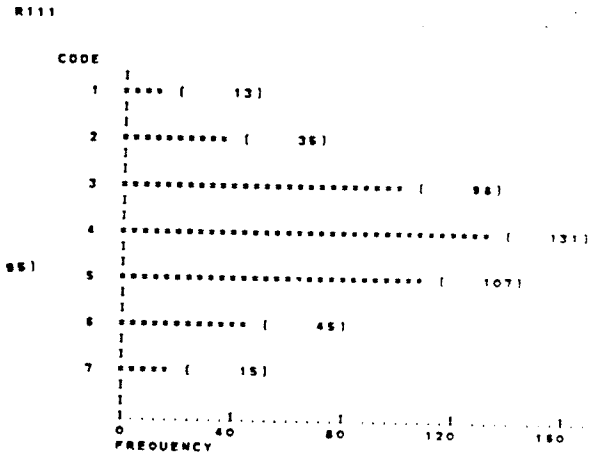
VALID CASES 440 MISSING CASES 10

R110



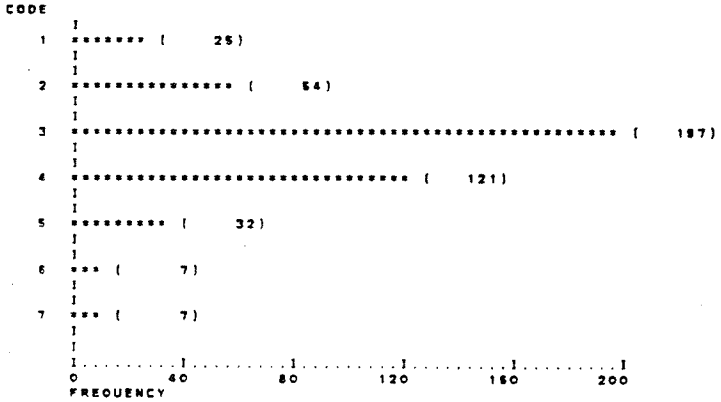
VALID CASES 442 MISSING CASES 8

R111



VALID CASES 444 MISSING CASES 6

R112



VALID CASES 443 MISSING CASES 7

Appendix G

Correlation Matrix of Readiness Items

	R1	R2	R3	R4	R6	R7	R8	R9	R11	R12
R1	1.00000	0.13438	0.07106	0.04126	-0.00830	0.07853	-0.04053	0.01439	-0.00227	0.00980
R2	0.13439	1.00000	-0.00522	0.01212	0.11788	0.34450	0.04309	0.25814	0.21072	-0.15775
R3	0.07106	-0.00522	1.00000	0.08478	-0.01789	0.08516	0.05311	0.12820	-0.08840	0.01317
R4	0.04126	0.01212	0.08478	1.00000	0.30836	0.03894	0.06897	0.10701	-0.03741	-0.18063
R6	-0.00830	0.11788	-0.01789	0.30836	1.00000	0.25958	0.25558	0.27789	-0.06478	-0.44551
R7	0.07853	0.34450	0.08516	0.03894	0.25958	1.00000	0.15888	0.30821	0.15858	-0.18905
R8	-0.04053	0.04309	0.05311	0.06897	0.25558	0.15888	1.00000	0.30210	-0.08675	-0.18492
R9	0.01439	0.25814	0.12820	0.10701	0.27789	0.30821	0.30210	1.00000	0.04253	-0.14482
R11	-0.00227	0.21072	-0.08840	-0.03741	-0.06478	0.15858	-0.08675	0.04253	1.00000	-0.01357
R12	0.00980	-0.15775	0.01317	-0.18063	-0.44851	-0.18905	-0.18492	-0.14482	-0.01357	1.00000
R13	0.01017	0.08291	0.08286	0.17406	0.17217	0.18834	0.21184	0.18530	0.05823	-0.10418
R14	0.04859	0.03782	0.03422	-0.09427	-0.02807	0.04402	-0.04307	0.00895	0.10787	0.14458
R16	0.11708	0.02858	0.01327	-0.04330	-0.07058	0.00745	-0.08487	-0.02563	-0.00820	0.15833
R17	0.03183	0.24444	0.01996	0.05101	0.22854	0.28827	0.23877	0.22233	0.04041	-0.13300
R18	0.03378	0.01444	0.02437	-0.01815	-0.14057	0.07082	-0.05516	0.11067	0.12848	0.19048
R19	-0.09286	0.10905	-0.02055	0.15324	0.20148	0.08155	0.11788	-0.00818	-0.07036	-0.14078
R21	0.00315	0.01823	0.03350	0.11822	0.18840	0.04845	0.19283	0.10370	-0.10628	-0.10747
R22	-0.07446	0.09135	-0.01857	0.10580	0.18059	0.03105	0.09104	0.15390	-0.03435	-0.09485
R23	0.05859	0.18303	-0.02074	-0.04107	-0.06780	0.17341	-0.03224	0.05720	0.35364	-0.02217
R24	-0.00736	0.01367	-0.02502	-0.00684	-0.04841	-0.04385	0.00786	0.00151	-0.07119	0.08743
R26	0.07412	0.24316	-0.08586	-0.00846	0.19931	0.38588	0.22870	0.25002	0.12818	-0.14015
R27	-0.03633	0.08218	0.00711	0.13202	0.21497	0.11177	0.32240	0.15449	-0.03789	-0.12646
R28	0.03003	0.12037	-0.02548	0.07838	0.30644	0.13338	0.17886	0.14124	0.01448	-0.25673
R29	0.05582	0.04545	-0.04910	0.07347	0.22283	-0.02180	0.03216	0.00123	-0.00257	-0.13644
R31	-0.03434	0.30008	0.07820	-0.00814	0.14302	0.27185	0.16778	0.28578	0.08138	-0.22124
R32	0.00827	-0.00028	-0.20894	0.08748	0.17258	0.06224	0.15075	0.08949	-0.06338	-0.11842
R33	0.01162	0.13350	0.03200	0.05808	0.26283	0.23080	0.24883	0.19329	0.07587	-0.38277
R34	0.03376	0.03425	0.02395	-0.07534	-0.03415	0.01858	-0.08400	0.03585	0.18707	0.00312
R36	0.08101	-0.14078	-0.11527	-0.02575	0.07548	-0.02777	0.01881	-0.09174	-0.08138	-0.02499
R37	-0.10780	-0.38283	0.08827	0.04112	-0.03502	-0.11183	-0.01838	-0.03216	-0.10080	0.08103
R38	-0.04782	0.00885	0.06996	-0.05155	-0.08380	0.04885	0.06821	-0.03398	-0.00474	0.02882
R39	0.07161	-0.10772	0.07811	0.15367	0.04879	-0.08179	0.11107	0.10034	-0.23585	-0.08251
R41	0.04672	-0.17541	-0.02110	-0.04788	-0.37742	-0.18748	-0.28501	-0.20075	0.00715	0.58424
R42	-0.01866	0.06142	-0.08467	-0.12841	-0.04888	0.21831	-0.03341	0.18347	0.33289	-0.01217
R43	-0.06032	-0.11803	0.04178	0.00811	0.04011	-0.28115	-0.02078	0.02274	-0.20744	0.05082
R44	-0.02811	-0.18141	-0.03408	-0.08308	-0.08161	-0.03897	0.10546	-0.05295	-0.28971	0.17033
R46	-0.00138	0.11228	-0.18336	-0.03881	-0.00210	0.01498	-0.14514	-0.07926	-0.03561	-0.07414
R47	-0.00847	-0.12383	0.08426	-0.08100	-0.18049	-0.07735	-0.05832	-0.00217	0.04825	0.06183
R48	0.08333	-0.04824	-0.01176	0.08282	0.12178	0.05442	0.09473	-0.04229	-0.20555	-0.12885
R49	0.08661	0.24234	-0.02283	-0.12571	-0.02985	0.22977	-0.08154	0.08462	0.34745	-0.04618
R51	0.09128	0.08898	0.09913	-0.01631	-0.10032	-0.01063	-0.07866	-0.08586	0.07512	0.03536
R52	-0.00776	0.10561	-0.01142	0.21518	0.44983	0.19730	0.25389	0.18853	0.03089	-0.48703
R53	-0.00775	-0.09418	0.04108	0.22801	0.27037	0.08113	0.19838	0.13811	-0.12874	-0.10013
R54	0.04173	-0.05320	0.04106	0.08087	0.07718	-0.01585	0.05989	0.02233	-0.29177	0.10615
R56	0.08428	-0.01619	0.05228	0.09014	0.10099	0.03859	0.12040	0.01678	-0.03703	-0.11628
R57	0.04848	0.01681	0.10733	0.05031	0.18884	0.18781	0.13089	0.15209	0.07389	-0.07827
R58	0.00567	0.01848	-0.12849	0.15325	0.25840	0.06948	0.28581	0.13577	-0.14806	-0.18850
R59	0.05843	0.37017	-0.00755	-0.00401	0.10905	0.40907	0.05351	0.21882	0.34840	-0.18948
R61	0.01645	0.07878	-0.00755	0.13921	0.20848	0.19085	0.11803	0.20284	0.10113	-0.08024
R62	0.00553	0.18765	0.10787	-0.07851	-0.02770	0.18835	0.03137	0.08483	0.14881	-0.05762
R63	0.05198	0.13002	0.08710	-0.01898	-0.05550	0.08808	0.05325	0.15770	0.09877	0.04804
R64	0.03090	-0.17423	-0.08478	0.07143	-0.04021	-0.23076	-0.01108	-0.08256	-0.32803	0.17492
R66	0.03496	0.02072	0.04902	0.07045	0.00491	0.04171	0.08445	0.05210	-0.08578	0.12256
R67	0.04509	0.08418	-0.07448	0.03384	0.29255	0.11454	0.17230	0.04405	-0.08118	-0.14318
R68	0.01331	0.14088	-0.03218	0.16284	0.40980	0.28383	0.19889	0.25707	0.02398	-0.28001
R69	-0.03488	-0.01284	0.05643	0.10357	0.19099	0.09459	0.13789	-0.00618	-0.20858	-0.02218
R71	-0.01973	0.05885	0.14414	0.07706	0.07548	0.18990	0.09833	0.18087	0.02754	-0.05242
R72	0.02530	0.12909	0.02178	0.12062	0.26722	0.10817	0.17789	0.13575	0.01143	-0.13085
R73	-0.05940	-0.00710	0.11587	0.00230	0.00242	-0.04294	0.05284	-0.07363	-0.08556	0.11378
R74	0.03092	0.21785	0.01828	0.12780	0.42325	0.28708	0.18861	0.18978	0.07712	-0.40358
R76	0.05277	0.04789	0.08751	-0.08587	-0.11595	0.12800	-0.03754	0.07284	0.15991	0.18125
R77	0.05603	0.13543	0.05985	-0.02385	0.08485	0.27652	-0.02389	0.15805	0.36357	0.01448
R78	0.03536	0.01537	-0.02785	0.14371	0.18681	0.10887	0.04378	0.11092	0.03868	-0.08729
R79	0.02416	-0.02847	-0.08174	0.09190	-0.09488	-0.17304	-0.11544	-0.08529	-0.02781	0.24185
R81	0.08748	0.12525	0.04122	-0.12039	-0.01708	0.19077	0.09929	0.07781	0.13784	-0.01020
R82	-0.02112	0.04570	-0.24015	0.09853	0.25728	0.08303	0.31980	0.11889	-0.08994	-0.15189
R83	0.02135	0.17811	-0.04834	0.09377	0.25360	0.07781	0.20205	0.08238	-0.14437	-0.25886
R84	0.03526	0.13278	-0.02187	0.20874	0.39061	0.20582	0.26484	0.14336	-0.07880	-0.48824
R86	-0.05116	0.04106	0.02426	-0.15634	-0.09320	0.02511	-0.04528	0.00287	0.05781	0.17554
R87	-0.02977	-0.12583	0.08175	-0.09882	-0.21828	-0.18228	-0.13548	-0.12180	-0.00741	0.24370
R88	-0.03634	0.04292	-0.21354	0.04477	0.14523	0.05103	0.14954	-0.00228	-0.08897	-0.00327
R89	-0.07082	0.14447	-0.03897	0.04436	0.05828	0.18091	0.08221	0.17855	0.18755	-0.03656
R91	-0.03619	0.21088	-0.04844	-0.07042	0.10011	0.23890	0.22358	0.20732	0.00838	-0.13144
R92	0.02189	0.04832	0.05805	-0.07471	-0.20487	0.07466	-0.13753	0.00507	0.20588	0.13281
R93	0.08880	0.08272	-0.08827	0.20877	0.26208	0.08864	0.05838	0.12873	-0.05247	-0.21017
R94	0.00113	-0.02834	-0.08840	0.08304	0.07102	0.01088	0.03085	0.05089	-0.07548	-0.02889
R96	0.07868	-0.10818	0.03777	-0.00208	-0.27310	0.00781	-0.11346	-0.02468	-0.00228	0.18095
R97	0.04488	-0.05770	0.01122	-0.03093	-0.18543	-0.12003	-0.08288	-0.18071	-0.08438	0.18801
R98	-0.01803	0.00795	0.01180	0.14226	0.10389	0.03713	0.12804	0.08023	-0.14000	0.08005
R99	0.08789	0.02252	0.04286	-0.02743	0.02229	0.00488	-0.12215	0.02118	0.12475	0.08748
R101	0.08844	0.11587	0.04782	-0.18881	-0.09177	0.19071	0.08820	0.03862	0.18825	-0.01543
R102	-0.00334	0.08818	-0.08384	0.03881	0.12422	0.07807	0.17447	0.11813	-0.12085	0.03210
R103	-0.12098	0.05291	0.08402	0.04881	-0.00488	0.12220	0.08805	0.12885	-0.04280	0.05340
R104	0.04727	0.01380	-0.08156	-0.02848	0.12885	0.08200	0.08783	0.05422	-0.12427	-0.05823
R105	0.05414	-0.08188	-0.08173	0.05840	0.05887	0.03888	-0.08550	0.01800	-0.01041	0.01435
R108	0.04488	-0.08484	0.08885	0.05099	-0.07454	-0.05273	-0.03829	0.02418	-0.19078	0.04290
R107	0.01416	0.05831	0.05749	-0.06938	0.08435	0.05881	0.12232	0.07284	0.02473	-0.11257
R108	0.00887	-0.11480	0.01148	0.03472	0.08848	0.00312	0.10234	0.07888	-0.18212	-0.01001
R109	-0.02937	-0.08223	-0.04913	0.17367	0.07518	-0.17848	0.08227	0.01072	-0.18248	0.02028
R110	0.01885	0.16186	0.01278	0.29488	0.54886	0.29315	0.36518	0.31114	-0.03484	-0.48218
R111	0.11782	-0.02530	0.04882	0.03238	0.03788	-0.05887	0.02320	-0.02103	-0.10832	0.02584
R112	0.04123	0.19506	0.01278	-0.01814	0.13474	0.27382	0.22006	0.20847	0.11710	-0.18823

	R13	R14	R15	R17	R18	R19	R21	R22	R23	R24
R1	0.01017	0.04888	0.11708	0.03183	0.03378	-0.09286	0.00315	-0.07446	0.05689	-0.00736
R2	0.08281	0.03782	0.02888	0.24444	0.01444	0.10905	0.01823	0.09135	0.18303	0.01367
R3	0.08288	0.03422	0.01327	0.01996	0.02437	-0.02055	0.03350	-0.01557	-0.02074	-0.02502
R4	0.17404	-0.09427	-0.04330	0.08101	-0.01815	0.15324	0.11922	0.10580	-0.04107	-0.00884
R5	0.17217	-0.02607	-0.07058	0.22884	-0.14057	0.20148	0.18840	0.19058	-0.06780	-0.04841
R7	0.18834	0.04402	0.00745	0.28827	0.07082	0.08155	0.04845	0.03105	0.17341	-0.04385
R8	0.21164	-0.04307	-0.08487	0.23977	-0.05516	0.11788	0.18283	0.08104	-0.03224	0.00786
R9	0.18530	0.00895	-0.02583	0.22233	0.11087	-0.00819	0.10370	0.15380	0.05720	0.00151
R11	0.05923	0.10797	-0.00820	0.04041	0.12848	-0.07038	-0.10528	-0.03436	0.35364	-0.07118
R12	-0.10418	0.14458	0.15833	-0.13300	0.18048	-0.14078	-0.10747	-0.09485	-0.02217	0.08743
R13	1.00000	0.05556	-0.11135	0.20862	-0.00572	0.01749	0.23824	-0.02487	0.08218	-0.05484
R14	0.05556	1.00000	-0.10528	-0.11225	0.10110	0.00959	-0.04855	-0.11080	0.19538	-0.07562
R15	-0.11135	-0.10528	1.00000	0.00136	0.04248	0.00240	0.02857	0.18387	-0.02388	0.18077
R17	0.20862	-0.11225	0.00136	1.00000	0.00518	0.08247	0.20943	0.24178	-0.08523	0.00014
R18	-0.00572	0.10110	0.04248	0.00518	1.00000	-0.08522	-0.03522	0.12711	0.17331	-0.00313
R19	0.01749	0.00959	0.00240	0.08247	-0.08522	1.00000	0.03424	0.10287	0.05027	0.00367
R21	0.23824	-0.04855	0.02857	0.20943	-0.03522	0.03424	1.00000	0.13415	-0.09129	0.11484
R22	-0.02487	-0.11080	0.18387	0.24178	0.12711	0.10287	0.13415	1.00000	-0.09411	0.15308
R23	0.08218	0.19538	-0.02388	-0.08523	0.17331	0.05027	-0.09129	-0.09411	1.00000	-0.05953
R24	-0.05484	-0.07562	0.18077	0.00014	-0.00313	0.00367	0.11484	0.15308	-0.05953	1.00000
R25	0.18805	0.07498	-0.11564	0.31555	0.12503	0.02850	0.07423	0.03982	0.18734	-0.04201
R27	0.27800	-0.03208	-0.11223	0.18165	-0.11401	0.12136	0.17889	0.08884	-0.01567	0.02765
R28	0.11894	0.02776	-0.08083	0.08381	-0.18383	0.18731	0.07404	0.02054	0.08083	-0.11275
R29	-0.03820	-0.01852	0.06314	0.06321	-0.06338	0.15659	0.04744	0.11853	0.04081	0.03601
R31	0.17818	0.00975	-0.12004	0.15894	0.06598	0.02884	0.13051	0.01483	0.13436	0.01512
R32	0.05045	-0.08717	0.10880	0.28739	-0.08295	0.06108	0.15488	0.21097	-0.15570	0.15880
R33	0.18228	0.17321	-0.17182	0.14785	-0.12201	0.02705	0.08852	0.01381	0.04429	-0.12775
R34	-0.07476	0.18059	-0.18883	-0.19574	0.01834	-0.00787	-0.14542	-0.21512	0.18036	-0.10868
R35	-0.02998	-0.10887	0.10986	0.01878	-0.05589	-0.00139	0.10291	0.03944	-0.07591	0.02713
R37	-0.06312	-0.05377	0.04280	-0.08894	-0.03676	-0.05841	-0.04028	0.05713	-0.22268	0.08456
R38	0.13742	0.18338	-0.08518	0.04230	0.10481	-0.03857	0.11085	0.02100	0.08704	0.02718
R39	0.04784	-0.28216	0.03294	0.18538	-0.01670	0.08725	0.22902	0.23289	-0.22147	0.10337
R41	-0.18240	-0.04986	0.21490	-0.17478	0.24682	-0.14251	-0.18362	-0.01017	-0.00271	0.03646
R42	0.07433	0.26197	-0.02038	-0.02018	0.19385	-0.09204	-0.15920	-0.05817	0.23620	-0.00708
R43	-0.10379	-0.05887	0.02322	-0.07587	-0.05590	-0.01445	0.08782	0.08445	-0.20888	0.08580
R44	0.08480	-0.15200	0.04486	0.11245	-0.03318	-0.04780	0.18855	0.04028	-0.15359	-0.01979
R46	-0.02883	0.02253	0.02551	0.08467	-0.02840	-0.04891	-0.03249	0.03414	-0.00359	-0.09736
R47	-0.07088	0.05788	-0.04536	-0.10753	0.13658	-0.21851	-0.11953	0.02280	0.05825	-0.06706
R48	0.02780	-0.08112	0.05410	0.19882	-0.19803	0.01888	0.15236	0.18533	-0.24788	0.12182
R49	0.06914	0.13889	-0.01321	0.10269	0.17680	0.03739	-0.11262	-0.04333	0.23728	0.02288
R51	-0.05805	0.08094	-0.10302	-0.25175	0.03480	-0.10056	-0.08358	-0.10451	-0.02360	-0.08440
R52	0.19842	0.03736	-0.23975	0.18247	-0.11073	0.08493	0.12548	-0.00758	0.05445	-0.17965
R53	0.04935	-0.11866	-0.02467	0.10934	-0.05885	0.11285	0.28055	0.17273	-0.08991	0.07689
R54	0.05735	-0.01886	0.07012	0.08177	-0.00041	0.04380	0.19893	0.08317	0.18098	-0.08317
R56	0.12292	0.03208	-0.07997	0.02474	-0.18717	0.08041	0.10801	-0.02724	-0.00862	0.05786
R57	0.12067	0.08950	-0.11582	-0.01702	0.07041	0.05478	-0.00198	0.00832	0.12831	-0.06825
R58	0.09572	-0.13944	-0.00117	0.25834	-0.01548	0.11048	0.18477	0.18988	-0.05007	0.10233
R59	0.09068	0.05075	-0.14840	0.22825	0.10748	0.10981	-0.05347	-0.04818	0.33784	-0.04384
R61	0.07090	0.18861	-0.07312	0.07804	0.02787	0.02817	0.04497	-0.03744	0.07231	-0.15504
R62	0.02538	0.09588	-0.11001	0.06403	0.09414	-0.00788	-0.04489	-0.01535	0.23088	0.06557
R63	-0.00100	0.19249	-0.06395	-0.05001	0.11172	-0.01873	-0.03331	-0.03468	0.18820	-0.06339
R64	-0.05070	-0.09839	0.22112	0.02238	-0.05524	-0.04871	0.15173	0.18033	-0.24489	0.16207
R65	-0.00999	-0.08635	0.15132	0.18914	0.13438	-0.02082	0.01938	0.19010	-0.07885	0.11016
R67	0.02280	-0.03695	-0.02697	0.15382	-0.07574	0.28369	0.13998	0.11466	0.00181	0.06704
R68	0.17085	-0.04814	0.01054	0.18125	-0.08101	0.15673	0.09156	0.17913	0.04364	-0.06256
R69	-0.01135	-0.08553	0.09060	0.20524	-0.05890	0.13333	0.18448	0.27184	-0.14748	0.10238
R71	0.14586	0.18080	-0.17123	0.02144	0.11419	0.00144	0.11213	-0.09296	0.08082	-0.07501
R72	0.11693	-0.02587	0.04720	0.32980	-0.09208	0.14084	0.20875	0.17077	0.02550	0.05005
R73	-0.04653	0.02335	-0.00170	-0.05034	0.01765	-0.04132	0.05513	-0.00540	-0.08882	-0.00717
R74	0.18714	0.06482	-0.12102	0.19797	-0.17274	0.17301	0.18560	0.05010	0.08119	-0.02137
R76	0.08831	0.30172	-0.02092	0.03183	0.30615	-0.00001	-0.08032	0.00229	0.11708	-0.04355
R77	0.11751	0.20755	-0.05992	0.07386	0.21326	-0.03877	-0.09084	-0.03103	0.23074	-0.08040
R78	0.02588	-0.07684	-0.01508	0.10183	-0.04389	0.09177	0.09367	0.20887	0.05330	-0.01671
R79	-0.07787	-0.02971	0.22802	0.00889	0.08601	0.03492	0.05838	0.21898	-0.00424	0.14386
R81	0.05105	0.21818	-0.07481	0.09021	0.09083	0.04169	-0.04577	-0.10271	0.10850	-0.06594
R82	0.10480	-0.13983	-0.00729	0.29155	-0.10785	0.08530	0.15026	0.24202	-0.10077	0.05650
R83	-0.00837	0.00395	-0.10986	0.08245	-0.19574	0.16084	0.14148	0.08851	-0.08810	0.06838
R84	0.17838	0.01668	-0.18498	0.18410	-0.20671	0.14783	0.17189	-0.01142	-0.03278	-0.06914
R86	-0.08467	0.00889	0.09118	0.00416	0.27660	-0.03884	-0.08289	-0.01889	0.02868	-0.04252
R87	-0.02391	0.23824	-0.03571	-0.14151	0.06478	-0.07458	-0.10184	-0.11597	-0.01815	0.00464
R88	-0.01351	-0.11512	0.02204	0.23233	0.02852	0.08184	0.14272	0.29282	-0.12309	0.10655
R89	0.14517	0.14720	-0.18834	0.07836	0.14050	0.00035	0.00942	0.00204	0.20367	-0.05741
R91	0.22551	0.05458	-0.08489	0.27034	0.00362	0.15468	0.10498	0.07717	0.10971	-0.04327
R92	-0.05451	0.18986	-0.08156	-0.13030	0.29903	-0.11122	-0.10018	-0.02603	0.21862	-0.08168
R93	0.05927	-0.25618	0.08157	0.10716	0.01238	0.08401	0.17047	0.10802	-0.04487	0.00503
R94	0.00382	-0.03381	0.13796	0.05283	-0.20548	0.00401	0.13438	0.12605	-0.08730	0.14053
R96	-0.01920	0.12529	0.04788	-0.15917	0.11185	-0.20087	-0.07737	-0.15529	-0.03801	-0.07221
R97	-0.18646	-0.05725	0.18858	-0.01913	0.05544	-0.08408	-0.02882	0.15101	-0.13180	0.14232
R98	0.08542	-0.08541	0.05525	0.20508	0.02061	0.04833	0.17555	0.28382	-0.13804	0.19702
R99	-0.08729	0.12552	-0.01762	-0.12719	0.02415	0.00855	-0.12484	-0.03024	0.12955	-0.13254
R101	0.04429	0.03849	-0.02740	0.05836	0.16399	0.02683	-0.07761	-0.12952	0.10338	-0.02137
R102	0.08584	-0.10230	-0.01894	0.23701	-0.04000	0.08877	0.19053	0.15488	-0.09383	0.18613
R103	0.15012	0.11305	-0.14844	0.02510	0.13759	0.08537	0.01428	0.03814	0.08300	-0.00531
R104	0.08018	-0.05288	0.04084	0.14408	-0.03336	0.07211	0.04762	0.12683	-0.04833	0.07777
R105	0.02030	-0.10308	0.08028	0.08988	0.10737	-0.02882	0.11807	0.17529	-0.02539	0.10229
R106	-0.01580	-0.11792	0.09141	0.01035	-0.06858	0.03132	0.05713	0.13741	-0.18581	0.08852
R107	-0.01462	0.07584	-0.13608	-0.08781	-0.00796	0.09275	-0.08487	-0.11152	0.08629	-0.08118
R108	0.00488	-0.12787	0.18240	-0.02348	-0.09702	-0.02387	0.11110	0.04825	-0.17377	0.03118
R109	0.04035	-0.16739	0.17488	0.07477	-0.08324	0.05578	0.38883	0.21760	-0.13122	0.10425
R110	0.22188	-0.03063	-0.11667	0.24404	-0.19197	0.18842	0.27564	0.11421	-0.01505	-0.05376
R111	0.02215	-0.09055	0.00243	0.04544	-0.07836	0.01501	0.11858	0.13867	-0.14763	-0.01178
R112	0.15878	0.14833	-0.19088	0.21059	0.04620	0.05917	0.05062	-0.03947	0.18988	-0.02181

	R26	R27	R28	R29	R31	R32	R33	R34	R36	R37
R1	0.07412	-0.03533	0.03003	0.05582	-0.03434	0.00827	0.01162	0.03378	0.08101	-0.10780
R2	0.24316	0.05218	0.12037	0.04545	0.30008	-0.00029	0.13380	0.03425	-0.14078	-0.36283
R3	-0.08586	0.00711	-0.02545	-0.04810	0.07820	-0.20694	0.03200	0.02385	-0.11527	0.05927
R4	-0.00648	0.13202	0.07636	0.07347	-0.00814	0.08748	0.05606	-0.07534	-0.02575	0.04112
R5	0.19931	0.21497	0.30644	0.22263	0.14302	0.17259	0.28293	-0.03415	0.07546	-0.03502
R7	0.38556	0.11177	0.13339	-0.02160	0.27165	0.06224	0.23080	0.01858	-0.02777	-0.11183
R8	0.22670	0.32240	0.17886	0.03216	0.16779	0.15075	0.24593	-0.06400	0.01881	-0.01839
R9	0.25002	0.15448	0.14124	0.00123	0.26576	0.09849	0.19328	0.03695	-0.09174	-0.03216
R11	0.12819	-0.03789	0.01449	-0.00257	0.08138	-0.06338	0.07597	0.18707	-0.08138	-0.10080
R12	-0.14015	-0.12686	-0.25573	-0.13644	-0.22124	-0.11842	-0.38277	0.00312	-0.02499	0.09103
R13	0.19806	0.27900	0.11894	-0.03620	0.17518	0.05045	0.16226	-0.07476	-0.02998	-0.05312
R14	0.07498	-0.03208	0.02776	-0.01852	0.00976	-0.08717	0.17321	0.18059	-0.10987	-0.05377
R16	-0.11564	-0.11223	-0.06053	0.06314	-0.12004	0.10880	-0.17182	-0.16863	0.10988	0.04280
R17	0.31555	0.16185	0.08381	0.06321	0.15694	0.28739	0.14785	-0.19574	0.01878	-0.08884
R18	0.12503	-0.11401	-0.18363	-0.06338	0.06588	-0.09295	-0.12201	0.01824	-0.05588	-0.03876
R19	0.02850	0.12136	0.18731	0.15859	0.02894	0.06108	0.02706	-0.00787	-0.00138	-0.06841
R21	0.07423	0.17889	0.07404	0.04744	0.13051	0.15498	0.09852	-0.14542	0.10281	-0.04028
R22	0.03982	0.06884	0.02054	0.11953	0.01463	0.21097	0.01391	-0.21512	0.03944	0.05713
R23	0.18734	-0.01567	0.08083	0.04081	0.13436	-0.18570	0.04429	0.18035	-0.07591	-0.22248
R24	-0.04201	0.02786	-0.11275	0.03801	0.01512	0.15888	-0.12775	-0.10855	0.02713	0.05455
R26	1.00000	0.23574	0.17842	0.08049	0.35264	0.08617	0.28155	0.10820	0.04187	-0.17808
R27	0.23574	1.00000	0.31478	0.08216	0.18226	0.15324	0.21420	0.00489	0.05366	-0.07170
R28	0.17842	0.31478	1.00000	0.23117	0.12648	0.07157	0.35738	0.13758	-0.01431	-0.14367
R29	0.08049	0.08216	0.23117	1.00000	0.10368	0.13849	0.04614	0.08088	0.03202	-0.08156
R31	0.35264	0.18226	0.12648	0.10368	1.00000	0.11183	0.31425	0.10746	-0.15988	-0.13020
R32	0.08617	0.15324	0.07157	0.13849	0.11183	1.00000	0.18350	-0.13561	0.18019	0.11663
R33	0.28155	0.21420	0.35738	0.04614	0.31425	0.18350	1.00000	0.14462	-0.05887	-0.02123
R34	0.10820	0.00489	0.13758	0.08088	0.10746	-0.13561	0.14462	1.00000	-0.03283	-0.05132
R36	0.04187	0.05366	-0.01431	0.03202	-0.15988	0.18019	-0.05887	-0.03283	1.00000	0.07333
R37	-0.17808	-0.07170	-0.14367	-0.08156	-0.13020	0.11663	-0.02123	-0.05132	0.07333	1.00000
R38	0.08225	0.08858	0.04854	-0.03823	0.18128	0.00459	0.05421	0.08786	-0.04032	-0.01858
R39	-0.07875	0.14185	0.00770	0.10497	-0.08345	0.22509	-0.04865	-0.30117	0.11949	0.18254
R41	-0.19185	-0.23348	-0.32685	-0.00520	-0.23847	-0.07219	-0.54881	-0.01027	0.08884	0.12682
R42	0.26142	-0.03704	-0.01242	0.01867	0.25322	0.00741	0.22131	0.20675	-0.07878	-0.04188
R43	-0.15485	0.10068	0.03943	0.05775	-0.17216	0.07882	-0.06488	-0.05075	0.04535	0.15880
R44	0.01384	0.00838	-0.03038	0.00140	-0.10214	0.03806	-0.14850	-0.15308	0.18831	0.07955
R45	0.10238	-0.09059	0.02884	-0.08314	0.08575	0.05881	0.08784	0.01075	0.08718	-0.01312
R47	0.00872	-0.12152	-0.05602	-0.04068	-0.08986	-0.06007	0.02284	0.17938	-0.04384	0.06349
R48	-0.02769	0.04883	0.10851	0.08791	-0.07186	0.23010	0.05379	-0.18186	0.15147	0.11804
R49	0.24171	-0.00482	-0.00130	0.07736	0.27915	0.00170	0.09377	0.19811	-0.15062	-0.16252
R51	0.04203	-0.00173	0.05859	0.03833	0.00689	-0.18678	-0.03268	0.20868	-0.00073	-0.09670
R52	0.28080	0.25474	0.35942	0.15085	0.24727	0.15321	0.49400	0.14455	-0.03508	-0.09384
R53	0.03068	0.24231	0.18208	0.14592	0.03378	0.16805	0.03746	-0.14581	0.09322	0.07422
R54	-0.01564	0.08086	-0.08912	-0.08036	-0.02082	0.10010	0.00857	-0.25344	0.00010	0.13260
R55	-0.00973	0.24283	0.26123	0.03347	0.00221	-0.01201	0.06240	0.08985	0.03434	-0.00310
R57	0.09845	0.20252	0.21125	0.04065	0.07024	-0.11589	0.13955	0.12706	-0.03983	-0.03827
R58	0.17473	0.16783	0.25542	0.12004	0.02987	0.36583	0.18060	-0.21884	0.12877	0.02909
R59	0.38375	-0.00037	0.12604	0.05705	0.38373	0.02557	0.16390	0.14885	-0.12237	-0.24834
R61	0.18730	0.04848	0.19898	-0.02772	-0.08072	0.00988	0.22705	0.09788	0.12252	-0.11837
R62	0.13911	-0.04273	-0.00381	0.05898	0.23031	-0.08471	0.12473	0.10548	-0.08777	-0.07315
R63	0.03190	0.01810	0.06389	0.00375	0.01804	-0.06401	0.10808	0.16741	-0.05589	-0.04998
R64	-0.25206	-0.01950	-0.12408	-0.01671	-0.27447	0.09051	-0.19809	-0.21037	0.13785	0.12053
R66	-0.02427	-0.04000	-0.11753	-0.08378	-0.11089	0.15510	-0.06334	-0.15330	0.05985	0.09015
R67	0.11180	0.19558	0.22241	0.24532	0.13981	0.14568	0.08405	-0.12712	0.03030	-0.00627
R68	0.21780	0.26393	0.44883	0.09854	0.10828	0.15047	0.27285	0.02448	0.08318	-0.08575
R69	0.00508	0.11338	-0.00558	0.02886	-0.05513	0.25740	0.00955	-0.07824	0.11942	0.10974
R71	0.14251	0.08895	0.10103	-0.03155	0.09851	-0.07931	0.14524	0.17510	-0.19336	-0.14365
R72	0.12742	0.18567	0.15800	0.07870	0.08442	0.18785	0.04761	-0.15188	0.15080	-0.04310
R73	-0.03239	-0.02748	-0.04543	-0.05520	-0.12012	-0.01759	0.00485	0.01548	0.10048	0.00162
R74	0.23752	0.26756	0.38236	0.08635	0.25535	0.14149	0.41757	0.00458	0.01398	-0.09730
R76	0.18202	-0.05055	-0.04782	-0.01859	0.09032	-0.09388	0.07845	0.17858	-0.18074	-0.12291
R77	0.24917	-0.01888	0.05811	0.04362	0.28178	-0.07863	0.18275	0.11419	-0.08329	-0.08855
R78	0.09345	0.17899	0.11140	0.11509	0.08314	0.20493	0.14028	0.01077	0.04236	0.07956
R79	-0.18831	-0.14883	-0.12857	0.04112	-0.12808	0.19530	-0.25576	-0.16036	0.09784	0.14507
R81	0.18274	0.04223	0.09038	-0.08430	0.18380	0.03421	0.21874	0.08398	-0.13163	-0.02171
R82	0.17561	0.15913	0.12742	0.07774	0.11864	0.35859	0.14254	-0.20264	0.02861	-0.00864
R83	0.07122	0.27050	0.35215	0.09232	0.15880	0.20898	0.21363	-0.05073	-0.02287	-0.01927
R84	0.20585	0.30989	0.34789	0.12043	0.28837	0.20537	0.45588	-0.02570	-0.03309	-0.03123
R86	0.08922	-0.05171	-0.13266	-0.03088	-0.00012	-0.08742	-0.07510	0.07494	-0.10518	-0.01289
R87	-0.15875	-0.05333	-0.01179	0.00824	-0.14842	-0.08472	-0.03798	0.18302	-0.08001	0.13035
R88	0.11938	0.02013	-0.03851	0.14753	0.05768	0.43847	-0.01370	-0.20503	0.01884	0.12161
R89	0.24844	0.08734	0.07181	0.00156	0.10363	0.01884	0.14883	0.17845	0.04411	-0.11875
R91	0.33814	0.11888	0.14787	0.12275	0.28283	0.11260	0.28116	0.03834	-0.01349	-0.10826
R92	0.08838	-0.07880	-0.13880	0.00236	0.03251	-0.13705	0.00434	0.25835	-0.07383	-0.02779
R93	0.12308	0.01822	0.05085	0.05883	0.20282	0.16320	0.01426	-0.13052	0.03453	-0.03790
R94	0.04316	0.13548	0.12188	0.02779	-0.04487	0.18782	0.09480	-0.01837	0.12748	0.12455
R96	-0.04807	-0.15005	-0.11838	-0.24955	-0.10980	-0.10326	-0.02887	0.13893	0.00571	-0.00170
R97	-0.09560	-0.12244	-0.11444	-0.05587	-0.24796	-0.02829	-0.17159	-0.07001	0.08387	0.04867
R98	0.11089	0.21741	0.05557	0.04985	0.03271	0.24589	0.01331	-0.13833	0.08548	0.08478
R99	0.10256	-0.01385	0.06851	0.08529	0.02552	-0.09186	0.11616	0.51102	-0.08112	0.03060
R101	0.15348	0.01210	0.00384	0.03811	0.24733	-0.11805	0.01220	0.11051	-0.17329	-0.11874
R102	0.19200	0.12543	0.11643	0.07217	-0.01534	0.23092	0.02861	-0.12780	0.08168	-0.05858
R103	0.13348	0.18078	0.05433	0.01880	0.20793	-0.06501	0.10542	0.12629	-0.28884	-0.04180
R104	0.08482	0.04712	0.07498	0.06735	0.08273	0.18202	0.03381	-0.08108	0.08863	0.01677
R105	0.09492	0.07297	0.11885	0.10372	0.02872	0.18055	-0.02208	-0.03135	0.09204	-0.00125
R108	-0.13324	0.14161	0.07850	0.01395	-0.19386	0.04350	-0.03433	-0.08420	0.01149	0.09091
R107	0.13944	0.18196	0.25326	0.06172	0.12246	-0.12817	0.11860	0.18928	-0.05083	-0.20348
R108	-0.11064	0.02223	0.02781	0.00772	-0.08417	0.14483	-0.04122	-0.07858	0.07818	0.13680
R109	-0.13277	0.08928	-0.00507	0.11782	-0.07949	0.21773	-0.08888	-0.25815	0.12081	0.05923
R110	0.23086	0.31847	0.35908	0.20571	0.36892	0.23840	0.48558	0.02309	0.01789	-0.01021
R111	-0.05586	0.20948	0.13293	0.05883	-0.12532	0.02145	0.02146	-0.04845	0.07784	-0.00791
R112	0.37892	0.11317	0.11736	0.10482	0.32098	0.05875	0.26588	0.11903	-0.08841	-0.20457

	R38	R39	R41	R42	R43	R44	R46	R47	R48	R49
R1	-0.04782	0.07181	0.04672	-0.01855	-0.08032	-0.02811	-0.00135	-0.00847	0.06333	0.08681
R2	0.00855	-0.10772	-0.17541	0.05142	-0.11803	-0.16141	0.11225	-0.12383	-0.04824	0.24234
R3	0.08886	0.07611	-0.02110	-0.08467	0.04179	-0.03408	-0.18338	0.08426	-0.01176	-0.02283
R4	-0.05155	0.15367	-0.04758	-0.12841	0.00811	-0.09308	-0.03881	-0.08100	0.08282	-0.12571
R5	-0.08380	0.08879	-0.37742	-0.04888	0.04011	-0.08151	-0.00210	-0.18049	0.12178	-0.02985
R7	0.04885	-0.08178	-0.19749	0.21831	-0.28115	-0.03587	0.01488	-0.07735	0.05442	0.22977
R8	0.05821	0.11107	-0.28501	-0.03341	-0.02079	0.10548	-0.14514	-0.05832	0.09473	-0.08184
R9	-0.03398	0.10034	-0.20075	0.18347	0.02274	-0.05285	-0.07826	-0.00217	-0.04228	0.08462
R11	-0.00474	-0.23695	0.00715	0.33269	-0.20744	-0.28971	-0.03551	0.04625	-0.20555	0.34745
R12	0.02892	-0.08251	0.58424	-0.01217	0.05052	0.17033	-0.07418	0.08183	-0.12895	-0.04818
R13	0.13742	0.04784	-0.18240	0.07433	-0.10379	0.08480	-0.02893	-0.07089	0.02780	0.08914
R14	0.15338	-0.26216	-0.04988	0.28197	-0.08887	-0.15200	0.02253	0.05788	-0.09112	0.13889
R16	-0.08518	0.03294	0.21490	-0.02038	0.02322	0.04488	0.02551	-0.04536	0.05410	-0.01321
R17	0.04230	0.18538	-0.17478	-0.02015	-0.07587	0.11245	0.08487	-0.10753	0.19882	0.10289
R18	0.10481	-0.01870	0.24882	0.18385	-0.05590	-0.03318	-0.02840	0.13888	-0.19803	0.17880
R19	-0.03857	0.08725	-0.14251	-0.08204	-0.01445	-0.04780	-0.04881	-0.21851	0.01888	0.03739
R21	0.11085	0.22802	-0.15362	-0.15920	0.05792	0.18855	-0.03248	-0.11853	0.15235	-0.11262
R22	0.02100	0.23288	-0.01017	-0.05817	0.08445	0.04029	0.03414	0.02280	0.16533	-0.04333
R23	0.09704	-0.22147	-0.00271	0.23620	-0.20665	-0.15358	-0.00358	0.05825	-0.24786	0.23728
R24	0.02718	0.10337	0.03648	-0.00708	0.05580	-0.01978	-0.09736	-0.06706	0.12182	0.02288
R26	0.09225	-0.07875	-0.19185	0.26142	-0.15485	0.01384	0.10238	0.00872	-0.02768	0.24171
R27	0.08658	0.14185	-0.23348	-0.03704	0.10068	0.00838	-0.08058	-0.12152	0.04883	-0.00482
R28	0.04854	0.00770	-0.32885	-0.01242	0.03943	-0.03038	0.02884	-0.05802	0.10851	-0.00130
R29	-0.03623	0.10487	-0.00520	0.01867	0.05775	0.00140	-0.08314	-0.04068	0.08791	0.07736
R31	0.15128	-0.06345	-0.23847	0.25322	-0.17216	-0.10214	0.06875	-0.08986	-0.07186	0.27915
R32	0.00459	0.22509	-0.07218	0.00741	0.07982	0.03606	0.05861	-0.05007	0.23010	0.00170
R33	0.05421	-0.04865	-0.54851	0.22131	-0.05469	-0.14650	0.06784	0.02284	0.05378	0.09377
R34	0.09755	-0.30117	-0.01027	0.20875	-0.05075	-0.15308	0.01075	0.17938	-0.19185	0.19811
R36	-0.04032	0.11949	0.08884	-0.07878	0.04535	0.16831	0.06716	-0.04394	0.15147	-0.15062
R37	-0.01958	0.16254	0.12682	-0.04188	0.15880	0.07855	-0.01312	0.06349	0.11804	-0.16252
R38	1.00000	0.01523	-0.00858	0.00084	0.03078	0.03715	0.04707	-0.00818	0.02839	0.13351
R39	0.01523	1.00000	0.00824	-0.28522	0.27888	0.18224	0.00105	-0.06891	0.36227	-0.21917
R41	-0.00858	0.00824	1.00000	-0.00048	0.08386	0.10073	0.04233	0.22772	-0.04453	-0.03710
R42	0.00084	-0.28522	-0.00048	1.00000	-0.25037	-0.14774	0.00584	0.17462	-0.18180	0.28561
R43	0.03078	0.27888	0.08386	-0.25037	1.00000	0.18925	-0.01794	0.05855	0.05878	-0.10585
R44	0.03715	0.18224	0.10073	-0.14774	0.18925	1.00000	0.15185	-0.01024	0.12389	-0.17460
R46	0.04707	0.00105	0.04233	0.00584	-0.01794	0.15185	1.00000	0.08236	0.03364	0.00204
R47	-0.00818	-0.06891	0.22772	0.17462	0.05855	-0.01024	0.08236	1.00000	-0.11222	0.02888
R48	0.02839	0.36227	-0.04453	-0.18180	0.05878	0.12389	0.03364	-0.11222	1.00000	-0.22077
R49	0.13351	-0.21917	-0.03710	0.28561	-0.10585	-0.17460	0.00204	0.02888	-0.22077	1.00000
R51	0.08885	-0.05597	0.06758	0.04826	-0.00049	-0.04080	0.02177	0.18887	-0.14144	0.07750
R52	0.10501	0.02572	-0.45218	0.10280	0.00675	-0.10355	0.09031	-0.04887	0.08748	0.05636
R53	-0.10846	0.33404	-0.10916	-0.18863	0.11089	0.08308	-0.02028	-0.14066	0.17822	-0.18851
R54	0.00678	0.28086	0.02880	-0.14742	0.07363	0.17327	0.11115	-0.08243	0.24140	-0.19195
R56	-0.04121	0.02081	-0.18623	-0.19070	0.12841	-0.02102	-0.01462	-0.10292	0.08167	-0.08875
R57	-0.02071	0.00760	-0.12279	0.02118	-0.08502	-0.12314	-0.17038	0.06163	-0.07223	0.04280
R58	0.01678	0.12302	-0.18546	-0.10134	-0.03351	0.07843	-0.00446	-0.09879	0.21301	-0.10372
R59	0.05095	-0.22267	-0.15172	0.28539	-0.30536	-0.20307	0.02780	-0.00828	-0.20515	0.42355
R61	0.07120	-0.10046	-0.11522	0.15711	-0.05075	0.00023	0.09889	0.07315	-0.00129	-0.04139
R62	-0.03673	-0.14336	-0.08824	0.18695	-0.12759	-0.09857	-0.08155	0.08349	-0.18548	0.17576
R63	0.04550	-0.10838	-0.01586	0.10232	-0.05344	-0.11403	-0.07295	0.18451	-0.07310	0.09465
R64	-0.01448	0.30822	0.17104	-0.28283	0.19963	0.20978	0.07776	-0.08786	0.29065	-0.37867
R66	0.04951	0.11070	0.13273	0.04370	0.08973	0.06184	0.02773	0.04525	0.09600	-0.08135
R67	-0.02770	0.16305	-0.21586	-0.07435	-0.01025	0.05529	-0.02697	-0.41075	0.11527	-0.01801
R68	-0.02923	0.07392	-0.26145	0.08060	0.01075	-0.08650	0.01927	0.01349	0.11889	0.03445
R69	0.05489	0.18201	-0.03390	-0.15289	0.14931	0.18137	0.01130	-0.04549	0.22859	-0.12680
R71	0.06884	-0.10775	-0.12317	0.11207	-0.02296	0.00402	-0.01633	0.08896	-0.08202	0.18411
R72	-0.01979	0.05392	-0.14703	-0.05597	-0.10176	0.04047	0.05977	-0.08747	0.08487	-0.11265
R73	0.01134	-0.01617	0.10620	-0.07112	0.04141	0.05455	-0.00094	0.09567	0.07887	-0.08110
R74	0.02762	0.00584	-0.52221	0.04273	-0.08347	-0.07088	-0.03689	-0.20492	0.06895	0.06831
R76	0.03271	-0.25735	0.10460	0.38725	-0.15874	-0.08328	0.02475	0.15892	-0.26323	0.27519
R77	0.05990	-0.28526	-0.03870	0.40473	-0.20302	-0.19688	0.08115	0.05020	-0.23821	0.40575
R78	0.07727	0.12166	-0.11132	0.02916	0.01506	-0.02578	0.03387	-0.10981	0.07083	0.02019
R79	-0.09362	0.14242	0.33042	-0.03751	0.01763	0.00125	0.02846	-0.00278	0.09474	-0.08410
R81	0.07807	-0.19150	-0.08155	0.30567	-0.22904	-0.16498	-0.07990	0.10584	-0.17812	0.26273
R82	-0.04924	0.18752	-0.18021	-0.05171	-0.00761	0.04278	0.02327	-0.11168	0.21217	-0.11940
R83	-0.01736	0.09224	-0.34323	-0.07998	0.05890	-0.05000	0.03117	-0.12854	0.15586	-0.10353
R84	0.12881	0.08054	-0.42930	0.00729	-0.00419	-0.06338	0.05898	-0.12741	0.18238	-0.07076
R86	0.01238	-0.11872	0.21544	0.14557	-0.03758	0.01820	0.03831	0.17885	-0.14730	0.14333
R87	0.10159	-0.02428	0.20721	0.05813	0.13291	0.05140	-0.00440	0.15140	-0.04237	-0.02357
R88	-0.02173	0.21392	0.08572	-0.04724	0.00088	0.04981	0.08281	0.10552	0.19833	-0.03160
R89	0.03806	-0.16000	-0.04922	0.34005	-0.12436	-0.05630	0.04746	0.13682	-0.11742	0.26258
R91	0.07899	0.01947	-0.17486	0.11718	-0.14585	0.00857	0.04245	0.03751	0.06375	0.19478
R92	0.13411	-0.25469	0.15822	0.28770	-0.08000	-0.04982	0.02806	0.17454	-0.24877	0.28535
R93	-0.13230	0.14893	-0.05567	-0.04255	-0.07474	-0.00236	-0.00128	-0.08895	0.10591	-0.03890
R94	-0.05437	0.14670	-0.07002	-0.13886	0.15724	0.10506	0.08347	-0.03128	0.20482	-0.07899
R96	0.11089	-0.11591	0.21585	0.09480	-0.01027	0.00254	0.12903	0.30818	-0.02551	0.02187
R97	-0.00453	0.20136	0.27072	-0.10318	0.18019	0.18903	0.08921	0.19012	0.13990	-0.12035
R98	-0.00375	0.34288	0.07549	-0.11008	0.13904	0.17880	-0.00484	0.03102	0.20589	-0.16336
R99	0.11715	-0.15822	0.04446	0.12721	-0.07682	-0.11461	0.02221	0.11418	-0.10749	0.17885
R101	0.14612	-0.11375	0.02982	0.18880	-0.12197	0.08416	-0.05363	0.01334	-0.20498	0.35446
R102	0.00331	0.31376	-0.02959	-0.07106	0.05889	0.18701	-0.00532	-0.05421	0.24020	-0.04234
R103	0.14325	-0.10350	0.06172	0.17275	0.01847	-0.04617	0.07115	0.15562	-0.08797	0.21116
R104	0.12147	0.21373	-0.09257	-0.01024	0.03638	0.10856	0.03295	-0.06488	0.20754	-0.09211
R105	0.06353	0.18728	0.03876	-0.02457	0.09949	0.02014	0.01579	-0.04110	0.13470	-0.05681
R106	-0.04334	0.29152	0.04929	-0.17384	0.20263	0.17547	-0.02271	0.02211	0.28981	-0.24617
R107	0.08520	-0.13717	-0.11800	0.08424	0.01484	-0.10514	0.02322	-0.04300	-0.12007	0.14427
R108	-0.04771	0.23232	0.08726	-0.11491	0.03801	0.08720	-0.04454	-0.03988	0.18561	-0.21577
R109	-0.04185	0.36089	0.04284	-0.23106	0.25486	0.09858	-0.05078	-0.07823	0.18613	-0.20773
R110	0.11533	0.11928	-0.48230	-0.01571	-0.06512	-0.15207	-0.05556	-0.15194	0.15618	0.05200
R111	-0.08751	0.31038	-0.05117	-0.20146	0.21149	0.10319	-0.00252	0.07684	0.15394	-0.18652
R112	0.10481	-0.10546	-0.21555	0.13020	-0.18116	-0.13429	-0.00321	0.01629	-0.07772	0.23100

	R51	R52	R53	R54	R55	R57	R58	R59	R61	R62
R1	0.09128	-0.00776	-0.00775	0.04173	0.08428	0.04848	0.00367	0.05843	0.01645	0.00553
R2	0.08888	0.10681	-0.09418	-0.05320	-0.01818	0.01881	0.01649	0.37017	0.07878	0.18765
R3	0.09913	-0.01142	0.04108	0.04108	0.05226	0.10733	-0.12849	-0.00755	-0.00755	0.10797
R4	-0.01631	0.21518	0.22801	0.09097	0.09014	0.08031	0.15325	-0.00401	0.13921	-0.07651
R5	-0.10032	0.44983	0.27037	0.07718	0.10099	0.18884	0.25840	0.10905	0.20848	-0.02770
R7	-0.01063	0.19730	0.09113	-0.01585	0.03859	0.15791	0.08946	0.40907	0.18085	0.16836
R8	-0.07986	0.25389	0.19536	0.05989	0.12040	0.13089	0.28581	0.05351	0.11803	0.03137
R9	-0.08586	0.19853	0.13811	0.02233	0.01578	0.15209	0.13577	0.21882	0.20284	0.08463
R11	0.07512	0.03089	-0.12674	-0.28177	-0.03703	0.07389	-0.14806	0.34840	0.10113	0.14881
R12	0.03538	-0.48703	-0.10013	0.10615	-0.11828	-0.07827	-0.18850	-0.18948	-0.08024	-0.05762
R13	-0.05805	0.18842	0.04836	0.05735	0.12282	0.12087	0.09572	0.09068	0.07080	0.02538
R14	0.08094	0.03738	-0.11888	-0.01886	0.03208	0.08950	-0.13944	0.05075	0.18881	0.09588
R16	-0.10302	-0.23875	-0.02467	0.07012	-0.07987	-0.11862	-0.00117	-0.14840	-0.07312	-0.11001
R17	-0.25176	0.18247	0.10934	0.09177	0.02474	-0.01702	0.28834	0.22825	0.07804	0.08403
R18	0.03460	-0.11073	-0.06885	-0.00041	-0.18717	0.07041	-0.01548	0.10748	0.02787	0.09414
R19	-0.10058	0.08483	0.11286	0.04380	0.08041	0.05478	0.11046	0.10881	0.02817	-0.00788
R21	-0.06356	0.12548	0.28055	0.19693	0.10801	-0.00198	0.18477	-0.05347	0.04487	-0.04469
R22	-0.10451	-0.00758	0.17273	0.18098	-0.02724	0.00832	0.18888	-0.04618	-0.03744	-0.01536
R23	-0.02360	0.05445	-0.08891	-0.08317	-0.00862	0.12831	-0.05007	0.33764	0.07231	0.23088
R24	-0.08440	-0.17885	0.07589	0.18088	0.08786	-0.06825	0.10233	-0.04394	-0.15504	0.08557
R26	0.04203	0.28080	0.03089	-0.01584	-0.00973	0.09845	0.17473	0.38375	0.18730	0.13911
R27	-0.00173	0.25474	0.24231	0.08086	0.24263	0.20252	0.16753	-0.00037	0.04948	-0.04273
R28	0.05959	0.35942	0.18209	-0.06912	0.26123	0.21125	0.25542	0.12604	0.19888	-0.00381
R29	0.03633	0.15085	0.14582	-0.08036	0.03347	0.04065	0.12004	0.05705	-0.02772	0.05896
R31	0.00869	0.24727	0.03378	-0.02042	0.00221	0.07024	0.02987	0.38373	-0.08072	0.23031
R32	-0.16678	0.15321	0.16805	0.10010	-0.01201	-0.11589	0.38563	0.02567	0.00988	-0.06471
R33	-0.03268	0.48400	0.03746	0.00857	0.08240	0.13955	0.18080	0.18390	0.22705	0.12473
R34	0.20868	0.14455	-0.14581	-0.25344	0.08985	0.12706	-0.21884	0.14885	0.09768	0.10548
R36	-0.00073	-0.03508	0.09322	0.00010	0.03434	-0.03893	0.12877	-0.12237	0.12252	-0.08777
R37	-0.09870	-0.09384	0.07422	0.13280	-0.00310	-0.03827	0.02809	-0.24834	-0.11637	-0.07315
R38	0.06865	0.10501	-0.10846	0.00578	-0.04121	-0.02071	0.01676	0.05085	0.07120	-0.03673
R39	-0.05597	0.02572	0.33404	0.28085	0.02081	0.00760	0.12302	-0.22267	-0.10046	-0.14336
R41	0.06758	-0.45215	-0.10916	0.02880	-0.18623	-0.12278	-0.18546	-0.15172	-0.11522	-0.08624
R42	0.04826	0.10280	-0.18663	-0.14742	-0.19070	0.02118	-0.10134	0.28538	0.15711	0.18895
R43	-0.00049	0.00675	0.11089	0.07363	0.12841	-0.08802	-0.03351	-0.30836	-0.05076	-0.12759
R44	-0.04080	-0.10355	0.08308	0.17327	-0.02102	-0.12314	0.07843	-0.20307	0.00023	-0.09857
R46	0.02177	0.08031	-0.02028	0.11115	-0.01452	-0.17038	-0.00446	0.02780	0.09889	-0.08156
R47	0.18597	-0.04697	-0.14066	-0.08243	-0.10282	0.08183	-0.08879	-0.00828	0.07315	0.09349
R48	-0.14144	0.08748	0.17822	0.24140	0.08187	-0.07223	0.21301	-0.20515	-0.00129	-0.18548
R49	0.07750	0.05636	-0.18851	-0.19185	-0.06875	0.04260	-0.10372	0.42355	-0.04139	0.17576
R51	1.00000	-0.00349	-0.06281	-0.13770	0.02589	0.04306	-0.18857	0.03474	0.04110	-0.00621
R52	-0.00349	1.00000	0.15902	-0.07502	0.18082	0.17078	0.24145	0.18253	0.32483	0.05287
R53	-0.06291	0.15902	1.00000	0.27893	0.28371	0.18170	0.20557	-0.10388	-0.00880	-0.14518
R54	-0.13770	-0.07502	0.27893	1.00000	0.10895	0.00743	0.15847	-0.21421	-0.05734	-0.07596
R56	0.02589	0.18082	0.28371	0.10895	1.00000	0.21838	0.08140	-0.07518	0.00884	-0.03901
R57	0.04306	0.17078	0.18170	0.00743	0.21838	1.00000	0.05830	0.09302	0.08359	0.08948
R58	-0.18857	0.24145	0.20557	0.15847	0.08140	0.05830	1.00000	0.07910	0.00825	-0.05381
R59	0.03474	0.18253	-0.10388	-0.21421	-0.07518	0.09302	0.07910	1.00000	0.13844	0.27241
R61	0.04110	0.32483	-0.00880	-0.05734	0.00884	0.08359	0.00825	0.13844	1.00000	0.08515
R62	-0.00621	0.05287	-0.14518	-0.07596	-0.03801	0.08948	-0.05381	0.27241	0.08515	1.00000
R63	0.19082	0.07408	-0.07707	-0.10042	0.10038	0.15705	-0.06222	0.15702	0.13807	0.20666
R64	-0.12737	-0.12789	0.07855	0.22582	0.07035	-0.14051	0.04339	-0.49843	-0.03842	-0.28185
R66	-0.01788	-0.08763	0.02632	0.13141	0.05663	-0.02059	0.17400	-0.08485	0.03418	-0.04095
R67	-0.20253	0.13891	0.32540	0.08604	0.12314	0.08286	0.29245	0.07827	-0.04869	0.03477
R68	-0.09383	0.38991	0.20798	0.00587	0.21758	0.22419	0.38492	0.18552	0.17019	-0.03493
R69	-0.07353	0.03453	0.22176	0.18010	0.07473	0.03714	0.28504	-0.10387	-0.03111	-0.12647
R71	0.12035	0.14575	-0.04018	-0.00814	0.00428	0.18674	-0.10299	0.19913	0.13887	-0.02025
R72	-0.13708	0.12585	0.20041	0.08834	0.11271	0.08236	0.31018	0.07510	0.04871	-0.00196
R73	0.12310	-0.08231	-0.00813	0.09182	-0.00658	0.03184	-0.00577	-0.09703	0.08292	-0.09941
R74	-0.18718	0.40528	0.18808	0.00296	0.18232	0.18765	0.32085	0.22778	0.13585	0.08332
R76	0.11608	0.02348	-0.14012	-0.04288	-0.07080	0.08553	-0.08870	0.21988	0.11493	0.18008
R77	0.03827	0.11446	-0.14291	-0.18050	-0.08649	0.12203	-0.11090	0.51063	0.17091	0.24323
R78	-0.02234	0.16543	0.34182	0.03866	0.13321	0.12042	0.11107	0.10128	0.10134	-0.01546
R79	-0.08684	-0.21815	0.08771	0.15676	-0.05201	-0.19648	0.08346	-0.03756	-0.11346	-0.05518
R81	0.04512	0.12869	-0.13373	-0.13760	-0.05138	0.07855	0.05803	0.27798	0.00315	0.19756
R82	-0.22108	0.14613	0.17714	0.13636	0.15553	-0.02053	0.35055	-0.01713	-0.01829	-0.09589
R83	-0.04512	0.31596	0.24542	0.08272	0.17352	0.03207	0.21892	0.03424	0.00847	-0.01825
R84	-0.06259	0.60591	0.12741	0.00916	0.12010	0.07401	0.26092	0.17675	0.22043	0.03684
R86	0.08174	-0.04800	-0.26816	-0.08269	-0.18091	-0.00496	-0.14860	0.05581	0.09370	0.04969
R87	0.17323	-0.08037	-0.10306	-0.03481	-0.02931	-0.04021	-0.18610	-0.08848	-0.05852	-0.00578
R88	-0.12231	0.00891	0.16495	0.19711	-0.04486	0.02014	0.28826	-0.06870	-0.13306	-0.01765
R89	0.08676	0.15072	-0.02268	-0.05616	-0.05452	0.10890	0.01526	0.27357	0.18114	0.10805
R91	-0.03502	0.17516	0.00423	0.02372	-0.02825	0.12697	0.16094	0.30504	0.01578	0.14748
R92	0.21433	-0.03599	-0.18079	-0.15442	-0.10251	0.11520	-0.20684	0.18518	0.07874	0.14560
R93	-0.12873	0.13636	0.12550	0.10528	0.03898	0.08796	0.19818	0.04569	-0.00334	-0.00884
R94	-0.10815	0.02545	0.18470	0.20480	0.48137	0.08343	0.07871	-0.13240	0.02173	-0.03558
R96	0.18251	-0.08881	-0.15288	0.01955	-0.00301	-0.00955	-0.23493	-0.08895	0.16754	-0.08406
R97	0.04485	-0.23321	0.07184	0.07628	-0.01818	-0.11963	0.00829	-0.22285	-0.05411	-0.08353
R98	-0.18036	0.00720	0.21089	0.18853	0.04078	-0.02753	0.20788	-0.02735	0.01361	-0.10809
R99	0.21526	0.12568	-0.06736	-0.12049	0.08909	0.13845	-0.13243	0.08884	0.09575	0.10159
R101	0.08082	-0.00149	-0.13012	-0.12880	-0.07857	0.09299	-0.08528	0.25846	-0.08923	0.14502
R102	-0.14319	0.00803	0.18744	0.17848	0.08654	-0.08358	0.20940	-0.05482	0.00731	-0.01045
R103	0.08856	0.10879	-0.05211	-0.01822	0.04708	0.18580	-0.07843	0.21248	0.08293	0.11140
R104	-0.12412	0.05217	0.10462	0.08897	0.02258	-0.00837	0.20487	0.02726	-0.01238	0.08382
R105	-0.05856	0.05033	0.23982	0.10836	0.25828	0.04587	0.07873	-0.04114	-0.01262	-0.04775
R108	-0.03217	-0.08110	0.18597	0.18724	0.12810	0.02880	0.03187	-0.17870	0.00772	-0.20188
R107	0.08017	0.20809	-0.05178	-0.21109	0.10185	0.12116	0.01071	0.14881	0.09847	0.03607
R108	-0.10844	0.03347	0.18348	0.27016	0.03484	0.08872	0.09850	-0.24187	-0.08280	-0.07788
R109	-0.14140	-0.04303	0.27243	0.20579	0.05544	0.00460	0.12923	-0.27488	-0.13255	-0.12618
R110	-0.14188	0.55068	0.18569	0.02351	0.15835	0.19801	0.30460	0.18873	0.17752	0.04183
R111	0.04847	0.04270	0.24388	0.18751	0.19721	0.03981	0.03863	-0.14844	0.02101	-0.15009
R112	0.03270	0.21707	0.03243	-0.12693	0.04374	0.13653	0.11863	0.48580	0.10804	0.27184

	R63	R64	R66	R67	R68	R69	R71	R72	R73	R74
R1	0.05198	0.03090	0.03496	0.04509	0.01331	-0.03498	-0.01873	0.02530	-0.05940	0.0308
R2	0.13002	-0.17423	0.02072	0.08419	0.14098	-0.01294	0.05866	0.12909	-0.00710	0.2176
R3	0.08710	-0.08478	0.04802	-0.07448	-0.03218	0.05843	0.14414	0.02178	0.11587	0.0192
R4	-0.01998	0.07143	0.07045	0.03384	0.18284	0.10357	0.07706	0.12062	0.00230	0.1278
R5	-0.05550	-0.04021	0.00481	0.29255	0.40860	0.19089	0.07548	0.28722	0.00242	0.4232
R6	0.08906	-0.23076	0.04171	0.11454	0.26363	0.09459	0.15980	0.10617	-0.04294	0.2870
R7	0.05325	-0.01109	0.06445	0.17230	0.19699	0.13789	0.09833	0.17789	0.05284	0.1886
R8	0.15770	-0.08256	0.05210	0.04405	0.25707	-0.00616	0.18087	0.13675	-0.07383	0.1887
R9	0.09877	-0.32803	-0.08678	-0.08116	0.02398	-0.20856	0.02754	0.01143	-0.06856	0.0771
R11	0.04604	0.17492	0.12256	-0.14318	-0.28001	-0.02219	-0.05242	-0.13085	0.11378	-0.4036
R12	-0.00100	-0.06070	-0.00999	0.02260	0.17085	-0.01135	0.14588	0.11883	-0.04853	0.1871
R13	0.19249	-0.08839	-0.05635	-0.03895	-0.04814	-0.05653	0.19090	-0.02587	0.02335	0.0849
R14	-0.06395	0.22112	0.18132	-0.02887	0.01054	0.09060	-0.17123	0.04720	-0.00170	-0.1210
R16	-0.05001	0.02238	0.16814	0.15382	0.18125	0.20524	0.02144	0.32980	-0.06034	0.1978
R17	0.11172	-0.05524	0.13438	-0.07574	-0.08101	-0.05690	0.11419	-0.09208	0.01785	-0.1727
R18	-0.01873	-0.04671	-0.02082	0.28388	0.15673	0.13333	0.00144	0.14084	-0.04132	0.1730
R19	-0.03331	0.18173	0.01938	0.13998	0.09155	0.15448	0.11213	0.20875	0.05513	0.1656
R21	-0.03488	0.18033	0.18010	0.11466	0.17913	0.27164	-0.09288	0.17077	-0.00540	0.0501
R22	0.18820	-0.24469	-0.07986	0.00181	0.04384	-0.14748	0.08082	0.02550	-0.09862	0.0811
R23	-0.06339	0.16207	0.11016	0.06704	-0.08255	0.10236	-0.07501	0.05005	-0.00717	-0.0213
R24	0.03190	-0.25206	-0.02427	0.11180	0.21780	0.00508	0.14251	0.12742	-0.03238	0.2375
R25	0.01810	-0.01950	-0.04000	0.18558	0.28393	0.11339	0.08995	0.18567	-0.02748	0.2675
R26	0.08388	-0.12408	-0.11753	0.22241	0.44683	-0.00558	0.10103	0.15800	-0.04843	0.3823
R27	0.00375	-0.01671	-0.06378	0.24532	0.09854	0.02686	-0.03155	0.07670	-0.05520	0.0863
R28	0.01904	-0.27447	-0.11069	0.13981	0.10828	-0.05513	0.09651	0.08442	-0.12012	0.2553
R31	-0.08401	0.09051	0.15510	0.14568	0.15047	0.25740	-0.07931	0.18795	-0.01759	0.1414
R32	0.10508	-0.19509	-0.06334	0.06405	0.27286	0.00955	0.14524	0.04761	0.00485	0.4175
R33	0.15741	-0.21037	-0.15330	-0.12712	0.02448	-0.07824	0.17510	-0.15168	0.01546	0.0045
R34	-0.05588	0.13755	0.05865	0.03030	0.08315	0.11942	-0.18338	0.15090	0.10048	0.0139
R36	-0.04998	0.12053	0.09015	-0.00827	-0.08575	0.10974	-0.14385	-0.04310	0.00162	-0.0873
R37	0.04550	-0.01448	0.04851	-0.02770	-0.02923	0.05489	0.08884	-0.01878	0.01134	0.0276
R38	-0.10838	0.30622	0.11070	0.16305	0.07392	0.16201	-0.10775	0.05392	-0.01617	0.0056
R39	-0.01586	0.17104	0.13273	-0.21596	-0.28145	-0.03390	-0.12317	-0.14703	0.10820	-0.5222
R41	0.10232	-0.26263	0.04370	-0.07435	0.09060	-0.15289	0.11207	-0.05587	-0.07112	0.0427
R42	-0.05344	0.19853	0.08973	-0.01025	0.01075	0.14931	-0.02298	-0.10178	0.04141	-0.0834
R43	-0.11403	0.20978	0.06184	0.05529	-0.08650	0.18137	0.00402	0.04047	0.05455	-0.0708
R44	-0.07295	0.07776	0.02773	-0.02897	0.01827	0.01130	-0.01633	0.05877	-0.00094	-0.0368
R46	-0.07310	0.29065	0.09600	0.11627	0.11869	0.22859	-0.09202	0.08497	0.07887	-0.2049
R47	0.18451	-0.08786	0.04525	-0.41075	0.01349	-0.04849	0.08696	-0.08747	0.09567	0.0899
R48	-0.07310	0.29065	0.09600	0.11627	0.11869	0.22859	-0.09202	0.08497	0.07887	0.0899
R49	0.09485	-0.37957	-0.08135	-0.01801	0.03445	-0.12660	0.19411	-0.11285	-0.05110	0.0663
R51	0.19092	-0.12737	-0.01789	-0.20253	-0.09393	-0.07353	0.12035	-0.13708	0.12310	-0.1671
R52	0.07408	-0.12789	-0.06763	0.13881	0.36991	0.03453	0.14575	0.12585	-0.08231	0.4052
R53	-0.07707	0.07685	0.02632	0.32540	0.20798	0.22175	-0.04019	0.20041	-0.00813	0.1680
R54	-0.10042	0.22582	0.13141	0.08504	0.00587	0.18010	-0.00814	0.08834	0.09182	0.0029
R56	0.10038	0.07035	0.05863	0.12314	0.21758	0.07473	0.00428	0.11271	-0.00858	0.1523
R57	0.15705	-0.14051	-0.02059	0.06266	0.22419	0.03714	0.18674	0.08238	0.03164	0.1876
R58	-0.08222	0.04338	0.17400	0.29245	0.36492	0.26504	-0.10289	0.31015	-0.00577	0.3208
R59	0.15702	-0.49843	-0.08495	0.07627	0.18552	-0.10357	0.18813	0.07510	-0.09703	0.2277
R61	0.13807	-0.03842	0.03419	-0.04989	0.17019	-0.03111	0.13987	0.04871	0.08282	0.1358
R62	0.20886	-0.28188	-0.04095	0.03477	-0.03493	-0.12647	-0.02028	-0.00196	-0.09941	0.0533
R63	1.00000	-0.18947	0.07295	-0.08774	0.04754	-0.04878	0.13758	-0.08618	0.11772	0.0648
R64	-0.18947	1.00000	0.15835	0.00132	-0.13419	0.14405	-0.16942	0.06528	-0.00427	-0.1556
R66	0.07285	0.15835	1.00000	-0.01381	0.04151	0.23981	-0.02384	0.08048	0.11375	-0.0818
R67	-0.08774	0.00132	-0.01381	1.00000	0.26445	0.12237	-0.12471	0.23885	-0.09446	0.2868
R68	0.04754	-0.13419	0.04151	0.26445	1.00000	0.20295	0.05397	0.28734	0.02714	0.3658
R69	-0.04878	0.14405	0.23981	0.12237	0.20295	1.00000	0.01012	0.18854	0.18272	0.0125
R71	0.13758	-0.16942	-0.02384	-0.12471	0.05397	0.01012	1.00000	-0.07558	0.14826	0.1072
R72	-0.08618	0.06528	0.08048	0.23885	0.28734	0.18854	-0.07558	1.00000	-0.02827	0.2570
R73	0.11772	-0.00427	0.11375	-0.09446	0.02714	0.18272	0.14826	-0.02827	1.00000	-0.1492
R74	0.06483	-0.15561	-0.08187	0.28681	0.38586	0.01255	0.10721	0.25700	-0.14920	1.0000
R76	0.06461	-0.22601	0.07887	-0.07989	0.05065	-0.04894	0.24245	-0.08348	0.01452	-0.0182
R77	0.14345	-0.44855	-0.01588	-0.08926	0.09819	-0.13885	0.26183	-0.07897	-0.06380	0.0952
R78	0.07296	-0.07064	0.01953	0.21398	0.19863	0.12564	0.00256	0.13042	-0.01151	0.1464
R79	-0.01449	0.23408	0.11648	0.01767	-0.02787	0.09584	-0.31055	0.08847	-0.02527	-0.1720
R81	0.10546	-0.32760	0.03952	0.02306	0.10440	-0.10024	0.15180	0.11624	0.00608	0.1198
R82	-0.08532	0.11487	0.24072	0.25925	0.18804	0.17225	-0.15898	0.24869	-0.08187	0.2227
R83	0.04790	-0.07689	-0.08087	0.35081	0.28176	0.13395	0.03662	0.21503	0.05272	0.3407
R84	0.05120	-0.06411	-0.08051	0.20231	0.32023	0.08709	0.10038	0.23666	-0.05933	0.4554
R86	0.00177	-0.07058	0.03315	-0.08089	-0.07040	-0.08683	0.09585	-0.04830	0.10339	-0.1312
R87	0.12878	0.08554	0.02049	-0.11788	-0.21057	-0.08593	0.05462	-0.12824	0.08288	-0.2325
R88	-0.11247	0.12110	0.16781	0.17715	0.08078	0.21855	-0.12010	0.22584	-0.02888	0.0894
R89	0.17129	-0.26201	0.00513	-0.07881	0.13455	-0.01393	0.28013	0.07212	0.08831	0.0552
R91	0.03535	-0.28585	0.00295	0.09018	0.17242	0.04157	0.09228	0.18707	0.00013	0.1180
R92	0.21305	-0.28487	0.07181	-0.14500	-0.11492	-0.08237	0.19033	-0.17583	0.09053	-0.1762
R93	-0.10486	0.02402	0.01820	0.15956	0.17816	0.08729	-0.03095	0.11861	-0.04977	0.1531
R94	0.01597	0.16270	0.10439	0.05951	0.12970	0.12735	-0.07700	0.18844	0.08033	0.0330
R98	0.21576	-0.02030	0.09321	-0.51119	-0.15337	-0.08118	0.14346	-0.22462	0.10824	-0.2582
R97	-0.05090	0.26948	0.11657	-0.07559	-0.06321	0.15339	-0.14661	-0.04035	0.18070	-0.3094
R98	-0.13511	0.21139	0.05732	0.14013	0.19354	0.19339	-0.04374	0.24224	0.02255	0.1033
R99	0.24411	-0.10374	-0.00810	-0.10264	0.00840	-0.03422	0.07447	-0.12521	0.04415	-0.0333
R101	0.05541	-0.24814	-0.11320	0.05820	-0.04153	-0.11318	0.20020	-0.06075	-0.03803	0.0232
R102	-0.04262	0.08074	0.14221	0.19124	0.13430	0.15276	-0.00222	0.22024	-0.02718	0.0718
R103	0.15459	-0.19338	-0.05554	-0.04347	0.02570	-0.00639	0.25450	-0.10154	-0.00300	-0.0378
R104	-0.05531	0.08825	0.11876	0.15222	0.12748	0.35267	-0.11561	0.11841	0.04267	0.1053
R105	0.08843	0.13216	0.11181	0.08281	0.12839	0.18516	-0.10085	0.11874	0.04416	-0.0535
R106	-0.90215	0.21888	0.08819	0.05814	0.01225	0.17414	-0.03484	0.03898	0.08551	-0.0625
R107	0.08388	-0.28181	-0.03398	0.03767	0.18584	-0.10246	0.24252	-0.08828	0.04803	0.1859
R108	-0.12487	0.28445	0.05496	0.05920	0.04956	0.15498	-0.08882	0.11888	0.04181	-0.0224
R109	-0.18888	0.34012	0.13351	0.18191	0.09464	0.17804	-0.12321	0.18226	0.01133	0.0090
R110	0.03360	-0.12714	-0.09894	0.27735	0.38438	0.15442	0.14303	0.24181	-0.07394	0.5714
R111	0.03576	0.15947	-0.01341	0.08764	0.05078	0.22403	0.03474	0.02828	0.08853	-0.0353
R112	0.14734	-0.48822	-0.07221	0.14182	0.16762	-0.01751	0.17274	0.13837	-0.08151	0.1905

	R76	R77	R78	R79	R81	R82	R83	R84	R86	R87
R1	0.05277	0.05803	0.03636	0.02418	0.06748	-0.02112	0.02135	0.03525	-0.05115	-0.02877
R2	0.04788	0.13543	0.01537	-0.02987	0.12525	0.04570	0.17911	0.13278	0.04106	-0.12593
R3	0.05751	0.05985	-0.02785	-0.09174	0.04122	-0.24015	-0.04834	-0.02187	0.02426	0.05175
R4	-0.05597	-0.02385	0.14371	0.09190	-0.12039	0.09553	0.08377	0.20874	-0.15634	-0.09862
R5	-0.11595	0.05495	0.15681	-0.09468	-0.01709	0.25726	0.25380	0.33081	-0.09320	-0.21826
R7	0.13600	0.27858	0.10887	-0.17304	0.19077	0.06303	0.07761	0.20582	0.02511	-0.18228
R8	-0.03754	-0.02389	0.04378	-0.11844	0.09929	0.31980	0.20206	0.26484	-0.04528	-0.13548
R9	0.07264	0.15805	0.11082	-0.08628	0.07791	0.11898	0.09238	0.14336	0.00297	-0.12160
R11	0.15891	0.36357	0.03868	-0.02761	0.13784	-0.08994	-0.14437	-0.07890	0.05761	-0.00741
R12	0.18126	0.01448	-0.08729	0.24185	-0.01020	-0.15189	-0.25886	-0.46824	0.17554	0.24370
R13	0.08831	0.11751	0.02585	-0.07797	0.05105	0.10450	-0.00937	0.17835	-0.08467	-0.02381
R14	0.30172	0.20755	-0.07664	-0.02871	0.21819	-0.13983	0.00395	0.01688	0.00889	0.23824
R15	-0.02092	-0.05892	-0.01508	0.22802	-0.07481	-0.00729	-0.10886	-0.18488	0.08118	-0.03871
R17	0.03183	0.07388	0.10183	0.00889	0.09021	0.29155	0.08245	0.18410	0.00415	-0.14151
R18	0.30815	0.21326	-0.04388	0.05801	0.09083	-0.10785	-0.18674	-0.20871	0.27880	0.08475
R19	-0.00001	-0.03877	0.09177	0.03492	0.04188	0.08530	0.15084	0.14783	-0.03884	-0.07458
R21	-0.05032	-0.09084	0.09387	0.05936	-0.04577	0.15026	0.14148	0.17188	-0.08289	-0.10184
R22	0.00229	-0.03103	0.20867	0.21898	-0.10271	0.24202	0.08861	-0.01142	-0.01889	-0.11897
R23	0.11708	0.23074	0.05330	-0.00424	0.10850	-0.10077	-0.08810	-0.03278	0.02588	-0.01818
R24	-0.04356	-0.08040	-0.01671	0.14366	-0.08694	0.05850	0.08838	-0.08914	-0.04252	0.00464
R25	0.18202	0.24817	0.09345	-0.15831	0.18274	0.17581	0.07122	0.20585	0.08822	-0.15875
R27	-0.05055	-0.01868	0.17688	-0.14883	0.04223	0.15813	0.27050	0.30988	-0.05171	-0.05333
R28	-0.04782	0.05811	0.11140	-0.12857	0.09038	0.12742	0.35215	0.34788	-0.13268	-0.01178
R29	-0.01858	0.04382	0.11508	0.04112	-0.08430	0.07774	0.09232	0.12043	-0.03088	0.00824
R31	0.08032	0.29178	0.08314	-0.12806	0.18380	0.11884	0.15880	0.28637	-0.00012	-0.14842
R32	-0.09388	-0.07663	0.20493	0.19530	0.03421	0.38959	0.20888	0.20537	-0.08742	-0.06472
R33	0.07846	0.16275	0.14028	-0.25576	0.21874	0.14254	0.21353	0.45598	-0.07510	-0.03798
R34	0.17856	0.11418	0.01077	-0.15036	0.08398	-0.20264	-0.05073	-0.02570	0.07494	0.18302
R35	-0.15074	-0.08329	0.04236	0.09784	-0.13153	0.02661	-0.02257	-0.03309	-0.10518	-0.09001
R37	-0.12291	-0.08555	0.07956	0.14507	-0.02171	-0.00684	-0.01827	-0.03123	-0.01298	0.13035
R38	0.03271	0.05990	0.07727	-0.09362	0.07607	-0.04824	-0.01736	0.12881	0.01238	0.10159
R39	-0.25735	-0.29526	0.12186	0.14242	-0.19150	0.18752	0.09224	0.08054	-0.11672	-0.02428
R41	0.10480	-0.03870	-0.11132	0.33042	-0.08156	-0.18021	-0.34323	-0.42830	0.21844	0.20721
R42	0.38725	0.40473	0.02918	-0.03761	0.30567	-0.08171	-0.07898	0.00729	0.14557	0.05913
R43	-0.18874	-0.20302	0.01508	0.01763	-0.22904	-0.00781	0.06890	-0.00418	-0.03758	0.13291
R44	-0.08328	-0.18888	-0.02578	0.00125	-0.18498	0.04275	-0.05000	-0.08338	0.01620	0.05140
R46	0.02475	0.06116	0.03387	0.02846	-0.07890	0.02327	0.03117	0.05998	0.03631	-0.00440
R47	0.15582	0.05020	-0.10881	-0.00279	0.10584	-0.11169	-0.12684	-0.12741	0.17885	0.15140
R48	-0.28323	-0.23821	0.07093	0.09474	-0.17812	0.21217	0.15566	0.18238	-0.14730	-0.06237
R49	0.27519	0.40575	0.02019	-0.08410	0.28273	-0.11940	-0.10353	-0.07076	0.14333	-0.02357
R51	0.11808	0.03827	-0.02234	-0.08884	0.04512	-0.22106	-0.04812	-0.08259	0.08174	0.17323
R52	0.02348	0.11448	0.18643	-0.21815	0.12888	0.14813	0.31886	0.80581	-0.04800	-0.08037
R53	-0.14012	-0.14281	0.34182	0.08771	-0.13373	0.17714	0.24842	0.12741	-0.28816	-0.10306
R54	-0.04298	-0.15050	0.03666	0.15676	-0.13780	0.13636	0.06272	0.00916	-0.08269	-0.03481
R56	-0.07080	-0.08648	0.13321	-0.05201	-0.05138	0.15563	0.17352	0.12010	-0.18091	-0.02931
R57	0.08553	0.12203	0.12042	-0.19848	0.07655	-0.02053	0.03207	0.07401	-0.00496	-0.04021
R58	-0.06870	-0.11090	0.11107	0.09346	0.05903	0.35055	0.21892	0.28092	-0.14850	-0.18610
R59	0.21958	0.51083	0.10126	-0.03756	0.27798	-0.01713	0.03424	0.17875	0.05581	-0.08848
R61	0.11483	0.17091	0.10134	-0.11346	0.00315	-0.01829	0.00947	0.22043	0.09370	-0.05852
R62	0.18008	0.24323	-0.01646	-0.05518	0.19756	-0.09569	-0.01825	0.03884	0.04988	-0.00578
R63	0.08461	0.14345	0.07286	-0.01449	0.10846	-0.08532	0.04790	0.05120	0.00177	0.12678
R64	-0.22601	-0.44855	-0.07064	0.23409	-0.32760	0.11467	-0.07889	-0.08411	-0.07058	0.08854
R66	0.07887	-0.01588	0.01853	0.11848	0.03952	0.24072	-0.08087	-0.08051	0.03315	0.02049
R67	-0.07989	-0.08826	0.21398	0.01767	0.02306	0.26925	0.35081	0.20231	-0.08089	-0.11799
R68	0.05065	0.09819	0.18883	-0.02787	0.10440	0.18804	0.28175	0.32023	-0.07040	-0.21057
R69	-0.04994	-0.13885	0.12564	0.09584	-0.10024	0.17225	0.13395	0.09709	-0.08883	-0.08593
R71	0.24245	0.25183	0.00256	-0.31055	0.15160	-0.15888	0.03662	0.10038	0.09585	0.08462
R72	-0.06348	-0.07897	0.13042	0.08947	0.11624	0.24869	0.21503	0.23686	-0.04930	-0.12824
R73	0.01452	-0.06360	-0.01151	-0.02527	0.00608	-0.08187	0.06272	-0.05833	0.10339	0.08289
R74	-0.01824	0.09528	0.14845	-0.17209	0.11893	0.22274	0.34074	0.45546	-0.13120	-0.23253
R76	1.00000	0.34488	-0.00763	-0.04298	0.31672	-0.07935	-0.10306	-0.10133	0.18759	0.10328
R77	0.34488	1.00000	0.11229	-0.08430	0.28470	-0.14032	-0.09899	0.02036	0.12472	-0.00481
R78	-0.00763	0.11229	1.00000	0.08786	-0.00575	0.12933	0.10524	0.08134	-0.20927	-0.12242
R79	-0.04298	-0.08430	0.08786	1.00000	-0.04911	0.10302	-0.12511	-0.16434	-0.02705	0.06312
R81	0.31672	0.28470	-0.00575	-0.04911	1.00000	0.08965	0.10524	0.17502	0.24448	0.10585
R82	-0.07935	-0.14032	0.12933	0.10302	0.08965	1.00000	0.20492	0.28265	0.00477	-0.19861
R83	-0.10306	-0.09899	0.10524	-0.12511	0.10524	0.20492	1.00000	0.45867	-0.17154	-0.14265
R84	-0.10133	0.02036	0.09134	-0.16434	0.17502	0.28265	0.45867	1.00000	-0.03475	-0.08967
R86	0.18759	0.12472	-0.20927	-0.02705	0.24448	0.00477	-0.17154	-0.03475	1.00000	0.17666
R87	0.10328	-0.00481	-0.12242	0.06312	0.10585	-0.19861	-0.14265	-0.08867	0.17666	1.00000
R88	-0.02310	-0.12857	0.05258	0.21891	0.05078	0.38593	0.14636	0.10806	0.05718	-0.08851
R89	0.31808	0.22366	0.13100	-0.10010	0.13380	-0.02156	-0.02850	-0.01448	0.05030	0.02777
R91	0.07819	0.20418	0.13019	-0.04149	0.27266	0.15518	0.12711	0.18983	0.02246	-0.03735
R92	0.35787	0.38889	0.05053	-0.07751	0.14823	-0.22403	-0.21835	-0.17475	0.14252	0.21499
R93	-0.09070	-0.08403	0.10130	0.08588	-0.00126	0.25566	0.09889	0.13800	-0.04907	-0.42149
R94	-0.11556	-0.11861	0.13377	0.08480	-0.06771	0.22977	0.11205	0.05734	-0.15675	-0.03577
R96	0.13261	0.13447	-0.04129	-0.08157	-0.01110	-0.20083	-0.27617	-0.13781	0.03720	0.11365
R97	0.00594	-0.11857	-0.03866	0.17191	-0.15826	-0.03822	-0.12818	-0.25271	0.04380	0.14749
R98	-0.09580	-0.10658	0.10132	0.18562	-0.04489	0.20511	0.18815	0.07483	0.04038	0.03121
R99	0.14073	0.14118	0.08279	-0.11013	0.01172	-0.16104	-0.08374	0.00807	0.08738	0.15553
R101	0.20004	0.20444	-0.03856	-0.14524	0.24446	-0.07048	-0.00855	-0.00014	0.15200	0.02709
R102	-0.10140	-0.10809	0.11892	0.08064	0.04566	0.28352	0.09719	0.08158	-0.00782	-0.00766
R103	0.25895	0.20878	0.09714	-0.11314	0.13774	-0.01573	-0.02858	0.05855	0.17131	0.12126
R104	-0.08247	-0.07892	0.11589	0.08140	0.01715	0.27786	0.10808	0.14087	-0.02495	-0.08880
R105	-0.13119	0.02108	0.25467	0.13725	-0.18559	0.08825	0.06339	-0.03530	-0.18001	0.00869
R106	-0.10459	-0.19402	0.10942	0.05532	-0.16125	0.04239	0.13725	0.03073	-0.08459	0.09377
R107	0.12288	0.15270	-0.04394	-0.27582	0.14829	-0.02877	0.15740	0.14758	-0.02108	-0.01012
R108	-0.09207	-0.18835	-0.00190	0.08868	-0.09472	0.13133	0.08551	0.01991	-0.11581	-0.04356
R109	-0.20300	-0.23721	0.14871	0.18147	-0.15326	0.18105	0.09322	0.02185	-0.11654	-0.02534
R110	-0.07097	0.09150	0.21143	-0.15851	0.11633	0.32803	0.38037	0.85568	-0.11025	-0.25548
R111	-0.04515	-0.17191	0.08437	0.03491	-0.08362	-0.00484	0.09107	0.00835	-0.08052	0.03545
R112	0.18955	0.35814	0.09292	-0.20300	0.30455	0.12468	0.12386	0.23433	0.08730	-0.08900

	R88	R89	R91	R92	R93	R94	R96	R97	R98	R99
R1	-0.03834	-0.07082	-0.03519	0.02199	0.06880	0.00113	0.07888	0.04488	-0.01803	0.0676
R2	0.04282	0.14447	0.21086	0.04832	0.05272	-0.02834	-0.10819	-0.05770	0.00795	0.0225
R3	-0.21354	-0.03997	-0.04644	0.05905	-0.05927	-0.06840	0.03777	0.01122	0.01180	0.0429
R4	0.04477	0.04435	-0.07042	-0.07471	0.20677	0.06304	-0.00206	-0.03093	0.14226	-0.0274
R6	0.14623	0.05625	0.10011	-0.20457	0.26206	0.07102	-0.27310	-0.19543	0.10359	0.0222
R7	0.05103	0.18081	0.23890	0.07466	0.08864	0.01096	0.00781	-0.12003	0.03713	0.0045
R8	0.14854	0.08221	0.22358	-0.13753	0.05838	0.03085	-0.11346	-0.05268	0.12604	-0.1221
R9	-0.00228	0.17955	0.20732	0.00507	0.12673	0.05089	-0.02452	-0.15071	0.08023	0.0211
R11	-0.08897	0.18755	0.00838	0.20586	-0.05247	-0.07548	-0.00229	-0.08436	-0.14000	0.1247
R12	-0.00327	-0.03656	-0.13144	0.13261	-0.21017	-0.02889	0.15095	0.19501	0.08005	0.0874
R13	-0.01351	0.14617	0.22551	-0.05451	0.05927	0.00392	-0.01820	-0.16846	0.08542	-0.0872
R14	-0.11512	0.14720	0.05458	0.16996	-0.25618	-0.03381	0.12529	-0.05726	-0.06841	0.1255
R15	0.02204	-0.15834	-0.08499	-0.06156	0.08157	0.13798	0.04786	0.18868	0.05525	-0.0176
R17	0.23233	0.07936	0.27034	-0.13030	0.10716	0.05263	-0.15917	-0.01913	0.20508	-0.1271
R18	0.02852	0.14050	0.00362	0.29803	0.01238	-0.20548	0.11185	0.05544	0.02061	0.0241
R19	0.06184	0.00035	0.15468	-0.11122	0.08401	0.00401	-0.20057	-0.08409	0.04633	0.0085
R21	0.14272	0.00842	0.10498	-0.10018	0.17047	0.13438	-0.07737	-0.02882	0.17555	-0.1248
R22	0.29262	0.00204	0.07717	-0.02803	0.10502	0.12605	-0.15529	0.15101	0.28362	-0.0302
R23	-0.12309	0.20367	0.10971	0.21862	-0.04487	-0.08730	-0.03801	-0.13180	-0.13804	0.1285
R24	0.10655	-0.05741	-0.04327	-0.08188	0.00503	0.14053	-0.07221	0.14232	0.18702	-0.1325
R25	0.11938	0.24844	0.33814	0.09838	0.12306	0.04316	-0.04807	-0.08860	0.11089	0.1025
R27	0.02013	0.05734	0.11688	-0.07960	0.01622	0.13548	-0.15005	-0.12244	0.21741	-0.0135
R28	-0.03951	0.07181	0.14787	-0.13990	0.05095	0.12158	-0.11638	-0.11444	0.05557	0.0695
R29	0.14753	0.00156	0.12275	0.00235	0.05893	0.02779	-0.24955	-0.05587	0.04995	0.0852
R31	0.05788	0.10363	0.26283	0.03251	0.20282	-0.04467	-0.10980	-0.24786	0.03271	0.0255
R32	0.43947	0.01984	0.11260	-0.13705	0.16320	0.19752	-0.10326	-0.02629	0.24589	-0.0918
R33	-0.01370	0.14883	0.26116	0.00434	0.01428	0.09490	-0.02897	-0.17159	0.01331	0.1161
R34	-0.20503	0.17645	0.03534	0.25935	-0.13052	-0.01837	0.13883	-0.07001	-0.13833	0.5110
R36	0.01684	0.04411	-0.01349	-0.07393	0.03453	0.12748	0.00571	0.08387	0.08548	-0.0811
R37	0.12161	-0.11875	-0.10825	-0.02778	-0.03790	0.12455	-0.00170	0.04887	0.08476	0.0306
R38	-0.02173	0.03806	0.07899	0.13411	-0.13230	-0.06437	0.11089	-0.00453	-0.00375	0.1171
R39	0.21392	-0.18000	0.01947	-0.25469	0.14893	0.14670	-0.11891	0.20136	0.34288	-0.1582
R41	0.08672	-0.04822	-0.17485	0.15822	-0.05567	-0.07002	0.21555	0.27072	0.07548	0.0444
R42	-0.04724	0.34005	0.11718	0.29770	-0.04255	-0.13886	0.09480	-0.10316	-0.11009	0.1272
R43	0.00088	-0.12436	-0.14585	-0.08000	-0.07474	0.16724	-0.01027	0.18019	0.13904	-0.0768
R44	0.04981	-0.05830	0.00857	-0.04962	-0.00235	0.10506	0.00254	0.18903	0.17880	-0.1146
R46	0.08281	0.04746	0.04246	0.02806	-0.00128	0.08347	0.12903	0.09821	-0.00454	0.0222
R47	0.10552	0.13682	0.03751	0.17454	-0.08895	-0.03128	0.30818	0.18012	0.03102	0.1141
R48	0.19933	-0.11742	0.06375	-0.24877	0.10591	0.20482	-0.02551	0.13890	0.20569	-0.1074
R49	-0.03160	0.26259	0.19478	0.29535	-0.03890	-0.07999	0.02167	-0.12035	-0.16336	0.1788
R51	-0.12231	0.09676	-0.03502	0.21433	-0.12873	-0.10815	0.16251	0.04485	-0.18036	0.2152
R52	0.00891	0.15072	0.17518	-0.03589	0.13836	0.02545	-0.08881	-0.23321	0.00720	0.1256
R53	0.18495	-0.02268	0.00423	-0.18078	0.12550	0.18470	-0.15288	0.07184	0.21059	-0.0673
R54	0.19711	-0.05615	0.02372	-0.15442	0.10528	0.20480	0.01955	0.07429	0.18653	-0.1204
R56	-0.04456	-0.08452	-0.02825	-0.10251	0.03896	0.48137	-0.00301	-0.01818	0.04076	0.0890
R57	0.02014	0.10990	0.12897	0.11520	0.06796	0.08343	-0.00955	-0.11963	-0.02753	0.1384
R58	0.26826	0.01526	0.16084	-0.20584	0.19818	0.07871	-0.23493	0.00629	0.20768	-0.1324
R59	-0.05870	0.27357	0.30604	0.18518	0.04569	-0.13240	-0.05895	-0.22286	-0.02736	0.0998
R61	-0.13306	0.18114	0.01579	0.07874	-0.00334	0.02173	0.16754	-0.05411	0.01361	0.0957
R62	-0.01755	0.10805	0.14749	0.14560	-0.00884	-0.03856	-0.08405	-0.08353	-0.10808	0.1015
R63	-0.11247	0.17128	0.03535	0.21305	-0.10486	0.01587	0.21578	-0.05090	-0.13511	0.2441
R64	0.12110	-0.28201	-0.28585	-0.26467	0.02402	0.18270	-0.02030	0.28948	0.21139	-0.1037
R66	0.15781	0.00513	0.00295	0.07181	0.01820	0.10439	0.09321	0.11657	0.05732	-0.0061
R67	0.17715	-0.07881	0.08018	-0.14500	0.15956	0.05951	-0.51119	-0.07559	0.14013	-0.1026
R68	0.08078	0.13455	0.17242	-0.11492	0.17816	0.12870	-0.15337	-0.06321	0.19354	0.0084
R69	0.21855	-0.01393	0.04157	-0.06237	0.06729	0.12736	-0.08118	0.15339	0.19339	-0.0342
R71	-0.12010	0.28013	0.09228	0.19033	-0.03095	-0.07700	0.14345	-0.14881	-0.04374	0.0744
R72	0.22564	0.07212	0.19707	-0.17583	0.11961	0.18644	-0.22462	-0.04035	0.24224	-0.1252
R73	-0.02999	0.08831	0.00013	0.09053	-0.04977	0.08033	0.10824	0.16070	0.02255	0.0441
R74	0.06940	0.05529	0.11800	-0.17523	0.15315	0.03308	-0.25825	-0.30947	0.10330	-0.0333
R76	-0.02310	0.31808	0.07819	0.35787	-0.09070	-0.11556	0.13261	0.00594	-0.09580	0.1407
R77	-0.12557	0.22386	0.20418	0.36889	-0.08403	-0.11581	0.13447	-0.11857	-0.10858	0.1411
R78	0.05259	0.13100	0.13019	0.05053	0.10130	0.13377	-0.04129	-0.03866	0.10132	0.0827
R79	0.21891	-0.10010	-0.04148	-0.07751	0.08588	0.09480	-0.06157	0.17191	0.18562	-0.1101
R81	0.05078	0.13380	0.27286	0.14823	-0.00125	-0.06771	-0.01110	-0.15826	-0.04469	0.0117
R82	0.36593	-0.02156	0.15518	-0.22403	0.25586	0.22877	-0.20083	-0.03822	0.20511	-0.1810
R83	0.14636	-0.02850	0.12711	-0.21835	0.09889	0.11205	-0.27817	-0.12818	0.18616	-0.0837
R84	0.10806	-0.01448	0.18993	-0.17475	0.13800	0.05734	-0.13781	-0.25271	0.07483	0.0060
R86	0.08718	0.08030	0.02246	0.14252	-0.04907	-0.15675	0.03720	0.04380	0.04039	0.0673
R87	-0.08651	0.02777	-0.03735	0.21499	-0.42149	-0.03577	0.11365	0.14748	0.03121	0.1555
R88	1.00000	-0.00839	0.17334	-0.14474	0.15985	0.11028	-0.18953	0.12243	0.23671	-0.1029
R89	-0.00839	1.00000	0.18209	0.30963	-0.03197	-0.10522	0.11616	-0.08177	-0.02658	0.1695
R91	0.17334	0.18209	1.00000	0.04422	0.08524	-0.00162	-0.09713	-0.14377	0.14832	-0.0397
R92	-0.14474	0.30963	0.04422	1.00000	-0.22983	-0.07121	0.25637	0.03991	-0.22533	0.2932
R93	0.15985	-0.03197	0.08524	-0.22983	1.00000	0.11757	-0.12817	-0.05178	0.14707	-0.1528
R94	0.11028	-0.10522	-0.00162	-0.07121	0.11757	1.00000	0.07008	0.12858	0.22336	0.0103
R96	-0.18953	0.11616	-0.09713	0.25637	-0.12817	0.07008	1.00000	0.18085	-0.17804	0.1658
R97	0.12243	-0.08177	-0.14377	0.03991	-0.05178	0.12858	0.18085	1.00000	0.13383	0.0094
R98	0.23671	-0.02658	0.14832	-0.22533	0.14707	0.22336	-0.17804	0.13383	1.00000	-0.2573
R99	-0.10290	0.16950	-0.03978	0.29326	-0.15287	0.01036	0.16583	0.00944	-0.25739	1.0000
R101	-0.05892	0.18661	0.12313	0.21040	-0.00848	-0.11197	0.07079	-0.13607	-0.07833	0.0445
R102	0.28541	0.01817	0.18582	-0.15331	0.10474	0.15257	-0.15849	0.10175	0.32050	-0.1836
R103	-0.04627	0.23889	0.14787	0.34525	-0.08351	-0.02303	0.22969	-0.05848	-0.07409	0.1903
R104	0.28742	0.02101	0.08943	-0.14326	0.08844	0.04826	-0.12841	0.06267	0.19612	-0.0540
R105	0.15002	0.01713	-0.00786	0.02763	0.02980	0.35419	0.07327	0.14105	0.14314	0.0706
R106	0.04309	-0.09117	0.01415	-0.12182	0.05029	0.27854	0.03854	0.24330	0.30610	-0.1103
R107	-0.12112	0.15795	0.04880	0.16148	-0.12458	-0.06085	0.05888	-0.16243	-0.14679	0.0771
R108	0.16817	-0.13088	-0.05532	-0.19020	0.16904	0.17050	-0.05572	0.04821	0.11992	-0.1018
R109	0.24131	-0.18184	-0.01748	-0.18642	0.14621	0.20306	-0.11186	0.13115	0.21110	-0.1813
R110	0.15889	0.01810	0.25288	-0.17812	0.28633	0.08228	-0.19872	-0.29183	0.04883	0.0185
R111	0.08798	-0.07140	0.01026	-0.10127	-0.00804	0.16537	-0.02670	0.22838	0.18828	-0.0838
R112	0.00517	0.15200	0.53040	0.16523	-0.02722	-0.09007	-0.08761	-0.21803	-0.03281	0.0742

	R101	R102	R103	R104	R105	R106	R107	R108	R109	R110
R1	0.08644	-0.00334	-0.12098	0.04727	0.05414	0.04488	0.01418	0.00587	-0.02837	0.01881
R2	0.11587	0.08818	0.05291	0.01380	-0.08188	-0.08484	0.05831	-0.11480	-0.05223	0.16161
R3	0.04782	-0.08384	0.08402	-0.06158	-0.09173	0.08886	0.05749	0.01146	-0.04813	0.01271
R4	-0.15981	0.03691	0.04581	-0.02848	0.05840	0.05099	-0.08938	0.03472	0.17367	0.29451
R5	-0.09177	0.12422	-0.00488	0.12855	0.05897	-0.07484	0.06435	0.08846	0.07518	0.54681
R6	0.19071	0.07807	0.12220	0.05200	0.03598	-0.05273	0.05861	0.00312	-0.17945	0.29315
R7	0.05620	0.17447	0.05805	0.06763	-0.05550	-0.03528	0.12232	0.10234	0.05227	0.34518
R8	0.03862	0.11813	0.12685	0.05422	0.01800	0.02419	0.07254	0.07856	0.01072	0.31114
R9	0.16825	-0.12085	-0.04260	-0.12427	-0.01041	-0.18076	0.02473	-0.15212	-0.19248	-0.03494
R11	-0.01543	0.03210	0.05340	-0.05823	0.01435	0.04280	-0.11257	-0.01001	0.02028	-0.49218
R12	0.04429	0.08584	0.15012	0.08018	0.02030	-0.01560	-0.01462	0.00488	0.04035	0.22188
R13	0.03849	-0.10230	0.11305	-0.05288	-0.10308	-0.11782	0.07884	-0.12787	-0.16738	-0.03053
R14	-0.02740	-0.01684	-0.14844	0.04084	0.08028	0.08141	-0.13608	0.18240	0.17488	-0.11867
R16	0.05836	0.23701	0.02510	0.14408	0.08888	0.01035	-0.08781	-0.02348	0.07477	0.24404
R17	0.16389	-0.04000	0.13759	-0.03336	0.10737	-0.08858	-0.00786	-0.09702	-0.05324	-0.19187
R18	0.02683	0.08877	0.06537	0.07211	-0.02882	0.03132	0.09275	-0.02397	0.05578	0.18842
R19	0.02683	0.08877	0.06537	0.07211	-0.02882	0.03132	0.09275	-0.02397	0.05578	0.18842
R21	-0.07781	0.18093	0.01428	0.04762	0.11907	0.06713	-0.08487	0.11110	0.38883	0.27584
R22	-0.12982	0.15486	0.03514	0.12663	0.17529	0.13741	-0.11152	0.04825	0.21780	0.11421
R23	0.10339	-0.09383	0.05300	-0.04633	-0.02539	-0.18581	0.08629	-0.17377	-0.13122	-0.01505
R24	-0.02137	0.18613	-0.00531	0.07777	0.10228	0.08852	-0.08118	0.03118	0.10425	-0.05376
R26	0.15348	0.19200	0.13346	0.08482	0.08492	-0.13324	0.13944	-0.11084	-0.13277	0.23088
R27	0.01210	0.12543	0.18075	0.04712	0.07297	0.14181	0.18196	0.02223	0.08928	0.31547
R28	0.00394	0.11643	0.05433	0.07498	0.11885	0.07850	0.25326	0.02781	-0.00507	0.35908
R29	0.03811	0.07217	0.01890	0.06735	0.10372	0.01395	0.06172	0.00772	0.11782	0.20571
R31	0.24733	-0.01534	0.20793	0.08273	0.02872	-0.18388	0.12246	-0.08417	-0.07948	0.38882
R32	-0.11806	0.23092	-0.06501	0.18202	0.18056	0.04350	-0.12817	0.14483	0.21773	0.23840
R33	0.01220	0.02881	0.10542	0.03391	-0.02208	-0.03433	0.11880	-0.04122	-0.08888	0.45558
R34	0.11051	-0.12760	0.12629	-0.09108	-0.03138	-0.08420	0.19829	-0.07558	-0.25815	0.02309
R36	-0.17329	0.06168	-0.29864	0.08683	0.09204	0.01149	-0.05093	0.07818	0.12081	0.01788
R37	-0.11974	-0.05898	-0.04180	0.01677	-0.00125	0.09081	-0.20348	0.13880	0.05923	-0.01021
R38	0.14612	0.00331	0.14325	0.12147	0.08353	-0.04334	0.08520	-0.04771	-0.04185	0.11533
R39	-0.11375	0.31378	-0.10350	0.21373	0.18729	0.29182	-0.13717	0.23232	0.36089	0.11828
R41	0.02982	-0.02859	0.06172	-0.09257	0.03878	0.04829	-0.11600	0.06726	0.04264	-0.48230
R42	0.18880	-0.07106	0.17275	-0.01024	-0.02457	-0.17384	0.06424	-0.11491	-0.23106	-0.01571
R43	-0.12187	0.05689	0.01647	0.03838	0.08949	0.20263	0.01484	0.03801	0.26466	-0.08512
R44	0.06416	0.19701	-0.04617	0.10866	0.02014	0.17547	-0.10514	0.08720	0.09858	-0.15207
R46	-0.05383	-0.00532	0.07115	0.03298	0.01679	-0.02271	0.02322	-0.04454	-0.05078	-0.05556
R47	0.01334	-0.05421	0.15552	-0.06468	-0.04110	0.02211	-0.04300	-0.03868	-0.07823	-0.16194
R48	-0.20498	0.24020	-0.08797	0.20754	0.13470	0.28861	-0.12007	0.18561	0.16613	0.15618
R49	0.35446	-0.04234	0.21116	-0.09211	-0.05661	-0.24617	0.14427	-0.21577	-0.20773	0.05200
R51	0.08082	-0.14319	0.08656	-0.12412	-0.05556	-0.03217	0.08017	-0.10944	-0.14140	-0.14166
R52	-0.00149	0.00803	0.10878	0.05217	0.05033	-0.06110	0.20809	0.03347	-0.04303	0.55086
R53	-0.13012	0.16744	-0.05211	0.10462	0.23992	0.18587	-0.05179	0.16348	0.27243	0.16569
R54	-0.12680	0.17848	-0.01622	0.08597	0.10636	0.19724	-0.21109	0.27016	0.20579	0.02351
R56	-0.07957	0.08654	0.04706	0.02256	0.25828	0.12810	0.10165	0.03494	0.05544	0.15835
R57	0.09299	-0.06358	0.16580	-0.00837	0.04597	0.02650	0.12116	0.08872	0.00460	0.19801
R58	-0.08628	0.20940	-0.07643	0.20487	0.07973	0.03167	0.01071	0.09850	0.12923	0.30480
R59	0.25646	-0.05482	0.21246	0.02726	-0.04114	-0.17970	0.14861	-0.24197	-0.27488	0.18473
R61	-0.08923	0.00731	0.09293	-0.01238	-0.01282	0.00772	0.09847	-0.06280	-0.13255	0.17752
R62	0.14502	-0.01045	0.11140	-0.08362	-0.04775	-0.20186	0.03807	-0.07766	-0.12618	0.04183
R63	0.05541	-0.04262	0.15459	-0.05531	0.06843	-0.00215	0.08388	-0.12487	-0.18889	0.03360
R64	-0.24514	0.09074	-0.19338	0.08925	0.13216	0.21855	-0.28161	0.26445	0.34012	-0.12714
R66	-0.11320	0.14221	-0.05554	0.11676	0.11181	0.06819	-0.03399	0.05496	0.13351	-0.09884
R67	0.06820	0.19124	-0.04347	0.15222	0.08281	0.05814	0.03787	0.05920	0.18181	0.27735
R68	-0.04153	0.13430	0.02570	0.12748	0.12838	0.01225	0.18884	0.04856	0.09484	0.38438
R69	-0.11318	0.15276	-0.00638	0.35267	0.18516	0.17414	-0.10248	0.15498	0.17804	0.16442
R71	0.20020	-0.00222	0.25450	-0.11561	-0.10065	-0.03484	0.24252	-0.08882	-0.12321	0.14303
R72	-0.08075	0.22024	-0.10154	0.11641	0.11674	0.03888	-0.08828	0.11888	0.18226	0.24181
R73	-0.03803	-0.02718	-0.00300	0.04267	0.04416	0.05551	0.04803	0.04161	0.01133	-0.07384
R74	0.02322	0.07184	-0.03789	0.10536	-0.05356	-0.08256	0.16891	-0.02246	0.00904	0.57143
R76	0.20004	-0.10140	0.25895	-0.08247	-0.13119	-0.10458	0.12289	-0.09207	-0.20300	-0.07097
R77	0.20444	-0.10809	0.20976	-0.07892	0.02108	-0.19402	0.15270	-0.18835	-0.23721	0.08150
R78	-0.03858	0.11892	0.09714	0.11589	0.25467	0.10942	-0.04394	-0.00190	0.14871	0.21143
R79	-0.14524	0.08084	-0.11314	0.08140	0.13725	0.05532	-0.27582	0.08888	0.18147	-0.15851
R81	0.24446	0.04568	0.13774	0.01715	-0.16559	-0.18125	0.14628	-0.08472	-0.15328	0.11633
R82	-0.07048	0.28352	-0.01573	0.27786	0.08825	0.04239	-0.02877	0.13133	0.18108	0.32603
R83	-0.00855	0.08719	-0.02859	0.10808	0.05339	0.13725	0.15740	0.08851	0.09322	0.38037
R84	-0.00014	0.08158	0.05655	0.14087	-0.03530	0.03073	0.14759	0.01991	0.02185	0.65588
R86	0.15200	-0.00782	0.17131	-0.02495	-0.18001	-0.06459	-0.02108	-0.11561	-0.11654	-0.11026
R87	0.02708	-0.00786	0.12126	-0.05880	0.00859	0.09377	-0.01012	-0.04356	-0.02534	-0.25549
R88	-0.05892	0.28541	-0.04627	0.28742	0.15002	0.04308	-0.12112	0.18817	0.24131	0.15859
R89	0.18881	0.01917	0.23889	0.02101	0.01713	-0.09117	0.15785	-0.13068	-0.18184	0.01910
R91	0.12313	0.19582	0.14787	0.08943	-0.00766	0.01415	0.04880	-0.05532	-0.01748	0.25288
R92	0.21040	-0.15331	0.34525	-0.14326	0.02763	-0.12182	0.15148	-0.18020	-0.18642	-0.17812
R93	-0.00848	0.10474	-0.08351	0.08844	0.02980	0.05029	-0.12458	0.18904	0.14621	0.28633
R94	-0.11197	0.15257	-0.02303	0.04826	0.35418	0.27854	-0.08085	0.17050	0.20306	0.09229
R96	0.07079	-0.15848	0.22868	-0.12841	0.07327	0.03864	0.05869	-0.05572	-0.11186	-0.19972
R97	-0.13607	0.10175	-0.05848	0.06267	0.14105	0.24330	-0.16243	0.08821	0.13115	-0.29193
R98	-0.07833	0.32050	-0.07409	0.19612	0.14314	0.30610	-0.14678	0.11992	0.21110	0.08693
R99	0.04451	-0.18367	0.19038	-0.05402	0.07062	-0.11037	0.07717	-0.10150	-0.16132	0.01550
R101	1.00000	-0.01241	0.18080	-0.06463	-0.06213	-0.12853	0.20291	-0.10666	-0.16245	0.02815
R102	-0.01241	1.00000	-0.06402	0.17066	0.13331	0.15150	-0.05801	0.11982	0.25498	0.13348
R103	0.18080	-0.06402	1.00000	-0.06787	0.01568	-0.02062	0.23867	-0.17088	-0.07659	0.05805
R104	-0.06463	0.17066	-0.06787	1.00000	0.21038	0.20237	-0.08080	0.08705	0.09516	0.12728
R105	-0.06213	0.13331	0.01568	0.21038	1.00000	0.19562	-0.13472	0.20511	0.21552	-0.08977
R106	-0.12853	0.15150	-0.02062	0.20237	0.19562	1.00000	-0.13472	0.20511	0.21552	-0.08977
R107	0.20291	-0.05801	0.23867	-0.08080	-0.00460	-0.13472	1.00000	-0.07208	-0.16366	0.14893
R108	-0.10666	0.11982	-0.17088	0.08705	0.05890	0.20511	-0.07208	1.00000	0.25778	0.08958
R109	-0.16245	0.25498	-0.07659	0.09516	0.22100	0.21552	-0.16366	0.25778	1.00000	0.08847
R110	0.02815	0.13348	0.05805	0.12728	0.02275	-0.08977	0.14893	0.08958	0.08847	1.00000
R111	-0.16438	0.14746	-0.01981	0.14652	0.17703	0.42285	-0.02181	0.09851	0.17025	0.02816
R112	0.16873	0.07892	0.19120	0.02132	-0.07088	-0.15241	0.18885	-0.11089	-0.13218	0.28720

	R111	R112
R1	0.11762	0.04123
R2	-0.02530	0.19506
R3	0.04852	0.01279
R4	0.03238	-0.01814
R6	0.03788	0.13474
R7	-0.05897	0.27392
R8	0.02320	0.22006
R9	-0.02103	0.20547
R11	-0.10632	0.11710
R12	0.02588	-0.16923
R13	0.02215	0.15678
R14	-0.09055	0.14833
R15	0.00243	-0.19088
R17	0.04544	0.21059
R18	-0.07836	0.04620
R19	0.01501	0.05917
R21	0.11858	0.05062
R22	0.13887	-0.03947
R23	-0.14763	0.18988
R24	-0.01178	-0.02188
R26	-0.05686	0.37892
R27	0.20948	0.11317
R28	0.13293	0.11736
R29	0.05663	0.10482
R31	-0.12532	0.32098
R32	0.02145	0.05875
R33	0.02148	0.26586
R34	-0.04645	0.11903
R36	0.07794	-0.05641
R37	-0.00781	-0.20457
R38	-0.08751	0.10461
R39	0.31039	-0.10546
R41	-0.05117	-0.21555
R42	-0.20145	0.13020
R43	0.21148	-0.18116
R44	0.10319	-0.13429
R46	-0.00252	-0.00321
R47	0.07854	0.01629
R48	0.15394	-0.07772
R49	-0.15852	0.23100
R51	0.04847	0.03270
R52	0.04270	0.21707
R53	0.24365	0.03243
R54	0.16751	-0.12893
R56	0.19721	0.04374
R57	0.03981	0.13853
R58	0.03563	0.11563
R59	-0.14844	0.48560
R61	0.02101	0.10504
R62	-0.15009	0.27184
R63	0.03575	0.14736
R64	0.15847	-0.48822
R66	-0.01341	-0.07221
R67	0.08784	0.14192
R68	0.05078	0.18752
R69	0.22403	-0.01751
R71	0.03474	0.17274
R72	0.02828	0.13637
R73	0.08853	-0.05181
R74	-0.02838	0.19059
R76	-0.04515	0.18956
R77	-0.17191	0.35814
R78	0.06437	0.09292
R79	0.03491	-0.20300
R81	-0.08382	0.30455
R82	-0.00484	0.12488
R83	0.08107	0.12386
R84	0.00935	0.23433
R86	-0.09052	0.06730
R87	0.03545	-0.09800
R88	0.08798	0.00517
R89	-0.07140	0.18200
R91	0.01026	0.63040
R92	-0.10127	0.18823
R93	-0.00804	-0.02722
R94	0.18537	-0.09007
R96	-0.02870	-0.08761
R97	0.22838	-0.21803
R98	0.19828	-0.03281
R99	-0.08366	0.07426
R101	-0.18438	0.18873
R102	0.14746	0.07882
R103	-0.01981	0.18120
R104	0.14852	0.02132
R105	0.17703	-0.07098
R106	0.42285	-0.15241
R107	-0.02181	0.18885
R108	0.09851	-0.11089
R109	0.17028	-0.13216
R110	0.02616	0.28720
R111	1.00000	-0.10538
R112	-0.10538	1.00000

DETERMINANT OF CORRELATION MATRIX = 0.0000000(0.171372040-15)

Appendix H

8-Factor Varimaxed Matrix

VARIMAX ROTATED FACTOR MATRIX

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8
R1	-0.02458	0.09343	-0.01032	-0.08205	0.18811	-0.08034	-0.01782	-0.02614
R2	0.13122	0.44880	0.04903	-0.14440	0.11629	0.01328	0.01122	-0.13787
R3	-0.01855	-0.03588	-0.12478	0.05783	0.02020	-0.02236	0.40283	-0.01156
R4	0.20152	-0.11220	0.11440	-0.14820	0.08880	-0.02823	0.23611	0.33317
R5	0.55907	0.03383	0.20476	-0.19122	0.05782	0.08401	0.11201	0.26383
R7	0.24024	0.48296	0.14308	-0.11174	0.08741	-0.14261	0.18524	-0.03875
R8	0.36335	0.03172	0.27148	-0.00058	-0.08927	0.03916	0.23831	-0.11169
R8	0.23742	0.24913	0.18430	-0.04973	0.04213	-0.09005	0.32888	0.08845
R11	-0.05609	0.48421	-0.18911	-0.01618	0.05086	-0.02769	-0.12945	0.18009
R12	-0.51883	-0.08674	0.03331	0.22883	-0.01885	-0.01381	0.02847	-0.08589
R13	0.22780	0.14122	0.12357	-0.04385	-0.00248	-0.08888	0.30618	-0.08183
R14	0.04771	0.17343	-0.14882	0.32039	-0.03938	-0.05425	-0.00818	0.01128
R15	-0.28418	-0.04895	0.18959	-0.17288	0.08437	-0.05414	-0.09831	0.10970
R17	0.18389	0.25068	0.47048	-0.17635	0.00848	-0.06365	0.08517	-0.18567
R18	-0.31850	0.27400	0.09864	0.15337	-0.12812	-0.09582	0.20108	0.15281
R19	0.16728	0.04776	0.09002	-0.05403	0.05383	0.28343	0.03281	0.02898
R21	0.16325	-0.08807	0.31174	-0.10534	0.08873	0.03088	0.26326	-0.03382
R22	-0.04103	-0.00849	0.46390	-0.06330	0.10051	0.04787	0.04294	0.18769
R23	-0.03105	0.45232	-0.17723	0.01881	0.08841	0.04888	-0.01826	0.10070
R24	-0.18803	-0.04388	0.22786	-0.05074	0.04723	0.14142	-0.00342	-0.02498
R25	0.26728	0.50424	0.22778	0.05455	0.05810	-0.10392	0.04743	-0.13257
R27	0.38143	-0.00864	0.18098	0.10344	0.20191	0.18889	0.23530	-0.09132
R28	0.51588	0.06344	0.00758	0.10862	0.32127	0.16368	-0.03823	-0.04034
R29	0.12188	0.05958	0.11854	0.05475	0.12325	0.30440	-0.09494	0.12598
R31	0.28618	0.42751	0.08972	-0.01347	-0.10838	0.12788	0.13650	-0.03850
R32	0.18838	-0.02918	0.54468	-0.02288	-0.02285	0.02283	-0.22044	0.12148
R33	0.82874	0.18842	0.04855	0.15785	0.00177	-0.12717	-0.01786	0.01042
R34	0.10880	0.18629	-0.33358	0.40085	0.13118	-0.02888	-0.10672	0.10778
R36	0.00246	-0.12802	0.13882	-0.13434	0.17758	-0.12886	-0.18498	0.01938
R37	-0.07589	-0.32430	0.12844	0.09875	-0.13218	-0.00180	-0.03884	0.21037
R38	0.08594	0.08841	0.04887	0.22701	-0.04304	-0.04540	0.07893	-0.08981
R39	-0.00025	-0.35076	0.41985	-0.11578	0.16539	0.09039	0.18224	-0.05509
R41	-0.58073	-0.08791	0.07623	0.18260	-0.05133	-0.08635	-0.05106	0.11433
R42	0.01295	0.47846	-0.02363	0.22789	-0.16730	-0.16087	-0.09011	0.17680
R43	-0.03701	-0.39891	0.08595	0.15407	0.14501	0.07593	0.08801	-0.02508
R44	-0.11782	-0.22383	0.23288	0.00885	0.04259	-0.09242	0.07174	-0.30385
R46	0.04014	0.03727	0.08893	0.02888	0.05301	-0.23440	-0.20909	-0.08301
R47	-0.13248	0.02257	-0.00021	0.34997	-0.05300	-0.31885	-0.02798	0.08316
R48	0.15532	-0.28875	0.35386	-0.11052	0.18301	-0.08582	-0.07120	-0.10749
R49	-0.04078	0.57418	-0.09502	0.15843	-0.05826	0.07892	0.00221	0.02450
R51	-0.05002	0.04053	-0.24945	0.27190	0.10807	-0.09890	0.03289	-0.01850
R52	0.72481	0.08881	0.04504	0.10737	0.04074	-0.06007	0.03218	0.14213
R53	0.15901	-0.18045	0.28547	-0.10348	0.34429	0.23139	0.21816	0.14463
R54	-0.05440	-0.23157	0.34476	-0.08549	0.08590	-0.04315	0.19423	-0.02898
R56	0.21606	-0.10875	-0.00572	0.04780	0.48835	0.11844	0.07262	0.00499
R57	0.18818	0.12321	-0.05389	0.12443	0.17835	0.08911	0.28888	0.18948
R58	0.31005	-0.00886	0.45126	-0.12323	0.01808	0.10418	-0.07382	0.04030
R59	0.15812	0.73715	-0.02712	-0.01287	0.00839	0.04460	0.01745	-0.01288
R61	0.28008	0.12768	-0.02285	0.08220	0.11871	-0.35175	0.04823	0.09801
R62	0.01843	0.36770	-0.07363	0.05440	-0.07585	0.08867	0.02463	0.02188
R63	0.05213	0.18703	-0.12198	0.28482	0.16897	-0.10350	0.07018	0.08806
R64	-0.18070	-0.55250	0.25214	-0.15858	0.08488	-0.10851	-0.04882	0.00852
R66	-0.13200	-0.04140	0.33646	0.05179	0.01575	-0.18923	0.01721	0.10408
R67	0.22154	0.05287	0.25736	-0.14085	0.10878	0.55545	-0.02098	-0.02241
R68	0.44212	0.15335	0.23875	-0.02657	0.24083	0.04817	0.03214	0.18024
R69	0.08573	-0.18895	0.41894	0.03927	0.14496	-0.00170	0.05813	0.03815
R71	0.17220	0.17579	-0.11289	0.28228	-0.03207	-0.13171	0.41276	-0.05285
R72	0.20802	0.08667	0.38388	-0.17005	0.11094	0.10328	-0.01758	-0.00382
R73	-0.05126	-0.11342	0.04479	0.18143	0.07940	-0.15736	0.07866	-0.04123
R74	0.61280	0.17826	0.07139	-0.17163	0.04878	0.18480	0.03700	0.03845
R76	-0.11138	0.38687	-0.00439	0.33889	-0.12978	-0.10458	0.13751	0.08658
R77	0.02681	0.59958	-0.09678	0.18230	-0.03186	-0.09839	0.09894	0.18480
R78	0.13580	0.09532	0.20180	0.01878	0.28863	0.11352	0.05156	0.25193
R79	-0.34840	-0.07558	0.31897	-0.10857	0.03818	0.08894	-0.20111	0.23292
R81	0.13700	0.38361	0.08504	0.26012	-0.24782	0.05727	-0.01432	-0.07707
R82	0.28974	-0.01138	0.51724	-0.13404	-0.05613	0.08950	-0.13250	-0.00210
R83	0.47177	-0.08870	0.15451	0.00838	0.11183	0.27738	-0.03817	-0.10909
R84	0.74083	-0.00272	0.15165	0.02838	-0.08569	0.03385	-0.01082	-0.02234
R85	-0.16588	0.18827	0.05068	0.23404	-0.28134	-0.08747	0.01355	-0.06586
R87	-0.18212	-0.14046	-0.07804	0.50531	-0.02905	0.01461	-0.05331	-0.07371
R88	0.01108	-0.02324	0.50581	0.01139	-0.11483	0.10571	-0.17281	0.07019
R89	0.08108	0.37710	0.03986	0.24902	0.03388	-0.18031	0.10328	0.08540
R91	0.21874	0.37702	0.28457	0.10821	-0.03505	0.08488	0.08175	-0.21513
R92	-0.21495	0.34236	-0.18128	0.44803	0.01230	-0.12024	0.09477	0.18951
R93	0.14587	0.04119	0.23555	-0.37455	-0.00112	0.01481	0.07882	0.15853
R94	0.08857	-0.15343	0.24359	0.00751	0.44072	-0.03737	-0.07185	0.02875
R95	-0.18851	-0.02243	-0.17414	0.25745	0.08302	-0.57088	0.08942	0.04852
R97	-0.34770	-0.20858	0.20519	0.10919	0.22355	-0.18434	-0.09863	-0.08412
R98	0.00287	-0.10706	0.50404	-0.03382	0.12954	0.08378	0.08535	-0.11575
R99	0.04823	0.13354	-0.22286	0.37397	0.16287	-0.08263	-0.09006	0.28132
R101	-0.04034	0.38474	-0.08547	0.15174	-0.12955	0.12188	0.14885	-0.15528
R102	0.03986	-0.00424	0.47188	-0.03187	0.11988	0.08885	0.02754	-0.21402
R103	0.04552	0.20920	0.00345	0.41827	-0.04377	-0.00853	0.30288	0.04903
R104	0.09457	-0.03138	0.37010	-0.00528	0.09092	0.03820	-0.11326	-0.08836
R105	-0.05844	-0.02463	0.26109	0.05535	0.45644	0.01882	-0.04749	0.14895
R106	-0.08249	-0.30844	0.22907	0.06376	0.35828	-0.02079	0.10243	-0.15162
R107	0.25310	0.18410	-0.21390	0.23498	0.05251	0.10138	0.08369	-0.08774
R108	0.01283	-0.27287	0.22622	-0.11780	0.05226	-0.01004	0.05949	0.05850
R109	-0.05888	-0.31763	0.37752	-0.12954	0.13711	0.17378	0.11099	0.10417
R110	0.74583	0.09754	0.21486	-0.10194	-0.02327	0.12258	0.14873	0.18788
R111	0.01578	-0.24508	0.18407	0.08075	0.38550	0.01387	0.11488	-0.14888
R112	0.28430	0.50183	0.07587	0.13500	-0.05481	0.11023	0.09855	-0.14817

Appendix I

10-Factor Varimaxed Matrix

VARIMAX ROTATED FACTOR MATRIX

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 10
R1	-0.02888	0.05331	0.00146	0.01184	0.13023	-0.02801	-0.00704	0.02323	-0.07802	0.15276
R2	0.13211	0.32855	0.07283	-0.06789	0.00919	0.08780	-0.01301	0.08708	0.03034	0.37817
R3	-0.01855	-0.05387	-0.13316	0.05339	-0.00597	-0.02381	0.39313	0.02075	0.07143	0.02180
R4	0.19041	-0.08184	0.09213	0.00247	0.07048	0.03123	0.22516	0.35075	-0.14584	-0.12246
R5	0.54556	0.01606	0.18932	-0.02850	-0.01240	0.20734	0.11920	0.31823	-0.18538	-0.00025
R6	0.38877	-0.01583	0.27195	-0.04245	0.04327	-0.09255	0.19139	0.09210	-0.00804	0.28875
R7	0.23768	0.20870	0.18988	-0.07884	-0.05839	0.04640	0.28853	-0.08119	0.04240	0.05107
R8	0.35191	0.51985	0.00136	0.02528	-0.05282	0.32482	0.18219	0.01394	0.08838	
R9	0.23314	0.11351	-0.15123	0.04872	0.07106	0.00170	-0.08800	0.05808	-0.10194	0.05877
R10	-0.82598	-0.02394	0.05234	0.11718	0.00021	-0.04707	0.11234	-0.28832	-0.02364	-0.09428
R11	0.05667	0.24935	0.12088	-0.11401	0.08278	-0.11513	0.31591	-0.01146	0.09889	0.05502
R12	-0.28899	-0.03580	-0.10155	0.20365	0.03713	-0.07383	0.10386	-0.33286	-0.04045	-0.12523
R13	0.18640	0.13703	0.16581	-0.08914	0.08867	-0.03320	-0.07896	0.10758	-0.18094	-0.01171
R14	-0.31370	0.27899	0.47361	-0.17142	-0.03639	-0.04495	0.08349	0.08851	0.05826	0.24885
R15	0.14916	0.01854	0.11596	0.18878	-0.17175	-0.05642	0.19884	0.10884	0.05317	-0.01503
R16	0.15838	-0.14416	0.08766	-0.04434	0.00248	0.34182	0.04869	0.03215	-0.03798	0.03893
R17	-0.05388	-0.03577	0.28312	-0.13892	0.12261	-0.00847	0.22944	0.10487	0.11168	0.02073
R18	-0.03187	0.48507	0.45186	0.03556	0.04959	0.10702	0.02023	0.26844	-0.03744	-0.03077
R19	-0.17267	-0.03838	-0.14241	0.04309	0.09739	0.07219	0.02957	-0.01309	-0.05903	0.08869
R20	0.27472	0.39270	0.21000	-0.14653	0.13930	0.08578	-0.00845	-0.02897	0.09251	-0.08536
R21	0.34684	-0.07187	0.26317	0.07338	0.00014	-0.05435	0.03401	0.00193	0.11861	0.31321
R22	0.48784	-0.00017	0.15588	0.04049	0.19281	0.19274	0.24088	-0.08351	0.12327	0.08006
R23	0.10310	0.02909	0.03245	0.16888	0.21777	0.28038	0.00781	-0.08091	-0.09571	0.17124
R24	0.28918	0.39411	0.11094	0.12899	0.05885	0.37722	-0.14138	0.18584	0.07485	0.00448
R25	0.18660	-0.00455	0.08036	-0.13779	0.02498	0.02886	0.04082	0.12789	0.42589	0.08090
R26	0.84188	0.18113	0.53710	-0.06735	0.07881	-0.00383	-0.23128	0.09128	0.03894	-0.17100
R27	0.11054	0.21701	0.07309	0.10208	0.08309	-0.13131	-0.00055	-0.07711	0.07687	-0.03928
R28	-0.00380	-0.14859	-0.29535	0.43178	0.09823	0.03101	-0.08216	-0.08053	0.05560	-0.01755
R29	-0.07450	-0.19597	0.14833	-0.00259	0.08547	-0.05021	-0.15213	0.05014	-0.25553	0.08117
R30	0.07685	0.04482	0.10486	0.00345	0.03351	-0.07898	-0.01824	0.00304	0.01186	-0.43020
R31	-0.01280	-0.44550	0.05032	0.13708	-0.00148	-0.09323	0.03100	-0.06380	0.28818	-0.00867
R32	-0.68090	-0.05338	0.37049	-0.07455	0.10897	0.08177	0.08850	0.23244	0.15883	0.04335
R33	0.02824	0.55398	0.08083	0.20739	-0.11163	-0.05912	-0.04525	0.02588	-0.04320	-0.10054
R34	-0.04850	-0.42842	0.02655	0.18768	-0.09029	-0.14911	-0.02836	-0.08889	-0.00349	-0.10365
R35	-0.11561	-0.32734	0.05650	0.17091	0.09329	0.08531	0.00834	0.04458	0.11647	-0.06188
R36	0.05280	-0.00872	0.21891	-0.01246	-0.05314	-0.09387	0.03256	-0.08501	0.08853	0.18270
R37	-0.11922	0.04391	0.10157	0.09818	0.00229	-0.21207	-0.25458	0.03452	0.02641	0.13354
R38	0.18135	-0.35407	0.03067	0.39389	-0.11535	-0.25281	-0.01417	-0.05684	-0.00280	-0.04916
R39	-0.03178	0.55187	0.33156	-0.08003	0.13821	-0.08440	-0.10109	0.05187	-0.00887	0.05081
R40	-0.04846	0.00736	-0.06829	0.11861	-0.02554	0.05948	-0.04657	0.04084	0.28426	0.11486
R41	0.72495	0.07864	-0.23024	0.35078	-0.00957	-0.02831	0.00700	-0.01589	0.08541	0.10834
R42	0.13309	-0.21280	0.05642	0.18044	0.02160	0.01752	0.01495	0.14002	0.01522	-0.02020
R43	-0.05891	-0.23770	0.25824	-0.04475	0.32618	0.25374	0.21405	0.18229	-0.04085	-0.01770
R44	0.19789	-0.10830	0.31884	-0.15020	0.18081	-0.10858	0.20587	0.00557	0.02581	-0.07886
R45	0.17241	0.13687	-0.01457	0.01401	0.57361	0.09278	0.13643	-0.12834	-0.08856	0.01891
R46	0.28823	-0.02857	-0.04210	0.15388	0.18485	0.14236	0.34883	0.02894	-0.08339	-0.02182
R47	0.18518	0.66003	0.45798	-0.11791	-0.00484	0.18251	-0.01554	0.00818	-0.16728	-0.01083
R48	0.28833	0.10884	0.01332	0.02341	-0.03871	0.08485	-0.00192	0.08209	0.11857	0.29748
R49	0.02524	0.38453	0.02085	0.25988	-0.01917	-0.21518	0.11082	0.04115	-0.28581	0.13263
R50	0.05300	0.20253	-0.05585	-0.02284	0.00184	0.02936	0.03854	-0.05001	0.10829	0.01041
R51	-0.18753	-0.53281	-0.08858	0.28706	0.15403	-0.08082	0.11755	-0.07515	-0.01884	0.01605
R52	-0.13326	-0.01980	0.21447	-0.11891	0.08888	-0.12426	-0.04718	0.05738	-0.14827	-0.13234
R53	0.19185	0.00858	0.34775	0.07539	0.01135	-0.13488	0.07120	0.00184	-0.13573	-0.07891
R54	0.42489	0.11776	0.24323	-0.20841	0.10150	0.58398	0.00272	-0.00882	0.01189	0.03471
R55	0.05598	-0.21887	0.28802	0.11754	0.12828	0.20208	0.10804	0.08791	-0.28873	0.11211
R56	0.18027	0.12361	0.41363	0.10120	0.05785	0.08834	0.06307	0.08143	-0.08047	0.01416
R57	0.18259	0.05963	-0.09472	0.25738	-0.10487	-0.08010	0.39628	-0.03402	0.15855	0.11710
R58	-0.05248	-0.14486	0.37901	-0.18878	0.08680	0.14915	0.06392	-0.04504	-0.20301	0.07823
R59	0.80294	0.18849	0.06335	0.24402	-0.04209	-0.07887	0.11100	-0.07568	-0.08920	0.08625
R60	-0.10508	0.42658	0.07832	-0.18282	0.08785	0.18724	0.08087	0.01844	-0.08908	0.04177
R61	0.03885	0.61893	0.04818	0.28026	-0.13643	-0.05892	0.22146	-0.15866	-0.00008	-0.04468
R62	0.12238	0.08894	-0.05546	0.17382	0.00370	-0.08140	0.11181	0.05853	0.08217	0.04942
R63	-0.35814	-0.00439	0.19421	0.08247	0.31485	0.13388	0.03501	0.23574	0.02471	-0.04878
R64	0.14643	0.42725	0.31007	-0.09078	0.10377	0.05691	-0.15842	0.09859	-0.18042	-0.20204
R65	0.28273	-0.00839	0.11620	0.05981	-0.18029	0.03324	0.08044	-0.35336	0.07518	-0.07243
R66	0.45456	-0.11368	0.50820	-0.21893	0.03817	0.08089	-0.10198	-0.02156	-0.02875	-0.08060
R67	0.73958	-0.01569	0.15162	-0.05572	0.10314	0.29346	-0.01896	-0.10515	0.02810	0.04271
R68	-0.15608	0.14897	0.15145	-0.01908	-0.02084	0.04530	-0.02060	-0.00398	0.07800	-0.04108
R69	-0.18893	-0.09340	0.08045	0.18310	-0.35409	-0.04254	0.02889	-0.13187	0.05755	0.00818
R70	0.00478	-0.02057	-0.05784	0.35925	-0.00511	-0.00615	-0.01263	-0.32709	0.14273	-0.17339
R71	0.08655	0.35508	0.59442	-0.05202	-0.08639	0.09988	-0.17514	0.05272	0.05372	-0.13826
R72	0.22371	0.28347	0.08371	0.31097	-0.04600	-0.07123	0.13378	0.01220	-0.00292	0.10091
R73	-0.20417	0.37248	0.30481	-0.00379	-0.03884	0.05094	0.05097	-0.12522	0.22906	0.19873
R74	0.14002	0.02084	-0.12537	0.45936	0.00038	-0.08068	0.08867	0.00385	0.16620	-0.04448
R75	0.05831	-0.14107	0.20814	-0.26231	0.00349	0.02938	0.03464	0.34318	-0.08288	0.03101
R76	-0.14212	0.00550	0.23993	-0.01835	0.59042	-0.10220	-0.04289	-0.06598	-0.04840	-0.02875
R77	-0.35189	-0.26570	-0.15561	0.32855	0.11134	-0.59232	0.06989	0.00818	0.03895	-0.00929
R78	-0.00905	-0.18607	0.21116	0.21573	0.08187	-0.10039	-0.10389	0.00070	-0.07802	0.11604
R79	0.04626	0.19095	0.49472	-0.05328	0.07270	0.08558	0.09555	-0.01881	0.00684	0.09382
R101	-0.03172	0.31000	-0.18573	0.45056	0.15391	-0.00283	-0.08820	0.05219	0.03241	-0.11437
R102	0.03138	-0.10511	-0.07504	0.04261	-0.11880	0.07738	0.08897	-0.07873	0.31250	0.13736
R103	0.05345	0.20086	0.46758	-0.08763	0.07308	0.09178	0.03080	-0.08828	0.08781	0.17004
R104	0.08810	-0.08855	0.01093	0.33473	-0.00740	-0.03115	0.25457	0.00329	0.35786	-0.05859
R105	-0.07338	-0.04714	0.38916	-0.00047	0.04558	0.08541	-0.11886	0.00814	0.01886	0.07186
R106	-0.07407	-0.39508	0.25226	0.13615	0.48578	0.01752	-0.07847	0.17880	0.04461	0.02304
R107	0.24986	0.11874	0.21487	0.10330	0.25883	0.00832	0.09004	-0.03328	0.01230	0.13671
R108	0.00487	-0.25035	-0.19015	0.22814	-0.02854	0.15848	0.08608	-0.11450	0.09079	0.13471
R109	-0.07580	-0.32180	0.20375	-0.11890	0.08891	-0.02489	0.08079	0.04543	-0.10147	-0.11826
R110	0.73846	0.09488	0.33152	-0.12925	0.17483	0.14127	0.07806	0.17813	0.02835	-0.12925
R111	0.00052	-0.35581	0.19874	-0.09782	0.04983	0.13284	0.11885	0.22388	0.07804	-0.08178
R112	0.28984	0.43182	0.15815	0.17523	0.22513	0.08848	0.10118	-0.00935	-0.00325	0.20751
			0.10454	0.02883	-0.04232	0.10025	0.09488	-0.11570	0.22847	0.18650

8-Factor Quartimaxed Matrix

QUARTIMAX ROTATED FACTOR MATRIX

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8
R1	-0.01933	0.08639	0.00472	-0.08883	0.19527	0.05701	-0.01845	-0.04480
R2	0.13923	0.40878	0.08968	-0.16339	0.13544	-0.00804	-0.01218	-0.17810
R3	0.00135	-0.01478	-0.10788	0.08273	0.01780	0.02344	0.40848	-0.01723
R4	0.21303	-0.11228	0.13531	-0.14541	0.08914	0.08500	0.23564	0.32028
R5	0.58982	0.02227	0.22827	-0.19085	0.03830	-0.03581	0.08526	0.24044
R6	0.24215	0.46172	0.15181	-0.15889	0.10910	0.18212	0.14989	-0.07811
R7	0.37001	0.04584	0.27971	0.02874	-0.10230	-0.00428	0.20268	-0.10702
R8	0.24468	0.25572	0.20157	-0.07198	0.03537	0.11683	0.28934	0.07298
R9	-0.05143	0.47115	-0.19018	-0.10855	0.11856	0.01587	-0.12844	0.14720
R11	-0.62079	-0.03879	0.01898	0.23165	-0.00202	-0.02380	0.05245	-0.04812
R12	0.23643	0.14577	0.13838	-0.04181	-0.01838	0.09050	0.28188	-0.07639
R13	0.03583	0.21784	-0.18802	0.28270	-0.01521	0.06336	-0.01585	0.02587
R14	-0.28585	-0.08003	0.17640	-0.18980	0.08584	0.04107	-0.08480	0.09590
R16	0.18207	0.22410	0.48285	-0.18673	-0.02248	0.08841	0.04285	-0.17854
R17	-0.32898	0.31410	0.08532	0.10064	-0.08284	0.08342	0.18840	0.14828
R18	0.18827	0.03931	0.10878	-0.05022	0.04281	-0.27803	0.02456	0.02742
R19	0.17853	-0.10337	0.33578	-0.06227	0.04101	-0.00567	0.24566	-0.03840
R21	-0.03621	-0.01288	0.47388	-0.05136	0.07476	-0.02996	0.03029	0.19547
R22	-0.02503	0.44277	-0.18802	-0.05840	0.14308	-0.05839	-0.02117	0.07086
R23	-0.15524	-0.05470	0.23754	-0.03036	0.03266	-0.14413	-0.00254	-0.02343
R24	0.28048	0.48863	0.23037	0.01489	0.07326	0.12567	0.00143	-0.15451
R25	0.38873	-0.00086	0.18620	0.13512	0.16225	-0.15588	0.21175	-0.08523
R26	0.53422	0.05259	0.03029	0.11781	0.28884	-0.11959	-0.08028	-0.03847
R27	0.13874	0.05076	0.12705	0.05662	0.11994	-0.28041	-0.10072	0.13308
R28	0.28272	0.43458	0.08547	-0.05662	-0.09534	-0.10678	0.10163	-0.05348
R29	0.17209	-0.02747	0.53055	-0.00095	-0.08292	0.00725	-0.25111	0.13782
R31	0.61378	0.18325	0.03658	0.14359	-0.01484	0.16855	-0.05863	0.01884
R32	0.10227	0.22703	-0.35056	0.34451	0.17221	0.02446	-0.10382	0.12115
R33	-0.00450	-0.18204	0.14595	-0.11053	0.16079	0.12883	-0.18231	0.01285
R34	-0.08891	-0.28738	0.10723	0.12510	-0.15288	0.00535	-0.02666	0.24251
R36	0.05980	0.10074	0.03548	0.22824	-0.04893	0.05222	0.06189	-0.07381
R37	0.02055	-0.36884	0.44696	-0.03260	0.08858	-0.07198	0.17821	-0.04610
R38	-0.59248	-0.06185	0.05483	0.15200	-0.02846	0.04729	-0.02130	0.12777
R39	-0.01805	0.52053	-0.05851	0.13712	-0.11555	0.16080	-0.11082	0.17445
R41	-0.02483	-0.38144	0.09187	0.21621	0.10461	-0.07100	0.07800	0.00518
R42	-0.11817	-0.23134	0.23582	0.07703	-0.00207	0.09024	0.06818	-0.28061
R43	0.01883	0.02809	0.07356	0.02842	-0.04898	0.23501	-0.21995	-0.08210
R44	-0.16349	0.07617	-0.03732	0.32940	-0.03886	0.31001	-0.03117	0.08542
R45	0.15337	-0.32380	0.38377	-0.03894	0.10211	0.10852	-0.08365	-0.09780
R46	-0.04187	0.59185	-0.10274	0.08847	-0.00182	-0.08810	-0.01406	0.00646
R47	-0.05238	0.08718	-0.25703	0.25142	0.12897	0.08870	0.04166	-0.01015
R48	0.71720	0.11078	0.04122	0.09886	0.01779	0.11188	-0.00574	0.14967
R49	0.18727	-0.20186	0.33267	-0.08023	0.28888	-0.20358	0.21415	0.13800
R51	-0.04544	-0.23788	0.36084	-0.02863	0.03858	0.05803	0.18931	-0.02577
R52	0.24868	-0.13357	0.03275	0.07552	0.44500	-0.10119	0.07536	-0.00070
R53	0.20877	0.14383	-0.03170	0.10017	0.18183	-0.07078	0.28435	0.18084
R54	0.31022	-0.02185	0.45706	-0.09428	-0.02838	-0.08801	-0.10567	0.04435
R56	0.15981	0.72512	-0.02013	-0.10904	0.05949	-0.03885	-0.01475	-0.05377
R57	0.26116	0.13854	-0.02902	0.05834	0.11967	0.37056	0.03148	0.08540
R58	0.01891	0.37721	-0.07700	-0.00185	-0.04086	-0.07089	0.01301	0.00814
R59	0.05097	0.21354	-0.12418	0.22543	0.18236	0.10513	0.08832	0.08789
R61	-0.18316	-0.57383	0.26725	-0.07236	0.03113	0.10788	-0.02728	0.02588
R62	-0.14805	-0.02767	0.32803	0.06211	-0.00131	0.17473	0.00834	0.11038
R63	0.28056	0.02529	0.28137	-0.11827	0.07812	-0.53198	-0.03601	-0.02388
R64	0.45226	0.14159	0.25968	-0.03833	0.22044	-0.00818	0.00302	0.14787
R65	0.07249	-0.18466	0.42653	0.08518	0.09733	0.02401	0.04106	0.05152
R66	0.17580	0.22844	-0.11336	0.24182	-0.02788	0.14475	0.39457	-0.08163
R67	0.21734	0.05668	0.38308	-0.15321	0.08100	-0.07827	-0.04242	-0.01610
R68	-0.05748	-0.09124	0.03804	0.20038	0.06592	0.15777	0.07941	-0.02739
R69	0.82647	0.15822	0.09321	-0.17827	0.03035	-0.12269	0.00453	0.02196
R71	-0.12589	0.44746	-0.03010	0.27070	-0.09009	0.10085	0.12173	0.10069
R72	0.01812	0.82611	-0.10590	0.05989	0.02828	0.08869	0.07800	0.13809
R73	0.15367	0.08853	0.22541	0.00379	0.28303	-0.09189	0.04366	0.24106
R74	-0.35221	-0.09098	0.31611	-0.10796	0.03849	-0.07857	-0.18826	0.23318
R76	0.12170	0.43179	0.03536	0.21279	-0.22872	-0.04795	-0.04758	-0.08363
R77	0.26307	-0.02409	0.51483	-0.10053	-0.10381	-0.05545	-0.16753	0.00602
R78	0.49022	-0.07790	0.17101	0.04749	0.08819	-0.24220	-0.06290	-0.08502
R79	0.73403	0.01256	0.14627	0.05075	-0.11019	0.01817	-0.05476	-0.00833
R81	-0.18824	0.20810	0.01473	0.20936	-0.28531	0.07770	0.00181	-0.04715
R82	-0.20223	-0.07331	-0.11045	0.51451	-0.02728	-0.02750	-0.04556	-0.02533
R83	-0.00213	-0.01081	0.58787	0.03677	-0.15371	-0.08487	-0.20101	0.09266
R84	0.08838	0.41279	0.02758	0.19029	0.08020	0.18986	0.08053	0.08885
R86	0.21832	0.38888	0.28307	0.09444	-0.04587	-0.04405	0.01700	-0.21783
R87	-0.22828	0.40858	-0.18527	0.36985	0.08780	0.10802	0.09559	0.17581
R88	0.15333	0.00153	0.25836	-0.37208	-0.01866	0.00414	0.05863	0.12908
R89	0.08133	-0.18444	0.28883	0.04645	0.40891	0.05188	-0.07332	0.02480
R91	-0.20099	0.00986	-0.18789	0.23803	0.11302	0.55529	0.09882	0.04778
R92	-0.35443	-0.21547	0.20285	0.14729	0.20554	0.15242	-0.08363	-0.05271
R93	0.01286	-0.11779	0.51837	0.02259	0.07803	-0.04545	0.08494	-0.10886
R94	0.03823	0.17840	-0.23889	0.31723	0.20049	0.08277	-0.08361	0.27361
R96	-0.03367	0.38891	-0.08904	0.10989	-0.10139	-0.12819	0.13419	-0.18044
R97	0.04925	-0.02183	0.48593	0.01728	0.07233	-0.07218	0.00125	-0.21019
R98	0.04721	0.28208	-0.00916	0.38453	-0.03252	0.01895	0.28545	0.08814
R99	0.09236	-0.04249	0.37158	0.02582	0.05588	-0.01833	-0.13381	-0.08075
R101	-0.04312	-0.04710	0.28894	0.08547	0.44212	-0.00800	-0.04557	0.14146
R102	-0.04434	-0.32458	0.25468	0.13892	0.30798	0.02678	0.10847	-0.14150
R103	0.28244	0.18974	-0.21283	0.21317	0.08385	-0.08142	0.07222	-0.08086
R104	0.01780	-0.28284	0.23621	-0.07042	0.01411	0.02141	0.08155	0.08537
R105	-0.03714	-0.33071	0.40184	-0.08875	0.08718	-0.15526	0.11622	0.11205
R106	0.76438	0.10431	0.22896	-0.10107	-0.08036	-0.08251	0.10559	0.16375
R107	0.03755	-0.25987	0.18270	0.15335	0.34122	-0.00491	0.11866	-0.13831
R108	0.28813	0.51805	0.07599	0.08878	-0.04085	-0.08128	0.05758	-0.15837
R109								
R110								
R111								
R112								

Appendix K

8-Factor Oblique Pattern Matrix

AFTER ROTATION WITH KAISER NORMALIZATION

FACTOR PATTERN

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8
R1	-0.04395	0.12813	-0.05793	-0.07134	0.17862	-0.08117	0.02883	-0.08685
R2	0.05188	0.47370	-0.02723	-0.13277	0.07557	0.03254	0.00131	-0.22985
R3	-0.08635	-0.07782	-0.23551	0.02741	-0.00143	-0.02112	-0.38309	-0.01422
R4	0.17019	-0.12180	0.07889	-0.22089	0.14188	-0.03730	-0.31288	0.24781
R5	0.50588	-0.00009	0.17144	-0.21800	0.10870	0.09269	-0.18983	0.15852
R6	0.15862	0.47185	0.05888	-0.15548	0.06788	-0.12745	-0.21515	-0.17889
R7	0.29485	-0.04226	0.14715	0.01548	-0.10183	0.08488	-0.26086	-0.17555
R8	0.15712	0.20889	0.09641	-0.10840	0.04217	-0.08084	-0.38250	-0.02620
R9	-0.08218	0.52922	-0.05381	-0.05834	0.10492	-0.04215	0.11038	0.16310
R11	-0.61758	-0.02941	0.04803	0.22882	-0.01155	-0.02417	-0.01226	-0.04517
R12	0.16203	0.09119	0.00184	-0.06786	-0.04048	-0.05285	-0.32148	-0.13822
R13	0.07541	0.12441	-0.04302	0.30704	-0.01810	-0.07849	0.01882	0.08272
R14	-0.28330	0.02783	0.16736	-0.18903	0.10954	-0.08028	0.08056	0.03578
R15	0.10033	0.24666	0.33336	-0.17347	-0.04497	-0.03238	-0.13127	-0.31740
R16	-0.35085	0.28882	0.15835	0.08485	-0.08180	-0.10549	-0.25776	0.11188
R17	0.08773	0.04954	0.04328	-0.00726	0.08488	0.30885	-0.03883	0.01040
R18	0.08145	-0.11746	0.13953	-0.10865	0.05717	0.05035	-0.28385	-0.14643
R21	-0.10423	0.02124	0.42784	-0.08907	0.14840	0.05184	-0.13884	0.05274
R22	-0.07427	0.48333	-0.11095	-0.00295	0.12125	0.04363	0.01842	0.08000
R23	-0.21955	-0.00727	0.16853	-0.02184	0.04785	0.15210	-0.01141	-0.07813
R24	0.18828	0.47610	0.18127	0.04880	0.03384	-0.08531	-0.07058	-0.25547
R26	0.25486	-0.06004	0.00128	0.14535	0.17340	0.20886	-0.22590	-0.18214
R27	0.48018	0.03365	-0.05820	0.18529	0.31393	0.16288	0.08011	-0.08081
R28	0.05893	0.07531	0.14282	0.10739	0.17287	0.30894	0.07150	0.10318
R29	0.19814	0.38410	0.07028	-0.00178	-0.11748	0.14973	-0.18648	-0.07374
R31	0.18520	-0.02671	0.59294	-0.01535	0.01765	0.03138	0.12143	0.01889
R32	0.65140	0.07322	0.09552	0.14381	-0.00035	-0.12433	-0.00795	-0.01118
R33	0.15122	0.15284	-0.17788	0.38576	0.18292	-0.05318	0.13195	0.17827
R34	0.03440	-0.07884	0.12063	-0.14384	0.17891	-0.13130	0.18890	-0.05238
R36	-0.01952	-0.34310	0.22044	0.07684	-0.07291	-0.01677	-0.01831	0.24786
R37	0.05158	0.01425	0.05045	0.23132	-0.05706	-0.04278	-0.07273	-0.08285
R38	-0.07512	-0.33941	0.21518	-0.08151	0.13880	0.10905	-0.20832	-0.17310
R41	-0.84581	-0.02815	0.18805	0.12480	-0.00075	-0.10880	0.02337	0.12086
R42	0.04686	0.44904	0.18535	0.18455	-0.10485	-0.17718	0.03178	0.18217
R43	-0.03975	-0.41235	0.01177	0.18189	0.14334	0.07321	-0.05135	-0.02156
R44	-0.12914	-0.22868	0.07477	0.04449	-0.03800	-0.07535	-0.04008	-0.34875
R46	0.10087	0.04586	0.12806	0.01473	0.03548	-0.23828	0.20441	-0.11888
R47	-0.04789	-0.01806	0.12475	0.28695	-0.02393	-0.34170	0.00135	0.07574
R48	0.18826	-0.28848	0.23128	-0.08981	0.12488	-0.07408	0.05367	-0.20867
R49	-0.09490	0.57090	-0.00053	0.14889	-0.03270	0.08018	-0.00759	0.02383
R51	-0.02085	0.01808	-0.20777	0.25884	0.11338	-0.11387	0.00824	0.02528
R52	0.73483	-0.00847	0.08866	0.08320	0.08505	-0.08032	-0.07702	0.11338
R53	0.03704	-0.18654	0.10969	-0.09280	0.38608	0.24253	-0.25356	0.00377
R54	-0.10107	-0.22848	0.18231	-0.08518	0.08232	-0.03181	-0.22724	-0.13508
R56	0.14842	-0.09038	-0.14485	0.07133	0.48438	0.11830	-0.04376	-0.08138
R57	0.10738	0.09087	-0.10185	0.09228	0.21080	0.08533	-0.30811	0.11837
R58	0.28244	-0.01845	0.40889	-0.09864	0.02218	0.12417	0.00812	-0.06392
R59	0.07168	0.74069	0.00842	-0.02407	0.00839	0.05725	-0.03022	-0.07881
R61	0.32867	0.08771	0.00748	0.00204	0.12424	-0.36707	-0.08052	0.02880
R62	-0.01822	0.35988	-0.01770	0.05065	-0.06186	0.07220	-0.02835	0.02873
R63	0.04825	0.16475	-0.07700	0.22488	0.19839	-0.11989	-0.07186	0.08551
R64	-0.13454	-0.51314	0.18452	-0.18343	0.07427	-0.11322	0.02821	-0.03893
R66	-0.12549	-0.03357	0.34338	0.00483	0.04152	-0.17503	-0.08894	0.00777
R67	0.07427	0.07806	0.15177	-0.03370	0.11252	0.58914	0.01517	-0.08941
R68	0.37523	0.14050	0.19788	-0.04188	0.27202	0.05530	-0.09076	0.02783
R69	0.02776	-0.17222	0.33286	0.03884	0.15238	0.00550	-0.10987	-0.07862
R71	0.13328	0.07755	-0.17487	0.22028	-0.05954	-0.13044	-0.38855	-0.08818
R72	0.13268	0.10525	0.27318	-0.14837	0.10325	0.12414	-0.02651	-0.12788
R73	-0.03048	-0.13784	0.01851	0.15010	0.08945	-0.18519	-0.07890	-0.08210
R74	0.54800	0.13936	0.02039	-0.14751	0.04254	0.18531	-0.05707	-0.00985
R76	-0.12398	0.33880	0.11006	0.28801	-0.08881	-0.11586	-0.17477	0.09523
R77	-0.00753	0.58138	0.01815	0.09402	0.01580	-0.10879	-0.13895	0.12555
R78	0.05863	0.12152	0.17876	-0.00532	0.36147	0.10938	-0.11224	0.12638
R79	-0.35217	0.01285	0.38886	-0.12417	0.10993	0.08010	0.12411	0.15904
R81	0.11929	0.31440	0.18754	0.27840	-0.24443	0.08740	-0.00083	-0.03755
R82	0.23429	-0.01778	0.48895	-0.10114	-0.05804	0.11258	0.08028	-0.10083
R83	0.40878	-0.10812	0.08826	0.09125	0.08814	0.30145	0.05179	-0.12885
R84	0.74142	-0.10424	0.14802	0.05520	-0.08071	0.05070	-0.01826	-0.03038
R86	-0.13672	0.11048	0.14721	0.22433	-0.28015	-0.08876	-0.02732	-0.01317
R87	-0.14563	-0.18787	0.01368	0.53212	-0.01181	-0.00083	0.08446	0.02230
R88	-0.01550	-0.01753	0.54284	0.03840	-0.07957	0.12015	0.07820	-0.01880
R89	0.08291	0.33827	0.10545	0.18097	0.08358	-0.18958	-0.14275	0.03629
R91	0.13265	0.33321	0.21888	0.14759	-0.08005	0.09344	-0.07071	-0.28112
R92	-0.20806	0.31385	-0.01027	0.38357	0.07889	-0.14755	-0.11539	0.18559
R93	0.09756	0.07228	0.18982	-0.40702	0.01136	0.02815	-0.14484	0.05224
R94	0.03864	-0.10659	0.13781	0.00979	0.44528	-0.03996	0.05724	-0.11586
R96	-0.05718	-0.04857	-0.11378	0.14133	0.08486	-0.80879	-0.09157	0.02724
R97	-0.32382	-0.15643	0.15916	0.10012	0.21889	-0.17875	0.09489	-0.14044
R98	-0.07813	-0.09779	0.34367	-0.00288	0.09833	0.08671	-0.12028	-0.25380
R99	0.08925	0.11619	-0.04887	0.32880	0.24988	-0.09848	0.07279	0.28893
R101	-0.10646	0.32980	-0.09408	0.17847	-0.15626	0.13801	-0.11784	-0.12237
R102	-0.04742	0.00483	0.30970	0.02178	0.05881	0.11802	-0.04160	-0.34088
R103	-0.00198	0.12351	0.02844	0.38777	-0.02021	-0.01117	-0.32106	0.04820
R104	0.08464	-0.02148	0.31900	0.02539	0.08018	0.08004	0.08188	-0.15871
R105	-0.11747	0.04075	0.18621	0.03984	0.49885	0.00838	0.00842	-0.01205
R106	-0.10880	-0.28803	0.03453	0.08823	0.31534	-0.01418	-0.07887	-0.25731
R107	0.22541	0.10839	-0.21141	0.28385	0.03867	0.10431	-0.03782	-0.03827
R108	0.00519	-0.28370	0.15180	-0.12858	0.05428	-0.00878	-0.08304	0.00195
R109	-0.12852	-0.28580	0.25118	-0.11483	0.15529	0.18402	-0.18888	0.00588
R110	0.88427	-0.01507	0.18088	-0.10818	-0.00271	0.14045	-0.21818	0.08828
R111	-0.04063	-0.23282	-0.02872	0.12008	0.34483	0.02072	-0.08321	-0.24408
R112	0.19812	0.44705	0.05571	0.18492	-0.08292	0.13321	-0.09493	-0.18152

Appendix L

27-Factor Varimaxed Matrix

VARIMAX ROTATED FACTOR MATRIX

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5	FACTOR 6	FACTOR 7	FACTOR 8	FACTOR 9	FACTOR 1
R1	0.00083	0.04430	0.00264	0.07814	-0.01490	-0.00098	0.04437	-0.02071	-0.02351	0.04278
R2	0.18483	0.18000	0.07855	-0.02289	0.10585	0.09093	0.03885	-0.05352	0.11883	-0.03188
R3	0.01881	-0.01425	-0.08262	0.05032	-0.04827	0.02029	-0.00062	0.05116	0.09744	-0.01280
R4	0.19042	-0.05524	0.08121	0.02978	0.01728	-0.08840	-0.01126	-0.11728	0.05103	0.03079
R5	0.55209	-0.00878	0.18787	-0.01899	0.24855	0.00082	0.09264	-0.17363	0.13006	0.01599
R6	0.25508	0.34714	0.08820	0.01068	0.08813	0.14382	-0.03263	-0.18283	0.28143	0.04591
R7	0.27885	-0.10445	0.20852	-0.04972	0.05008	0.17671	-0.07302	-0.02385	0.42883	0.02843
R8	0.23488	0.18187	0.09082	0.05045	-0.03408	0.07385	0.01683	-0.11838	0.52046	-0.03014
R9	0.01226	0.53084	-0.08166	-0.07750	-0.08222	-0.08824	0.07708	0.02208	-0.05037	0.04051
R10	-0.87357	0.01854	-0.02881	0.02873	0.01836	-0.03523	0.00281	0.24342	0.11342	0.03448
R11	0.18334	0.10855	-0.00717	-0.00182	-0.05235	0.12467	-0.14808	0.05165	0.29513	0.08580
R12	0.07198	0.23403	-0.12730	-0.10948	-0.00891	0.03510	0.05405	0.48094	-0.00352	0.02081
R13	-0.20885	-0.02881	0.14232	0.02143	0.01548	-0.10838	-0.02191	-0.08148	-0.03515	0.01784
R14	0.18902	0.09877	0.40471	0.04990	0.10918	0.18726	-0.18588	-0.02275	0.24507	0.04689
R15	-0.28874	0.38837	0.13756	0.00343	-0.07048	-0.10431	-0.02850	-0.05782	0.07507	-0.16315
R16	0.13282	-0.04108	0.08986	0.01884	0.36137	0.11482	0.02472	0.00138	-0.08181	0.01284
R17	0.18485	-0.09284	0.07964	0.04410	0.05843	0.06783	-0.11886	-0.04822	0.14182	0.08259
R18	0.02188	0.03203	0.48209	0.18926	0.07485	-0.03638	-0.00051	-0.08381	0.02409	-0.02308
R19	-0.01378	0.35529	-0.11390	-0.13283	0.04186	0.08394	0.08829	0.03047	-0.02830	0.03233
R20	-0.13078	-0.03549	0.18484	0.02128	0.08374	-0.02806	-0.08862	0.00457	-0.00501	0.10244
R21	0.22184	0.34234	0.11780	-0.00078	0.02738	0.24783	0.09895	-0.12772	0.33117	0.04517
R22	0.28238	-0.00837	0.01380	0.19857	0.13952	0.03189	0.02315	0.03154	0.32288	0.18155
R23	0.47537	-0.00845	-0.03588	0.18041	0.12000	0.05690	0.12341	0.09334	0.07880	0.13888
R24	0.12153	0.01156	0.08333	0.08685	0.24239	0.12808	0.30420	-0.01067	-0.08132	-0.08894
R25	0.29590	0.28120	-0.04765	-0.12592	0.08551	0.21186	0.10045	-0.28553	0.18781	-0.03297
R26	0.20058	0.00187	0.43193	0.04321	0.02204	0.07423	-0.01888	-0.02185	0.08111	0.00147
R27	0.88761	0.18347	0.02020	0.03087	-0.10859	0.13255	0.07281	0.13733	0.13384	0.02254
R28	0.07289	0.18282	-0.24839	-0.04314	-0.09852	0.02881	0.80478	0.11138	0.01280	0.08233
R29	-0.02858	-0.08974	0.08854	0.02100	-0.00373	0.00611	0.00800	-0.05855	0.01730	0.04112
R30	-0.04241	-0.11306	0.11840	0.01484	-0.02774	-0.08823	0.02384	0.08489	-0.02715	0.03374
R31	0.05365	0.05499	0.03402	-0.03445	-0.05177	0.03181	0.08439	0.14109	0.00859	-0.04040
R32	0.02580	-0.30088	0.23463	0.42810	0.05262	-0.02037	-0.08238	-0.10916	0.09449	-0.08077
R33	-0.71817	-0.00187	0.03733	0.02511	-0.12083	-0.04889	0.11184	-0.01372	-0.08201	-0.08961
R34	0.07814	0.58736	-0.02102	-0.08118	-0.12892	-0.02104	0.08138	0.08840	0.14762	-0.18237
R35	-0.02500	-0.24716	0.04582	0.23918	-0.03784	-0.18572	0.04004	0.11532	-0.02971	0.08423
R36	-0.18977	-0.22385	0.04377	0.14305	0.08497	0.00826	-0.10482	0.01432	0.18673	0.00535
R37	0.04814	0.01723	0.04801	0.00284	-0.08132	-0.00061	0.01073	-0.00373	-0.08484	0.02474
R38	-0.08834	0.09889	0.09781	0.12092	-0.58243	0.08595	0.17157	0.05309	-0.09081	-0.07777
R39	0.15704	-0.32918	0.22787	0.28078	0.01555	0.04836	-0.08072	-0.00345	0.02000	0.02723
R40	0.01853	0.57126	-0.01855	-0.14635	0.00745	0.10783	0.14306	-0.00399	-0.08481	0.00188
R41	-0.07778	0.08280	-0.13821	0.02819	-0.18646	-0.01881	0.29291	0.08582	-0.03841	-0.08050
R42	0.71080	0.07543	0.02617	0.02233	0.00542	0.01882	0.13183	0.00464	0.08572	0.00998
R43	0.10820	-0.08040	0.14977	0.27050	0.28336	-0.02182	0.00040	-0.12801	0.15186	0.15778
R44	-0.05367	-0.20124	0.17494	0.13221	0.08865	-0.00085	-0.15550	-0.02698	0.12044	0.11320
R45	0.14821	-0.11110	0.01534	0.08141	0.07101	-0.02521	0.08828	0.02734	0.02825	0.71024
R46	0.15678	0.13721	-0.01254	0.05847	0.03457	0.05836	0.15335	-0.08340	0.10357	0.18142
R47	0.27229	-0.08808	0.46317	-0.02276	0.14472	0.09182	-0.15213	-0.08414	0.07428	0.01005
R48	0.18383	0.55219	-0.02808	-0.08026	0.09489	0.34147	0.00741	-0.11603	0.02401	-0.04887
R49	0.27107	0.14224	-0.08440	0.05186	-0.09101	-0.02887	0.01844	0.11100	0.24196	0.00151
R50	0.05496	0.23844	-0.02818	-0.18403	0.00512	0.22107	0.06364	0.02086	0.02386	0.01416
R51	0.04033	0.14618	-0.00251	-0.00591	-0.14181	0.08184	0.17291	0.15837	0.08757	0.08236
R52	-0.15362	-0.48438	0.18504	0.13204	-0.00714	-0.36277	-0.03671	0.08630	0.08885	0.05276
R53	-0.12237	-0.00227	0.46073	-0.02314	-0.07597	-0.08462	-0.08341	0.05507	0.08871	0.08403
R54	0.18134	-0.01824	0.13675	0.07889	0.72629	0.04036	-0.04442	-0.05855	0.02835	0.03883
R55	0.43500	0.13814	0.23540	0.12804	0.09473	0.03720	0.00736	-0.10800	0.09989	0.12095
R56	0.05868	-0.12113	0.45556	0.20518	0.12844	0.01822	0.05580	-0.06255	-0.03391	0.03843
R57	0.18418	0.25656	-0.18033	0.02138	-0.10510	0.03325	0.01818	0.07088	0.14121	-0.02827
R58	0.19544	-0.02351	0.25822	0.00127	0.18418	0.14058	-0.12775	-0.02344	0.08000	0.14892
R59	-0.07673	-0.04717	0.05884	0.07283	-0.08262	-0.00597	0.06107	0.04250	-0.02210	0.00808
R60	0.83139	0.09656	0.03307	-0.05804	0.22815	0.00186	-0.09883	-0.04134	0.08721	0.07213
R61	0.09328	0.60809	0.05445	-0.08840	-0.04808	0.02780	0.04266	0.18372	0.08334	-0.05998
R62	0.11580	0.67085	-0.09332	-0.09086	-0.04478	0.21065	-0.00646	0.02944	0.01344	0.00511
R63	0.19454	0.11944	0.20527	0.19006	0.05228	0.05755	0.08858	-0.08786	0.05804	0.11141
R64	-0.31004	-0.03559	0.26505	0.05050	-0.01830	-0.04984	-0.04188	0.04188	-0.12843	-0.01217
R65	0.18283	0.35883	0.08880	-0.12289	-0.01385	0.28113	-0.11244	0.16178	-0.01498	-0.00810
R66	0.21819	-0.14087	0.48037	-0.01078	0.12468	0.10524	-0.14182	-0.15408	0.17277	0.17701
R67	0.45452	-0.13515	0.04358	0.12152	0.28514	0.03748	-0.07225	-0.02189	-0.01781	0.04608
R68	0.73753	-0.10862	0.03624	0.00439	0.08837	0.11623	-0.04243	-0.00145	0.02816	0.00780
R69	-0.13626	0.18089	0.03413	-0.02423	-0.04882	0.02805	0.04903	0.03229	0.02381	-0.10467
R70	-0.17540	-0.00405	-0.08524	0.11657	-0.08103	-0.02887	0.17720	0.58986	-0.05085	-0.02808
R71	0.02761	-0.05961	0.55300	0.08420	0.08188	0.10289	0.01822	-0.13554	-0.05827	-0.03745
R72	0.05038	0.43604	0.05900	-0.01242	-0.08338	0.03313	0.13065	0.08712	0.19812	-0.07830
R73	0.18717	0.18157	0.11449	0.08082	0.02756	0.85832	-0.00873	0.01177	0.12512	-0.04367
R74	-0.20089	0.48055	-0.02986	-0.07761	-0.11493	0.02853	0.23805	0.18304	-0.04054	-0.01174
R75	0.18256	-0.03324	0.08153	0.01830	0.05374	0.00412	-0.07834	-0.58062	0.03888	0.01860
R76	0.07693	-0.08811	0.08805	0.18810	-0.04674	-0.00712	0.02437	-0.03862	0.01786	0.70218
R77	-0.17899	0.08855	-0.12703	-0.00950	-0.58150	-0.04134	0.03411	0.04708	0.03776	0.11526
R78	-0.30270	-0.11335	0.21711	0.28648	-0.14420	-0.11372	0.04981	0.07408	-0.08070	0.03537
R79	0.01807	-0.07256	0.18847	0.41535	0.07245	0.08025	-0.18892	-0.01581	0.18782	0.05400
R80	0.01883	0.13830	-0.01845	-0.08854	-0.04084	-0.03189	0.85111	0.11543	-0.01040	0.08891
R81	-0.03332	0.32268	-0.12528	-0.10344	0.07863	0.08954	0.01818	-0.08554	0.05036	-0.04477
R82	0.02010	-0.08044	0.25843	0.22486	0.12130	0.16835	-0.11805	0.02388	0.18978	0.08869
R83	-0.01248	0.23548	-0.00535	0.01791	-0.06714	0.16233	0.13285	0.08884	0.13682	0.07394
R84	0.10021	-0.05894	0.33237	0.27866	0.12314	0.04026	-0.00481	-0.10896	-0.02879	-0.03668
R85	-0.05017	0.08335	0.20229	0.29120	0.01367	-0.07886	0.08887	-0.10844	-0.03435	0.31831
R86	-0.03830	-0.20000	-0.00067	0.66610	0.00837	-0.01887	-0.08148	0.01552	0.01916	0.11784
R87	0.18322	0.12787	-0.12452	-0.09152	0.03450	0.04081	0.08715	0.03267	0.04200	0.04818
R88	0.02484	-0.24882	0.08088	0.11818	0.00398	-0.04082	0.00240	-0.13184	0.11027	0.01984
R89	-0.02541	-0.23367	0.18138	0.19117	0.08628	-0.03018	-0.08338	-0.08888	-0.03850	0.08724
R90	0.74184	-0.00888	0.09781	-0.04812	0.14437	0.17044	-0.08827	-0.20182	0.18370	0.04247
R91	0.02384	-0.13888	0.08008	0.58031	-0.01348	-0.01253	0.01840	0.04847	-0.02050	0.11185
R92	0.21116	0.27198	0.02315	-0.10405	0.08224	0.88184	0.02553	-0.00874	0.09408	0.01180

	FACTOR 11	FACTOR 12	FACTOR 13	FACTOR 14	FACTOR 15	FACTOR 16	FACTOR 17	FACTOR 18	FACTOR 19	FACTOR 20
R1	0.09864	-0.01045	-0.07854	0.00807	-0.02327	0.01858	-0.04443	0.08186	-0.00302	-0.00486
R2	0.88885	-0.05077	0.12830	-0.10840	0.01376	-0.00104	0.02382	0.08856	0.11836	-0.08454
R3	-0.05955	-0.00056	0.10204	-0.02817	0.01978	0.04488	0.11361	0.57011	-0.12832	0.04435
R4	-0.01842	0.12205	0.04980	-0.03698	-0.08512	0.54437	0.03401	0.05970	-0.04015	-0.04395
R5	0.00481	0.05015	-0.08911	0.02863	0.00961	0.25885	0.05008	0.05884	0.00114	-0.14329
R6	-0.01386	0.08438	-0.01841	0.11641	0.01880	-0.04782	0.07432	0.12618	0.05836	0.05897
R7	0.07088	0.03768	0.08846	0.01370	-0.00883	0.07148	-0.03828	0.12178	-0.14884	0.02324
R8	0.20475	-0.08502	-0.11831	-0.18186	0.00154	0.01891	-0.17739	-0.07462	-0.17421	-0.05245
R9	-0.08332	-0.01493	0.02003	-0.02131	0.12784	0.02780	0.09421	-0.05352	-0.00586	0.07100
R10	0.03884	0.13059	0.04320	-0.08783	-0.08902	0.15242	-0.08505	0.05921	-0.04868	0.20868
R11	0.01886	-0.02482	0.08555	-0.05680	0.02344	-0.00309	0.12784	-0.04109	0.01278	0.08881
R12	0.03741	0.07809	-0.10478	-0.01574	0.04758	-0.03208	-0.03374	0.05332	0.01898	-0.03604
R13	0.17158	0.01815	-0.05589	-0.13698	0.04821	0.05870	-0.05882	0.05882	0.11417	0.08165
R14	-0.00451	0.11812	0.07432	0.08100	0.20846	0.00805	-0.03337	0.10001	-0.00789	0.12343
R15	0.09428	-0.02708	0.08880	0.07771	-0.01916	0.15584	0.05002	-0.01708	-0.04033	-0.02821
R16	0.04898	0.50856	-0.07043	-0.08478	-0.04636	0.08731	0.12818	0.02884	0.02284	0.15121
R17	0.06185	0.16417	0.02885	-0.02400	-0.02581	0.07773	-0.08873	0.08884	0.08106	-0.04884
R18	0.24280	-0.01843	-0.03788	-0.02882	-0.03587	0.01127	-0.18258	0.00204	-0.06171	0.11500
R19	0.01042	0.06138	0.02801	-0.02084	-0.06780	-0.03836	0.00488	0.00347	-0.08458	0.03785
R20	0.14538	-0.03267	-0.10883	0.03712	0.09853	-0.07806	-0.02598	-0.07188	0.16846	0.08626
R21	0.03389	0.12040	0.00307	0.18873	-0.01781	0.05878	-0.00449	0.00375	-0.10148	0.14182
R22	0.10967	-0.04814	-0.07384	0.34775	-0.06850	0.05220	-0.08885	-0.04182	0.02228	-0.01388
R23	0.02267	0.18846	-0.05740	0.16140	0.00252	0.08571	-0.17028	-0.05898	-0.03783	-0.06625
R24	0.07085	0.07886	0.21355	-0.03508	-0.01072	-0.12230	-0.14693	0.06385	0.14038	0.24858
R25	-0.14247	0.11768	-0.11000	-0.07075	-0.10373	0.08432	-0.00025	-0.31017	0.03320	0.00984
R26	-0.04786	0.00751	0.05838	-0.05182	-0.08842	-0.14185	-0.00360	-0.02148	0.07881	-0.01630
R27	0.01897	-0.14232	-0.01151	0.05181	0.08028	-0.05322	0.07312	-0.04368	-0.05257	0.03317
R28	-0.08882	0.07418	-0.57851	0.02018	-0.07843	0.00846	0.09758	-0.07811	0.07004	0.01089
R29	-0.58238	-0.04742	-0.00882	-0.18478	-0.01930	0.03137	-0.02028	0.10834	-0.00184	-0.03458
R30	0.00789	0.08800	0.03786	0.03852	0.01093	-0.03838	0.03462	0.04893	0.03805	0.55500
R31	-0.19487	0.28408	-0.01428	-0.03025	-0.07752	0.07886	-0.12811	0.07708	-0.01302	0.03344
R32	-0.14859	0.00815	-0.04850	0.07381	0.21162	0.24402	-0.00838	-0.05777	0.08188	0.03875
R33	-0.10072	-0.10768	0.04071	-0.04254	0.04798	-0.13152	-0.08181	-0.18100	0.02342	-0.01648
R34	-0.08577	0.18294	-0.01524	0.21881	0.04880	0.00823	-0.00752	0.08949	0.01839	-0.02517
R35	-0.12641	0.10034	-0.18853	0.03550	0.07557	-0.14410	0.09338	0.02138	0.28318	0.11367
R36	0.08588	-0.02825	-0.01377	-0.01726	0.00595	-0.00467	-0.00383	-0.10888	0.84511	0.02802
R37	-0.08073	0.00187	0.00378	0.07844	0.19437	-0.02481	0.00917	0.07378	0.04214	-0.14546
R38	-0.08342	-0.03254	-0.05388	-0.10473	-0.14452	0.08863	0.05074	-0.08428	0.07237	0.08784
R39	0.18220	-0.02492	0.14111	0.08041	0.02711	-0.07881	-0.04858	0.01187	-0.03775	0.06085
R40	0.10486	0.02411	-0.00750	0.11085	-0.00112	-0.00457	0.14455	0.10574	0.02814	-0.02221
R41	-0.02879	0.05038	-0.00223	0.09852	0.04388	0.14133	-0.05122	-0.04758	0.08003	0.08541
R42	-0.16341	0.24738	-0.05485	0.03427	-0.28202	0.15198	0.02405	0.07331	0.04377	-0.10891
R43	-0.14123	0.17530	0.18188	-0.17401	-0.12785	0.04581	0.12784	0.05576	0.20820	-0.00182
R44	0.02205	0.00884	0.02594	0.12088	-0.10182	0.04793	-0.00211	0.08387	-0.05564	-0.01712
R45	-0.04777	0.05915	0.08266	0.09898	-0.00205	0.04042	0.08210	0.18011	-0.22459	-0.02872
R46	-0.04619	0.00401	-0.18358	0.15513	-0.08910	0.07637	-0.01871	-0.08817	0.00738	0.02701
R47	0.24951	-0.22805	0.01203	-0.00188	0.00469	0.13200	-0.07339	0.04283	0.02414	0.07488
R48	0.08255	-0.07086	-0.20835	0.02317	0.15057	0.22721	0.14153	-0.08883	0.14417	0.00025
R49	0.08508	0.00449	0.04453	-0.08432	0.08445	-0.12013	-0.14250	0.15852	-0.03840	-0.07347
R50	0.10091	-0.07233	0.05522	0.03893	-0.05318	0.04841	0.10748	0.07291	-0.12273	0.04167
R51	-0.02085	0.19383	-0.04512	-0.15147	0.05541	0.05857	-0.08389	-0.09225	0.08867	0.07756
R52	-0.03436	0.01038	-0.00705	0.01502	0.03473	0.02058	0.13538	0.02516	-0.01061	0.03110
R53	-0.04774	0.09974	-0.02175	0.07835	-0.01201	-0.07378	-0.08888	-0.04627	0.02418	-0.02381
R54	0.03921	-0.04788	-0.18117	0.28333	-0.03482	0.14808	0.01478	0.05958	0.01018	-0.07804
R55	-0.05541	0.00232	-0.08028	-0.04007	-0.07877	0.03128	0.38522	0.12282	0.00887	0.15082
R56	0.05433	0.08153	0.21893	0.14346	0.08480	0.08891	0.37942	0.08013	-0.04787	0.03287
R57	0.10374	0.13023	-0.21500	-0.08186	0.04388	0.10804	0.01747	0.01980	0.04550	-0.01811
R58	0.08750	-0.01598	-0.04321	0.02451	-0.05898	0.03733	-0.04354	0.01715	-0.05938	0.03056
R59	-0.02589	0.00204	0.21432	0.08555	0.14730	-0.02881	0.15495	0.02207	0.07145	-0.07658
R60	-0.03016	-0.07559	0.01828	0.05806	0.03088	0.09401	-0.03289	0.10262	0.04175	0.03742
R61	-0.12344	0.12115	-0.03899	-0.02362	-0.27825	0.18752	-0.00886	-0.05199	0.04027	0.08548
R62	-0.05253	0.07302	-0.08238	-0.18489	-0.05180	0.27854	-0.18850	-0.10251	0.05485	-0.03749
R63	-0.08780	-0.06114	0.13681	0.02103	0.26791	-0.12314	0.08310	-0.04341	-0.12288	-0.02176
R64	-0.01776	0.02501	0.06828	-0.02283	0.10039	-0.01707	-0.08892	-0.36352	-0.04256	-0.00812
R65	0.04231	0.01808	0.05043	0.15849	-0.08072	-0.03621	0.17102	-0.07786	0.04467	-0.05783
R66	0.00813	-0.04000	0.08525	-0.00885	0.83879	-0.04431	0.05218	0.00895	0.02985	0.00886
R67	-0.13181	0.02280	0.08228	-0.00477	0.14827	0.00134	-0.02338	0.03304	0.00523	0.07800
R68	-0.07513	0.15745	0.06353	-0.12383	0.10308	-0.00456	-0.01981	-0.24867	0.04818	-0.06115
R69	0.08486	0.00588	-0.00075	0.08753	-0.08949	0.05904	0.20444	-0.11802	0.05485	-0.00843
R70	0.07949	0.05802	0.03518	-0.01734	-0.00288	-0.05376	-0.00235	-0.05226	0.03880	0.03722
R71	-0.03787	0.07826	0.11808	0.10781	0.01905	-0.08000	0.14102	0.08341	0.08021	0.09858
R72	-0.00881	0.10376	0.01384	-0.08037	0.05912	0.14535	-0.01716	-0.09886	0.00378	-0.08079
R73	-0.08400	0.10508	-0.05891	-0.07898	-0.03913	-0.02773	0.03480	-0.10938	0.10851	-0.07883
R74	-0.07789	-0.05545	0.11810	0.07914	-0.08757	0.08450	0.18893	-0.05084	0.14948	0.15323
R75	0.01921	0.04563	-0.09188	-0.00287	0.03802	-0.08833	0.04878	0.08457	0.18000	-0.08040
R76	-0.03958	0.07150	-0.14442	-0.05818	0.17440	0.17490	-0.02852	-0.00858	0.04857	0.03035
R77	-0.02550	-0.08877	0.07201	-0.01638	-0.01208	0.01890	0.03751	0.04938	0.03438	0.08385
R78	0.01589	-0.00130	0.17483	0.15839	0.14020	-0.18448	0.01818	0.03842	-0.02491	0.15953
R79	0.05904	0.14893	-0.07740	-0.01132	0.04740	-0.00848	-0.00334	-0.16850	-0.00513	-0.02723
R80	-0.04712	0.02917	0.49043	0.24511	0.07621	0.14374	0.05586	0.03840	0.13689	0.18746
R81	-0.01581	-0.12401	-0.08722	-0.08743	-0.00827	-0.09499	0.05080	-0.11025	-0.02485	0.27200
R82	-0.04315	0.13819	-0.10942	0.05356	-0.18184	0.03178	-0.08220	-0.09128	0.03921	0.18313
R83	-0.05498	-0.00618	0.08974	-0.04961	-0.02313	0.00782	0.08814	-0.01589	-0.00588	0.01042
R84	0.07849	-0.08545	0.08760	0.53387	0.00480	-0.07772	0.11088	-0.01868	-0.03629	0.04810
R85	-0.19088	0.15834	-0.01004	-0.08535	-0.04134	-0.04343	0.06700	-0.04545	-0.05088	-0.09224
R86	-0.03367	0.58018	-0.03436	-0.01245	-0.04815	0.08140	-0.04087	-0.07200	-0.08056	-0.00028
R87	-0.03286	0.12701	0.04639	0.00381	0.02256	0.18830	0.02877	-0.01728	-0.11513	0.12562
R88	0.06456	0.11212	-0.01287	0.03121	-0.03892	-0.01143	0.08453	0.07183	-0.01128	-0.08837
R89	0.08227	-0.00011	0.00872	0.08335	0.03467	-0.03573	0.01338	0.03771	-0.04428	0.04328

	FACTOR 21	FACTOR 22	FACTOR 23	FACTOR 24	FACTOR 25	FACTOR 26	FACTOR 27
R1	0.08806	-0.01610	0.00750	0.02618	0.83112	0.00179	0.01420
R2	0.11031	0.08451	-0.07487	0.13733	0.07334	0.15080	0.07885
R3	0.03707	0.01290	-0.00275	0.03898	0.08836	0.01727	0.01372
R4	-0.05220	-0.02452	0.00352	-0.00006	0.02440	-0.01818	-0.03297
R5	-0.01028	0.00767	0.00372	-0.08838	-0.03845	-0.15493	-0.04014
R6	0.08720	-0.03083	0.05375	0.05310	0.12169	-0.05313	0.15385
R7	-0.08835	-0.02882	0.02888	-0.00026	-0.03701	0.04713	0.04049
R8	0.08423	0.08143	-0.00508	0.15835	-0.04056	-0.04075	-0.01825
R9	-0.00188	-0.11538	-0.01884	0.02352	-0.04261	0.08950	0.06335
R11	0.08891	0.05741	0.08488	-0.01410	0.08745	0.07585	-0.10444
R12	-0.07388	-0.08072	0.12901	-0.23186	0.00283	0.00045	0.05181
R13	-0.01288	0.08831	0.19887	0.02840	0.11431	-0.07808	-0.20772
R14	0.58772	0.05336	-0.02408	-0.03004	0.08356	-0.00859	-0.01831
R16	0.00322	-0.03618	-0.11209	-0.12788	0.01305	-0.08428	0.19849
R17	-0.08486	0.00823	0.11105	0.15206	0.07130	-0.11844	-0.08102
R18	0.07324	-0.01481	0.06358	-0.03384	-0.10673	-0.03050	0.05043
R19	-0.01422	0.07449	0.01895	-0.08462	0.01739	0.00075	0.01883
R21	0.13218	0.08844	-0.03595	0.02338	-0.18939	-0.08451	-0.08480
R22	-0.02884	-0.04440	0.28874	0.17345	-0.03704	-0.02714	-0.01884
R23	0.08282	0.41871	-0.04263	0.01926	-0.01831	-0.00754	0.00201
R24	-0.15243	0.05888	0.05785	-0.08588	0.08471	-0.04704	0.01488
R26	-0.08503	-0.01024	-0.02871	-0.15912	-0.08386	0.21421	-0.03017
R27	0.08334	-0.03478	0.18446	-0.01315	0.01823	0.10844	0.05494
R28	0.04182	0.11570	-0.01874	-0.02384	0.05455	-0.07802	0.08253
R29	-0.05281	0.24820	-0.05135	-0.04855	0.02878	0.21121	-0.08288
R31	0.08703	0.22559	-0.17787	-0.04364	0.00805	0.12148	0.07797
R32	0.00080	-0.01195	0.00430	0.00220	-0.00151	-0.00072	-0.09057
R33	-0.04471	0.01818	0.07338	-0.00518	-0.02038	0.01823	-0.00825
R34	0.05829	-0.01488	-0.02453	-0.01806	0.05224	-0.03337	-0.01617
R36	0.05988	0.04742	-0.08280	0.03824	-0.12617	0.10063	0.05248
R37	-0.02928	0.02348	-0.00350	0.01082	-0.01082	-0.00383	0.04180
R38	-0.05473	0.09381	-0.08808	0.02800	0.11338	-0.05042	0.16570
R39	0.11872	0.05204	0.05182	0.04888	0.08837	0.09121	0.06789
R41	0.06782	0.05023	0.12466	0.05000	0.00526	0.01790	-0.08763
R42	-0.02886	0.14791	-0.23520	0.00985	-0.13929	-0.05433	0.00523
R43	-0.05487	-0.01171	0.02958	-0.07404	-0.03783	-0.10840	0.23236
R44	0.00897	-0.06452	-0.02084	-0.03500	-0.00745	0.01052	-0.00889
R46	-0.10119	0.01023	0.18727	0.08716	-0.08725	0.07506	0.01287
R47	0.10583	0.10781	-0.02326	-0.01753	0.11853	-0.11408	0.13482
R48	0.02334	0.08444	-0.11766	-0.12453	0.03783	-0.02487	0.22026
R49	-0.15012	-0.08120	-0.07885	0.05123	0.15541	0.18182	-0.00352
R51	-0.11747	-0.12574	0.00101	0.04183	0.03817	-0.01817	0.00402
R52	-0.13716	-0.01696	0.05048	0.02217	0.05185	0.05280	-0.03982
R53	0.01763	0.14251	0.20244	-0.02603	0.10703	-0.08878	-0.02438
R54	-0.10385	-0.02104	0.05173	-0.01823	0.09825	0.03531	-0.04089
R56	-0.05954	-0.16945	0.27885	0.05643	0.00882	-0.02138	0.00202
R57	-0.01886	0.06033	0.17748	-0.02352	0.02256	0.08459	0.02780
R58	-0.07423	0.05353	-0.02599	0.10341	0.02175	0.04741	0.08808
R59	0.02474	-0.14801	0.03210	0.21943	0.00874	-0.22809	-0.12301
R61	-0.07332	0.12345	0.08461	0.27113	-0.00184	-0.03272	0.00534
R62	-0.04879	-0.03321	0.03778	0.41520	0.06397	0.03975	-0.00288
R63	0.17545	0.07103	0.03875	-0.09328	0.05947	-0.13280	-0.04582
R64	0.10373	-0.02824	-0.08618	0.12203	0.09189	-0.05781	-0.04183
R65	-0.03484	0.03428	0.06372	0.08649	0.08230	0.04839	0.02423
R66	0.14250	-0.03118	0.22238	-0.03154	-0.07703	0.08242	-0.01538
R67	0.06377	0.04217	-0.00446	-0.10408	-0.08428	-0.02884	-0.04781
R68	-0.11748	0.02412	0.04591	-0.08575	0.01783	-0.14845	0.14014
R69	0.07160	-0.01254	0.20235	-0.02334	-0.05843	0.18366	0.03738
R71	-0.00780	-0.00833	-0.00312	0.08081	-0.03615	0.03720	-0.01093
R72	-0.01211	0.06210	0.13309	-0.03710	0.02084	0.03421	0.02848
R73	0.00877	-0.05311	0.18036	-0.11443	0.13789	-0.02456	-0.13358
R74	0.05713	-0.00415	-0.08092	0.02890	0.08446	-0.08882	-0.09382
R76	0.02461	-0.10211	-0.06864	0.13440	-0.07241	0.05802	-0.04874
R77	0.18049	0.15835	0.05874	0.05617	0.02724	0.14583	-0.07838
R78	0.03874	-0.05182	0.08975	0.02025	0.18021	0.28136	0.03555
R79	-0.02425	-0.01841	-0.02811	-0.02783	0.01851	0.05768	-0.04988
R81	-0.05049	0.18452	0.00169	0.13542	0.02480	0.31720	-0.03030
R82	-0.03198	-0.01248	-0.04113	0.10185	-0.08801	0.14485	0.00620
R83	0.02967	-0.06480	-0.03179	0.00295	-0.04454	0.00109	0.02407
R84	-0.03801	0.02548	-0.02278	0.05247	-0.00580	0.07489	0.10336
R86	-0.08867	0.13377	0.09443	-0.05475	0.02092	0.11509	0.06732
R87	-0.14467	-0.05356	0.14586	0.03709	-0.14124	-0.01531	0.18358
R88	0.01848	-0.00583	0.08538	-0.03250	-0.07010	0.03485	0.07839
R89	-0.04082	-0.15272	-0.07184	0.18521	-0.03132	-0.08811	0.00408
R91	0.07305	0.07440	0.11904	-0.03364	0.08826	0.00888	0.01220
R93	0.17889	0.17538	-0.01235	0.06556	-0.04287	-0.02133	0.05253
R94	0.11256	-0.14148	-0.04506	0.13887	0.12436	-0.11521	0.02237
R95	0.05672	0.03782	-0.00318	0.02223	0.03684	-0.05096	0.01253
R98	-0.00878	0.35836	0.08300	-0.08944	-0.10188	0.10820	0.02926
R99	0.02833	-0.14621	-0.00419	0.11018	0.03730	-0.04641	-0.02240
R101	-0.01721	0.01727	0.01853	0.00513	0.08478	0.08185	0.35251
R102	-0.04508	0.17748	0.03385	0.00164	0.02918	-0.05243	0.19387
R103	-0.05870	-0.06285	-0.02232	0.05503	-0.19310	-0.04588	-0.00580
R104	-0.00133	0.08444	0.08384	-0.03043	0.03451	-0.02576	-0.07924
R105	0.00360	0.08882	-0.02138	0.13138	0.01621	-0.08524	-0.04108
R106	0.13139	0.01353	0.02018	0.08883	0.00281	0.00082	0.02348
R107	-0.04897	-0.04182	-0.02725	0.02510	0.02488	-0.00180	0.02881
R108	0.23480	0.03587	0.18510	-0.03343	0.10615	0.02489	0.05888
R109	0.17382	0.03310	-0.01041	-0.00201	-0.08317	0.02183	-0.00710
R110	0.05816	0.04958	-0.01854	-0.02008	0.04294	0.00834	0.00883
R111	-0.08419	-0.08282	-0.02361	-0.10276	0.10400	0.02529	-0.08881
R112	-0.14884	-0.01143	-0.08023	0.08558	0.07843	-0.02700	-0.07837

Appendix M

Item Correlations With Factors & Social Desirability

	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10
FAC1	0.0030 (445) P=0.475	0.1676 (443) P=0.000	-0.0535 (443) P=0.130	0.2144 (441) P=0.000	0.1427 (445) P=0.001	0.6483 (443) P=0.000	0.2757 (445) P=0.000	0.4388 (444) P=0.000	0.2617 (444) P=0.000	0.1634 (444) P=0.000
FAC2	0.0506 (444) P=0.144	0.4454 (442) P=0.000	0.0088 (442) P=0.427	-0.0835 (440) P=0.040	-0.2228 (444) P=0.000	0.0235 (442) P=0.311	0.4886 (444) P=0.000	0.0317 (443) P=0.253	0.1573 (443) P=0.000	-0.2066 (443) P=0.000
FAC3	-0.0072 (444) P=0.439	0.0712 (442) P=0.068	-0.1091 (442) P=0.011	0.1548 (440) P=0.001	0.1220 (444) P=0.005	0.2787 (442) P=0.000	0.0472 (444) P=0.161	0.2320 (443) P=0.000	0.1558 (443) P=0.000	0.2088 (443) P=0.000
FAC4	0.0102 (443) P=0.416	-0.0200 (441) P=0.338	0.1012 (441) P=0.017	-0.1305 (438) P=0.003	-0.2135 (443) P=0.000	-0.2408 (441) P=0.000	0.0356 (443) P=0.227	-0.1254 (442) P=0.004	-0.0316 (442) P=0.254	-0.2380 (442) P=0.000
FAC5	0.0827 (445) P=0.083	-0.0443 (443) P=0.176	-0.0170 (443) P=0.360	0.1307 (441) P=0.003	0.0514 (445) P=0.140	0.1838 (443) P=0.000	0.0238 (445) P=0.308	0.1127 (444) P=0.009	0.1016 (444) P=0.016	0.2028 (444) P=0.000
FAC6	0.0214 (447) P=0.326	0.0887 (444) P=0.031	-0.0881 (444) P=0.032	0.0550 (442) P=0.104	0.0901 (447) P=0.028	0.2503 (445) P=0.000	-0.0032 (445) P=0.473	0.0808 (446) P=0.044	-0.0038 (446) P=0.468	0.1827 (446) P=0.000
SDES	-0.0415 (445) P=0.191	0.0885 (443) P=0.019	-0.0442 (443) P=0.176	0.1523 (441) P=0.000	0.3658 (445) P=0.000	0.5404 (443) P=0.000	0.1277 (445) P=0.003	0.3381 (444) P=0.000	0.1998 (444) P=0.000	0.3624 (444) P=0.000

	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20
FAC1	-0.0201 (444) P=0.338	0.6852 (443) P=0.000	0.2869 (443) P=0.000	-0.0310 (444) P=0.257	-0.0455 (439) P=0.171	-0.2107 (444) P=0.000	0.2570 (444) P=0.000	0.3377 (443) P=0.000	0.1989 (444) P=0.000	0.2429 (444) P=0.000
FAC2	0.4797 (443) P=0.000	0.0765 (442) P=0.054	0.1388 (442) P=0.002	0.2119 (443) P=0.000	-0.2157 (436) P=0.000	-0.1291 (443) P=0.003	0.1625 (443) P=0.000	-0.2363 (442) P=0.000	0.0218 (443) P=0.324	-0.1402 (443) P=0.002
FAC3	-0.1851 (443) P=0.000	0.0925 (442) P=0.026	0.1613 (442) P=0.000	-0.1979 (443) P=0.000	0.1107 (439) P=0.010	0.1238 (443) P=0.005	0.4973 (443) P=0.000	0.0888 (442) P=0.034	0.1487 (443) P=0.001	0.2757 (443) P=0.000
FAC4	0.1848 (442) P=0.000	-0.2448 (441) P=0.000	-0.0281 (441) P=0.271	0.4784 (442) P=0.000	-0.1214 (437) P=0.005	-0.1324 (442) P=0.003	-0.1628 (442) P=0.000	-0.2410 (441) P=0.000	-0.0854 (442) P=0.036	-0.2598 (442) P=0.000
FAC5	-0.0886 (444) P=0.019	0.1339 (443) P=0.002	0.1026 (443) P=0.015	-0.0823 (444) P=0.026	0.0855 (438) P=0.085	0.0237 (444) P=0.309	0.1274 (444) P=0.004	0.1820 (443) P=0.000	0.0907 (444) P=0.028	0.1148 (444) P=0.008
FAC6	-0.0254 (446) P=0.296	0.1887 (445) P=0.000	0.0307 (445) P=0.259	-0.1351 (446) P=0.002	-0.0780 (440) P=0.051	0.0080 (446) P=0.433	0.1033 (445) P=0.015	0.1088 (446) P=0.011	0.2586 (445) P=0.000	0.1542 (445) P=0.001
SDES	-0.1887 (444) P=0.000	0.4471 (443) P=0.000	0.2128 (443) P=0.000	-0.2071 (444) P=0.000	0.1582 (439) P=0.000	-0.0869 (444) P=0.034	0.2982 (444) P=0.000	0.2825 (443) P=0.000	0.2564 (444) P=0.000	0.4410 (444) P=0.000

	R21	R22	R23	R24	R25	R26	R27	R28	R29	R30
FAC1	0.2343 (438) P=0.000	0.0574 (445) P=0.113	-0.0047 (443) P=0.461	-0.0715 (445) P=0.066	0.3485 (445) P=0.000	0.2874 (445) P=0.000	0.4838 (445) P=0.000	0.5588 (442) P=0.000	0.1881 (443) P=0.000	0.4521 (445) P=0.000
FAC2	-0.1368 (439) P=0.002	-0.1113 (444) P=0.009	0.4877 (442) P=0.000	-0.1048 (444) P=0.014	-0.0838 (444) P=0.024	0.5297 (444) P=0.000	0.0426 (444) P=0.185	0.0838 (441) P=0.024	0.0892 (442) P=0.073	-0.0513 (444) P=0.140
FAC3	0.4383 (439) P=0.000	0.5204 (444) P=0.000	-0.1710 (442) P=0.000	0.2377 (444) P=0.000	0.2878 (444) P=0.000	0.1048 (444) P=0.014	0.1873 (444) P=0.000	0.0847 (441) P=0.038	0.1118 (442) P=0.009	0.3137 (444) P=0.000
FAC4	-0.2117 (437) P=0.000	-0.1358 (443) P=0.002	0.1845 (441) P=0.000	-0.1100 (443) P=0.010	-0.2280 (443) P=0.000	0.1114 (443) P=0.010	-0.0428 (443) P=0.184	-0.0003 (440) P=0.497	0.0402 (441) P=0.200	-0.0853 (443) P=0.022
FAC5	0.1989 (438) P=0.000	0.1886 (445) P=0.000	-0.0718 (443) P=0.066	0.0885 (445) P=0.030	0.1483 (445) P=0.001	0.0284 (445) P=0.275	0.2821 (445) P=0.000	0.4800 (442) P=0.000	0.1283 (443) P=0.003	0.3134 (445) P=0.000
FAC6	0.1156 (441) P=0.008	0.1105 (446) P=0.010	-0.0028 (445) P=0.476	0.0885 (446) P=0.018	0.1494 (447) P=0.001	0.0477 (446) P=0.157	0.1598 (447) P=0.000	0.1532 (444) P=0.001	0.5618 (445) P=0.000	0.0842 (447) P=0.038
SDES	0.2881 (438) P=0.000	0.2383 (445) P=0.000	-0.1741 (443) P=0.000	0.0782 (445) P=0.054	0.5110 (445) P=0.000	0.1163 (445) P=0.007	0.3483 (445) P=0.000	0.3022 (442) P=0.000	0.1158 (443) P=0.007	0.4658 (445) P=0.000

(COEFFICIENT / (CASES) / SIGNIFICANCE) (A VALUE OF 88.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)

	R31	R32	R33	R34	R35	R36	R37	R38	R39	R40
FAC1	0.3287 (444) P=0.000	0.2827 (443) P=0.000	0.5041 (445) P=0.000	-0.0089 (444) P=0.426	0.3446 (442) P=0.000	0.0123 (445) P=0.398	0.0850 (445) P=0.037	-0.0261 (443) P=0.292	0.0873 (445) P=0.020	0.4088 (443) P=0.000
FAC2	0.5070 (443) P=0.000	-0.1258 (442) P=0.004	0.2229 (444) P=0.000	0.3089 (443) P=0.000	0.0022 (441) P=0.482	-0.1447 (444) P=0.001	0.3303 (444) P=0.000	0.1325 (443) P=0.003	-0.4857 (444) P=0.000	0.0866 (442) P=0.081
FAC3	0.0373 (443) P=0.217	0.5545 (442) P=0.000	0.0578 (444) P=0.112	-0.4566 (443) P=0.000	0.2472 (441) P=0.000	0.2238 (444) P=0.000	-0.1582 (444) P=0.000	-0.0180 (443) P=0.345	0.5685 (444) P=0.000	0.2145 (442) P=0.000
FAC4	0.0088 (442) P=0.427	-0.2123 (441) P=0.000	0.0744 (443) P=0.059	0.5855 (442) P=0.000	-0.2540 (440) P=0.000	-0.1918 (443) P=0.000	0.0304 (443) P=0.261	0.1890 (441) P=0.000	-0.3466 (443) P=0.000	-0.1238 (441) P=0.005
FAC5	-0.0465 (444) P=0.164	0.1754 (443) P=0.000	0.1050 (445) P=0.013	-0.0732 (444) P=0.062	0.0828 (442) P=0.041	0.1485 (445) P=0.001	-0.0820 (445) P=0.096	-0.0822 (443) P=0.028	0.3520 (445) P=0.000	0.1838 (443) P=0.000
FAC6	0.1930 (445) P=0.000	0.1327 (444) P=0.003	-0.0251 (447) P=0.298	-0.1110 (446) P=0.009	0.1884 (444) P=0.000	0.0253 (447) P=0.297	0.0897 (447) P=0.071	-0.0836 (445) P=0.024	0.1357 (446) P=0.002	0.0828 (445) P=0.025
SDES	0.1837 (444) P=0.000	0.3572 (443) P=0.000	0.3007 (445) P=0.000	-0.2142 (444) P=0.000	0.5448 (442) P=0.000	0.0553 (445) P=0.122	-0.0895 (445) P=0.072	-0.0842 (443) P=0.089	0.3255 (445) P=0.000	0.5181 (443) P=0.000

	R41	R42	R43	R44	R45	R46	R47	R48	R49	R50
FAC1	0.7081 (444) P=0.000	-0.0338 (445) P=0.239	0.0050 (443) P=0.456	-0.0815 (445) P=0.043	0.1856 (444) P=0.001	-0.0023 (444) P=0.481	0.1886 (445) P=0.000	0.1709 (444) P=0.000	0.0003 (444) P=0.497	0.1586 (444) P=0.000
FAC2	0.1217 (443) P=0.005	0.5431 (444) P=0.000	0.4491 (442) P=0.000	-0.2953 (444) P=0.000	-0.0519 (443) P=0.087	0.0281 (443) P=0.282	-0.0480 (444) P=0.156	-0.3487 (443) P=0.000	0.6086 (444) P=0.000	-0.2809 (443) P=0.000
FAC3	0.0881 (443) P=0.032	-0.1922 (444) P=0.000	-0.1597 (442) P=0.000	0.2433 (444) P=0.000	0.1876 (443) P=0.000	0.0520 (444) P=0.137	0.1003 (444) P=0.017	0.4897 (444) P=0.000	-0.2034 (443) P=0.000	0.2714 (443) P=0.000
FAC4	-0.1920 (442) P=0.000	0.3851 (443) P=0.000	0.0437 (441) P=0.180	-0.1370 (443) P=0.002	-0.2306 (442) P=0.000	0.0271 (442) P=0.285	-0.4186 (443) P=0.000	-0.3134 (442) P=0.000	0.2585 (442) P=0.000	-0.3350 (442) P=0.000
FAC5	0.1887 (444) P=0.000	-0.2440 (445) P=0.000	-0.2386 (443) P=0.000	0.1381 (445) P=0.002	0.0233 (444) P=0.312	0.0308 (444) P=0.258	0.0852 (445) P=0.085	0.2986 (444) P=0.000	-0.1686 (444) P=0.000	0.2585 (444) P=0.000
FAC6	0.1856 (446) P=0.000	-0.1335 (447) P=0.002	-0.0126 (445) P=0.386	-0.0080 (447) P=0.433	0.1217 (446) P=0.005	-0.0884 (446) P=0.018	0.6003 (446) P=0.000	0.0833 (446) P=0.024	0.0822 (446) P=0.085	0.1773 (445) P=0.000
SDES	0.4758 (444) P=0.000	-0.1884 (445) P=0.000	-0.1013 (443) P=0.017	0.0884 (445) P=0.075	0.3881 (444) P=0.000	-0.0270 (444) P=0.285	0.2424 (445) P=0.000	0.3224 (444) P=0.000	-0.1284 (444) P=0.003	0.3827 (444) P=0.000

	R51	R52	R53	R54	R55	R56	R57	R58	R59	R60
FAC1	-0.1178 (444) P=0.007	0.7095 (444) P=0.000	0.2848 (445) P=0.000	0.0136 (440) P=0.388	0.2242 (443) P=0.000	0.2421 (444) P=0.000	0.2318 (445) P=0.000	0.4438 (445) P=0.000	0.1887 (445) P=0.000	0.1088 (445) P=0.012
FAC2	0.1187 (443) P=0.006	0.1822 (443) P=0.000	-0.2084 (444) P=0.000	-0.2857 (438) P=0.000	-0.1852 (442) P=0.000	-0.1224 (443) P=0.005	0.1383 (444) P=0.002	-0.0824 (444) P=0.135	0.8885 (444) P=0.000	-0.3238 (444) P=0.000
FAC3	-0.2788 (443) P=0.000	0.0838 (443) P=0.024	0.3881 (444) P=0.000	0.4085 (440) P=0.000	0.0748 (442) P=0.058	0.1187 (443) P=0.008	-0.0188 (444) P=0.348	0.5184 (444) P=0.000	-0.1157 (444) P=0.007	0.4088 (444) P=0.000
FAC4	0.2826 (442) P=0.000	0.0080 (443) P=0.428	-0.2118 (443) P=0.000	-0.1670 (438) P=0.000	-0.1537 (441) P=0.001	-0.0381 (442) P=0.208	0.1183 (443) P=0.006	-0.2787 (443) P=0.000	0.1827 (443) P=0.000	-0.3083 (443) P=0.000
FAC5	-0.0812 (444) P=0.089	0.1834 (444) P=0.000	0.5728 (445) P=0.000	0.2507 (440) P=0.000	0.0073 (443) P=0.438	0.6378 (444) P=0.000	0.2033 (445) P=0.000	0.2044 (445) P=0.000	-0.1282 (445) P=0.003	0.2122 (445) P=0.000
FAC6	-0.1892 (445) P=0.000	0.0476 (446) P=0.158	0.2569 (447) P=0.000	0.0232 (441) P=0.243	0.0417 (445) P=0.180	0.0887 (446) P=0.074	0.0255 (447) P=0.298	0.2225 (447) P=0.000	0.0481 (447) P=0.156	0.1082 (447) P=0.012
SDES	-0.2832 (444) P=0.000	0.3676 (444) P=0.000	0.2631 (445) P=0.000	0.1402 (440) P=0.002	0.4088 (443) P=0.000	0.1886 (444) P=0.000	0.0791 (445) P=0.087	0.3873 (445) P=0.000	0.0118 (445) P=0.401	0.4074 (445) P=0.000

(COEFFICIENT / (CASES) / SIGNIFICANCE) (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)

	R61	R62	R63	R64	R65	R66	R67	R68	R69	R70
FAC1	-0.2103 (443) P=0.000	0.0133 (445) P=0.390	0.0287 (444) P=0.273	0.1440 (443) P=0.001	0.5508 (445) P=0.000	-0.0820 (444) P=0.086	0.3418 (445) P=0.000	0.5186 (445) P=0.000	0.1317 (445) P=0.003	0.5883 (445) P=0.000
FAC2	-0.1576 (442) P=0.000	0.4372 (444) P=0.000	0.1870 (443) P=0.000	0.5922 (443) P=0.000	0.0483 (444) P=0.155	-0.0548 (443) P=0.125	0.0321 (444) P=0.250	0.1290 (444) P=0.003	-0.1724 (444) P=0.000	0.0423 (444) P=0.187
FAC3	0.0249 (442) P=0.301	-0.1082 (444) P=0.011	-0.1846 (443) P=0.000	-0.3272 (442) P=0.000	0.1942 (444) P=0.000	0.4084 (443) P=0.000	0.2755 (444) P=0.000	0.2484 (444) P=0.000	0.5085 (444) P=0.000	0.2949 (444) P=0.000
FAC4	-0.1386 (441) P=0.002	0.1554 (443) P=0.001	0.2803 (442) P=0.000	0.2345 (441) P=0.000	-0.3083 (443) P=0.000	-0.0373 (442) P=0.217	-0.2538 (443) P=0.000	-0.0509 (443) P=0.100	-0.1102 (443) P=0.010	-0.1870 (443) P=0.000
FAC5	-0.0635 (443) P=0.091	-0.1316 (445) P=0.003	0.0168 (444) P=0.362	-0.1954 (443) P=0.000	0.1294 (445) P=0.003	0.0778 (444) P=0.051	0.2257 (445) P=0.000	0.2753 (445) P=0.000	0.2403 (445) P=0.000	0.2151 (445) P=0.000
FAC6	0.3820 (445) P=0.000	0.0220 (448) P=0.322	-0.1624 (448) P=0.000	0.0083 (445) P=0.431	0.4235 (447) P=0.000	-0.0274 (448) P=0.282	0.7574 (447) P=0.000	0.1312 (448) P=0.003	0.0884 (447) P=0.080	0.2874 (447) P=0.000
SDES	-0.0487 (443) P=0.153	-0.0478 (445) P=0.157	-0.1494 (444) P=0.001	-0.1020 (443) P=0.016	0.6328 (445) P=0.000	0.0382 (444) P=0.211	0.3979 (445) P=0.000	0.3305 (445) P=0.000	0.2336 (445) P=0.000	0.8083 (445) P=0.000

	R71	R72	R73	R74	R75	R76	R77	R78	R79	R80
FAC1	0.1478 (444) P=0.001	0.3058 (441) P=0.000	-0.0831 (445) P=0.040	0.8978 (444) P=0.000	0.4888 (444) P=0.000	-0.1358 (443) P=0.002	-0.0029 (444) P=0.475	0.2082 (443) P=0.000	-0.3283 (444) P=0.000	0.1576 (444) P=0.000
FAC2	0.2724 (443) P=0.000	0.0294 (440) P=0.269	-0.0583 (444) P=0.110	0.1743 (443) P=0.000	0.0344 (443) P=0.235	0.4885 (442) P=0.000	0.8130 (443) P=0.000	0.0382 (442) P=0.211	-0.1842 (443) P=0.000	-0.0241 (443) P=0.308
FAC3	-0.1813 (444) P=0.000	0.4328 (440) P=0.000	0.0153 (444) P=0.374	0.1810 (443) P=0.000	0.1958 (443) P=0.000	-0.1718 (442) P=0.000	-0.2273 (443) P=0.000	0.2358 (442) P=0.000	0.3628 (443) P=0.000	0.3514 (443) P=0.000
FAC4	0.2777 (442) P=0.000	-0.1758 (440) P=0.000	0.0978 (443) P=0.020	-0.1893 (443) P=0.000	-0.2384 (443) P=0.000	0.5177 (443) P=0.000	0.3288 (443) P=0.000	-0.0464 (441) P=0.165	-0.1083 (442) P=0.011	-0.1224 (442) P=0.005
FAC5	-0.0582 (444) P=0.119	0.2317 (441) P=0.000	0.0444 (445) P=0.175	0.1783 (444) P=0.000	0.1101 (444) P=0.010	-0.1628 (443) P=0.000	-0.1492 (444) P=0.001	0.2959 (443) P=0.000	0.0771 (444) P=0.052	0.1742 (444) P=0.000
FAC6	-0.1159 (445) P=0.007	0.1859 (443) P=0.000	-0.1516 (447) P=0.001	0.2591 (445) P=0.000	0.2863 (444) P=0.000	-0.1098 (443) P=0.010	-0.1039 (445) P=0.014	0.1468 (443) P=0.001	0.0418 (444) P=0.190	0.1308 (445) P=0.003
SDES	0.0123 (444) P=0.398	0.3171 (441) P=0.000	-0.0921 (445) P=0.026	0.4970 (444) P=0.000	0.5287 (444) P=0.000	-0.2737 (443) P=0.000	-0.1780 (444) P=0.000	0.1751 (443) P=0.000	-0.0528 (444) P=0.133	0.3314 (444) P=0.000

	R81	R82	R83	R84	R85	R86	R87	R88	R89	R90
FAC1	0.1542 (445) P=0.001	0.3081 (444) P=0.000	0.5807 (445) P=0.000	0.7351 (443) P=0.000	0.1439 (444) P=0.001	-0.1946 (444) P=0.000	-0.2362 (445) P=0.000	0.0839 (444) P=0.039	0.0478 (444) P=0.157	0.4462 (445) P=0.000
FAC2	0.4666 (444) P=0.000	-0.0372 (443) P=0.217	-0.0162 (444) P=0.366	0.0788 (442) P=0.054	-0.1153 (443) P=0.008	0.1817 (443) P=0.000	-0.0514 (444) P=0.140	-0.1121 (443) P=0.009	0.4317 (443) P=0.000	0.0695 (444) P=0.072
FAC3	-0.0733 (444) P=0.062	0.5594 (443) P=0.000	0.2384 (444) P=0.000	0.2040 (442) P=0.000	0.2159 (443) P=0.000	-0.1211 (443) P=0.005	-0.1171 (444) P=0.007	0.5731 (443) P=0.000	-0.1086 (443) P=0.012	0.2745 (444) P=0.000
FAC4	0.2134 (443) P=0.000	-0.2624 (442) P=0.000	-0.1945 (443) P=0.000	-0.1278 (441) P=0.004	-0.1834 (442) P=0.000	0.2226 (442) P=0.000	0.5393 (443) P=0.000	-0.1826 (442) P=0.000	0.3184 (442) P=0.000	-0.1837 (443) P=0.000
FAC5	-0.1511 (445) P=0.001	0.2326 (445) P=0.000	0.2761 (445) P=0.000	0.1818 (443) P=0.000	0.0037 (444) P=0.469	-0.2613 (444) P=0.000	-0.0232 (445) P=0.312	0.1541 (444) P=0.001	-0.1015 (444) P=0.016	0.1537 (445) P=0.001
FAC6	-0.0103 (448) P=0.414	0.1944 (444) P=0.000	0.2861 (445) P=0.000	0.1312 (443) P=0.003	0.1283 (445) P=0.003	-0.1014 (445) P=0.016	-0.1092 (445) P=0.011	0.1440 (445) P=0.001	-0.1427 (444) P=0.001	0.1792 (445) P=0.000
SDES	0.0129 (445) P=0.393	0.3994 (444) P=0.000	0.4956 (445) P=0.000	0.4785 (443) P=0.000	0.3918 (444) P=0.000	-0.1882 (444) P=0.000	-0.2718 (445) P=0.000	0.2598 (444) P=0.000	-0.1129 (444) P=0.009	0.5651 (445) P=0.000

(COEFFICIENT / (CASES) / SIGNIFICANCE) (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)

	R91	R92	R93	R94	R95	R96	R97	R98	R99	R100
FAC1	0.2557 (443) P=0.000	-0.2328 (443) P=0.000	-0.1772 (445) P=0.000	0.1426 (445) P=0.001	0.1506 (445) P=0.001	0.2666 (444) P=0.000	0.3700 (443) P=0.000	0.1271 (445) P=0.004	-0.0171 (442) P=0.360	0.5953 (443) P=0.000
FAC2	0.3884 (442) P=0.000	0.4474 (442) P=0.000	0.0371 (444) P=0.218	-0.2275 (444) P=0.000	-0.0724 (444) P=0.064	0.0209 (443) P=0.330	0.2506 (442) P=0.000	-0.2050 (444) P=0.000	0.2405 (441) P=0.000	0.1184 (442) P=0.007
FAC3	0.2034 (442) P=0.000	-0.3088 (442) P=0.000	-0.2672 (444) P=0.000	0.3125 (444) P=0.000	-0.0181 (444) P=0.352	0.1878 (443) P=0.000	-0.1445 (442) P=0.001	0.5810 (444) P=0.000	-0.2894 (441) P=0.000	0.2027 (442) P=0.000
FAC4	0.0488 (441) P=0.183	0.6182 (441) P=0.000	0.5184 (443) P=0.000	-0.1343 (443) P=0.002	-0.1380 (443) P=0.002	-0.2888 (442) P=0.000	-0.6820 (441) P=0.087	-0.2249 (443) P=0.000	0.5546 (441) P=0.000	-0.0682 (441) P=0.075
FAC5	0.0580 (443) P=0.112	-0.1732 (443) P=0.000	-0.1041 (445) P=0.014	0.5713 (445) P=0.000	0.0209 (445) P=0.330	0.0040 (444) P=0.467	-0.1898 (443) P=0.000	0.2984 (445) P=0.000	-0.0517 (442) P=0.139	0.2836 (443) P=0.000
FAC6	0.0785 (444) P=0.054	-0.1348 (443) P=0.002	-0.1808 (445) P=0.000	0.0148 (445) P=0.377	0.0777 (445) P=0.051	0.7345 (445) P=0.000	0.1685 (443) P=0.000	0.1116 (445) P=0.009	-0.0886 (442) P=0.018	0.2674 (443) P=0.000
SDES	0.1707 (443) P=0.000	-0.3488 (443) P=0.000	-0.2412 (445) P=0.000	0.2803 (445) P=0.000	0.2813 (445) P=0.000	0.3853 (444) P=0.000	0.1780 (443) P=0.000	0.2823 (445) P=0.000	-0.2221 (442) P=0.000	0.5503 (443) P=0.000

	R101	R102	R103	R104	R105	R106	R107	R108	R109	R110
FAC1	-0.0327 (442) P=0.247	0.1224 (445) P=0.005	0.0476 (440) P=0.159	0.1158 (444) P=0.007	0.0105 (443) P=0.413	-0.0146 (445) P=0.379	0.2186 (445) P=0.000	0.0880 (443) P=0.073	0.0274 (439) P=0.283	0.7851 (441) P=0.000
FAC2	0.4236 (441) P=0.000	-0.1139 (444) P=0.008	0.3141 (439) P=0.000	-0.1046 (443) P=0.014	-0.1370 (442) P=0.002	-0.4018 (444) P=0.000	0.2835 (444) P=0.000	-0.2878 (442) P=0.000	-0.4132 (439) P=0.000	0.1211 (440) P=0.005
FAC3	-0.2080 (441) P=0.000	0.5330 (444) P=0.000	-0.1576 (439) P=0.000	0.4481 (443) P=0.000	0.2857 (442) P=0.000	0.2883 (444) P=0.000	-0.2402 (444) P=0.000	0.2779 (442) P=0.000	0.5075 (439) P=0.000	0.2788 (440) P=0.000
FAC4	0.2058 (440) P=0.000	-0.2053 (443) P=0.000	0.5191 (439) P=0.000	-0.1898 (442) P=0.000	-0.0883 (441) P=0.075	-0.1404 (443) P=0.002	0.1951 (443) P=0.000	-0.2328 (441) P=0.000	-0.2583 (437) P=0.000	-0.1943 (439) P=0.000
FAC5	-0.1784 (442) P=0.000	0.2805 (445) P=0.000	-0.0310 (440) P=0.259	0.2048 (444) P=0.000	0.6088 (443) P=0.000	0.5571 (445) P=0.000	-0.0136 (445) P=0.388	0.1927 (443) P=0.000	0.2920 (439) P=0.000	0.1950 (441) P=0.000
FAC6	0.0223 (443) P=0.320	0.1025 (445) P=0.015	-0.1121 (441) P=0.009	0.1058 (444) P=0.013	0.0883 (444) P=0.072	-0.0243 (445) P=0.304	0.0425 (445) P=0.185	0.0883 (444) P=0.075	0.1840 (440) P=0.000	0.2412 (442) P=0.000
SDES	-0.1018 (442) P=0.016	0.2836 (445) P=0.000	-0.0657 (440) P=0.084	0.2468 (444) P=0.000	0.0856 (443) P=0.084	0.0813 (445) P=0.043	0.0302 (445) P=0.262	0.1406 (443) P=0.002	0.2053 (439) P=0.000	0.5825 (441) P=0.000

	R111	R112
FAC1	0.0330 (444) P=0.244	0.2794 (443) P=0.000
FAC2	-0.2851 (443) P=0.000	0.5850 (442) P=0.000
FAC3	0.2548 (443) P=0.000	-0.0185 (442) P=0.384
FAC4	-0.0807 (442) P=0.045	0.1857 (441) P=0.000
FAC5	0.5352 (444) P=0.000	-0.0471 (443) P=0.161
FAC6	-0.0152 (444) P=0.375	0.1015 (443) P=0.016
SDES	0.0805 (444) P=0.045	0.0986 (443) P=0.019

(COEFFICIENT / (CASES) / SIGNIFICANCE) (A VALUE OF 99.0000 IS PRINTED IF A COEFFICIENT CANNOT BE COMPUTED)