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THE FIELDING INSTITUTE, PH.D., 1978

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AN EMPIRICAL PROCEDURE FOR THE
ASSESSMENT OF EGO STATES ILLUSTRATED BY
EGOGRAMS AS DESCRIBED IN TRANSACTIONAL ANALYSIS THEORY

A dissertation submitted

by

Kathryn Bond Williams

to

THE FIELDING INSTITUTE

in partial fulfillment of

the requirements for the

degree of

DOCTOR OF PHILOSOPHY

This dissertation has been
accepted for the faculty of
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TABLE OF CONTENTS

ABSTRACT	vii
INTRODUCTION	1
METHOD	11
RESULTS	16
DISCUSSION	31
REFERENCES	49
APPENDICES	52

LIST OF TABLES

Table 1. Product-moment correlation coefficients describing the relationships between the five ego states, based on the judges' mean ratings of the 300 adjectives 20

Table 2. a) Means, standard deviations, and ranges of percents of psychic energy in each ego state as the 15 judges described the Healthy Person 22

b) Correlated t-tests between pairs of mean ego state scores assigned by judges to the concept of Healthy Person 22

Table 3. Means and standard deviations of the egogram percent scores of the 100 subjects computed by scoring Methods A and B. Correlated t-tests were performed between the means computed by the two methods 25

Table 4. For each of the five ego states, the means and standard deviations of egogram scores for males and females separately and combined, with a t-test between the two sexes' mean scores 27

Table 5. Comparison of the college students' mean egogram with the egogram of the Healthy Person. The formula used is

$$Z = \frac{\bar{X} - M}{S_{\bar{X}}}$$

where \bar{X} is the mean of the college students' percent scores on one ego state, M is the mean percent score for the Healthy Person, and $S_{\bar{X}}$ is the standard error of the mean of the students' percent scores 30

Table 6. The coefficient of correlation between each pair of ego states for male and female subjects separately and combined. The respective correlation coefficients based on the 15 judges' ratings (see Table 1) are also listed 32

LIST OF FIGURES

Figure 1. Means and ranges of percents of psychic energy in
ego state, according to the 15 judges' descriptions
of the Healthy Person 23

Figure 2. Egogram representing the mean percent scores for
the 100 subjects on the five ego states 28

Figure 3. Egograms of the Healthy Person as described by
judges 7 and 15 40

Figure 4. Egograms of four subjects 41

Williams, Kathryn Bond

AN EMPIRICAL PROCEDURE FOR THE
ASSESSMENT OF EGO STATES ILLUSTRATED BY
EGOGRAMS AS DESCRIBED IN TRANSACTIONAL ANALYSIS THEORY

Dissertation under the direction of William H. Friedman, Ph.D.

The present study was conducted to develop an objective procedure for the generation of egograms which are personality profiles illustrating the percent of psychic energy invested in five functional divisions of ego states discussed in Transactional Analysis (TA) theory. The five functional divisions of ego states employed were Critical or Controlling Parent (CP), Nurturing Parent (NP), Adult (A), Free Child (FC), and Adapted Child (AC). Fifteen expert judges holding certified membership in the International Transactional Analysis Association assigned ego state weights to each of the 300 adjectives of the Adjective Check List (ACL). Analyses of these data indicated a high level of inter-judge agreement on the ratings of the adjectives with intra-class correlations for the five functional ego states ranging from .89 to .95. The judges' composite ratings were used to develop a scoring system by which the ACL items could be scored in ego state terms so when certain adjectives have been selected as descriptive of self (or others), an egogram profile can be obtained without the necessity of the test taker having any knowledge of TA theory.

Fifty male and 50 female college students took the ACL following standard self-descriptive instructions. Utilizing the ego state scoring

system developed for ACL adjectives, egogram profiles were generated for each student which showed interesting individual differences presumably reflecting differences in personality functioning. A further analysis of the data indicated no significant differences between the mean egogram profiles of the male and female subjects on any ego state.

Each expert judge in the study also described the egogram of the "mentally healthy person" and these data were used to provide a mean Healthy Person profile which was employed as a reference concept in the discussion of data obtained from the 100 college students. An analysis comparing the self-generated egogram profile of the college students to that of the Healthy Person, as identified by the experts, indicated that there were significant differences on each ego state: the college student profile was higher on the CP, NP, and AC ego states and lower on the A and FC ego states.

Additional analyses of the data from both the judges' ratings of the ACL adjectives and the egogram profiles of the college students indicated several significant relationships among the various ego states. Negative correlations were found between CP and NP ego states, as well as CP-FC, NP-AC, A-AC, and FC-AC. Positive correlations were obtained for CP-AC, and NP-A ego state relationships.

With the development of an objective procedure to generate egogram profiles, implications for clinical use and future research were discussed.

INTRODUCTION

Transactional Analysis (TA) is a theory of personality and psychotherapy developed by Eric Berne and his colleagues in the 1950s which provides both a structural model of personality and a functional or behavioral model. The latter model is based on both the individual's behavior and the social responses to it (transactions). This system, which focuses on personal growth and change, has accumulated a substantial literature (McGahy and Blair, 1976) and is being used in a wide variety of settings, particularly in the clinical area.

TA conceptualizes the structure of human personality as consisting of three ego states, Parent, Adult and Child. "An ego state may be described phenomenologically as a coherent system of feelings related to a given subject, and operationally as a set of coherent behavior patterns; or pragmatically, as a system of feelings which motivates the related set of behavior patterns" (Berne, 1961, p. 17). The behaviors which are characteristic of the ego states may be verbal, non-verbal, or patterns of social transactions and are "experientially identifiable and immediately observable as behavior" (McCormick, 1977, p. 7). However, the present author wishes to stress that ego states should be seen as hypothetical constructs as their existence can only be inferred.

In TA theory ego states are used to conceptualize both the structure and function of personality. As stated above, the three primary ego states in TA theory are Parent, Adult and Child and are used to describe the structure of personality. A further analysis which is commonly used in the functional analysis of ego states are subdivisions of the Parent ego

state into Critical or Controlling Parent (CP) and Nurturing Parent (NP), and the Child ego state into Free Child (FC) and Adapted Child (AC), while the Adult (A) ego state remains undivided. Berne's description (1961) of these functional ego states are summarized in the following paragraphs.

The Critical Parent (CP) ego state designates a set of feelings, attitudes, and behavior patterns which resemble those of parental figures and which represents that part of the personality which criticizes, finds fault, and reflects the rules of society and the values of the individual.

The Nurturing Parent (NP) ego state refers to a set of feelings, attitudes and behavior patterns representing those of a parental figure which nurtures and promotes growth.

The Adult (A) ego state represents a set of feelings, attitudes and behavior patterns which are adapted to current reality and used for logical reasoning and precise predictions.

The Free Child (FC) ego state embraces a set of feelings, attitudes and behavior patterns which are relics of an individual's own childhood and characterized by fun, frivolity, self-indulgence, and natural and spontaneous feelings.

The Adapted Child (AC) ego state represents a set of feelings, attitudes and behavior patterns which are relics of the individual's own childhood and manifested by behaviors which are inferentially under the domination of the parental influence and indicated by conforming and compromising.

Berne points out that all ego states are important to healthy functioning, and no ego state is inherently positive or negative.

Previous studies of ego states. There have been only a few published studies which had as their purpose the objective identification of ego states. To measure reliability in ego state diagnosis, Thompson (1972) devised a procedure to demonstrate that ego states can be consistently identified. He found that once the concepts had been explained to three groups of subjects (TA experts, non-TA experts in normal mental health, and psychiatric subjects) they could identify ego states from audio tape segments deemed by Thompson to be relatively clear examples of the three primary ego states: Parent, Adult and Child.

In a recent study, Swede (1978) reported the development of a Group Ego State Measure. Therapists with one to four years of experience in TA listened to group tapes and identified ego state categories from 30 randomly selected, 30-second segments. Swede found high reliability (average interjudge agreement, 77%) between the judges in diagnosing ego states, as well as two kinds of transactions, complimentary and crossed. The results of this study, as well as those of Thompson's, were used to support Berne's observation that ego states and transactions as they naturally occur are identifiable phenomena. An ego state, of course, must be shown to have some consistent, identifiable qualities to be utilized as a meaningful theoretical construct.

Price (1975), in a doctoral dissertation at Florida State University, developed a procedure composed of statements which judges versed in TA agreed were uniquely descriptive of one of the five ego states. Subjects were then asked to describe themselves by responding to these statements on a Likert-type scale from "strongly disagree" to "strongly agree." (No

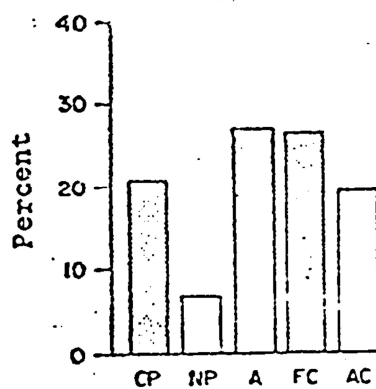
example of these statements were given in the published account.) Results were discussed in terms of a psychic energy profile (P.E.P.). There was high internal consistency and high judge agreement; however, the procedure showed low test-retest reliability. Price speculated that the low correlations could "indicate either that the instrument is not reliable or that the ego states themselves are not very stable" (Price, 1975, p. 243).

Egograms. The energy by which the work of the personality is performed has been called psychic energy by various personality theorists, e.g., Freud (1949), Jung (1948), and Lewin (1935). Psychic energy is a hypothetical construct; it is not a concrete substance or phenomenon, but can only be inferred from behavior. This concept is used to describe the dynamics of personality which consist of the way in which energy is distributed and used by the variously proposed personality structures.

The amount of energy utilized by an individual in her different ego states is one way to describe personality functioning in TA theory. In conceptualizing the personality of an individual in TA terms, Dusay (1972) proposed the use of egograms. An egogram is a symbolic representation of the relationships among the various ego states. The egogram "represents the intensity and frequency of the stimuli emanating from an ego state and provides visual symbols (in bar graph form) of the predominant ego states" (Dusay, 1972, p. 38). Dusay further hypothesizes that "when one ego state increases in intensity, another must decrease because of the shift in psychic energy, the total of which remains a constant factor" (Dusay, 1972, p. 39). He further maintains (1977) that each individual has a unique egogram profile which suggests a consistency in style of

functioning over time. As Woollams and Brown (1978, p. 29) suggest, "a person learns to respond from certain ego states at certain times in order to get what she wants. Different people tend to spend varying amounts of time and energy in different ego states, and these tendencies can be illustrated by egograms." Therefore, it should be possible to assess an individual in such a way as to obtain her egogram profile which would be a pictorial representation of the characteristic manner in which she functions. From this, the structure of personality could be inferred.

Several methods have been employed to obtain egograms. One approach has been to ask individuals versed in TA theory to generate a description of their own personality in egogram terms (e.g., Steiner, 1974). They illustrate, in bar graph form, the relative distribution of psychic energy or relative level of functioning in each of the five functional ego states, which across all ego states totals 100 percent. An illustrative egogram is shown below. Another way of obtaining an egogram has been from a clinician's judgment of a client (e.g., Steiner, 1974). Still another is by using a group of persons to develop a consensus as to the egogram for a particular individual whom they know well (e.g., Dusay, 1977, p. 12-14).



Woollams and Brown (1978) have suggested that there are two kinds of egograms for a specific individual. One of these is an egogram which depicts the amount of energy a person actively uses as she relates to others and the other is an egogram depicting the way an individual experiences herself internally. Therefore, it would be possible for an egogram drawn by a person describing herself to vary significantly from an egogram drawn by others to describe the way they experience her in transactions.

All of the above procedures for generating egograms, whether internal or external, are dependent on knowledge of TA concepts on the part of the raters and are impressionistically and intuitively based (e.g., Karpman, 1974). To the present author's knowledge, there has been no reliable method for deriving egogram profiles from the ratings obtained from individuals who are not acquainted with TA theory.

The present study was undertaken in order to construct a procedure by means of which individuals knowing nothing of TA theory could make descriptions of self or others which could then be transformed into egogram profiles which would represent ego state functioning. Such a procedure would permit many interesting possibilities in terms of the study of ego states as illustrated by egograms. Not only could an individual obtain an egogram based on self description, but she could also generate an egogram based on her perception of anyone else's personality characteristics. It would allow, for example, an analysis of the similarities or differences in the way an individual describes herself and the way others might describe her. This empirical procedure also might lead to the expansion of TA theory to include more precise formulations about individual differences,

group differences, and egogram profiles of clients before and after clinical treatment as Woollams and Brown (1978, p. 30) have suggested that changes in personality "will be demonstrated in the egogram as a shift in energy balance among the ego states." The empirical base provided by such a procedure would enable a wide variety of research questions to be addressed, e.g., do first born children differ in egogram profiles from last born? What are the implications for various types of treatment programs for individuals with varying profiles? Etc.

The item pool of the Adjective Check List (ACL) (Gough and Heilbrun, 1965), a standard personality assessment procedure used in many research and clinical settings, was used for the development of this egogram test profile. The use of such a standard assessment procedure to generate egograms would permit the comparison of ego-state findings with the extensive research findings from studies employing the ACL.

The ACL is composed of 300 adjectives which are "words and ideas commonly used for description in every day life in a format which is systematic and standardized. The list is long enough so that key notions pertaining to any particular person can almost always be formulated and shades of difference and nuances between rather similar persons can be delineated" (Gough and Heilbrun, 1965, p. 5). The ACL is used by asking a person to select those adjectives, from among the 300 available, which she associates with the concept (self, another person, etc.) which she has been asked to describe. In its standard use as a self-descriptive personality assessment procedure, the ACL generates a profile depicting levels of needs such as nurturance, endurance, autonomy, deference, etc., and

has been shown to have a range of .54 - .90 test-retest reliability using this scoring system. The procedure is easily and quickly administered in a group or individual setting and is readily accepted by test takers.

In discussing the origins of the ACL, Gough and Heilbrun (1965) give credit to the previous work of such psychologists as Allport, Cattell, Hathaway, and Meehl. In 1949, when the first effort to assemble the items for the ACL was made, the 171 words from Cattell's earlier studies were canvassed, and adjectives thought to be more or less essential for describing personality from different theoretical vantage points (e.g., those of Freud, Jung, Mead, Murray, etc.) were added. Then with additional experience, more words were added to produce the current list of 300 adjectives which was prepared in 1952.

The use of the items from the ACL in the present investigation seemed appropriate since adjectives are often used to describe the functions of the various ego states as proposed by Berne. In the description of four of the ego states themselves adjectives are used (critical, nurturing, free, and adapted). The present investigator hypothesized that an objective test could be built, based on the ego-state loadings of the ACL adjectives, i.e., the degree to which each adjective is descriptive of one or more of the five ego states. This test could then be used to generate ego-grams. Support for the feasibility of the present study came from analyses of data obtained in a study relating TA concepts to sex stereotypes (Williams, Woodmansee, and Williams, 1977). In this study three groups of judges (TA faculty, advanced students, and beginning students) were asked to rate 89 adjectives from the ACL for ego-state loadings. These adjectives

had been identified from previous research (Williams and Best, 1977) as composing the traditional male and female stereotypes. An analysis of variance indicated that the judges agreed in their ratings of these adjectives. Subsequent to the study, these items were used to generate egograms for self-descriptive ACLs and individual differences in egogram profiles were obtained.

As the present study was conducted to develop an objective procedure for the assessment of ego-state functions to be illustrated by egograms, the first step was to obtain ego-state ratings by expert judges for each of the 300 adjectives on the ACL. Once such ratings were established, any person could use the ACL to describe herself or another person and this description could be converted to an egogram profile based on the percentage of points obtained in each of the five ego states. The test taker would need to know nothing of TA theory, therefore permitting a much broader use of the egogram concept than presently possible.

The present study also addressed the question of the egogram of the "mentally healthy person." Nowhere in TA theory could this author find a description of the "healthy person" in egogram terms. Dusay (1977) suggests that two particular types of egograms are depicted when people are asked how they would like to be. The first is the "bell-shaped" egogram in which the Adult ego state is the highest, with the Nurturing Parent and the Free Child equal to each other and next highest, the Critical Parent and Adapted Child equal to each other and the lowest. Dusay makes these comments in relative terms only and does not specify percent of psychic energy in each ego state. The second desirable profile is the

"flattop" egogram, in which a person has an equal amount of psychic energy (i.e., 20%) in each ego state. As Dusay comments, "the question of what is or is not normal has really never been resolved, since there is no 'normal' egogram in the Bureau of Standards in Washington, DC" (Dusay, 1977, p. 55). In the present study judges were asked to describe their concept of the "mentally healthy person" in egogram terms. The purpose here was to determine whether there was general agreement among TA experts as to the egogram of this hypothetical person; and, if so, to determine how a sample of self-descriptive egograms compared with this theoretical construct. One limitation here is that it cannot be determined from the data of this study whether or not the judges were describing a healthy internal egogram, external egogram, or both.

In summary, the primary purpose of the present investigation was to determine whether the ego-state ratings of ACL adjectives provided by TA experts would have sufficient inter-judge agreement to serve as a basis for an ego-state scoring system. If this were found to be true, a procedure would be developed to generate egograms from ACL descriptions and applied, for illustrative purposes, to the self descriptions of male and female college students. The latter egograms would be examined regarding individual differences and would be compared to the egogram of the "mentally healthy person," as judged by the TA experts.

The following working hypotheses were advanced:

Hypothesis I: The ego state ratings assigned to adjectives by
TA experts will show a high level of agreement, thus
permitting the development of an ego state scoring
system for responses to the ACL items;

- Hypothesis II: The TA experts' judgments of the egogram of the "mentally healthy person" will show sufficient agreement to serve as a meaningful reference concept;
- Hypothesis III: The mean egograms obtained from the self-descriptive ACLs of male and female college students will not differ;
- Hypothesis IV: The composite egograms obtained from the self-descriptive ACLs of college students will not differ from the judges' composite rating of the "mentally healthy person."

METHOD

Study 1

Subjects. Subjects were 15 certified members of the International Transactional Analysis Association. In order to be granted certified membership, the person must have passed both a written examination demonstrating knowledge of TA theory and a clinical examination before an ITAA-appointed committee of certified members. These subjects are referred to subsequently as expert judges. These judges were obtained by writing letters to approximately 20 certified members of ITAA, who were recommended by certified members of the author's acquaintance. Each of these individuals was asked to serve as a judge and/or to recommend others who they felt might be willing to serve. Letters were then written to each of these recommended individuals asking if they would be willing to serve as judges. This included the entire research committee and editorial board

of the ITAA. Twenty-three individuals agreed to serve as judges and rating sheets were sent to them. Over a period of several months, follow-up letters and postcards were sent asking for the rating sheets to be returned, with the subsequent return of 15 which were used in the data analyses. Of these 15 judges, four were female and eleven male residing in nine states from South Carolina to California. They did not represent any one theoretical orientation or interpretation of TA theory.

Procedure. Each of the judges was provided with the following instruction sheet:

In Transactional Analysis theory, different ego states are frequently associated with particular characteristics and behaviors. These are often identified by the use of adjectives such as nurturing, critical, prejudicial, etc.

The purpose of this study is to determine whether a group of adjectives, commonly used in descriptions of people, can be used to identify specific ego states. The pool of adjectives employed are those found on a standard psychological instrument, the Adjective Check List.

You are asked to serve as an expert judge to help identify these adjectives with the appropriate ego states. The five ego states being used in this study are as follows:

Critical or Controlling Parent (CP) - a set of feelings, attitudes and behavior patterns which resemble those of parental figures and that part of the personality which criticizes and finds fault.

Nurturing Parent (NP) - a set of feelings, attitudes and behavior patterns resembling those of a parental figure which nurtures and promotes growth.

Adult (A) - a set of feelings, attitudes and behavior patterns which are adapted to current reality and used for logic and precision.

Free or Natural Child (FC) - a set of feelings, attitudes and behavior patterns which are relics of the individual's own childhood and characterized by fun, frivolity and self indulgence.

Adapted Child (AC) - a set of feelings, attitudes and behavior patterns which are relics of the individual's own childhood and manifested by behaviors which are inferentially under the domination of the parental influence and indicated by conforming and compromising.

For each adjective please assign a score of 0, 1, 2, 3 or 4 for each of the ego states. A score of 0 will indicate that the adjective is not at all descriptive of that ego state, and a score of 4 will indicate that the adjective is highly descriptive of that ego state. Each ego state for each adjective is scored independently so that any one adjective may have a high loading on each ego state, a low loading on each, or a mixture.

For example, in determining the descriptive value of the adjective angry, one might decide it is highly descriptive of Critical Parent, not at all descriptive of Nurturing Parent and

Adult, and moderately descriptive of Free Child and Adapted Child.

If so, the scoring would be as follows:

	<u>CP</u>	<u>NP</u>	<u>A</u>	<u>FC</u>	<u>AC</u>
<u>angry</u>	4	0	0	2	2

In assessing the adjective careful the scoring might look like this:

	<u>CP</u>	<u>NP</u>	<u>A</u>	<u>FC</u>	<u>AC</u>
<u>careful</u>	0	3	4	0	4

And, finally, one might score calculating as follows:

	<u>CP</u>	<u>NP</u>	<u>A</u>	<u>FC</u>	<u>AC</u>
<u>calculating</u>	0	0	4	0	0

Please remember that the above are merely examples of possible scorings and not any indication of a "right" answer.

Please do not spend much time with any one adjective. Base your scores on your first thoughtful impression. Please do your scorings independently.

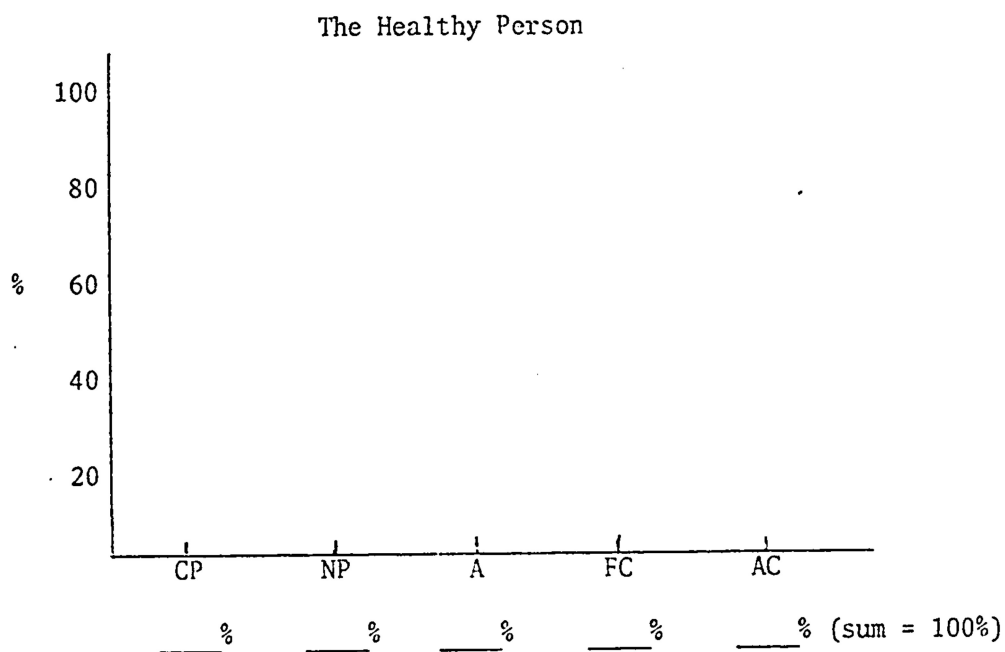
Thank you for your cooperation.

Following the rating of the 300 adjectives, each judge was asked to describe the egogram profile of the healthy person according to the instructions below:

Whew! And as if all this is not plenty to ask of you already, I would like to ask you to complete one final task. Please record your impression of the egogram of a healthy person. While not implying that all healthy persons have identical egograms, I am

interested in your conception of the egogram associated with the mentally healthy person.

In making this judgment, please think in terms of 100% of psychic energy which can be divided across the five ego states. Please record your division of psychic energy by filling in the blank below each designated ego state. (If you wish you may draw a bar graph to illustrate the profile, but this is not necessary.)



Thank you, thank you, thank you!

Kathryn Williams

Study 2

Subjects. Subjects in this study were 50 male and 50 female undergraduate students at Wake Forest University, Winston-Salem, North Carolina

who were fulfilling the research requirements for students in Introductory Psychology. A majority of the students were freshmen and sophomores. This data was collected anonymously with no identifying information other than sex.

Procedure. Subjects were asked to describe themselves on the ACL following standard ACL instructions. The test was administered in groups of 15-25 students with the instructions read to the group. The instructions for taking the ACL were as follows: "This answer sheet contains a list of 300 adjectives. Please read them quickly and blacken in the circle beside each one you would consider to be self-descriptive. Do not worry about duplications, contradictions, and so forth. Work quickly and do not spend too much time on any one adjective. Try to be frank, and fill the circles for the adjectives which describe you as you really are, not as you would like to be. Be sure to turn the page over and continue through adjective No. 300 on the reverse side.

A sample standard ACL rating sheet is shown in Appendix A.

RESULTS

Study 1

The data from Study 1 were analyzed to test Hypotheses I and II concerning the judges' agreement in the ratings of the ACL adjectives and in the concept of the "mentally healthy person." The data were also examined empirically, with regard to possible relationships among the ego-state loadings of the ACL adjectives.

The first analysis of the item rating data was conducted to ascertain whether any of the judges was clearly deviant from the other judges in

his/her ratings. In order to do this, the ratings of each judge were correlated¹ with those of every other judge separately for each of the five ego states, i.e., the 300 ratings from one judge were correlated with the 300 ratings of each of the other fourteen judges on CP, on NP, on A, on FC and on AC. This analysis yielded five correlation matrices, one for each ego state, which can be seen in Appendix B. Altogether, there were 525 correlations which ranged from .14 to .79 with all but one being significant at the .01 level. For each judge a median r was computed which reflects the average of the correlations of that judge with every other judge in the study, pooled across the five ego states.² From an examination of these data, it was concluded that no judge was clearly deviant in his/her ratings so all ratings were retained for further analyses.

For each adjective, a mean CP score was obtained by summing the CP ratings (on the 0 to 4 scale) of all fifteen judges and dividing by fifteen. This was repeated for each of the other four ego states, i.e., NP, A, FC, and AC. This yielded five mean scores for each adjective, one mean score for each ego state. These mean scores were rounded off to the first decimal point and used in all further analyses. The mean scores ranged from 0.0 indicating no loading to 4.0 indicating maximum loading on the ego state. The complete list of ACL adjectives and their mean ego-

¹Unless specified otherwise, product-moment correlation coefficients were employed in all analyses.

²The medians of the correlations for judges 1-15, respectively, were: .53, .45, .46, .57, .53, .50, .48, .49, .53, .57, .53, .56, .53, and .57.

state scores may be found in Appendix C. The following are examples of the mean scores obtained:

	<u>CP</u>	<u>NP</u>	<u>A</u>	<u>FC</u>	<u>AC</u>
adventurous	0.1	0.7	1.3	4.0	0.6
boastful	1.5	0.5	0.0	2.4	3.0
considerate	0.6	3.8	1.5	0.9	2.1
logical	0.0	0.0	4.0	0.0	0.0
nagging	4.0	0.0	0.0	0.0	0.0

The formal test of Hypothesis I concerning the judges' agreement in the ratings of the adjectives was made by re-stating it in operational terms, as follows: the intraclass correlation (Guilford, 1954, p. 395f.) computed across all 300 items for each ego state will be significantly ($p < .01$) greater than zero. As was noted in the Method section, fifteen judges rated each of the 300 adjectives five times, one score for each of the five ego states. The question addressed by the use of the intraclass correlation was how much the mean scores of these ratings for each ego state might be expected to vary if the 300 adjectives were to be re-rated by fifteen judges, i.e., to what degree were the mean ratings for each adjective on each ego state a reflection of true item variance as opposed to error or random variance. The formulations and computations for these five intraclass correlations may be found in Appendix D. The obtained reliability coefficients for the mean ratings of the judges for each of the five ego states were as follows: CP, .93; NP, .93; A, .95; FC, .94; AC, .89. All of these coefficients were significantly greater than zero (see Appendix D) and Hypothesis I was considered confirmed. This high degree

of inter-judge reliability was a critical finding in the study as the remainder of the analyses could only be reasonably conducted if judges showed agreement in their ratings of the adjectives for ego-state description.

Having established that there was a high degree of inter-judge reliability for the ratings of ego states, it was considered of interest to determine the degree to which relationships existed between the various ego-state loadings. For each pair of the five ego states, a product-moment correlation was computed between the mean scores of the judges' ratings across the 300 adjectives. The results of this analysis are shown in Table 1. As indicated in this table, several significant relationships were found among the judges' ratings of the various ego states. These will be considered in the Discussion section which follows.

The next analysis was conducted to determine whether the 300 ACL items, as rated by the judges, provided an equal number of points for each ego state. For each of the five ego states, a mean rating for each judge across all 300 adjectives was calculated. Using these means as "scores," a simple repeated-measures analysis of variance was conducted. This analysis yielded an F of 52.01 which was significant at the .01 level indicating that there were not an equal number of points available on the ACL for each of the five ego states. The overall means for the 300 adjectives were: CP, 1.39; NP, 1.11; A, 1.15; FC, 1.64; and AC, 2.21. This indicated that, if a group of ACL adjectives were checked at random, ego-state percentages probably would vary simply because there were more possible points on some ego states than on others. In order to determine whether these differences influenced the egograms derived from the ACL,

Table 1

Product-moment correlation coefficients describing the relationships between the five ego states, based on the judges' mean ratings of the 300 adjectives.

	CP	NP	A	FC
NP	-.19	--	--	--
A	-.05	.40*	--	--
FC	-.37*	.05	-.05	--
AC	.31*	-.49*	-.62*	-.34*

* $p < .01$

two alternate scoring systems were employed, as explained below in the section dealing with Study 2.

The egogram ratings of the Healthy Person obtained from each judge are given in Appendix E, and the mean, range, and standard deviations of these ratings are shown in Table 2. The formal test of Hypothesis II concerning the judges' agreement on the Healthy Person ratings was made by re-stating it in operational terms, as follows: when correlated t-tests are conducted between the pairs of means for the various ego states, the number of significant tests will be significant at the .01 level. In the lower portion of Table 2, it can be seen that 7 of the 10 tests were significant at the .01 level, thus supporting Hypothesis II by indicating that the judges agreed that certain ego states were higher than others in their characterizations of the Healthy Person.

Figure 1 displays the mean and range of the percentage of psychic energy associated with each ego state of the Healthy Person as conceptualized by these judges. It can be noted that when the CP and NP percents are pooled, and when the FC and AC percents are pooled, the distribution of psychic energy across the three major ego states of Parent, Adult, and Child is nearly even, i.e., 52.67%, 33.00%, and 34.33%, respectively.

Study 2

The data from Study 2 were analyzed to test Hypotheses III and IV concerning the egograms obtained from the self descriptions of male and female college students. Data were also analyzed to examine, empirically, the relationships among ego state scores obtained from these self descriptions.

Table 2

- a) Means, standard deviations, and ranges of percents of psychic energy in each ego state as the 15 judges described the Healthy Person.

	CP	NP	A	FC	AC
Mean	11.20	21.47	33.00	23.40	10.93
Standard deviation	4.18	5.61	9.97	6.53	4.86
Highest value	20	30	60	30	20
Lowest value	5	10	20	10	1

- b) Correlated t-tests between pairs of mean ego state scores assigned by judges to the concept of Healthy Person

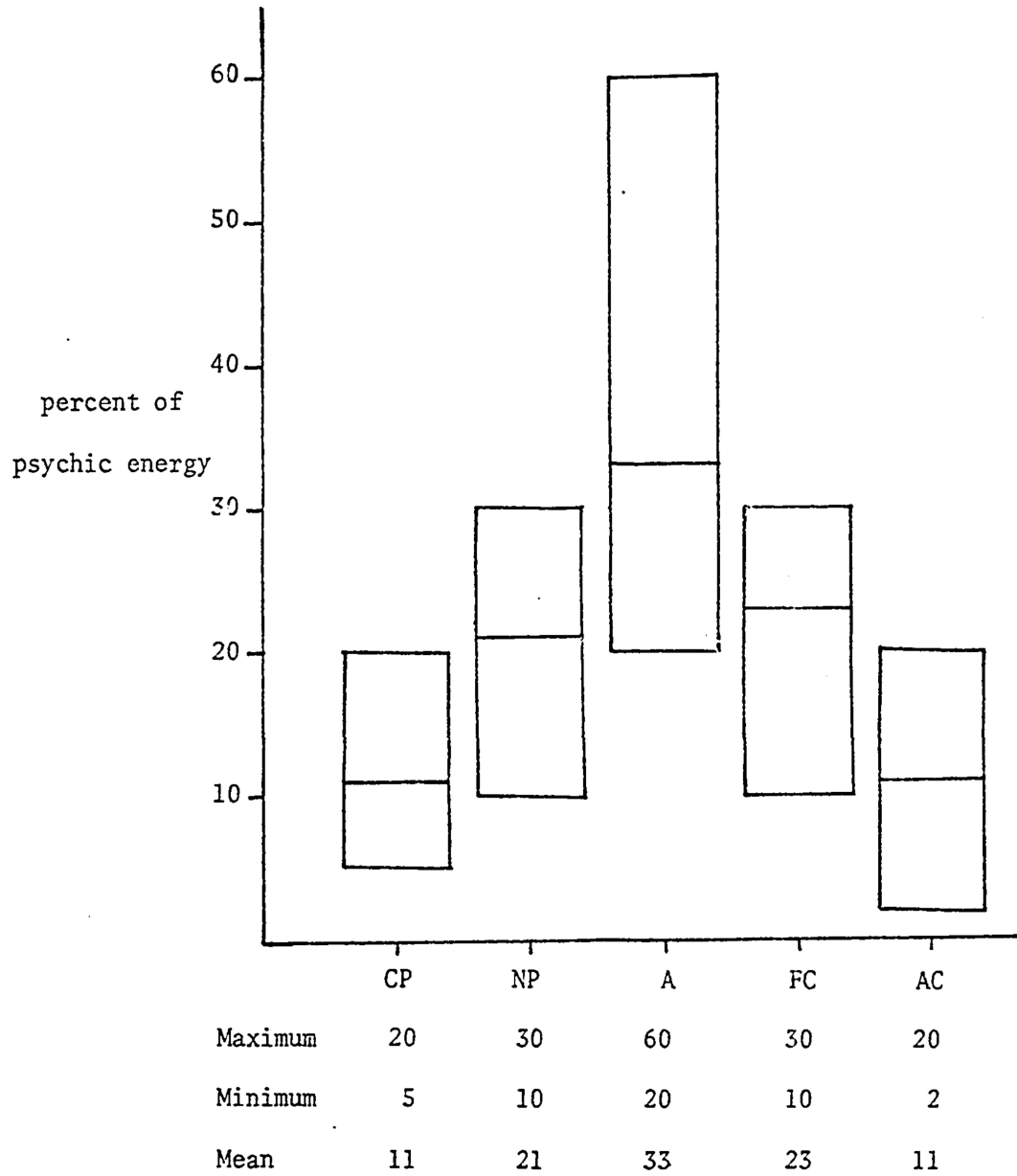
	NP	A	FC	AC
CP	5.14**	6.92**	4.86**	0.23
NP	--	2.97**	0.93	5.92**
A	--	--	2.64*	6.23**
FC	--	--	--	4.81**

* $p < .05$

** $p < .01$

Figure 1

Means and ranges of percents of psychic energy in
ego state, according to the 15 judges'
descriptions of the Healthy Person.



The data were scored by computing an egogram for each student using the following procedure. In Study 1, the ACL adjectives had each been given a score on each ego state based on the mean ratings of the 15 judges. For each subject in Study 2, the total number of points for each ego state was calculated by adding the scores for those adjectives which she/he had checked to describe her/himself. Following this, the total for each ego state was divided by the sum of the points the subject accumulated across all five ego states. This yielded a percent score for each of the five ego states which, when considered collectively, constituted her/his egogram. This method of scoring was designated method A. From the results of the analysis of variance conducted in Study 1, it was concluded that there were different numbers of points available on the ACL for the different ego states. It was considered possible that the egograms as scored by method A might be distorted by this. For example, since there are more points available on the ACL for the Adapted Child ego state, one might expect an elevated AC for all individuals taking the ACL. Scoring method B was developed to correct for this possibility. In this method, the sum of points each subject obtained for each ego state was first divided by the total number of possible points that could be obtained for that ego state across all 300 adjectives. This yielded a percent score for each subject on each ego state which was then divided by the total of the percent scores across all five ego states. In this way, a second egogram for each subject was obtained. The egogram percents obtained by scoring methods A and B for each of the 100 subjects may be found in Appendix F. In Table 3 are shown

Table 3

Means and standard deviations of the egogram percent scores of the 100 subjects computed by scoring Methods A and B. Correlated t -tests were performed between the means computed by the two methods.

	Method A	Method B
Critical parent		
Mean	14.93	15.45
S.D.	2.01	2.33
	$t = 7.72$ ($p < .01$)	
Nurturing parent		
Mean	19.44	25.12
S.D.	2.57	2.80
	$t = 87.45$ ($p < .01$)	
Adult		
Mean	19.17	23.92
S.D.	3.22	3.49
	$t = 88.32$ ($p < .01$)	
Free Child		
Mean	22.46	19.68
S.D.	2.83	2.74
	$t = 38.66$ ($p < .01$)	
Adapted Child		
Mean	24.00	15.72
S.D.	3.63	2.79
	$t = 84.87$ ($p < .01$)	

the means and standard deviations of the egogram percents obtained using methods A and B.

In order to determine if scoring methods A and B generated significantly different egograms, a comparison of the mean scores generated by each was made by a correlated t-test for each of the five ego states. The results from these t-tests, seen in Table 3, were all significant at the .01 level indicating that egograms generated by scoring methods A and B were, indeed, different. Because of these findings, egograms generated by the correction method, B, were employed in further analyses. This was done so that differences in egogram scores could not be attributed to the differential availability of ego state points in the item pool of the ACL. When correction method B is employed, the loadings for the adjectives in the ACL allow for an equal number of points for each ego state.

The next analysis performed was a comparison of male and female egogram profiles in order to test Hypothesis III which was operationally defined as follows: no significant ($p < .01$) differences will be found when the mean scores of men and women on each ego state are compared, via t-tests. A mean male and a mean female profile was calculated and the means and standard deviations of the method B scores are presented in Table 4 in which the results of t-tests computed for each ego state also are shown. As can be seen, the mean scores of the male and female subjects were not significantly different on any ego state, thus confirming Hypothesis III. Therefore, the data were pooled to determine the average egogram of the 100 college students which may be seen in Figure 2. An examination of the standard deviations for the pooled group of subjects, as

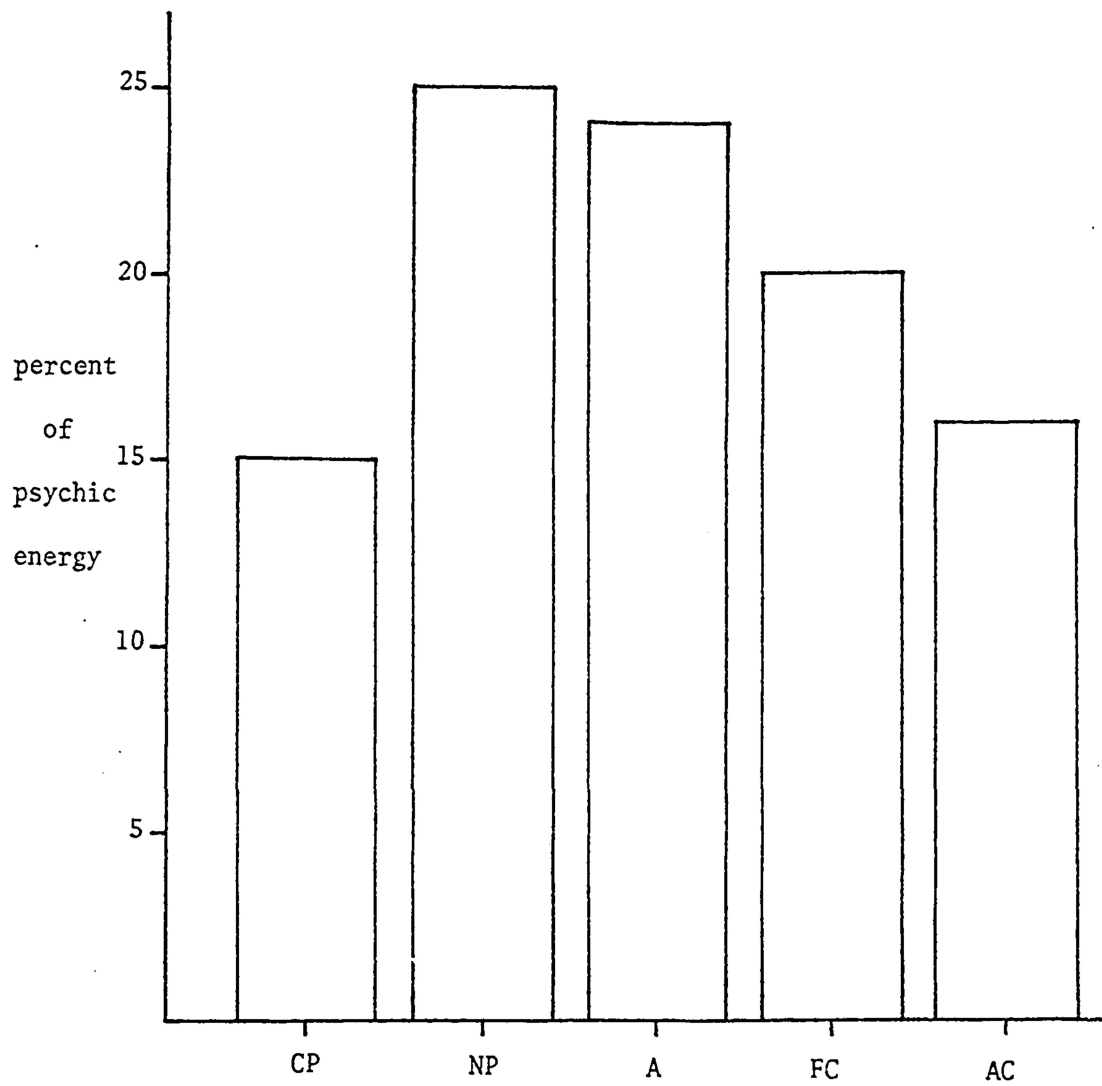
Table 4

For each of the five ego states, the means and standard deviations of egogram scores for males and females separately and combined, with a t -test between the two sexes' mean scores.

	Females	Males	All Subjects
Critical parent			
Mean	15.26	15.64	15.45
S.D.	2.54	2.12	2.33
$t = 0.81$ ($p > .05$)			
Nurturing parent			
Mean	25.48	24.76	25.12
S.D.	2.94	2.65	2.80
$t = 1.29$ ($p > .05$)			
Adult			
Mean	23.92	23.92	23.92
S.D.	3.36	3.65	3.49
$t = 0.0$ ($p > .05$)			
Free Child			
Mean	19.62	19.74	19.68
S.D.	2.63	2.88	2.74
$t = 0.22$ ($p > .05$)			
Adapted Child			
Mean	15.52	15.92	15.72
S.D.	2.75	2.84	2.79
$t = 0.72$ ($p > .05$)			

Figure 2

Egogram representing the mean percent scores for the
100 subjects on the five ego states.



seen in Table 4, indicates the existence of substantial individual differences among subjects for each ego state, resulting in a variety of egogram profiles.

An analysis was conducted next to test Hypothesis IV concerning the relationship of the composite college student profile to the judges' ratings of the Healthy Person. Hypothesis IV was operationally defined as follows: when the mean college student score is compared with the mean Healthy Person rating for each ego state, the results will be statistically nonsignificant at the .01 level. The results of this analysis, seen in Table 5, indicated a significant ($p < .01$) difference between the two means for each ego state thus leading to the rejection of Hypothesis IV. The college student profile was higher on CP, NP, and AC ego states and lower on A and FC ego states.

Of additional interest in this study was the relationship among the various ego states in the self descriptions of college students. It was considered possible that, despite the highly similar mean profiles of males and females, the relationships among ego states might vary by sex. For this reason, data from male and female subjects were analyzed separately as well as for all subjects combined. The idea of conducting these analyses using the egogram percent scores was rejected due to their ipsative nature, i.e., since all ego-state scores sum to 100%, if one ego-state percent goes up, the others, on the average, must go down, thus producing an intrinsic negative correlation among the various percent scores. In view of this, it was decided to perform the correlational analysis on the scores obtained by scoring method B before these were converted to final

Table 5

Comparison of the college students' mean egogram with the egogram of the Healthy Person.

The formula used is $\underline{z} = \frac{\bar{X} - M}{S_{\bar{X}}}$ where \bar{X} is the mean of the college students' percent scores on one ego state, μ is the mean percent score for the Healthy Person, and $S_{\bar{X}}$ is the standard error of the mean of the students' percent scores.

a. Critical parent

$$\underline{z} = \frac{15.45 - 11.20}{0.23} = 18.48 \quad (\underline{p} < .01)$$

b. Nurturing parent

$$\underline{z} = \frac{25.12 - 21.47}{0.28} = 13.04 \quad (\underline{p} < .01)$$

c. Adult

$$\underline{z} = \frac{23.92 - 33.00}{0.35} = -25.94 \quad (\underline{p} < .01)$$

d. Free child

$$\underline{z} = \frac{19.68 - 23.40}{0.27} = -13.78 \quad (\underline{p} < .01)$$

e. Adapted child

$$\underline{z} = \frac{15.72 - 10.93}{0.28} = 17.11 \quad (\underline{p} < .01)$$

egogram percentages. Therefore, the scores which were used represented, for each ego state, the proportion of total points available which the subject used to describe herself/himself divided by the number of items checked. The product-moment correlations computed using these data are shown in Table 6. The corresponding coefficients obtained from the judges' ratings are also shown for reference purposes. These data indicate that, for male subjects, there was one significant positive correlation--NP vs. A, and two significant negative or inverse correlations--NP vs. AC and A vs. AC. For female subjects, five significant relationships were obtained. Of the five, one was positive--NP vs. A, and four were negative--CP vs. NP, NP vs. AC, A vs. AC, and FC vs. AC. When all subjects were pooled, six significant correlations were observed. Five of these were the same as those found for males and females separately with one additional relationship obtained in this pooled data; a positive relationship for CP vs. AC. As can be seen in Table 6, the pooled correlations for the college students' self ratings generally conformed to those obtained from the judges' ego-state ratings of the adjectives.

DISCUSSION

The foundation of this study rested on the demonstration that there was significant inter-judge agreement in the ego-state ratings of the ACL adjectives. In obtaining the judges, there had been no attempt to select persons who would necessarily share common interpretations of the characteristics of the various ego states, and in letters of response, many indicated their "unique" orientations. For example, Judge 1 wrote "I am

Table 6

The coefficients of correlation between each pair of ego states for male and female subjects separately and combined. The respective correlation coefficients based on the 15 judges' ratings (see Table 1) are also listed.

Ego states	Females	Males	All subjects	Judges
CP-NP	-.59**	-.21	-.41**	-.19**
CP-A	-.06	.01	-.03	-.05
CP-FC	-.02	-.31	-.13	-.37**
CP-AC	.25	.23	.25**	.31**
NP-A	.74**	.76**	.75**	.40**
NP-FC	-.06	-.14	-.08	.05
NP-AC	-.75**	-.73**	-.74**	-.49**
A-FC	-.05	-.22	-.12	-.05
A-AC	-.86**	-.83**	-.85**	-.62**
FC-AC	-.39**	-.25	-.30**	-.34**

** $p < .01$

unorthodox in that I think the Adapted Child is the real self" Judge 7 suggested that "you might want to throw out my data as I include both OK's and not OK's in my definition of the Adapted Child, and also include the rebellious aspect" Judge 4 wrote that he was going to employ "the more complete, accepted definitions of ego states." A final example is the comment of Judge 3 in which she raised a concern about using adjectives in identifying ego states, "as each of us deals with it from a different frame of reference." Therefore, it was an empirical question as to whether these judges with varying backgrounds, training and orientation would have a common base of understanding regarding ego-state descriptions. It was found, despite these different "frames of reference," that the experts did agree surprisingly well. This suggests that there is a considerable body of common understanding among TA experts with regard to their conceptualization of ego states. In order for a theory of personality to be useful, there must be substantial consensual validation among its proponents with regard to the theory's central constructs. In this regard, the findings of this study provide an optimistic note about the potential usefulness of TA theory.

Although the variations in the reliability of the mean ratings were slight (intraclass correlations ranging from .89 through .95), it is interesting to note that the lowest correlation was found in the ratings for the Adapted Child ego state suggesting somewhat more variability among the judges in their descriptions of this construct. This finding is consistent with the extensive discussion and debate in the literature regarding the characteristics of the Adapted Child. Various theorists have proposed a

division in the Adapted Child such as the Rebellious Child and the Compliant Child (Drye, 1974; Ernst, 1973). Dusay (1977) discusses true rebellion as a characteristic of the Free Child whereas he conceptualizes pseudo-rebellion as characteristic of the Adapted Child. Future research is needed to help clarify these issues as the current debate is theoretical in nature or based on clinical impressions.

This study did not have as its central purpose the validation of hypotheses arising out of TA theory. Its major contribution has been the construction of an empirical procedure to assess ego-state functioning and a method to illustrate the relationship of these ego states by means of an egogram. However, some observations of theoretical importance can be made from the data obtained. Several significant correlations were found among the ego-state ratings of the judges and the same patterns of relationships were seen in the college student self-descriptive data. Some of these findings lend support to discussions in TA literature concerning ego-state functioning, whereas others have been given little attention as far as this writer is aware. Of much interest in TA theory is the relationship of the Parent ego state to the Child ego state, particularly Critical Parent to Adapted Child both in internal experience and external transactions. Perhaps the finding in this study which is most compatible with the position of many theorists is the positive relationship between Critical Parent and Adapted Child and, since this finding came from the analyses of the judges' ratings of the adjectives rather than any description of self or other, it suggests a relationship which would be found in both internal experience and external transactions: that as energy in the Critical Parent increases and behaviors emanating from that ego state

increase, so does the psychic energy and behaviors of the Adapted Child. Berne and others speak of Adapted Child behavior being under the influence of the Critical Parent, and the above finding supports that theoretical view, i.e., the Adapted Child is adapting to the messages of the Critical Parent. It also appears that as Adapted Child energy increases, Free Child energy decreases, in relationship to increases in the Critical Parent energy.

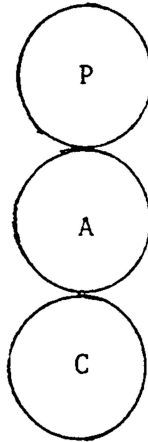
On the other hand, the Nurturing Parent ego state is inversely related to the Adapted Child suggesting that nurturing messages and behavior tend to decrease activity in the Adapted Child ego state. Perhaps this can be explained best by the hypothesized permission-giving aspect of the Nurturing Parent as opposed to the limit-setting functions of the Critical Parent. Of particular interest in terms of Parent/Child interactions is the finding that no relationship exists between Nurturing Parent and Free Child. Berne maintains that Free Child behavior is not under the influence of the Parent and this finding tends to support that hypothesis. There was also no correlation between the Adult ego state and Free Child, indicating that Free Child psychic energy may be independent of Adult functioning as well. As was noted above, Adapted Child and Free Child ego states are negatively related. So are Critical and Nurturing Parent. The judges' ratings indicated that the division of the two major ego states of Parent and Child are reflective of inverse or opposite kinds of characteristics as implied by the designated names of these ego states (Nurturing versus Critical; Free versus Adapted). Perhaps there is Parent energy or behavior which is either critical or nurturing, but not both, and Child psychic energy which is either free or adapted, but not both.

The last set of correlations to be considered are those of the Adult with the other four ego states. The adult shows no relationship with Critical Parent or Free Child. There is a positive relationship existing between Adult and Nurturing Parent and a negative relationship between Adult and Adapted Child. The latter finding is consistent with this author's understanding of Adult characteristics and functioning being, in part, rational and logical and not under the influence of the Parent, so it would seem reasonable that as Adult functioning increases, adapted behaviors such as procrastinating or pseudo-rebellion, decrease. More puzzling, perhaps, is the positive relationship between Adult and Nurturing Parent which indicates that as psychic energy and behaviors in the Adult increase so does the Nurturing Parent. One possible interpretation is that both Adult and Nurturing Parent functioning is seen as favorable (more so than Critical Parent and Adapted Child) and adjectives describing generally favorable behavior load on both. For example, permission-giving could have both Nurturing Parent and Adult properties.

There is a final note about the seven correlations discussed above. Even though the significance of these findings indicate that a real relationship exists between several ego states, it is important to bear in mind that the highest correlation obtained was $-.62$ (Adult/Adapted Child). Squaring this coefficient indicated only 38% common variance between these ego states which leaves 62% of the variance free or independent. This means that, while there will be a general tendency for persons scoring high on Adult to score low on Adapted Child, there is sufficient independence for individuals to score high or low on both. In other words, the correlational findings in the study suggest important general relationships between

ego states, but do not indicate that they will be found for each individual.

TA literature is replete with diagrams which depict the structure of personality as three circles of equal diameter, as follows:



Although this author could find no explicit statement that this is the structural diagram of the mentally Healthy Person, the findings of this study suggest that, on the average, the expert judges do see mental health depicted this way with the Parent, Adult, and Child ego states utilizing approximately equal amounts of psychic energy. Of considerable interest is the finding that the divisions in the Parent and Child ego states are not equal for the Healthy Person with the Nurturing Parent larger than the Critical Parent and the Free Child larger than the Adapted Child. Of additional importance is the finding that no judge eliminated any ego state from her or his conception of healthy functioning, which supports the generally held view, proposed by Berne, that all ego states have both positive and negative characteristics, although apparently to different degrees. It should be noted that the instructions to the judges did not ask that they

describe healthy external functioning or healthy internal experience. Therefore, the egograms provided by the judges of the Healthy Person may represent external egograms, internal egograms or both. It is an empirical question to be tested by future research whether or not these two types of descriptions of healthy functioning would differ. It is this author's view, that they would not. Another question which must be addressed by future research is whether or not the egograms based on the standard instructions of the ACL are illustrative of an individual's internal experience or are self descriptions that the individual has given of the way she experiences herself in transactions with others. In other words, when an individual checks the adjectives on the Adjective Check List, does she check those adjectives that represent the way she experiences herself or does she check those adjectives that describe the way she interacts with others, or both? In the future, since we have a reliable scoring system for the ACL, specific instructions can be used to ask individuals to select those adjectives based on these two different frames of reference and differences, if any, in these egograms can be compared.

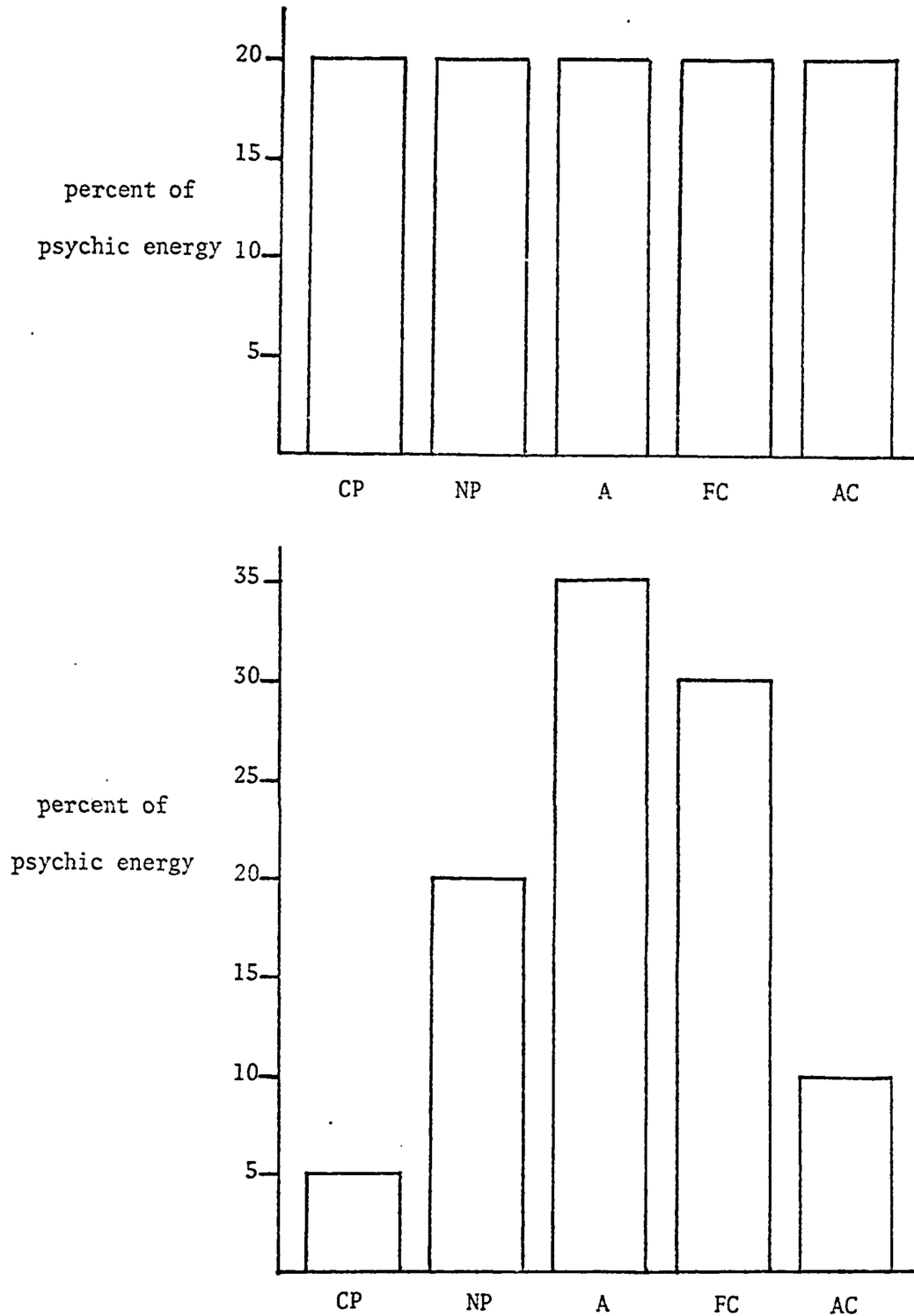
Two judges in the study raised concerns about whether there was an egogram associated with the mentally Healthy Person and one judge commented that TA theory says that healthy means "to be in the right ego state at the right time with no one right pattern." Despite this, all judges in this study offered a theoretical profile for the Healthy Person suggesting that they did have some criteria in mind when judging mental health. These profiles were summarized in Figure 1 in the Results section, where it was seen that the mean egogram profile approached the bell-shaped egogram

described by Dusay. It was interesting to note, however, some of the variations among the judges with regard to this concept. For example, Judges 7 and 15 suggested the egograms depicted in Figure 3. It seems reasonable to believe that these two judges who conceptualize mentally healthy functionings so differently might also have different approaches in therapy. At least one could imagine that they would tend to reinforce different patterns of behavior in the people with whom they work. And, as Robert Harper (1959) noted, much of what goes on in therapy has to do with the value system of the therapist. It is the contention of this writer that one's concept of a Healthy Person is, indeed, a value system and will have an impact on one's interaction with the client.

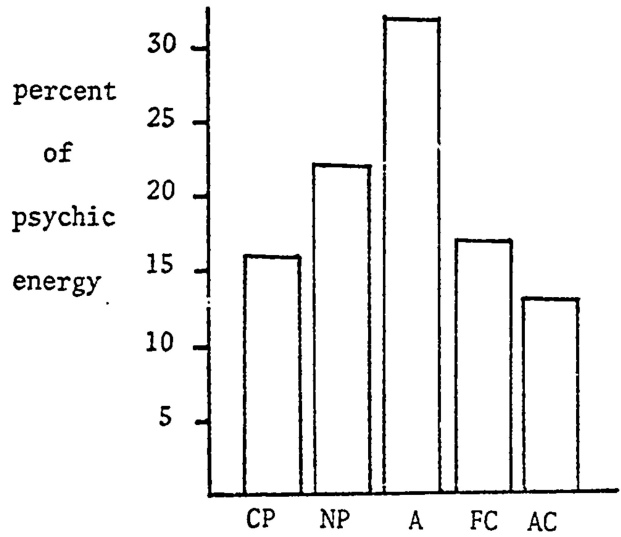
Having found reliable ratings for ego-state loadings on the ACL adjectives, Study 2 was conducted to provide an illustration of one possible use of this procedure. In order to do this egograms were calculated for the 100 college student subjects who had taken the ACL following standard self-descriptive instructions. Perhaps of greatest importance in this portion of the study was the finding that when the ACL responses of subjects were converted to egograms, interesting individual differences were found. This is an important finding, for if this new procedure is to prove useful as a tool for clinical use and research, it must be able to generate profiles which reflect individual differences in personality functioning. Although no attempt will be made in this paper to provide interpretations of these profiles, four are shown in Figure 4 for illustrative purposes. It seems reasonable to assume, based on the various propositions put forth in TA theory, that these individuals would show distinct differences in

Figure 3

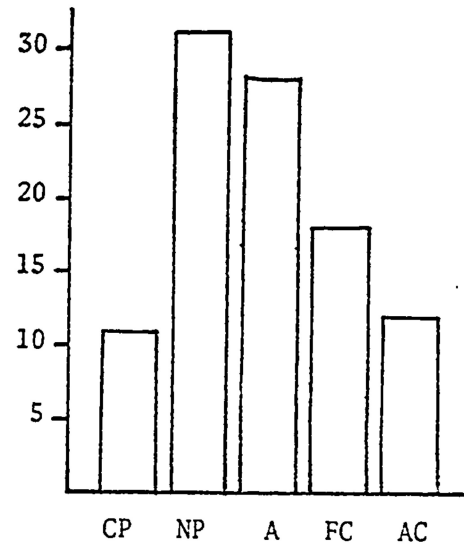
Egograms of the Healthy Person as described by judges 7 and 15.



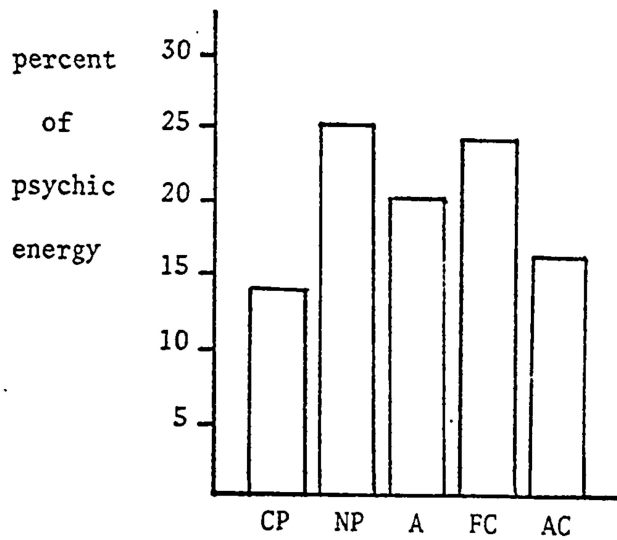
Egograms of four subjects



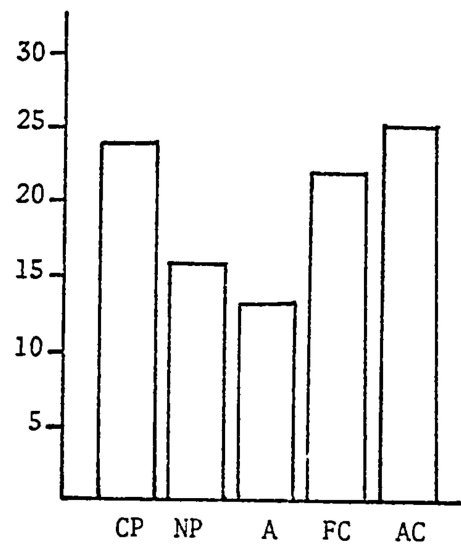
Subject 18



Subject 37



Subject 66



Subject 81

personality style and characteristic behaviors. This, of course, remains open to future research.

Egograms generated by the use of the ACL can now be used to confirm or reject hypotheses put forth by various TA theorists. Dusay (1977), for example, provides many illustrations of impressionistically-based egograms with their concomitant personality styles. For example, he discusses the "Don Juan" personality as being one in which the Free Child ego state is the largest, with Adult and Critical Parent the next largest respectively, and very low Nurturing Parent and Adapted Child. Dusay hypothesizes that, "The typical 'Don Juan' has enough 'Adult' to find love objects; enough 'Critical Parent' to tell them to get lost when he's finished; and not enough 'Nurturing Parent' to really care about their feelings. His low 'Adapted Child' prevents guilt feelings, and his high 'Free Child' is specifically interested in sexual trysts" (1977, p. 45). By contrast, Dusay conceptualizes the "Wallflower" personality as one in which the Adapted Child ego state is largest followed by the Adult, Critical Parent and Nurturing Parent with a very small Free Child. He interprets this personality as one of "a prim and proper person who is completely absorbed in giving others the 'right' impression - the result of a high 'Adapted Child.' The morals and values of the 'Wallflower' are impeccable, and there is little desire to threaten his or her purity - the result of a low 'Free Child' at work" (1977, p. 48). These are interesting possibilities and can now be empirically tested.

Although many personality tests have been normed on college population data, it is not the premise of this author that the mean college student's

egogram obtained from subjects in this study is reflective of the norm in the general population. This sample is highly selective and may only represent the average egogram for this particular group. It is of interest to note, however, that Wake Forest College student ACL data scored in standard need state terms has been found not to differ from that of the general college student norm group. Therefore, the mean egogram of college students in this study may be generalizable to other college student populations as well. Once again, this possibility will need testing sometime in the future.

The data shown in Table 4, Results section, indicated that there were no differences in the ego-state percentages obtained for male and female subjects. This finding suggests that, on the average, this population of college-aged men and women, do not describe themselves differently when scores are converted to ego-state percentages. It remains to be seen whether or not sex differences in self descriptions would be found in other populations. One possible explanation for the finding of no sex differences in mean egograms in this study is that the characteristics of the various ego states are very broad in nature encompassing both the "masculine" and the "feminine." For example, although male and female subjects, on the average, scored the same on the Adapted Child ego state, a further analysis of behaviors and characteristics of this ego state might show male and female differences in mode of adapting. Research previously conducted by the present author (Williams, Williams, and Woodmansee, 1977) found the egogram generated for a "hypothetical male" described in a highly stereotyped manner differed significantly on all ego states from the

egogram generated for a "hypothetical female" described in a highly stereotyped manner. Therefore, it would appear that the more individuals describe themselves or are described by others along stereotyped lines, the more egograms of males and females might differ. The findings of no sex differences in the population of college students in the present study suggest that these subjects did not describe themselves in a stereotyped manner which provides some encouraging evidence that nonsexist self images are emerging for young men and women.

The correlations found among the various ego states for these college students (see Table 6) were generally compatible with those obtained from the judges' ratings. It is important to note here that for there to be significance at the .01 level, larger correlations were necessary for the student data than for the judges' because of the smaller number of degrees of freedom in the former analysis. Some slight sex differences were found among these data but all correlations were in the same direction for male and female subjects and were generally similar to the correlations in the judges' data.

The present study did provide an opportunity to evaluate the mean college student's egogram with that of the hypothetical Healthy Person as defined by the judges, although one limitation is this may be a comparison of a self-generated egogram representing internal experience to an egogram representing external behavior. However, when comparing these two egograms, one can see (Table 5 in Results) that each ego state of the college student profile differed significantly from that of the judges' conception of the Healthy Person. The college student Parent ego state, as a whole, is

larger than that of the Healthy Person, the Adult ego state is smaller, and the Child ego state, as a whole, is the same. In the latter case, it is of interest to note that although the Child ego state is the same for both, the college student egogram has more Child energy invested in the Adapted Child and less in the Free Child than that of the Healthy Person. These findings suggest, then, that college students describe themselves as spending more time and energy in their overall Parent ego state and in their Adapted Child with less energy utilized in the Free Child and Adult. This finding may be accounted for by the developmental level of 19-20-year-old college students where there is still more pressure to adapt (particularly if one conceptualizes some forms of rebellion as adapted behavior) and less permission and general life experiences to encourage greater Adult functioning. Other personality theorists such as Abraham Maslow (1968) and Carl Jung (1959) have suggested that individuals of this age have not had enough time or experiences with life to be "self actualized" or "individuated." If we consider that the judges' impression of the Healthy Person is the TA standard for the "ideal" as in Abraham Maslow's conception of the self-actualizing person, then this would not be a surprising finding. In other words, the Healthy Person, as conceptualized by the judges in this study, may be distinct from the average or normative profile in that it reflects the ideal.

The interpretation of an individual's egogram profile can be made on several different bases. One type of interpretation would be the relationship of the ego states to each other for a particular individual--an intrapersonal comparison. This would be the kind of analysis offered by Dusay

when he considered the profiles of the "Don Juan" and "Wallflower" personalities discussed above. Another comparison which might prove useful would be that of a specific individual's profile with that of the average or norm profile from a particular population such as the mean college student profile obtained in the present study. Still another comparison could be made between an individual's egogram and that of the ideal or Healthy Person profile also discussed in this paper. It seems reasonable to speculate that all of these comparisons would provide helpful data for interpretation and understanding of the individual's personality functioning.

Now that an objective procedure to generate egograms has been developed, there are many possibilities for future research, some of which have been indicated above. Of prime importance for the future of TA will be research designed to test the myriad hypotheses which have been generated by TA theorists, i.e., construct validation studies. In addition, this new tool may prove useful in the clinical setting as a way to conceptualize the personality functioning of a client as illustrated by the various egograms obtained in Study 2. One possibility which was not illustrated in this paper would be to have an individual describe herself as she sees herself in a variety of roles such as at work, in relationship to a spouse, or in relationship to her father, etc. In addition, egograms could be generated by individuals taking the ACL in terms of their perception of another individual. This would provide the opportunity of comparing the egograms obtained from self descriptions with that of descriptions of the same individual made by others. The differences in these egogram profiles could

then be utilized to help analyze "crossed transactions" as well as "games." Once again, the individuals giving these descriptions on the ACL need know nothing of TA for egograms to be generated.

In a study by Dollizer and Mixon (1977), the relationships among occupations, Holland's occupational/personality types, and ego states were examined. These researchers demonstrated a judged correspondence between certain occupations and vocational types and certain ego-state descriptions. They suggest that "linking occupations to ego-state descriptions is a first step in the use of TA in vocational counseling" (p. 170). As an extension of this study, future research could compare egograms generated by self descriptions on the ACL with data from self descriptions on educational/vocational instruments such as the Strong-Campbell II. If findings confirm that distinct egogram profiles are associated with particular occupational categories, the contribution to vocational psychology could be substantial.

As a final comment with regard to the use of the ACL for the generation of egograms, it can be noted that the ACL item pool has been translated into at least 10 foreign languages. Thus, it would be possible to obtain self descriptions on the translated ACL's from which egograms could be obtained establishing a base for exciting possibilities for future cross-cultural research in TA.

Although Transactional Analysis has gained wide acceptance in the clinical community, it is currently neglected in the field of academic personality psychology. This author has not found any standard text dealing with personality theory which includes Transactional Analysis.

Even in those texts such as Hall and Lindzey's (1978), Ryckman's (1978), and Maddi's (1972) where humanistic personality theories have been included, Transactional Analysis has not. This author believes that the paucity of empirical research being conducted with TA theory has contributed to this neglect. For a new theory to have an impact and make lasting contributions in psychology, there must be empirical support for its basic constructs and hypotheses. It remains to be seen whether or not TA theory will be supported by future research, but the important contributions of this theory will almost certainly be neglected without this support. The empirical tool provided by the present study will help correct for this neglect, as the results reported here provide an optimistic note for the future.

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APPENDICES

• Use No. 2½ or softer pencil • Fill circles heavily • Erase any errors or stray marks completely • Do not use ball point or ink

- | | | | | |
|------------------------|---------------------|-----------------------|---------------------|----------------------|
| 151 ○ mild | 181 ○ practical | 211 ○ sarcastic | 241 ○ sophisticated | 271 ○ tough |
| 152 ○ mischievous | 182 ○ praising | 212 ○ self-centered | 242 ○ spendthrift | 272 ○ trusting |
| 153 ○ moderate | 183 ○ precise | 213 ○ self-confident | 243 ○ spineless | 273 ○ unaffected |
| 154 ○ modest | 184 ○ prejudiced | 214 ○ self-controlled | 244 ○ spontaneous | 274 ○ unambitious |
| 155 ○ moody | 185 ○ preoccupied | 215 ○ self-denying | 245 ○ spunky | 275 ○ unassuming |
| 156 ○ nagging | 186 ○ progressive | 216 ○ self-pitying | 246 ○ stable | 276 ○ unconventional |
| 157 ○ natural | 187 ○ prudish | 217 ○ self-punishing | 247 ○ steady | 277 ○ undependable |
| 158 ○ nervous | 188 ○ quarrelsome | 218 ○ self-seeking | 248 ○ stern | 278 ○ understanding |
| 159 ○ noisy | 189 ○ queer | 219 ○ selfish | 249 ○ stingy | 279 ○ unemotional |
| 160 ○ obliging | 190 ○ quick | 220 ○ sensitive | 250 ○ stolid | 280 ○ unexcitable |
| 161 ○ obnoxious | 191 ○ quiet | 221 ○ sentimental | 251 ○ strong | 281 ○ unfriendly |
| 162 ○ opinionated | 192 ○ quitting | 222 ○ serious | 252 ○ stubborn | 282 ○ uninhibited |
| 163 ○ opportunistic | 193 ○ rational | 223 ○ severe | 253 ○ submissive | 283 ○ unintelligent |
| 164 ○ optimistic | 194 ○ rattlebrained | 224 ○ sexy | 254 ○ suggestible | 284 ○ unkind |
| 165 ○ organized | 195 ○ realistic | 225 ○ shallow | 255 ○ sulky | 285 ○ unrealistic |
| 166 ○ original | 196 ○ reasonable | 226 ○ sharp-witted | 256 ○ superstitious | 286 ○ unscrupulous |
| 167 ○ outgoing | 197 ○ rebellious | 227 ○ shiftless | 257 ○ suspicious | 287 ○ unselfish |
| 168 ○ outspoken | 198 ○ reckless | 228 ○ show-off | 258 ○ sympathetic | 288 ○ unstable |
| 169 ○ painstaking | 199 ○ reflective | 229 ○ shrewd | 259 ○ tactful | 289 ○ vindictive |
| 170 ○ patient | 200 ○ relaxed | 230 ○ shy | 260 ○ tactless | 290 ○ versatile |
| 171 ○ peaceable | 201 ○ reliable | 231 ○ silent | 261 ○ talkative | 291 ○ warm |
| 172 ○ peculiar | 202 ○ resentful | 232 ○ simple | 262 ○ temperamental | 292 ○ wary |
| 173 ○ persevering | 203 ○ reserved | 233 ○ sincere | 263 ○ tense | 293 ○ weak |
| 174 ○ persistent | 204 ○ resourceful | 234 ○ slipshod | 264 ○ thankless | 294 ○ whiny |
| 175 ○ pessimistic | 205 ○ responsible | 235 ○ slow | 265 ○ thorough | 295 ○ wholesome |
| 176 ○ planful | 206 ○ restless | 236 ○ sly | 266 ○ thoughtful | 296 ○ wise |
| 177 ○ pleasant | 207 ○ retiring | 237 ○ smug | 267 ○ thrifty | 297 ○ withdrawn |
| 178 ○ pleasure-seeking | 208 ○ rigid | 238 ○ snobbish | 268 ○ timid | 298 ○ witty |
| 179 ○ poised | 209 ○ robust | 239 ○ sociable | 269 ○ tolerant | 299 ○ worrying |
| 180 ○ polished | 210 ○ rude | 240 ○ soft-hearted | 270 ○ touchy | 300 ○ zany |

Matrices of product-moment correlation coefficients for all pairs of the 15 judges on their ratings of the 300 adjectives.

Critical parent

	1	2	3	4	5
1	1.0000				
2	.4069	1.0000			
3	.4400	.4316	1.0000		
4	.4731	.6217	.4629	1.0000	
5	.4604	.3873	.3839	.4920	1.0000
6	.5720	.5795	.5327	.5489	.5392
7	.4080	.5031	.4324	.6094	.3876
8	.4415	.6194	.4942	.6090	.4884
9	.4888	.4399	.3533	.4574	.4482
10	.5153	.3742	.4054	.4062	.5690
11	.5277	.5510	.4389	.6700	.5999
12	.4667	.5393	.4024	.5795	.5755
13	.5763	.6035	.4343	.6038	.4998
14	.4247	.3813	.3060	.4109	.6052
15	.5421	.3603	.3450	.4395	.6650
	6	7	8	9	10
6	1.0000				
7	.5043	1.0000			
8	.5593	.5344	1.0000		
9	.5445	.3353	.3210	1.0000	
10	.5192	.3500	.3644	.4035	1.0000
11	.6580	.4724	.5057	.5636	.6091
12	.5799	.4554	.5127	.4731	.5387
13	.6041	.5794	.5433	.4797	.4450
14	.4929	.2508	.3154	.5391	.5771
15	.5909	.2874	.4018	.4702	.6537
	11	12	13	14	15
11	1.0000				
12	.6802	1.0000			
13	.6262	.5412	1.0000		
14	.5678	.5348	.4377	1.0000	
15	.6500	.5902	.4610	.6620	1.0000

Nurturing parent

	1	2	3	4	5
1	1.0000				
2	.5365	1.0000			
3	.5191	.5699	1.0000		
4	.6245	.5377	.6106	1.0000	
5	.5687	.4250	.5412	.5692	1.0000
6	.4836	.5018	.5502	.4626	.4907
7	.4785	.3682	.4505	.4541	.5064
8	.2382	.2609	.3772	.2621	.3295
9	.5667	.5860	.5954	.6968	.4762
10	.5211	.4520	.5468	.5594	.6242
11	.5629	.4891	.5980	.6350	.5596
12	.5110	.4554	.5834	.5722	.5097
13	.5802	.5048	.5761	.6625	.5868
14	.5830	.4352	.5321	.5866	.5996
15	.6906	.4471	.5689	.6013	.6816

	6	7	8	9	10
6	1.0000				
7	.5606	1.0000			
8	.4346	.5466	1.0000		
9	.4640	.3474	.1837	1.0000	
10	.5068	.5358	.3423	.4914	1.0000
11	.5573	.6025	.4805	.5508	.6032
12	.5343	.5322	.4050	.4309	.5557
13	.5045	.5212	.3682	.5299	.5600
14	.3896	.3871	.1738	.4600	.5810
15	.5070	.5075	.2847	.5291	.6741

	11	12	13	14	15
11	1.0000				
12	.6448	1.0000			
13	.6079	.5789	1.0000		
14	.5321	.5333	.5762	1.0000	
15	.6062	.5836	.5951	.7549	1.0000

Adult

	1	2	3	4	5
1	1.0000				
2	.5231	1.0000			
3	.5676	.4875	1.0000		
4	.6603	.5661	.5894	1.0000	
5	.7431	.4964	.4600	.5990	1.0000
6	.6314	.5113	.4921	.6602	.6904
7	.6725	.4830	.4152	.5854	.7083
8	.5610	.5620	.4780	.5750	.5345
9	.6087	.4398	.4618	.6833	.6609
10	.6636	.4695	.4668	.6400	.7186
11	.6513	.5119	.4934	.6661	.6472
12	.6864	.4808	.5665	.6930	.6070
13	.5974	.5883	.5664	.6843	.6222
14	.6410	.3342	.4373	.5451	.7321
15	.7245	.4827	.4942	.6544	.7870

	6	7	8	9	10
6	1.0000				
7	.6680	1.0000			
8	.5380	.5607	1.0000		
9	.7413	.6474	.4844	1.0000	
10	.7260	.6937	.5503	.6698	1.0000
11	.6467	.5946	.5178	.6600	.6764
12	.5828	.5295	.4694	.5808	.5719
13	.6200	.5910	.5668	.5515	.6602
14	.5832	.6349	.3810	.5882	.6196
15	.7485	.6522	.4955	.6985	.7402

	11	12	13	14	15
11	1.0000				
12	.6274	1.0000			
13	.6183	.5678	1.0000		
14	.5919	.6016	.5219	1.0000	
15	.7292	.6678	.6257	.6891	1.0000

Free child

	1	2	3	4	5
1	1.0000				
2	.3993	1.0000			
3	.3610	.3726	1.0000		
4	.7112	.5216	.4734	1.0000	
5	.5957	.5062	.4662	.6439	1.0000
6	.5723	.5222	.5478	.6654	.6245
7	.5091	.4607	.4724	.5984	.6274
8	.5134	.5697	.4515	.5673	.5631
9	.4853	.4736	.3243	.5443	.4705
10	.5799	.4326	.4184	.6466	.5943
11	.6303	.5778	.4799	.6890	.6292
12	.5571	.5364	.5549	.6781	.6039
13	.6538	.5435	.4867	.7375	.6295
14	.5557	.4060	.4050	.6643	.5635
15	.7327	.4078	.4403	.6953	.6417

	6	7	8	9	10
6	1.0000				
7	.6421	1.0000			
8	.5599	.5044	1.0000		
9	.3458	.3345	.4883	1.0000	
10	.6306	.5521	.5198	.4576	1.0000
11	.5972	.5601	.6176	.4929	.5927
12	.6741	.6212	.6060	.4206	.6183
13	.6414	.6172	.6209	.4930	.6094
14	.5183	.5673	.4637	.4068	.5513
15	.5541	.5756	.4607	.4155	.6280

	11	12	13	14	15
11	1.0000				
12	.6711	1.0000			
13	.6973	.6279	1.0000		
14	.6037	.5273	.6550	1.0000	
15	.6248	.5630	.6202	.6127	1.0000

Adapted child

	1	2	3	4	5
1	1.0000				
2	.4287	1.0000			
3	.4519	.3864	1.0000		
4	.5506	.4061	.3947	1.0000	
5	.4235	.2236	.3197	.5257	1.0000
6	.5139	.4453	.3629	.4794	.3512
7	.5163	.3569	.4807	.4631	.4607
8	.5343	.4223	.3415	.5830	.4066
9	.4508	.2173	.3496	.5273	.4253
10	.3529	.3437	.3725	.3947	.4190
11	.5607	.4110	.3610	.5710	.2998
12	.3307	.3175	.2685	.3747	.1353
13	.4370	.3656	.3013	.3629	.2254
14	.4890	.2577	.4879	.5129	.4619
15	.5038	.3063	.4527	.5222	.4182

	6	7	8	9	10
6	1.0000				
7	.4303	1.0000			
8	.4481	.4822	1.0000		
9	.3024	.4015	.4060	1.0000	
10	.3349	.4075	.4005	.2469	1.0000
11	.4408	.4648	.5470	.4905	.3223
12	.3814	.3808	.4004	.3341	.1826
13	.4323	.3166	.4090	.2775	.2345
14	.5675	.5768	.5422	.5247	.3804
15	.4244	.6371	.5091	.5750	.3085

	11	12	13	14	15
11	1.0000				
12	.4548	1.0000			
13	.5166	.3686	1.0000		
14	.5173	.3458	.3158	1.0000	
15	.5595	.4997	.3694	.6349	1.0000

Appendix C

Mean ego-state ratings by the 15 judges

Adjective	CP	NP	A	FC	AC
absent-minded	0.5	0.3	0.4	1.3	3.4
active	2.4	2.3	2.5	3.7	2.3
adaptable	0.1	1.8	2.4	1.1	3.3
adventurous	0.1	0.7	1.3	4.0	0.6
affected	1.8	1.4	0.3	0.7	3.6
affectionate	0.1	3.9	0.3	3.9	1.7
aggressive	3.4	0.8	0.8	3.2	2.8
alert	1.9	2.0	3.7	3.3	1.9
aloof	3.0	0.2	1.7	0.3	2.8
ambitious	2.2	1.2	1.7	2.0	3.1
anxious	1.8	0.9	0.1	0.5	4.0
apathetic	0.7	0.1	0.3	0.2	4.0
appreciative	0.3	3.2	0.9	2.1	2.4
argumentative	3.3	0.2	1.1	1.5	3.7
arrogant	3.3	0.2	0.1	0.8	3.7
artistic	0.0	0.6	1.5	4.0	0.9
assertive	2.9	1.7	2.3	3.5	1.7
attractive	0.4	1.8	1.3	3.6	1.6
autocratic	3.9	0.5	0.3	1.2	1.5
awkward	0.7	0.0	0.3	1.3	3.7
bitter	2.4	0.1	0.0	0.1	3.9
blustery	2.7	0.3	0.0	1.6	3.1

Appendix C, continued

Adjective	CP	NP	A	FC	AC
boastful	1.5	0.5	0.0	2.4	3.0
bossy	3.8	1.2	0.1	1.7	2.7
calm	0.2	2.7	3.4	0.9	0.9
capable	2.2	2.5	3.8	1.6	0.9
careless	0.6	0.1	0.0	2.5	3.5
cautious	2.3	1.7	2.1	0.7	3.4
changeable	1.3	0.9	1.5	3.5	2.1
charming	0.2	2.0	0.4	3.7	2.3
cheerful	0.0	2.3	0.4	3.5	1.5
civilized	2.4	2.4	2.7	0.7	2.9
clear-thinking	0.8	1.1	4.0	1.3	0.5
clever	0.8	0.7	2.5	3.3	2.3
coarse	2.5	0.2	0.2	1.8	2.5
cold	3.3	0.0	2.5	0.0	3.0
commonplace	1.0	1.1	1.5	0.5	2.8
complaining	3.0	0.3	0.1	1.6	3.9
complicated	1.4	0.9	2.9	1.2	2.9
conceited	2.3	0.5	0.2	1.4	3.5
confident	2.7	2.7	2.3	2.8	1.3
confused	0.6	0.2	0.3	0.5	3.7
conscientious	2.7	2.4	2.1	0.3	2.7
conservative	3.5	2.0	1.7	0.0	2.1
considerate	0.6	3.8	1.5	0.9	2.1

Appendix C, continued

Adjective	CP	NP	A	FC	AC
contented	0.1	2.4	1.2	2.5	1.2
conventional	3.4	1.9	1.6	0.2	3.0
cool	1.7	0.2	2.9	0.2	1.6
cooperative	0.6	2.5	2.7	1.1	2.5
courageous	1.4	1.7	1.3	2.9	0.9
cowardly	0.9	0.5	0.2	0.8	3.3
cruel	3.2	0.1	0.0	1.5	2.9
curious	0.0	0.7	2.8	3.6	0.6
cynical	3.3	0.0	0.1	0.1	2.7
daring	0.1	0.4	0.8	3.7	0.9
deceitful	1.3	0.1	0.1	0.7	3.5
defensive	2.3	0.4	0.1	0.5	3.7
deliberate	2.4	1.5	3.3	0.5	1.8
demanding	3.6	0.9	0.4	2.5	3.3
dependable	1.8	2.7	3.1	0.5	2.0
dependent	0.5	0.2	0.2	1.7	3.8
despondent	0.9	0.1	0.0	1.1	3.6
determined	3.1	1.9	2.1	2.5	2.1
dignified	2.5	1.5	1.6	0.1	1.8
discreet	0.7	1.2	1.9	0.1	2.1
disorderly	0.3	0.1	0.0	3.1	2.7
dissatisfied	2.9	0.7	0.5	1.8	3.0
distractible	0.4	0.3	0.5	3.3	2.6

Appendix C, continued

Adjective	CP	NP	A	FC	AC
distrustful	3.1	0.4	0.7	1.1	3.3
dominant	3.7	1.5	0.7	1.4	1.9
dreamy	0.0	0.4	0.0	3.2	2.5
dull	1.2	0.7	1.8	0.0	2.9
easy-going	0.0	2.0	1.2	2.3	1.5
effeminate	0.4	1.3	0.2	1.0	2.5
efficient	1.9	1.4	3.6	0.7	1.5
egotistical	2.5	0.5	0.3	1.7	2.6
emotional	2.1	2.2	0.1	3.7	3.1
energetic	1.3	1.3	1.4	3.8	1.5
enterprising	1.0	0.9	2.6	2.9	1.5
enthusiastic	0.5	1.4	0.7	3.9	1.7
evasive	1.5	0.4	0.1	0.8	3.6
excitable	2.0	0.9	0.2	3.8	2.7
fair-minded	1.1	2.0	3.6	0.7	0.9
fault-finding	3.9	0.5	0.4	0.7	2.7
fearful	1.2	0.6	0.2	1.8	3.8
feminine	0.6	2.0	0.8	1.9	1.9
fickle	1.1	0.1	0.0	2.3	2.5
flirtatious	0.0	0.3	0.1	3.7	2.7
foolish	0.8	0.1	0.0	1.9	3.5
forceful	3.6	1.5	1.5	2.1	1.9
foresighted	1.5	1.9	3.5	0.7	1.0

Appendix C, continued

Adjective	CP	NP	A	FC	AC
forgetful	0.8	0.3	0.1	1.8	3.3
forgiving	0.3	3.5	0.6	1.9	1.1
formal	3.0	0.9	2.0	0.0	1.9
frank	1.7	1.6	2.1	3.2	0.7
friendly	0.1	3.1	0.8	3.7	1.8
frivolous	0.0	0.3	0.0	3.2	2.5
fussy	2.7	0.6	0.1	0.9	3.3
generous	0.4	3.5	0.4	2.3	1.2
gentle	0.3	3.9	0.5	1.7	1.2
gloomy	2.2	0.3	0.0	0.6	3.4
good-looking	0.8	1.1	0.8	2.6	1.4
good-natured	0.2	3.1	0.6	2.9	1.9
greedy	1.2	0.3	0.1	2.5	3.4
handsome	0.7	1.1	0.7	2.5	1.5
hard-headed	3.4	0.5	0.9	0.9	2.5
hard-hearted	3.5	0.1	0.5	0.3	2.6
hasty	1.7	0.3	0.2	2.6	2.9
headstrong	2.3	0.3	0.5	2.5	2.7
healthy	0.6	2.1	1.6	3.3	0.9
helpful	0.7	3.5	1.6	1.4	2.0
high-strung	1.5	0.2	0.1	1.6	3.3
honest	1.2	2.0	2.9	2.4	1.0
hostile	3.3	0.1	0.1	0.8	3.1

Appendix C, continued

Adjective	CP	NP	A	FC	AC
humorous	0.3	1.1	0.7	3.8	1.6
hurried	1.9	0.2	0.1	1.0	3.7
idealistic	1.5	2.2	0.8	2.0	1.7
imaginative	0.1	0.7	1.5	3.9	0.6
immature	0.9	0.1	0.1	2.7	3.6
impatient	2.6	0.5	0.1	2.8	3.1
impulsive	1.2	0.1	0.1	3.3	2.3
independent	1.5	1.3	3.2	2.7	0.6
indifferent	1.3	0.1	1.7	1.1	2.3
individualistic	0.6	0.9	2.1	3.1	1.1
industrious	1.5	1.2	2.9	1.6	2.1
infantile	0.5	0.1	0.1	2.3	3.2
informal	0.1	1.6	0.8	2.9	1.1
ingenious	0.1	0.4	2.4	3.6	1.9
inhibited	2.3	0.6	0.5	0.3	3.9
initiative	1.4	1.6	1.9	2.8	1.1
insightful	0.4	1.0	3.1	3.1	1.1
intelligent	0.9	1.1	3.5	2.3	1.3
interests narrow	2.8	1.2	0.5	0.7	3.0
interests wide	0.3	1.1	3.1	3.3	0.7
intolerant	3.8	0.5	0.2	0.9	2.6
inventive	0.5	0.9	3.0	3.5	1.0
irresponsible	0.1	0.1	0.1	2.7	3.2

Appendix C, continued

Adjective	CP	NP	A	FC	AC
irritable	3.0	0.1	0.1	1.5	3.2
jolly	0.1	2.1	0.2	3.1	0.8
kind	0.3	3.8	0.5	1.8	1.3
lazy	0.1	0.3	0.1	1.6	2.9
leisurely	0.1	1.9	1.0	2.4	0.9
logical	0.7	0.6	4.0	0.3	0.7
loud	2.1	0.4	0.1	3.3	2.4
loyal	1.6	2.7	1.2	1.4	2.3
mannerly	1.7	1.5	1.0	0.3	3.1
masculine	1.7	0.9	0.9	1.5	1.7
mature	2.3	2.5	2.7	0.9	0.8
meek	0.1	0.3	0.0	0.3	3.4
methodical	1.5	0.8	3.8	0.1	1.5
mild	0.4	2.3	1.3	0.7	1.7
mischievous	0.1	0.1	0.1	3.5	2.6
moderate	1.1	1.7	2.1	0.4	1.7
modest	0.6	1.1	0.6	0.3	3.0
moody	1.2	0.4	0.0	1.6	3.7
nagging	3.6	1.0	0.1	0.5	2.8
natural	0.1	1.4	1.3	3.9	0.1
nervous	1.6	0.5	0.1	0.5	3.8
noisy	1.3	0.3	0.2	3.7	2.7
obliging	0.6	1.8	0.6	0.3	3.3

Appendix C, continued

Adjective	CP	NP	A	FC	AC
obnoxious	2.2	0.3	0.1	1.6	3.1
opinionated	3.9	1.1	0.3	0.8	2.1
opportunistic	1.0	0.3	1.4	2.6	2.3
optimistic	0.3	2.5	1.2	2.8	1.1
organized	1.7	1.6	3.7	0.3	1.3
original	0.2	0.7	2.1	3.7	0.5
outgoing	0.9	1.4	1.0	3.7	1.1
outspoken	2.9	1.0	1.3	3.3	1.6
painstaking	2.1	1.2	2.3	0.1	2.5
patient	0.5	3.1	2.1	0.3	1.9
peaceable	0.4	3.0	1.7	1.1	1.8
peculiar	1.2	0.3	0.1	1.4	2.7
persevering	2.7	2.2	2.2	1.2	2.1
persistent	2.4	1.9	2.2	1.9	2.7
pessimistic	2.5	0.5	0.4	0.2	3.3
planful	1.2	1.3	3.6	0.3	1.1
pleasant	0.3	3.0	1.3	2.3	1.3
pleasure-seeking	0.1	0.8	0.7	3.9	1.4
poised	1.3	1.5	2.1	0.7	1.7
polished	1.3	1.2	2.3	0.5	1.8
practical	1.7	1.3	3.5	0.3	1.0
praising	0.3	3.9	0.6	0.8	1.2
precise	1.7	0.6	3.9	0.1	1.0

Appendix C, continued

Adjective	CP	NP	A	FC	AC
prejudiced	3.8	0.9	0.1	0.4	2.3
preoccupied	1.6	1.1	0.5	0.7	2.8
progressive	0.5	1.8	2.7	1.6	0.7
prudish	3.3	0.7	0.1	0.5	3.1
quarrelsome	2.3	0.2	0.3	1.3	3.4
queer	1.0	0.2	0.0	1.0	2.5
quick	1.3	1.1	1.9	3.0	1.1
quiet	0.4	1.3	1.7	0.7	2.5
quitting	0.7	0.1	0.3	0.8	3.1
rational	0.5	0.5	4.0	0.6	0.4
rattlebrained	0.3	0.2	0.0	1.1	3.0
realistic	0.8	1.1	3.9	0.8	0.7
reasonable	0.7	1.6	3.9	0.6	0.9
rebellious	0.5	0.1	0.1	1.9	3.6
reckless	0.5	0.1	0.0	2.6	2.6
reflective	0.4	1.3	3.2	0.5	0.5
relaxed	0.2	1.9	1.4	1.9	0.7
reliable	1.7	2.5	3.2	0.6	1.4
resentful	2.1	0.1	0.1	0.5	3.6
reserved	1.1	0.8	1.7	0.3	2.4
resourceful	0.7	1.5	3.0	3.0	1.4
responsible	2.5	2.7	3.1	0.3	1.1
restless	0.7	0.2	0.1	2.4	2.7

Appendix C, continued

Adjective	CP	NP	A	FC	AC
retiring	0.3	0.8	0.3	0.1	2.1
rigid	3.9	0.8	0.4	0.1	2.9
robust	1.1	1.0	0.9	3.2	0.5
rude	2.3	0.2	0.0	2.0	2.5
sarcastic	2.7	0.2	0.0	1.2	2.8
self-centered	1.4	0.1	0.3	2.7	2.9
self-confident	1.6	1.9	2.4	2.7	1.3
self-controlled	1.9	1.5	2.3	0.5	2.4
self-denying	1.5	1.9	0.4	0.1	2.8
self-pitying	1.1	0.5	0.1	0.3	3.3
self-punishing	1.9	0.3	0.0	0.2	3.5
self-seeking	1.3	0.5	1.1	2.4	2.4
selfish	1.4	0.4	0.1	2.0	3.0
sensitive	0.7	2.8	0.9	2.3	2.3
sentimental	0.5	2.4	0.1	1.3	2.3
serious	2.7	1.3	3.3	0.5	2.7
severe	3.6	0.5	0.3	0.1	1.8
sexy	0.1	0.5	0.2	3.9	1.1
shallow	1.0	0.3	0.0	0.4	3.1
sharp-witted	1.1	0.6	2.3	3.3	1.1
shiftless	0.2	0.1	0.0	1.4	2.7
show-off	0.8	0.3	0.1	3.4	2.5
shrewd	1.1	0.4	2.1	3.1	2.1

Appendix C, continued

Adjective	CP	NP	A	FC	AC
shy	0.1	0.3	0.0	0.9	3.2
silent	0.3	0.5	0.5	0.3	2.2
simple	0.4	0.7	0.3	0.8	1.2
sincere	1.1	2.8	2.5	2.0	1.1
slipshod	0.3	0.1	0.0	1.3	2.6
slow	0.3	0.5	0.5	0.5	2.6
sly	1.0	0.0	0.3	1.9	3.0
smug	2.3	0.3	0.1	1.4	2.4
snobbish	3.0	0.3	0.0	0.5	3.0
sociable	0.6	2.0	1.4	2.7	1.9
soft-hearted	0.1	3.3	0.0	1.4	2.1
sophisticated	1.1	0.4	2.3	0.5	2.1
spendthrift	0.6	0.7	0.3	2.3	2.5
spineless	1.1	0.2	0.1	0.7	3.1
spontaneous	0.2	1.0	1.2	3.9	0.5
spunky	0.3	0.7	0.4	3.7	0.9
stable	2.1	2.3	3.5	1.0	1.2
steady	1.9	2.3	3.5	0.7	1.1
stern	3.8	0.3	0.3	0.1	1.2
stingy	2.5	0.3	0.2	0.3	3.1
stolid	2.5	1.1	0.7	0.2	1.3
strong	2.5	2.4	2.4	1.9	1.6
stubborn	2.2	0.5	0.2	1.1	3.3

Appendix C, continued

Adjective	CP	NP	A	FC	AC
submissive	0.3	0.6	0.3	0.4	3.4
suggestible	0.1	0.5	0.3	1.6	3.3
sulky	1.2	0.0	0.0	0.7	3.7
superstitious	1.3	0.6	0.0	1.7	3.3
suspicious	2.8	0.3	0.1	1.1	3.3
sympathetic	0.4	3.5	0.7	1.2	1.7
tactful	0.7	2.7	1.7	0.5	1.9
tactless	2.3	0.2	0.3	2.4	2.5
talkative	2.0	1.9	1.3	2.5	2.7
temperamental	1.4	0.4	0.0	1.7	3.3
tense	2.0	0.3	0.1	0.3	3.6
thankless	1.2	0.1	0.1	1.1	2.7
thorough	2.4	2.0	3.6	0.5	1.6
thoughtful	0.5	2.5	2.7	0.9	1.0
thrifty	2.1	1.4	1.9	0.3	1.9
timid	0.2	0.5	0.1	0.6	3.3
tolerant	0.1	3.5	1.9	0.9	1.1
touchy	2.1	0.1	0.0	0.9	3.5
tough	2.7	1.3	1.1	1.8	2.2
trusting	0.2	2.8	1.2	2.7	1.3
unaffected	0.9	0.8	1.5	2.1	1.0
unambitious	0.5	0.7	0.7	1.2	2.1
unassuming	0.3	1.1	1.7	1.9	1.7

Appendix C, continued

Adjective	CP	NP	A	FC	AC
unconventional	0.6	0.5	1.3	3.3	0.9
undependable	0.9	0.1	0.0	2.2	2.7
understanding	0.5	3.5	2.1	1.1	0.9
unemotional	0.9	0.3	3.6	0.1	1.0
unexcitable	1.1	1.2	3.5	0.0	0.9
unfriendly	2.8	0.3	0.9	0.2	2.7
uninhibited	0.5	0.7	1.3	3.9	0.4
unintelligent	1.1	0.4	0.0	0.3	1.9
unkind	3.1	0.0	0.3	0.5	2.2
unrealistic	1.9	0.9	0.0	2.2	2.7
unscrupulous	1.9	0.3	0.1	1.2	2.7
unselfish	0.6	3.5	1.1	1.3	0.9
unstable	1.3	0.1	0.0	1.9	2.4
vindictive	2.9	0.2	0.1	0.8	3.1
versatile	0.3	1.3	3.5	3.3	0.7
warm	0.4	3.8	0.6	2.9	0.9
wary	2.3	0.7	1.0	0.9	2.9
weak	0.7	0.1	0.1	0.5	2.9
whiny	0.5	0.1	0.0	1.1	3.7
wholesome	0.7	2.3	2.3	2.5	0.8
wise	1.4	2.5	3.3	1.1	0.5
withdrawn	0.5	0.1	0.1	0.7	3.3
witty	0.1	0.5	1.4	3.2	0.7
worrying	1.8	1.4	0.2	0.3	3.4
zany	0.2	0.1	0.3	3.4	1.0

Appendix D

For each ego state separately, a one-way analysis of variance was performed and the summary tables are listed. The intraclass correlation (γ_i) was computed using the formula

$$\gamma_i = \frac{MS_{\text{between}} - MS_{\text{error}}}{MS_{\text{between}}}$$

Critical parent

	SS	df	MS	F	p
Between	5195.28	299	17.38	13.47	< .01
Error	5421.47	4200	1.29		
Total	10616.75	4499			

$$\gamma_i = \frac{17.38 - 1.29}{17.38} = 0.93$$

Nurturing parent

	SS	df	MS	F	p
Between	4347.93	299	14.54	13.72	< .01
Error	4436.40	4200	1.06		
Total	8784.33	4499			

$$\gamma_i = \frac{14.54 - 1.06}{14.54} = 0.93$$

Adult

	SS	df	MS	F	p
Between	6202.08	299	20.74	19.38	< .01
Error	4503.07	4200	1.07		
Total	10705.15	4499			

$$\gamma_i = \frac{20.74 - 1.07}{20.74} = 0.95$$

Free child

	SS	df	MS	F	p
Between	6256.82	299	20.93	16.22	< .01
Error	5414.00	4200	1.29		
Total	11670.82	4499			

$$\gamma_i = \frac{20.93 - 1.29}{20.93} = 0.94$$

Adapted child

	SS	df	MS	F	p
Between	4212.69	299	14.09	9.21	< .01
Error	6419.60	4200	1.53		
Total	10632.29	4499			

$$\gamma_i = \frac{14.09 - 1.53}{14.09} = 0.89$$

The egogram of the Healthy Person according to each of the judges.

<u>Judge number</u>	<u>CP</u>	<u>NP</u>	<u>A</u>	<u>FC</u>	<u>AC</u>
1	10	30	25	30	5
2	15	22	25	23	15
3	10	20	35	25	10
4	15	20	30	25	10
5	10	30	30	10	20
6	15	20	30	20	15
7	20	20	20	20	20
8	10	10	60	18	2
9	15	15	50	10	10
10	5	15	40	30	10
11	10	25	30	25	10
12	10	20	30	30	10
13	13	25	25	25	12
14	5	30	30	30	5
15	5	20	35	30	10

Appendix F

The two egograms computed for each of the 100 subjects

Males

Subject number	Method A					Method B				
	CP	NP	A	FC	AC	CP	NP	A	FC	AC
1	14	18	14	26	27	15	24	18	24	18
2	14	21	24	21	20	14	26	30	18	12
3	13	21	20	26	21	13	27	25	22	13
4	14	25	20	21	21	14	31	25	18	13
5	14	21	25	19	21	14	26	30	16	13
6	17	21	22	19	22	17	26	26	16	14
7	15	18	18	24	25	15	24	23	21	16
8	19	18	21	17	25	19	23	26	15	17
9	14	21	19	24	22	14	26	24	21	14
10	16	21	23	20	20	16	27	28	17	13
11	16	15	14	26	28	17	21	19	24	19
12	15	21	22	23	19	15	26	27	19	12
13	18	17	16	22	27	19	23	21	20	18
14	14	17	15	25	29	16	23	19	23	20
15	15	19	22	24	20	16	24	28	20	13
16	17	17	18	23	25	18	22	23	20	17
17	14	19	15	27	26	15	25	19	24	17
18	16	18	26	20	20	16	22	32	17	13
19	17	17	18	24	23	18	23	23	21	15
20	13	21	23	22	20	13	27	28	19	13

Appendix F, continued

Males

Subject number	Method A					Method B				
	CP	NP	A	FC	AC	CP	NP	A	FC	AC
21	15	19	17	27	22	16	24	22	24	15
22	14	22	23	17	24	14	28	28	15	15
23	14	19	19	25	23	15	25	24	22	15
24	15	18	18	25	24	15	24	22	22	16
25	15	19	17	24	24	16	25	21	21	16
26	16	19	17	20	28	17	24	21	18	19
27	15	17	20	20	28	16	23	25	18	19
28	15	18	19	20	28	16	24	24	18	19
29	12	22	22	23	21	12	27	27	20	14
30	17	15	17	27	24	18	20	22	24	16
31	15	18	19	26	23	15	23	24	23	15
32	15	21	21	20	24	15	27	26	17	15
33	16	20	17	21	27	16	26	21	19	18
34	16	22	23	19	20	16	27	28	16	13
35	14	21	23	23	19	14	27	28	19	12
36	16	20	19	17	27	16	27	24	15	18
37	11	25	24	22	19	11	31	28	18	12
38	21	16	13	19	30	23	22	17	18	21
39	16	19	18	20	27	17	25	23	17	18
40	14	16	15	26	28	15	22	20	24	19
41	15	18	19	22	25	16	24	24	19	16

Appendix F, continued

Males

Subject number	Method A					Method B				
	CP	NP	A	FC	AC	CP	NP	A	FC	AC
42	14	21	25	20	20	14	27	30	17	12
43	11	20	18	28	24	11	26	22	25	16
44	17	20	19	19	25	17	26	24	17	16
45	13	19	14	21	32	14	26	19	19	22
46	16	20	21	22	21	16	25	26	19	13
47	15	18	14	25	27	16	24	18	23	18
48	13	20	18	25	24	14	26	23	22	16
49	16	11	13	26	34	18	15	18	25	24
50	18	16	18	20	28	19	22	23	18	18

Females

51	17	18	19	22	24	18	23	23	19	16
52	13	22	22	24	18	13	27	27	20	12
53	15	20	22	24	19	15	25	27	20	12
54	16	19	17	16	31	17	25	22	15	20
55	16	18	22	25	19	16	23	27	21	12
56	14	23	21	20	23	14	29	25	17	14
57	14	18	17	28	22	15	24	22	25	14
58	17	18	20	21	23	18	24	25	18	15
59	17	19	21	17	26	18	24	26	15	17
60	14	20	21	24	21	15	25	23	20	14
61	20	13	15	24	27	22	18	20	22	18

Appendix F, continued

Females

Subject number	Method A					Method B				
	CP	NP	A	FC	AC	CP	NP	A	FC	AC
62	13	21	19	23	24	13	27	24	20	16
63	14	19	20	26	21	15	25	26	23	14
64	18	17	14	23	29	19	23	18	21	19
65	13	20	18	25	24	14	26	22	22	16
66	14	19	16	27	24	14	25	20	24	16
67	14	19	19	23	25	15	25	23	20	17
68	14	20	20	22	23	15	26	25	19	15
69	18	18	20	22	22	18	23	25	19	15
70	13	23	23	21	20	13	29	27	18	12
71	14	22	19	24	21	14	28	24	21	13
72	13	24	26	17	20	13	29	31	14	12
73	13	23	22	22	20	13	29	26	18	13
74	15	21	19	19	27	15	27	24	16	17
75	15	19	19	23	24	15	25	24	20	16
76	13	20	20	24	23	14	25	25	21	15
77	11	20	13	25	31	11	28	17	23	21
78	12	21	16	24	27	12	28	20	22	18
79	14	22	21	22	21	14	27	26	19	13
80	11	23	22	23	21	12	29	27	20	14
81	21	11	10	23	35	24	16	13	22	25
82	13	21	21	24	22	13	26	26	21	14

Appendix F, continued

Females

Subject number	Method A					Method B				
	CP	NP	A	FC	AC	CP	NP	A	FC	AC
83	18	16	18	20	28	19	21	23	18	18
84	14	22	19	24	22	14	28	23	21	14
85	14	22	22	23	19	14	28	26	19	12
86	17	15	17	25	26	18	20	22	23	17
87	12	23	17	19	28	13	30	21	17	19
88	14	19	20	24	22	15	25	25	21	14
89	17	16	14	25	29	18	21	18	23	19
90	13	22	16	19	30	13	29	21	17	20
91	14	22	22	20	22	14	28	27	17	14
92	13	22	22	19	23	14	28	27	16	15
93	15	21	20	21	23	16	27	24	18	15
94	15	19	18	21	27	15	25	23	19	18
95	15	20	20	24	21	15	26	25	21	14
96	14	23	23	22	19	14	28	28	18	12
97	13	19	18	26	23	14	25	23	23	15
98	17	17	15	25	26	18	22	20	22	17
99	17	19	25	16	24	18	24	30	13	15
100	14	21	22	24	20	14	26	27	20	13