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NB/d
NO. 2743

EFFECTS OF CONTROL THEORY TRAINING UPON
SELF-CONCEPT AND LOCUS OF CONTROL AMONG
SELECTED UNIVERSITY FRESHMEN

DISSERTATION

Presented to the Graduate Council of the
North Texas State University in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

Ahmad Abdel-Majid Smadi, M.A.

Denton, Texas

August, 1987

X.O.W.

Smadi, Ahmad Abdel-Majid, Effects of Control Theory Training Upon Self-Concept and Locus of Control Among Selected University Freshmen. Doctor of Philosophy (Counselor Education), August, 1987, 96 pp. 5 tables, bibliography, 52 titles.

This study examined the effects of Control Theory training upon self-concept and locus of control among students enrolled in the Provisional Admission Program (PAP) at the University of Texas at Arlington. Twenty-nine students randomly assigned to treatment or placebo control groups took the Coopersmith Self-Esteem Inventory (CSSEI-A) and the Adult Nowicki-Strickland Internal-External Locus of Control Scale (ANSIE) as pre- and posttests. Participants in the placebo control group attended their regular educational program for the same amount of time given to the treatment group.

No significant differences were found on the Analysis of Covariance for CSSEI-A or ANSIE scores following the training period. CSSEI-A and ANSIE scores were elevated, indicating that PAP students think of themselves internally as do other college students, regardless of their SAT scores.

The results of this study indicate that Control Theory training is insignificantly effective in producing changes in

the self-concept and locus of control among PAP students. Control Theory research may need to be carried out with a smaller group size, use larger samples, provide more time to address the issues specific to PAP student needs, include a stronger counseling emphasis to meet their needs, use more sensitive instruments to detect such changes, and allow more time for the learning to occur before the administration of the posttest.

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CHAPTER I

INTRODUCTION

In the 1950s and 1960s, numerous new personality theories and approaches to therapy and therapeutic models were developed. These new theories and models arose as attempts to provide alternatives to the then prevalent psychoanalytical practices. Included among these approaches were Transactional Analysis, Gestalt Therapy and Reality Therapy (Banner, 1983). Reality Therapy began when Glasser became dissatisfied with psychoanalytic psychiatry as taught at the Veterans Administration Brentwood Hospital at the University of California in Los Angeles. In 1965, Glasser first introduced some of the basic concepts underlying the Reality Therapy model with the publication of his book entitled Reality Therapy: A New Approach to Psychiatry. In this book, Glasser perceives that individuals are striving to satisfy two basic needs: (a) the need for love and to be loved, and (b) the need to feel worthwhile to themselves and others. If the individual were successful in responsibly satisfying these needs, then that individual was said to have developed a success identity. On the other hand, if the individual failed to satisfy these needs or satisfied them

irresponsibly, then that individual was said to have a failure identity. Responsibility was defined as the individual's ability to satisfy his or her several needs without interfering with the ability of others to satisfy theirs (Glasser, 1985).

Also, in this book, Glasser views therapy as a sort of corrective recapitulation of the original parenting process. The therapist does now what the parents should have done in the past. The principles of Reality Therapy serve as a guide to the process and as a catalogue of procedures (Glasser, 1965).

In 1969, with the publication of his book, Schools Without Failure, Glasser extended his Reality Therapy principles to the classroom in which the teacher attempted to follow these principles in conducting teaching-counseling sessions for teaching discipline to disruptive students, based on Reality Therapy.

An important step in the development of Reality Therapy was the establishment of the Institute of Reality Therapy in 1968. There counselors and teachers could receive training and become certified in the principles of Reality Therapy as a counseling approach or teaching method (Glasser, 1984).

After a few years of successful application of Reality Therapy, Glasser and others felt a need to explain the nature of life in a more conceptual framework, since Reality Therapy had been accepted by practitioners in the fields of

education, correction, mental health, and drug and substance abuse, but had only been considered as a psychotherapeutic technique by a large sector of the academic community. This limited acceptance prompted Glasser to look at the structure of the human brain to explore the possibility of developing a more sophisticated theoretical base for his approach. During this search, he discovered William Powers' book entitled Behavior: The Control of Perception (1973). Glasser found that the basic concept of this book provided a base on which to build his theoretical framework, which is elaborated in detail in his 1981 book, Station of the Mind: New Directions for Reality Therapy, and his 1986 work, Control Theory in the Classroom. Also, Glasser developed a manual that illustrates the principles of this theory in detail and provides a flow chart as an aid to visualize the process of the individual behaving as a control system through the brain (Glasser, 1986b) (Appendix B).

In 1982, Glasser began teaching Control Theory to the general public (Glasser, 1984). He firmly believes that "this is a true mental hygiene approach and that people who learn the Control Theory will be able to take more effective control of their lives through this knowledge. In doing this, people will be able to prevent many of the problems which eventually lead them to therapy." He also believes that "the only way competing living control systems (i.e., our brain) can get along with each other is through

compromise and negotiation. Failure to learn how we are constructed can now be fatal" (Glasser, 1984, p. 328).

To teach people Control Theory, Glasser developed his Control Theory Manual, along with his flow chart, which has been revised many times. The 1986 edition is the latest version (see Appendix B). The manual and the flow chart are used primarily by reality therapists in teaching the principles of Control Theory to their clients, so that they can understand themselves, be able to think more rationally, adopt an internal locus of control orientation, become responsible for their choices of behaviors, and to take effective control of their lives (Glasser, 1981, 1984, 1985, 1986a, 1986b). Also, Crawford (1985) developed a manual to be used by teachers in teaching the principles of Control Theory to children between the ages of 6 and 9 years.

A survey of the literature reveals no systematic quantitative research on the effectiveness of this technique. Therefore, the following investigation addresses this issue within the context of a truly experimental design.

Statement of the Problem

This study investigates the effects of Control Theory training upon self-concept and locus of control among university freshmen who were enrolled in the Provisional Admission Program (PAP) at the University of Texas at Arlington for the summer I, 1987 semester.

Purpose of the Study

Because the Control Theory training technique was developed by Glasser and applied by reality therapists to help individuals (a) understand themselves, (b) develop more rational thinking, (c) adopt internal locus of control orientation, and (d) take effective control of their lives, this study provides an additional step toward establishing the validity and reliability of this technique. This study investigates whether these changes will take place and how consistent they will be for the participants of the Provisional Admission Program at the University of Texas at Arlington during the Summer I, 1987 semester.

Significance of the Study

A survey of the literature concerning the history and development of Reality Therapy since its adoption of Control Theory with the publication of the book Station of the Mind: New Directions for Reality Therapy (Glasser, 1981) reveals no systematic empirical studies that examined the effectiveness of such training in this theory, generally, nor with students enrolled in the Provisional Admissions Program (PAP) at the University of Texas at Arlington, specifically. The following investigation represents an early step and a pilot study toward the establishment of the validity and reliability of such techniques.

Hypotheses of the Study

In order to investigate the problem of this study, the following hypotheses are formulated.

H₁: At the end of the experiment period, the treatment group will exhibit a significantly higher positive self-concept adjusted mean score on the Coopersmith Self-Esteem Inventory-Adult Form (CSSEI-A) than will the control group.

H₂: At the end of the experiment period, the treatment group will exhibit a significantly lower locus of control adjusted mean score on the Adult Nowicki-Strickland Internal-External Locus of Control Scale (ANSIE) than will the control group.

Synthesis of Related Literature

The birth of Reality Therapy has generated several research studies in which investigators attempted to examine its effect with various age groups, various settings, and various types of problems. The results of these studies give inconclusive evidence regarding the effects of Reality Therapy wherever applied. Since its adoption of Control Theory, Reality Therapy has generated a few research efforts, which are examined in detail. This body of research is reviewed under separate headings because it relates to the application of Reality Therapy. These are: (a) the counseling approach and (b) the classroom management technique.

Reality Therapy as a Counseling Approach

The outcome studies in which researchers attempted to examine the effectiveness of Reality Therapy as a counseling approach provide mixed and inconclusive evidence. Some of these studies are supportive of the effectiveness of such an approach (Bratter, 1973; Glasser, 1965; Heuchert, Pearl, & Hart-Hesters, 1986). In these studies, the reporters used the old version of Reality Therapy with single case studies accumulated over the years. The shortcomings of adopting this methodology are many and are well known to investigators in the fields of education and psychology (Borg & Gall, 1983; Campbell & Stanley, 1966). Also, using single case studies, proponents of Reality Therapy claimed to be successful and effective in (a) treating schizophrenics (Nelson, 1974), (b) family therapy (Ford, 1982, 1983), (c) residence hall management (Knudson, 1982), (d) career counseling (Hanna, 1984), (e) treating chemically dependent persons (Evans, 1984; Mrazek, 1983; Reuss, 1983, 1985), (f) residential treatment centers (Molstade, 1981), and (g) correctional institutions (Williams, 1976).

Burkley (1975) conducted a more sophisticated study to evaluate the effectiveness of Reality Therapy in the counseling of five black males and five black females from the junior and senior levels of high school. The counseling sessions were conducted by two male reality therapists, for eight weeks, one hour each week. After each counseling

session, the counselor and the clients completed self-report questionnaires. In addition, the sessions were audiotaped and analyzed by using Berelson's Method of Content Analysis. The results of this study indicate no significant difference exists between pre- and postmeasures. In this study, the investigator failed to control variables such as (a) to what degree Reality Therapy was implemented, (b) external variables, (c) and the nature of measurement instruments being used.

The old version of Reality Therapy has also been applied to group counseling sessions. Several research studies were conducted to examine its effects upon several variables, in several settings, and with several age groups. The results of these studies provide inconclusive results regarding the validity of Reality Therapy by its old version. Some studies were supportive of the approach as a group counseling model (German, 1975; Martig, 1979; Rosario, 1977; Shea, 1974). A review of these studies reveals that the researchers vary in their methods of investigating the effects of Reality Therapy on the dependent variables being used in these studies. Some of these studies were well designed, such as the Shea study (1974), and others are less valid because of the lack of truly experimental designs in which the placebo effect can be controlled. Also, researchers of these studies failed to control the extent of applying the principles of Reality Therapy.

The current version of Reality Therapy, with its adoption of Control Theory, has been applied to group counseling through empirical investigation. Thatcher (1983) examined the effect of training in Reality Therapy in terms of self-concept and locus of control upon juvenile delinquents and staff working with those delinquents. The study involved the nonequivalent control group design in three community group homes which were under the administration of a parent organization in western Pennsylvania. Pretreatment measurement of the youths involved the use of the Piers-Harris Children's Self-Concept Scale and the Children Nowicki-Strickland Internal External Locus of Control. Training in the concept and practice of Reality Therapy was given to the youth and staff in one group home. The same training was given to the staff only in the second group home, and no intervention was provided in the third group home. After the end of the training period, each youth determined a plan of action to practice during an eight-week period when no directions were given by the researcher. Posttests were given at the end of the eight weeks.

The results of this study reveal significant differences in favor of those who received training in Reality Therapy concepts in terms of their self-concept and internal locus of control orientation and in their ability to effectively control their own lives. In reviewing the body of the study and its methodology, one must suspect the internal validity

and reliability due to the lack of controlling variables, such as (a) the comparability of the groups, (b) the use of therapists as a variable, and (c) the degree of application of Reality Therapy and its Control Theory.

The importance of Thatcher's study is that it stands as the first systematic experimental study being conducted on the effectiveness of Reality Therapy since its adoption of Control Theory. Also, other research studies, conducted on the effectiveness of Reality Therapy by its old version, failed to support the approach using several measures, several types of clients, several settings, and several age groups (Bakoske, 1977; Shearon, 1976). In these studies, researchers failed to control therapist variable, interaction effects, and the extent of applying Reality Therapy.

Since the adoption of Control Theory, reality therapists have attempted systematically to evaluate the effectiveness of two therapies, Reality Therapy and Photo-Reminiscence Therapy, for a geriatric population in terms of self-esteem (Cooper, 1983). The subjects of Cooper's (1983) study were 39 volunteers, ranging in age from 65 to 91, who lived in an apartment building for senior citizens and met criteria of hearing, speaking, physical setting, and willingness to join the group activities. Pretest-posttest comparison using the Tennessee Self-Concept Scale was used to assess changes in the participants' self-concepts. Subjects of the study were randomly assigned to the Reality Therapy group, the Photo-

Reminiscence group, and the no-treatment control group. All groups met for 12 sessions.

The results of the study indicate no significant difference among groups. Conclusions of the study attribute the failure of the study in supporting Reality Therapy to the stability of the age group self-concepts.

Yarish (1986) examined the effectiveness of Reality Therapy upon the sense of responsibility of 60 juveniles who had been adjudicated as delinquents. The study used the Children Nowicki-Strickland Locus of Control Scale to measure the dependent variables. Subjects of the study were divided into four groups in different areas. All group members took the pretest, entered group Reality Therapy at the same time for 47 sessions, and took the posttest, using the same instrument. The results of this investigation indicate significant improvement of the participants in terms of their loci of control. In this study, the amount of Reality Therapy was controlled by measuring the groups' leaders as they applied the principles of Control Theory. There was no significant difference between groups based on the application of Control Theory principles. In that study, there was no control group used for comparison; this leaves the potential for the placebo effect to take place.

Reality Therapy in the Classroom

Glasser's attempts to adopt Reality Therapy through his book Schools Without Failure in 1969 promoted several Reality

Therapy-based programs, which were tested through several research studies. Some of those studies tested the effectiveness of the old version of Reality Therapy based programs upon several variables, such as self-concept, classroom behavior, and achievement (Gary, 1975; Hawes, 1971; Mink & Watts, 1973) and its effectiveness upon the students' attitudes toward school and achievement (Browning, 1979). The populations of these studies varied along with the educational age groups. The results of these studies support the old version of Reality Therapy principles, but all of these studies share a common problem in that they fail to control the placebo effect.

Since its adoption of Control Theory, Reality Therapy has been tested through several research studies. Omizo and Cubberly (1983) examined the effects of Reality Therapy classroom meetings on self-concept and locus of control orientation of learning disabled children. Sixty learning disabled children from four classrooms were randomly assigned to experimental and control conditions. Experimental group teachers were trained in the classroom management techniques by certified reality therapists. The treatments were conducted twice a week for 30 to 45 minutes for a period of time which lasted for 11 consecutive weeks. Pre-post tests on the Piers-Harris Children's Self-Concept and the Children Nowicki-Strickland Internal-External Locus of Control Scale were used. Analysis of data revealed that learning disabled

children in the treatment group improved significantly over those in the control group. This result supports the effectiveness of Reality Therapy-based classroom management techniques. The researcher failed to control the placebo effect in this study.

Slowik, Omizo, and Hammet (1984) conducted a study to examine the effects of the Reality Therapy process by its current version on the locus of control and self-concept among Mexican-American adolescents. The researchers selected two junior high schools in which to implement their study. Four classrooms, with two classes from each school, one seventh grade reading class and one ninth grade English class were selected. Each of the four classes had 15 to 20 students, with a total of 80 students participating in the study. The two experimental groups were taught by specially trained teachers who received eight hours of training in Reality Therapy classroom management techniques. Pre-post testing was administered, using the Children Nowicki-Strickland Internal-External Locus of Control Scale and the Dimensions of Self-Concept, Form S. The treatment was executed twice a week, for 30 to 45 minutes each session for 11 consecutive weeks. Results of the study support Reality Therapy techniques in the classroom because the experimental groups showed significant improvement on the measured variables.

In spite of the sophistication of the study, the researchers failed to control the placebo effect, and the measurements used in this study were standardized on non-Mexican-American groups. Therefore, the validity of the study as well as its reliability are questionable and, accordingly, the study results are suspect.

Other research studies which did not support the effectiveness of Reality Therapy-based classroom management techniques were conducted in school settings with various age groups, using several dependent variables. The techniques being developed through these studies were based on the old version of Reality Therapy. The variables on which these techniques failed to demonstrate change include (a) personality, reading, and classroom behavior (Matthews, 1973); (b) creative thinking and behaviors (Laspina, 1976); (c) locus of control (Watts, 1977); (d) self-concept and on-off task behaviors (Shearn & Randolph, 1978); and (e) teacher effective behavior, student on-task behavior, percentage of discipline and the students' absences (Welchy & Dully, 1980).

A review of these research studies reveals that the researchers failed to control the extent of adopting Reality Therapy to the classroom and that the teacher training period was too short. Therefore, the generalizability of such results is suspect.

Summary

With the birth of Reality Therapy, several research studies were conducted to examine its effectiveness with several age groups, several settings, and several types of problems, both inside and outside the school setting. The results of these studies give inconclusive results regarding the successfulness of Reality Therapy in producing what it was developed to produce. Most of the studies cited in the present review of literature were conducted to examine the old version of Reality Therapy. Since the adoption of Control Theory into Reality Therapy, few studies have been conducted, and these studies lack control of the placebo and the therapist effect. Also, teaching Control Theory principles to help students, clients, and teachers to understand themselves, to think rationally, and to adopt internal locus of control orientation so they can feel more responsible has not been examined with provisionally admitted university freshmen. Therefore, it is necessary to examine the effects of Control Theory training as an independent variable, while controlling all other variables. The obvious lack of this research methodology in previous studies gives the present study its strength and uniqueness.

Definition of Terms

Control Theory Training

This refers to the process in which the participants were trained to understand and apply the principles of

Control Theory as outlined in Appendix B. The process of training encompasses four 75-minute class periods involving teaching, discussion, and exercises. These activities are detailed in Appendix C.

Self-Concept (Self-Esteem)

This is a set of attitudes and beliefs that a person brings with him- or herself when facing the world. It includes beliefs as to whether or not he or she can expect success or failure, how much effort should be put forth, whether failure at a task will "hurt," and whether he or she will become more capable as a result of different experiences. In psychological terms, self-esteem provides a mental set which prepares the person to respond according to expectations of success, acceptance, and personal strength (Coopersmith, 1981). In this study, self-concept refers to the student's score on the Coopersmith Self-Esteem Inventory for Adults (CSSEI-A) (see Appendix E).

Locus of Control

Rotter (1966) defined locus of control of reinforcement as the perception of a connection between one's actions and their consequences.

When a reinforcement is perceived by a subject as following some action of his own but not being entirely contingent upon his action, then, in our culture, it is typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the greater complexity of the forces surrounding him. When the event is interpreted in this way by an individual, we have labeled this a belief in external control. If the person perceives that the

event is contingent upon his own behavior or his own relatively permanent characteristics, we have termed this a belief in internal control (p. 1).

In this study, the term locus of control refers to the student's score on the Adult Nowicki-Strickland Internal External Locus of Control scale (ANSIE) (Nowicki & Duke, 1974) (see Appendix F).

Provisionally Admitted Students

This refers to the students who were enrolled in the Provisional Admission Program (PAP) at the University of Texas at Arlington (UTA) for the Summer I, 1987 semester. The PAP is designed for students who fail to meet the minimum admission requirements as stated by UTA policy, such as a minimum score of 700 on the Scholastic Aptitude Test (SAT). These students have obtained their high-school diploma but failed to present an SAT score of 700 or higher. In this program, the students are allowed to register for eight credit hours in their first semester of enrollment, with two hours of college adjustment courses in which the students must attend for a special counseling program tailored to their tutoring needs and related college issues. If the students pass the first semester and are recommended by the director of the counseling program, they can be registered as fully admitted students.

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CHAPTER II

METHOD

This chapter describes the subjects, design, experimental procedure, and instruments utilized in this study.

Subjects

The subjects of this study were 29 students (12 male, 17 female), with an average age of 17.93 years and age range from 17 years to 21 years. All subjects were enrolled in the Provisional Admission Program (PAP) at the University of Texas at Arlington (UTA) for the Summer I, 1987, semester. The program participants are from the Dallas/Ft. Worth metroplex area. The demographic characteristics of the metroplex, in general, are assumed to be represented in the PAP program.

Subjects of the study were randomly assigned to the experiment groups, with 15 subjects participating in the treatment group (T₁) and 14 subjects participating in the placebo control group (T₂). The sex variable was controlled through randomly assigning the subjects into the experimental groups with an equal ratio between males and females.

Counselors

A certified Reality Therapy supervisor with a master's degree who had counseled with college students for eight years handled the treatment group (T₁). Another counselor, in training for certification to practice Reality Therapy with a masters degree in psychology, working toward a doctorate in counseling and having over 1,000 hours in practicum and internship counseling experience, handled the placebo control group (T₂).

Design

The pre-posttest control group design was used in this study. This design is based on true randomization to control for any possible source of contamination. Because of general mistrust of randomization, a pretest was used in this study. This design is one of the three true experimental designs listed by Campbell and Stanley (1966) and is regarded as having the most stringent controls. In this design, two groups were formulated.

Treatment group (T₁)

This group consisted of 15 subjects who received training in control theory based on the manual developed by Glasser (1986b). (See Appendix B). The students were exposed to the material through teaching, discussion, and exercises as outlined in Appendix C. Each student was given

a copy of a flow chart developed for this purpose by Glasser (1986b) (see Appendix B) and a copy of the worksheets in Appendix C.

Placebo Control Group (T₂)

This group consisted of 14 subjects who participated in the PAP program and attended their regular classes as outlined in Appendix D. Students in this group studied their regularly used textbooks during the treatment period.

Instrumentation

The following instruments were used to measure the dependent variables before and after the treatment.

The Coopersmith Self-Esteem Inventory (Adult Form)

The Coopersmith Self-Esteem Inventory (Adult Form) (CSSEI-A) was developed by Stanley Coopersmith (1981). The adult form is an adaptation of the school short form for individuals over 15 years of age. It is a self-report questionnaire, with 25 items. The questionnaire presents respondents with generally favorable or generally unfavorable statements about the self, which they indicate as "like me" or "unlike me" (see Appendix F).

This instrument provides a total score as a measure of the self-esteem concept; a higher score represents a higher self-esteem. The total score correlation of the School Form with the Adult Form exceeds .80 for three samples of high school and college students ($n = 647$) (Coopersmith, 1981).

Data were gathered from 103 college students. The analysis of this data suggested that the instrument has a reliability coefficient of .80 for males and .82 for females, using test-retest over a five-week period (Bedian, Geagud, & Zmud, 1977).

Spatz and Johnston (1973) administered the CSSEI-A to over 600 students in grades 5, 9, and 12 in a rural school district. From each grade, 100 inventories were selected and Kuder-Richardson reliability estimates (KR-20s) were calculated. Obtained coefficients are .81 for grade 5, .86 for grade 9, and .80 for grade 12. The coefficients indicate adequate internal consistency for students in all three grades.

Kimball (1973) administered the CSSEI-A to approximately 7,600 public school children in grades 4 through 8. The sample included students of all socioeconomic ranges and black and Spanish-surnamed students. KR-20s were gathered for each grade level. Obtained coefficients range from .87 to .92.

This instrument also proved to have construct validity (Kokenes, 1978), concurrent validity (Simon & Simon, 1975), productive validity (Donaldson, 1974), and multitrait-multimethod validity through comparison of the CSSEI-A to three self-report measures of self-concepts (Bledsoe Self-Concept Scale, Piers-Harris Children's Self-Concept Scale, and Purdue Self-Concept Scale) and to one behavior

observational rating of self-esteem (The Behavior Rating Form). Grade 4 classes were selected randomly ($n = 175$ students, ages 8 to 11). The multitrait-multimethod technique developed by Campbell and Fisk and factor analysis were used to analyze the scores. While the requirement for convergent validity was met by the significant correlations among the self-report instruments, the authors found no significant correlations between any of the self-report instruments and the behavior observational rating (Cowan, Altmann, & Pysh, 1978).

Johnson, Redfield, Miller, and Simpson (1983) examined the CSSEI-A using a modified version of the Sabers and Whitney model for construct validity. The CSSEI-A, Piers-Harris Children's Self-Concept Scale (CSCS), and Children's Social Desirability Scale (CSDS) were administered to 55 males and 50 females enrolled in six fifth-grade classes. Each student also received the Coopersmith Behavioral Academic Assessment Scale (CSBAA). Regression analyses indicated that the CSSEI-A (a) has convergent validity with regard to the CSCS ($p < .05$) and the CSBAA ($p < .05$), (b) has discriminant validity with regard to the CSDS ($p > .05$), (c) is sensitive to differences in achievement level ($p < .01$), and (d) is internally consistent (coefficient $\alpha = .86$). Intrarater agreement is .86.

Robertson and Miller (1986) examined the factorial validity of the CSSEI-A, using 1,397 middle school students

in grades 6 through 8. A comparison of the established subscales and empirically derived factors indicated substantial validity for the original subscales, with the factors emerging from the 8-factor solution. The school curriculum, home-parent/social peer, and lie scales (which are closely related empirically) appear to measure distinguishable features of self-concept.

Peterson and Austin (1985) stated that

the Coopersmith Inventories have much to recommend them as measures of self-esteem. They are among the best known and most widely used of the various self-esteem measures. They are brief and easily scored, they are reliable and stable, and there exists an impressive amount of information bearing on their construct validity (p. 369).

Adult Nowicki-Strickland Internal-External Locus of Control Scale (ANSIE)

The Adult Nowicki-Strickland Internal-External Locus of Control Scale (ANSIE) was developed by Stephen Nowicki and Marshall P. Duke (1974). The instrument has 40 items which are written so that the test can be taken by persons with a fifth-grade reading level and are answered either as "yes" or "no". The scale is keyed such that the higher the score, the more external the locus of control (see Appendix F). Data were gathered from 766 subjects in 12 separate studies. The analysis of this data suggested that the scale is psychometrically sound (split-half reliability ranging from

0.74 to 0.86, $n = 158$; test-retest reliability over a 6-week period, $r = 0.83$, $n = 485$) (Nowicki & Duke, 1974).

Further analysis of data supported the discriminative validity of the scale in that scores were not related to social desirability scores or intelligence test scores. Support for the construct validity of ANSIE comes from significant correlations between the scale and Rotters scale, ($r = 0.68$, $df = 47$, $p < .01$). Significant correlation with the Eysenck Neuroticism scale (males, $r = 0.36$, $df = 35$, $p < .05$) and significant difference found among hospitalized schizophrenics ($\bar{X} = 16.30$), hospitalized nonpsychotics ($\bar{X} = 11.95$), and staff workers ($\bar{X} = 9.20$) (Nowicki & Duke, 1974).

Experimental Procedures

Initial approval for conducting the experiment at the University of Texas at Arlington was given by the director of the PAP program in accordance with established research policy at UTA. The dates of the experiment and subsequent testing were established in consultation with the PAP director and the advisor to doctoral interns. The researcher's primary requirement was that four class periods of 75 minutes each be spent in pretesting, teaching students the principles of control theory, posttesting. Arrangements were made to coordinate the daily treatments in similar rooms under the same conditions for the experiment groups.

Participants of the experiment groups met together in one room for the first class period. They were told that they were participating in a research project which required dividing them into two groups in which they would receive different kinds of treatment designed to help them improve their academic performance. Their full consent was obtained, and the pretest (which lasted 20 minutes) was administered. Participants of the experiment were then told that during the next two weeks, they may discuss what they had learned from their classes with members of their own group but not with members of the other group. They were also informed that their results are confidential and will be used for research purposes only. Then, the participants were separated into two pre-arranged groups. The treatment group (T_1) received training in control theory as outlined in Appendices B and C. The placebo control group (T_2) received training as outlined in Appendix D.

After the experiment period was over, the students were put together in one room, and posttests were administered. Two subjects from each group missed the scheduled posttest date; however, they took the posttest the following week on an individual basis.

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CHAPTER III

RESULTS AND DISCUSSION

This chapter includes the findings of this investigation, discussion of related findings, and recommendations based upon the findings.

Analysis of Data

Hypotheses of the study were tested using the Analysis of Covariance (ANCOVA), with the pretests as the covariants. The level of significance for hypotheses was set at .05, and the statistical analysis was completed using the SPSSx User's Guide (SPSS Inc., 1986). The Multivariate Analysis of Variance (MANOVA) was also used to test the homogeneity of the slopes which had to be satisfied in order to use the ANCOVA (Ferguson, 1981; Kirk, 1968).

Hypotheses

Hypothesis 1 states that participants in the experimental group would have significantly higher adjusted posttest mean score on the Coopersmith Self-Esteem Inventory (Adult Form) (1981) following treatment than would participants in the placebo control group. In Table I, the pretest and posttest means, standard deviations, and adjusted means for the treatment and control groups are presented.

TABLE I
MEANS AND STANDARD DEVIATIONS FOR THE SCORES ON THE
COOPERSMITH SELF-ESTEEM INVENTORY (ADULT FORM)

Measurement	Treatment Group $\underline{n} = 15$	Control Group $\underline{n} = 14$
Pretest		
Mean	72.80	72.29
Standard Deviation	14.28	17.36
Posttest		
Mean	77.07	72.86
Standard Deviation	13.81	19.67
Adjusted Mean	76.83	73.10

The MANOVA procedure to test the assumption of homogeneity of the slopes was satisfied; therefore, the Analysis of Covariance was used to test the significance of group differences. The results of the ANCOVA are reported in Table II.

TABLE II
ANALYSIS OF COVARIANCE FOR THE SCORES ON THE COOPERSMITH
SELF-ESTEEM INVENTORY (ADULT FORM)

Source of Variation	Sum of Squares	\underline{df}	Mean Square	\underline{f}	\underline{p}
Within	1863.56	26	71.68		
Regression	5837.08	1	5837.08	81.44	.000
Constant	71.53	1	71.53	1.00	.337
Group	100.83	1	100.83	1.41	.246

The data indicate that the difference in the adjusted group means is not significant at the .05 level; therefore, Hypothesis 1 is not supported. The treatment group does not have a significantly higher adjusted posttest score on the Coopersmith Self-Esteem Inventory (Adult Form) following treatment.

Hypothesis 2 states that participants in the treatment group would have a significantly lower adjusted posttest score on the Adult Nowicki-Strickland Internal-External Locus of Control following treatment than would participants in the control group. In Table III, the pretest and posttest means, standard deviations, and the adjusted posttest mean for both groups on the ANSIE are presented.

TABLE III
MEANS AND STANDARD DEVIATIONS FOR
THE SCORES ON THE ANSIE

Measurements	Treatment Group $n = 15$	Control Group $n = 14$
Pretest		
Mean	9.00	10.43
Standard Deviation	4.18	6.78
Posttest		
Mean	7.33	10.07
Standard Deviation	4.42	6.45
Adjusted Mean	7.92	9.44

The MANOVA procedure indicates that the assumptions for homogeneity of the slopes was satisfied; therefore, an analysis of covariance was done to test the hypothesis. The results are reported in Table IV.

TABLE IV
ANALYSIS OF COVARIANCE FOR THE
SCORES ON THE ANSIE

Source of Variation	Sum of Squares	<u>df</u>	Mean Square	<u>f</u>	<u>p</u>
Within	195.47	26	7.52		
Regression	618.79	1	618.79	82.304	.000
Constant	.94	1	.94	.125	.726
Group	16.29	1	16.29	2.167	.153

The .05 level of significance set was not met; therefore, Hypothesis 2 is not supported. The treatment group does not have a significantly lower adjusted posttest score on the ANSIE following treatment.

Demographic Information

Fifteen subjects in the treatment group and 14 subjects in the control group completed the pretest and posttest. Because the subjects were randomly assigned to the groups using the pretest as covariance with the posttest, no attempts were made to match the groups on measures other than the sex variable.

The mean age of the PAP students in the experimental group was 18.07, with a range of 17 years to 21 years. The mean age of the PAP students in the control group was 17.79, with a range of 17 years to 19 years. A t-test was done to compare the ages of the students in the groups, and no significant difference was found.

Z-tests were used to compare this sample of PAP student pretest mean scores with established norms of the Coopersmith Self-Esteem Inventories on a college population (n = 400), which are included in the CSSEI-A Manual (Coopersmith, 1981). Z-tests were also used in comparison with established norms of ANSIE for college students (n = 154) included in the ANSIE manual (Nowicki & Duke, 1974). The mean pretest scores were used in this comparison by converting them to Z-test scores in order to make comparisons. Means, standard deviations and Z-test scores for the norm population and for this sample are reported in Table V.

TABLE V
MEANS, STANDARD DEVIATIONS, AND Z-TEST SCORES
FOR THE CSSEI-A AND THE ANSIE

Instrument	<u>PAP Students</u>			<u>College Population</u>			
	Mean	<u>SD</u>	<u>n</u>	Mean	<u>SD</u>	<u>n</u>	<u>Z</u>
<u>CSSCI-A</u>	72.55	15.56	29	61.20	18.60	400	.61
<u>ANSIE</u>	9.69	5.53	29	9.06	3.89	154	.16

The PAP students in this study have a mean score of 72.55 on the CSSEI-A. The mean score of the norm sample is 61.20. The Z-test score of the PAP students in this study is .61, indicating that the score on the CSSEI-A was less than one standard deviation higher than the mean score of the norm sample, which means that they are not significantly different from the general college population.

The PAP students in this study have a mean score of 9.69 on the ANSIE. The mean score of the norm sample is 9.06. The Z-test score of the PAP students in this study is .16, indicating that the score on the ANSIE is almost the same as the mean score of the norm sample.

Summary

This study was an early attempt to use Control Theory training techniques in empirical research. It was the first to study the effectiveness of using Control Theory training to improve the self-concept and internal locus of control of the Provisional Admission Program (PAP) students at the University of Texas at Arlington (UTA).

Twenty-nine subjects (12 male, 17 female) participated in this study. They were randomly assigned into the experimental group ($n = 15$), and control group ($n = 14$). The training period lasted for four class periods of 75 minutes duration each. Participants were pretested using the Coopersmith Self-Esteem Inventory (Adult Form) (CSSEI-A) as a measure of self-concept, and the Adult Nowicki-Strickland

Internal-External Locus of Control (ANSIE) as a measure of locus of control. The participants were then divided into two groups conducted by trained reality therapists. One group, the treatment group (T₁), received training in the principles of Control Theory as outlined in Appendix C. This training method included teaching, discussion, and assimilation exercises as outlined in Appendix C. The second group, the placebo control group (T₂), attended regular classes handled by a trained reality therapist. The content of the training is outlined in Appendix D. The method of training included teaching, discussion, and assimilation exercises. When the training period for the treatment group (T₁) was over, participants of the study were reassembled, and the posttest was conducted using the same instruments under the same conditions. Results of this study were analyzed using the SPSSx User's Guide (SPSS Inc., 1986).

Discussion

Results of this study fail to support Hypotheses 1 and 2 because training in Control Theory had an insignificant effect in increasing the participants' self-concept scores on the Coopersmith Self-Esteem Inventory (Adult Form) or in decreasing their external locus of control as measured by the Adult Nowicki-Strickland Internal-External Locus of Control. The results of this study are consistent with previous research efforts conducted with different populations,

different settings, different problems and having a longer period of training (Cooper, 1983).

Also, the results of this study confirm the outcome of other studies which examined the old version of Reality Therapy upon (a) personality, reading, and classroom behavior (Matthews, 1973); (b) creative thinking and classroom behaviors (Laspina, 1976); (c) locus of control (Watts, 1977); (d) self-concept and on-off task behaviors (Shearn & Randolph, 1978); and (e) teacher effective behavior, student on-task behavior, percentage of discipline, and the student's absences (Welchy & Dully, 1980).

While other studies which used the current version of Control Theory demonstrated its effectiveness (Thatcher, 1983), the outcome of this study contradicts these conclusions. The results of Thatcher's (1983) study reveal significant differences in favor of those who received training in Reality Therapy in terms of self-concept and internal locus of control orientation and in the subjects' ability to effectively control their own lives. Thatcher's (1983) study held the training for an eight week period with 45 minutes each session. His training produced significant results. The current study held the training for a period of time less than Thatcher's study. Therefore, the current study outcome contradicts that of Thatcher (1983).

Outcomes of Yarish's (1986) study contradict the current investigation results because of major differences related to

the amount of training being held in the Yarish study and because the current study's control of the placebo effect which Yarish failed to control.

While the current investigation examined effects of Control Theory training in the classroom upon measures such as self-concept and locus of control of PAP students, other studies have examined effects of Reality Therapy in the classroom upon several measures with different populations (Omizo & Cubberly, 1983). Those outcomes contradict the results of the current study for three main reasons.

1. The Omizo and Cubberly (1983) study held the training twice a week for an 11-week period.

2. The researchers failed to control for the placebo effect in the 1983 study.

3. The emphasis of the 1983 study was on the participants' issues rather than teaching the principles of Control Theory.

Results of the study conducted by Slowik, Omizo, and Hammett (1984) supported the effectiveness of Reality Therapy techniques in the classroom. Those results contradict the results of the current investigation for several reasons related to a major difference between the Slowik et al. (1984) study and the current investigation. These reasons are as follows: (a) differences related to the training time duration; (b) nature of the material being taught; and (c) control of the placebo effect.

While this investigation of the effects of Control Theory training upon self-concept and locus of control among PAP students seems to be an early attempt, the outcome of this attempt fail to support the study hypotheses. Several factors are believed to be responsible and account for such results.

Nature of Dependent Variables

Self-concept and locus of control are considered to be life-long experiences which take time and effort for any changes in their nature (Hali & Reunion, 1983; Yarish, 1983). Efforts such as the current study which attempted to produce changes in these concepts within a short-time training seem to be unsuccessful, especially when the posttests are administered immediately after the training. It is the researcher's belief that if the posttests were administered after a period of at least three months, significant differences could result.

Test Sensitivity

Measurements of concepts such as self-concept and locus of control used in this study is considered to evaluate a global concept with a small number of items and may fail to detect changes which might be produced by such training. These observations are well documented in the literature (Anastasi, 1982; Borg & Gall, 1983). In applying the same observation to the current study by its measurements such as

the CSSEI-A (which has only 25 items) and the ANSIE (which has 40 items), the researcher suspects that these measures have detected all changes which might have taken place as an outcome of the training in the principles of Control Theory.

The Group Process

Because the training in the principles of Control Theory was conducted with 15 participants in one classroom with one therapist, the process of the training did not allow for deep individual orientation counseling. It is the researcher's belief that if the training were more individualized, then the results would be significant. This observation was noted in other studies (Berrett, 1975).

Complexity of Control Theory

Authors such as Gilliland, James, Robert, and Bowman (1984) indicated that the principles of Control Theory are complex to understand and hard to apply. This fact has driven away many counselors. If this were the case of counselors in relation to Control Theory, then it would make Control Theory even harder for provisionally admitted freshmen to understand and apply in their lives. These observations could account as a major factor for the insignificant results of the current study.

Pretest Sensitization

Finally, failure to find significant differences in the self-concept and locus of control of PAP students between the

treatment (T₁) and the placebo control (T₂) following treatment might be influenced by pretest sensitization. Research specialists have warned of the effect of such factors (Borg & Gall, 1983; Spector, 1981).

For the reasons mentioned above, the results of this study are limited only to those who participated in this experiment.

Related Findings

Comparison of the sample used in this study with normative data of the CSSEI-A and the ANSIE based on the PAP pretests reveals that the study sample has scores comparable to those obtained by the norms developed, based on college student populations (Nowicki & Duke, 1974; Owens & Gustafson, 1971). These findings are logical because PAP students were classified based on their scores on the Scholastic Aptitude Test (SAT), not on their CSSEI-A nor on their ANSIE scores. It is not necessarily true that students who have a lower SAT score differ from the general college student population in respect to their self-concept and locus of control measures. Simon and Simon (1975) correlated CSSE and SRA Achievement Series scores of 87 children in grade 4 and obtained a coefficient of .33. The children's CSSE scores were also correlated with their scores on the Lorge-Thorndike Intelligence Test. The obtained coefficient was .30.

Regarding the relationship between ANSIE scores and achievement measures, Mink (1976) reported a correlation

coefficient between ACT composite scores and ANSIE scores of $-.28$ with 431 subjects. Therefore, the current study's findings regarding self-concept and locus of control is supported by these studies which indicate a low relationship between the CSSEI-A and the ANSIE with achievement measures such as the SAT and the ACT. The lack of a strong relationship in this regard leads to the conclusion that PAP students are no different from the rest of the college population in respect to their self-concept and locus of control.

Conclusions and Recommendations

The findings of this study indicate that PAP students had CSSEI-A and ANSIE scores comparable with those of the general college student population. These scores did not significantly change after participation in Control Theory training as outlined in Appendices B and C, nor did it change after participation in the placebo control program as outlined in Appendix D. The conclusion of this study is that modification in Control Theory training is necessary to produce such changes. A strong personal counseling emphasis needs to be added to the didactic content of the program because a large number of participants did not have enough time to explore their individual needs. A large group discussion format with a heavily structured program does not allow enough time for personal interaction. Therefore, the same program with a group of fewer than 10 students would

allow more discussion of individual concerns and might provide more individualized counseling for PAP students. Because this group was part of a research study, the program outline was strictly followed. In actual practice with PAP students, more allowance needs to be made for discussion of topics particularly relevant to their needs. Therefore, more time may be needed to complete the course, or some of the content of the program may need to be shortened. Finally, the CSSEI-A and the ANSIE, together, provide general information regarding the constructs of self-concept and locus of control. Therefore, more precise instruments are necessary to detect any changes regarding these variables.

As a result of this study, further research in this area is recommended. This study should be repeated with some modifications. A similar study could be done with PAP students to determine if Control Theory training has the same results. Since the group size might be a factor in the effectiveness of Control Theory training with PAP students, this study could be repeated (a) with a much smaller group, (b) with a larger sample size, and (c) by conducting the same training for a longer period of time.

Finally, a follow-up study of the treatment group (T_1) after three months could be done to determine if self-concept and locus of control change after PAP students have had more opportunity to incorporate and practice the principles of Control Theory taught in the program.

Also, this study is the beginning of an attempt to examine the validity and reliability of Control Theory training in helping PAP students to achieve higher self-concept and to adopt internal locus of control. Further research in this area will help professionals know more about how to aid PAP students to develop more positive self-concepts and to achieve a higher sense of responsibility.

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APPENDIX A
Notice of Consent Form

Notice of Consent

I hereby give consent to participate in a research project and give my permission for the collection and use of the information. I understand that this information will be used for no other purpose than has been explained to me and I further understand that my responses to the questionnaires will be completely anonymous.

Name: _____

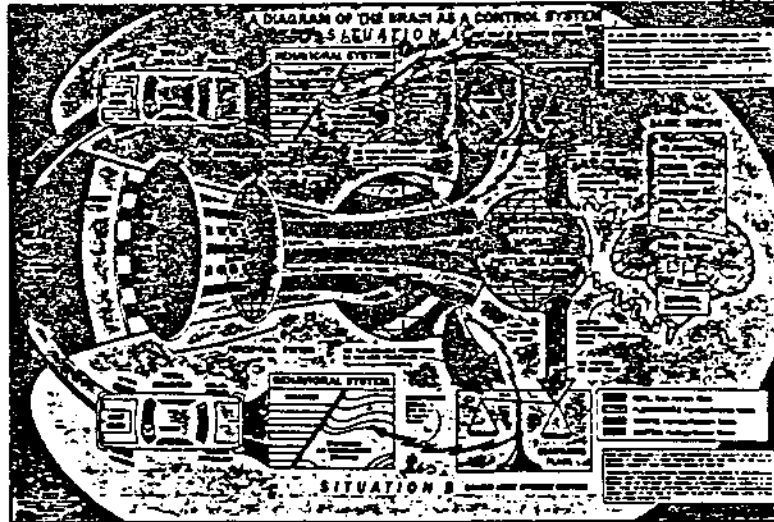
Date: _____

APPENDIX B

The Content of Control Theory Training As Outlined
by the Author, Dr. Glasser, 1986

PART ONE - CONTROL THEORY

SEGMENT ONE:



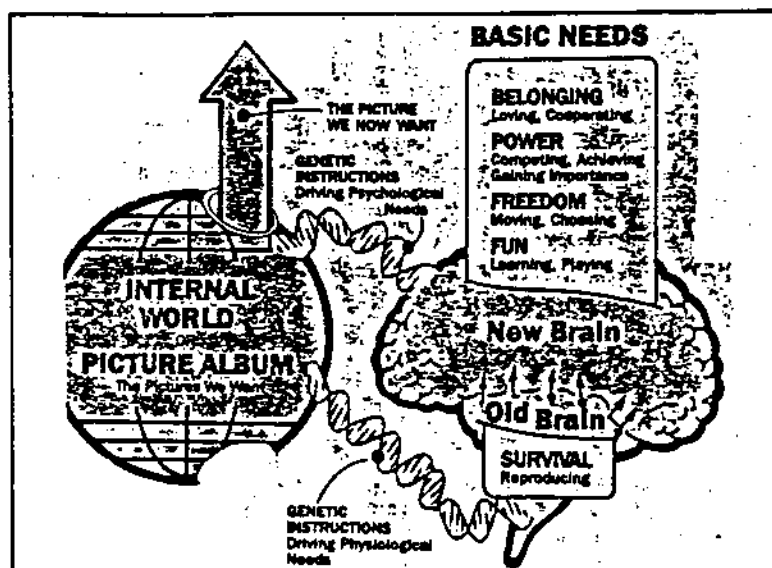
Our explanation begins with an overview of the entire control theory section of the chart, **A DIAGRAM OF THE BRAIN AS A CONTROL SYSTEM**. (From this point on, whenever you see capital lettering in bold face, that phrase is directly from the chart. It will help you understand the explanation if you look for the phrase and find it on the chart.) Since every control system operates according to control theory, the explanation of this section of the chart is an explanation of this theory. Before going on, read the brief summary of control theory in the white block at the top right corner of the chart and keep in mind that all of us struggle to gain and maintain what we believe is effective control of our lives.

In order to show the difference between when we are **NOT NOW IN EFFECTIVE CONTROL** and when we are **GAINING MORE EFFECTIVE CONTROL**, this section of the chart has been divided into two parts, **SITUATION A** at the top (shown with the pink background) and **SITUATION B** at the bottom (shown with the yellow background). Do not allow this representation of two separate situations in one diagram to confuse you. This is only done to show how exactly the same system works under two different conditions: **SITUATION A**, when we are **NOT NOW IN EFFECTIVE CONTROL** and **SITUATION B**, when we are **GAINING MORE EFFECTIVE CONTROL**. Keep in mind that only one of these situations is happening at any given time. Take a moment to study the diagram and note that the background of **SITUATION A** is pink and the background of **SITUATION B** is yellow. Again, this is only so that we can show two separate situations on the same chart instead of using two almost identical charts to convey the same information.

Although each of us is always attempting to move from **SITUATION A** to **SITUATION B**, it becomes the specific task of the reality therapy counselor to help clients make this move. For more information, read the additional material contained in the white block at the lower right corner of the chart.

Since understanding what the colors represent is crucial to understanding the chart, you should now refer to the color key in the lower right hand corner. Be careful to note that each of the colors, except the blue, is used to explain two closely related concepts: (a) feelings and (b) values. Red is used to indicate both painful feelings and negative values, yellow both pleasurable feelings and positive values and green both neutral feelings and neutral values. To illustrate, if you go out to your car in the rain and see that it has a flat tire, you will likely experience an immediate burst of pain and changing the tire will be painful. At the same time, as you look at the flat tire, this will be a negative perception. There is nothing positive about having a flat tire in the rain.

SEGMENT TWO:



Control theory states that all living organisms are purposeful and internally driven by **BASIC NEEDS** or **GENETIC INSTRUCTIONS** that arise in the brain. We recognize four human psychological needs: **BELONGING**, **POWER**, **FREEDOM** and **FUN** which originate in the **NEW BRAIN** and one physiological need: **SURVIVAL** which originates in the **OLD BRAIN**. From birth we are constantly driven by these needs, and all of our behavior is our best attempt at the time to fulfill them. No matter what the presenting problem, all clients seen in counseling are struggling unsuccessfully to satisfy one or more of these **BASIC NEEDS**. If they are not succeeding to the extent that they would like to succeed, they may come for counseling on their own. In many cases, however, such as with drunk drivers, it is others that object to the way that they are choosing to satisfy their needs (drinking and driving) and it is these others who insist that they seek counseling.

For example, a client may seek counseling help for severe headaches after her physician is not able to find any organic cause to explain them. In talking with her, the counselor may learn that she is unhappy because she feels insignificant on her job. From the standpoint of her needs, it is her need for **POWER** which is being severely frustrated. The counselor's role is to help her examine her life to see if, with help, she can work out a plan which can assist her either to get more **POWER** on this job or find a better one. Another client may be sent by the court because he has been arrested several times for drunk driving. He may say that he does not need counseling. He is only there because he has been arrested and the judge has ordered him either to go for counseling or go to jail. In this case, the counselor must try to help the client, even though he is resistant, decide that he has a problem and then figure out a better way to satisfy whatever **BASIC NEED(S)** he was attempting to satisfy through his drinking and driving behavior.

As you can see by the arrows that run between the **NEW BRAIN** (cerebral cortex) and the **OLD BRAIN** (all structures below the cerebral cortex), there is constant and intimate communication between these two major divisions of the brain. Modern neurophysiology has identified that this communication takes place through neurotransmitters. Not only do psychological needs arise in the **NEW BRAIN** but it is also the seat of all conscious and voluntary need-satisfying behavior. Most of what we do to meet our **BASIC NEED** for **SURVIVAL** is monitored automatically by the **OLD BRAIN** but we have no consciousness of the **OLD BRAIN**'s activity. If our **SURVIVAL** is threatened, this threat is detected in the **OLD BRAIN**, but, until it is transmitted to the **NEW BRAIN** for remedial action, we know nothing about the problem and we do not deal with it consciously.

For example, when we are low on fluid, this deficiency is detected in the **OLD BRAIN** as a threat to our **SUR-**

VIVAL. We do not become aware of this threat, however, until it is communicated to the **NEW BRAIN** by a neurotransmitter. It is at this point that we consciously recognize it as thirst even though the **OLD BRAIN** was already conserving fluid to help us survive. It is then up to us to act or not, but, as we become lower and lower on fluid, this message will grow more insistent, more painful and harder and harder to ignore.

On the other hand, in an effort to satisfy one or more of our psychological needs, the **NEW BRAIN** can initiate behavior that is a direct threat to the **OLD BRAIN's** ability to keep us alive. From the standpoint of our health, alcohol is a poison. People who drink, however, perceive it as intensely pleasurable and do not regard it as a poison. This is because alcohol gives the **NEW BRAIN** the feeling (it is false, but felt as though it were true) that one or more of our psychological needs are being satisfied. Driven by this need-satisfying chemical pleasure, we may drink too much.

As we do, the **OLD BRAIN** is given the task of attempting to metabolize the alcohol in a way that will maintain our health. The **OLD BRAIN** sends back messages that we recognize as hangovers and other alcoholic miseries (analogous to the pain of thirst when we are low on fluid). These pain producing messages are its best efforts to warn us that we are being poisoned and get us to consider reducing our alcohol intake. If we disregard these messages and keep drinking, as many alcoholics do, the **OLD BRAIN** may not be able to keep us healthy. Therefore, if we were to die of cirrhosis, it would have been behavior initiated in the **NEW BRAIN**, not in the **OLD BRAIN**, that would have led to our demise.

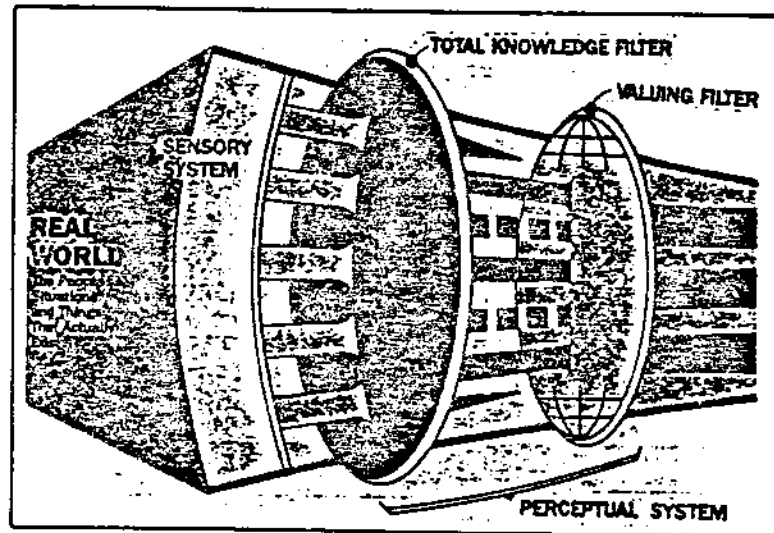
Finally, it should be understood that although we are born with strong and pressing **BASIC NEEDS**, we are not born with any knowledge of how to satisfy them. All this must be learned and we start to learn what will satisfy these **BASIC NEEDS** as soon as we are born. This vital knowledge is stored as pictures in a section of our memory which is shown here as the **INTERNAL WORLD OR PICTURE ALBUM**. These pictures are of all the people, situations and things which have effectively satisfied one or more of our **BASIC NEEDS** and which we believe will be able to do so in the future. As we live our lives, we constantly add and, at times, subtract pictures from this **INTERNAL WORLD OR PICTURE ALBUM**.

For example, a little baby is driven by the need to love (**BELONGING**). He has no idea of what this need is or how it can be satisfied. All he knows is that when he is left alone, something is unsatisfied because it hurts. And, since all he knows to do in an attempt to remedy this situation is cry, he cries. His mother hears the crying, guesses he wants love and shows him affection. The baby is then satisfied. As mother does this over and over, the baby begins to associate his mother with need satisfaction, and, using his senses like a camera, he takes a picture of his mother and stores that picture of a loving mother in his **INTERNAL WORLD** where he may keep it all of his life. Later, if the child or adult is lonely, he may again and again turn to that picture. For most people, the picture of mother is always satisfying.

This is how the **INTERNAL WORLD** grows, and by the time that we are adults, it is filled with a variety of pictures that we have learned are particularly satisfying. In the example of the young woman who had headaches, she may have had a picture of a more satisfying job in her **INTERNAL WORLD** but she needed help to figure out how to get it. The alcoholic driver had a picture of alcohol in his head and he needed help to find a more effective one so he would no longer "have" to drink. It is common for alcoholics who stop drinking to add the satisfying picture of attending AA to their **INTERNAL WORLD** and for them this picture supercedes the self-destructive one of drinking. If they can't find and learn to use a more effective picture than alcohol, they may drink themselves to death.

Our lives are driven by the pictures in our **INTERNAL WORLD** because they represent the need-satisfying lives we want to lead. Our **PICTURE ALBUM** pictures, however, are not fixed. We can, and often do, reduce our expectations in a realistic attempt to make it easier to satisfy our needs. An important part of reality therapy is to help clients do this. The chart shows how whenever a **BASIC NEED** is unsatisfied, we focus on whatever picture we believe will best be able to satisfy that need. This is shown by the yellow arrow that represents **THE PICTURE WE NOW WANT**.

SEGMENT THREE:



This segment of the chart focuses on the **PERCEPTUAL SYSTEM** which is the only system through which we perceive the **REAL WORLD**. There is no doubt that there is a **REAL WORLD** and that it is in this **REAL WORLD** that we must satisfy our **BASIC NEEDS**. The **REAL WORLD** is shown in blue and we, as well as all that exists, are part of it. Nevertheless, the only way we know that the **REAL WORLD** exists is through our ability to perceive it and that is perceived through our senses. All of our senses make up a **SENSORY SYSTEM** and this system is shown on the chart as a curved silver bar intervening between the **REAL WORLD** and our **PERCEPTUAL SYSTEM**.

We only sense that part of the **REAL WORLD** which is in contact with our senses and this is shown on the chart by the change of color from the darker blue of the **REAL WORLD** to both the lighter blue bars and the very pale blue rectangular areas shown just to the right of the **SENSORY SYSTEM**. These color changes represent an attempt to show that all that we sense is immediately affected by the sensing process itself. Much of what we sense has no meaning to us because it has nothing to do with what we want at the time. It is these meaningless and barely sensed sensations that are shown by the very pale blue rectangular areas just to the right of the **SENSORY SYSTEM**. Technically, all that we sense goes instantly through the whole system and is compared with what we want. For practical purposes, however, if these sensations seem to have nothing to do with what we want, they stop here and we have little or no awareness that they even exist.

The rest of what we sense from the **REAL WORLD** is represented by the blue bars. These sensations, after going instantly through the system and being compared with what we want, do seem to mean something to us, so to begin, we process them through the **TOTAL KNOWLEDGE FILTER** of our **PERCEPTUAL SYSTEM**. This filter is shown as green because it contains representations of everything we know without any positive or negative value being assigned to this knowledge. As what we sense passes through this filter, the change from blue to green indicates that it has changed from a sensation to a perception, and as a perception we now have some knowledge of what it is or we believe that, whatever it may be, it is worth perceiving.

When this happens, one of the three following outcomes is possible for this (green) perception: (1) if we have some idea of what it is and it is meaningful to us, it is represented by the solid green bar, (2) if we do not have an idea of what it is but we have some incentive to find out what it may be because we believe it may be meaningful to us, it is represented by the broken green bar or (3) if, whether we recognize it or not, we now conclude that it is not meaningful to us, this common situation is represented by the green bar coming to a point and stopping between the two filters. Because we have decided that it means nothing to us, the perception stops here. There is no reason to take it further.

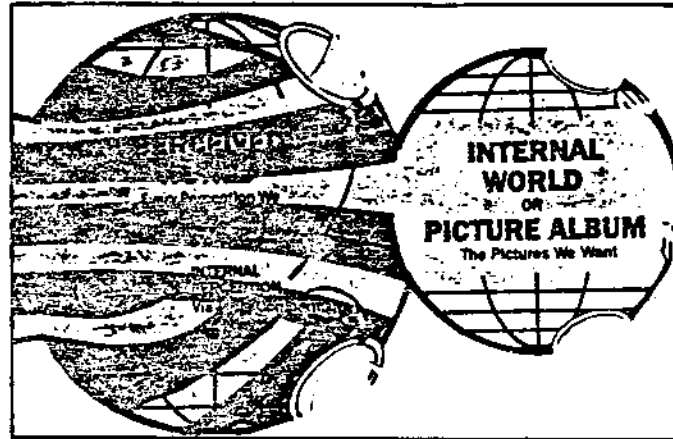
For example, if we were looking for our child and we discovered that what was out there in the **REAL WORLD** was our child, then this perception of our child is represented by the solid green bar. If, when we were looking for our child, what we saw was a small person, but we could not tell if it were a child or not, we would want to investigate further. This is represented by the broken green bar. If we were looking for our very small child and saw a large adult stranger sitting quietly on a park bench, we would recognize that someone was sitting there, but that is all that would happen since we would have no interest in that person. This is represented by the green bar coming to a point because there would be no incentive to take this perception any further. If we were asked later about the person sitting on the bench, we would most likely answer that we did not remember seeing anyone even if it could be shown that the person must have been in our line of vision at the time. This has been proven again and again by witnesses in court who did not see what was in front of their eyes because, at that time, what they perceived meant nothing to them.

Anything we recognize or want to find out about (represented by a solid or broken green bar) next passes through what we call the **VALUING FILTER**. This filter is shown in yellow because it contains representations of all that is in our **INTERNAL WORLD**. This means that we compare all we know or are trying to find out about with all we want — the need-satisfying pictures in our **INTERNAL WORLD**. If what we perceive compares favorably with anything we want as it passes through the **VALUING FILTER**, we tend to assign a positive value to it. This positive value is shown as the yellow bars coming out of the **VALUING FILTER**. If what we perceive is opposed to anything we want, we tend to put a negative value on it and this is shown as the red bars coming out of the **VALUING FILTER**. If what we perceive is neither opposed to nor particularly close to anything we want, we tend to put a neutral value on it and this is shown as the green bars coming out of the **VALUING FILTER**. This means that these green perceptions exist in our **PERCEIVED WORLD** essentially as they were before they passed through the **VALUING FILTER**. Together, the **TOTAL KNOWLEDGE FILTER** and the **VALUING FILTER** constitute the **PERCEPTUAL SYSTEM**.

The following is an example of how this process might work. If you see your child helping an old lady across the street, this is so close to the picture of your "helpful" child which you have in your **INTERNAL WORLD** that you will perceive your child in this situation as very positive (yellow). If you see your child throwing sand in the face of other children at the beach and causing a big ruckus, you will perceive him or her as negative (red) because this is the opposite of the "good child" picture you have in your **INTERNAL WORLD**. If you perceive your child coming in from school and sitting down for a routine snack, you will, at that moment, see him or her as neutral (green). If your child then tells you that he/she got the highest grade in the class on the science test, you will quickly change the value of your immediate perception from neutral to positive (green to yellow). If the child tells you he/she failed the test, it is likely that your immediate perception will temporarily change from neutral to negative (green to red).

NOTES:

SEGMENT FOUR:



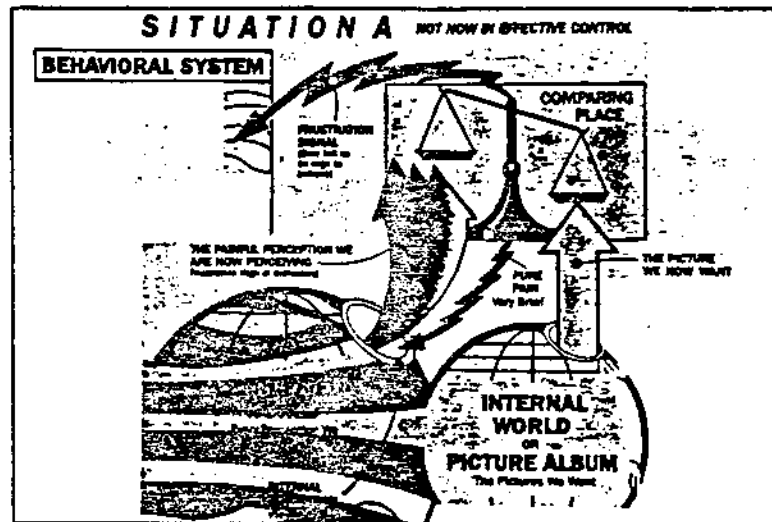
Here we have the **PERCEIVED WORLD** and the **INTERNAL WORLD**. Because this diagram has limited space, they are not shown in correct proportion to each other. Actually, the **PERCEIVED WORLD** is huge compared to the **INTERNAL WORLD**. It is our interpretation of the **REAL WORLD** and, in theory, it includes every perception that we have ever perceived. In practice, however, it represents our total usable knowledge or all that we can remember at the time. When any of us talk about the "**REAL WORLD**," what we are always talking about is our **PERCEIVED WORLD** because we have no way of knowing what the **REAL WORLD** is except as we are able to perceive it.

Finally, and you must think about this or risk becoming confused, everything on this chart that is not the deep blue of the **REAL WORLD** is actually in the **PERCEIVED WORLD**. For the purposes of clarification, however, all of the other parts of the diagram have been separated from the **PERCEIVED WORLD** in order to explain how these various parts of the control system work and relate to each other. Keep in mind, that we only know what we perceive and our entire lives are lived in our **PERCEIVED WORLD**. The reason that we are able to get along with each other is because many of us perceive the world in essentially the same way. Remember, however, that no two **PERCEIVED WORLDS** can be exactly the same.

It follows then, that what we call reality or objectivity is neither real nor objective. We can never know anything that is real, but all of us have every reason to believe that what we perceive is real since we have no way of perceiving that it is not. Reality, objectivity, sanity, truth, right, wrong, good and bad are but a few examples of what we believe is real. These are, at best, only statistical concepts in the sense that they are what most of us believe at the time. In the time of Christopher Columbus, for example, most people thought that the earth was flat and that the sun revolved around it because this was the way they perceived it to be. Similarly, there is no such thing in baseball as a "ball" or a "strike." What is called a "ball" or a "strike" is what the umpire of that game, at that time, says it is. Therefore, another definition of reality is that it is what people who have power, and whose power we accept, say it is. Try to get the judge to believe the "reality" that you were only going 55 miles per hour when the patrolman claims that he clocked you at 70 and you will find out that "reality," in this instance, is determined by whomever has the power.

From the standpoint of counseling, this knowledge is vital. Counselors must try to understand that clients always act upon the information that is in their own **PERCEIVED WORLD**. Trying to teach clients that other people do not perceive the world the same way that they do is almost always a vital part of counseling. When clients say that they have worked hard and it is not fair that they haven't gotten an increase in salary, it is important that they learn that they must do more than just work hard. They must also work so that their boss perceives what they do as hard work. All of us must learn that, like it or not, it is the boss's perception and not ours, that will determine whether any of us get a raise.

SEGMENT FIVE:

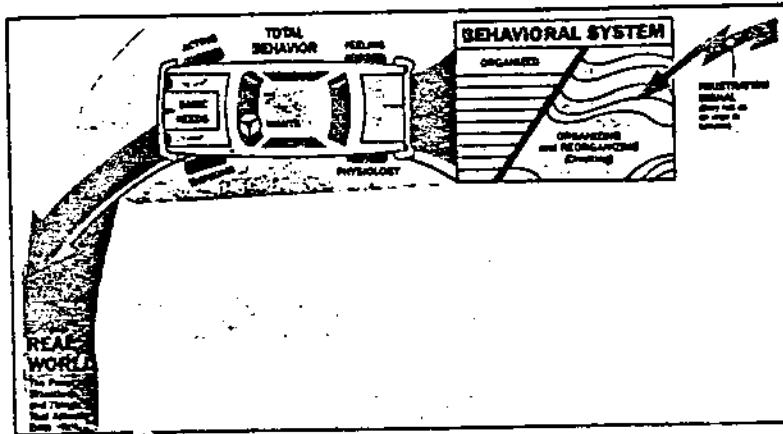


This segment **SITUATION A** shows how we, as control systems, initiate all of our behavior which is always our best attempt, at the time, to act on the **REAL WORLD** (in control theory terms, to control the **REAL WORLD**) so that we can get closer to the need-satisfying picture that we want. In **SITUATION A**, this process begins when we feel the **PURE PAIN** or discomfort that tells us that a **BASIC NEED** is unsatisfied and that our lives are **NOT NOW IN EFFECTIVE CONTROL**. We realize this fact when we compare the **PICTURE WE NOW WANT** with **THE PAINFUL PERCEPTION WE ARE NOW PERCEIVING**. Because pain or discomfort is always present in the beginning of this process, all of **SITUATION A** is shown to have a pink background.

To illustrate, let us say that right now I am lonely and I want to be with a friend. The picture of my friend is represented by the yellow arrow that comes out of the **INTERNAL WORLD** and is labelled, **THE PICTURE WE NOW WANT**. This picture of being with my friend goes to a **COMPARING PLACE** (there are probably billions of these places in our brain and they are all involved in each comparison) depicted on the chart by a scale. Since my friend is not now available, when I send his picture to the **COMPARING PLACE** and compare it with the **PAINFUL PERCEPTION WE ARE NOW PERCEIVING** (no friend), the scale fails to balance and is shown as tipping down as if what I want is heavier than what I have. As the scale tips, we sense this tipping as a very brief burst of **PURE PAIN** (shown as the red zig-zag). It is this pain that immediately alerts me to the fact that I am **NOT NOW IN EFFECTIVE CONTROL**. Why this is called **PURE PAIN** will be explained later, but it is shown here as coming out of the base of the scale and it is internally perceived because it goes through the **INTERNAL PERCEPTION** porthole of the **PERCEIVED WORLD**.

In order to contact my friend, I must start to behave and what gets my **BEHAVIORAL SYSTEM** going is shown on the chart as a **FRUSTRATION SIGNAL** which is the signal that initiates all behavior. This signal, which triggers my behavior, is sent to my **BEHAVIORAL SYSTEM** from the **COMPARING PLACE** whenever the scale is tipped and the signal is perceived by me simply as an urge to behave. The more the scale is tipped, the stronger is the signal and the stronger the signal, the stronger is my urge to behave. Remember, that what I feel is only an urge and there are neither painful nor pleasurable feelings attached to this signal. The feelings that I will soon feel are **NOT** a part of this signal. They are the separate feeling component of the **TOTAL BEHAVIOR** generated by my **BEHAVIORAL SYSTEM** as it is turned on by this signal.

SEGMENT SIX:



Whenever our lives feel out of control, when we are frustrated, when we are unable to satisfy a need or when we do not have the picture that we want (these are different ways to describe any situation in which the scale is painfully tipped), we generate a **FRUSTRATION SIGNAL** which activates our **BEHAVIORAL SYSTEM**. Every behavior that we have ever learned is stored in this **BEHAVIORAL SYSTEM**. When it is activated, all of these behaviors become available for us to use as we try to reduce the frustration. It is the purpose of any and all behaviors generated from this system to act upon the **REAL WORLD** and try to control it so that what we want becomes available to us. Keep in mind that, as the chart indicates, our behaviors act on the **REAL WORLD** but all that we know of these actions is what we perceive their effect to be as these actions take place.

In control theory terms the perception of what our behavior has accomplished is called feedback. Feedback, therefore, is pertinent information that we can use to change our behavior if what we have done has not yet gotten us what we want. For example, if I taste my lemonade and find that it is too sour, (sweet lemonade is what I want) then, using this feedback, I add sugar until I get the new feedback that it is exactly right. At that point I stop adding sugar because I have now gained effective control (of my lemonade).

What has just been described is a complete circle within the control system or a control system loop. The loop starts with **THE PICTURE WE NOW WANT** (sweet lemonade) and goes through the comparing process at the **COMPARING PLACE**. Assuming that the lemonade is sour, a **FRUSTRATION SIGNAL** is generated that turns on my **BEHAVIORAL SYSTEM** and I add sugar. This action is perceived and the perception of this action is sent back to the **COMPARING PLACE** where it is again compared completing the loop. This process continues to cycle around the loop until I decide that I have what I want, sweet lemonade. (For the technically minded, this is a negative feedback loop, negative because the defined purpose of the feedback is to decrease the frustration in the control system.)

To return to the example of my missing friend, when I start to behave, I always choose that behavior which, at the time, I believe will be most effective in getting me together with my friend. I may phone, drop a note, go to his house or place of work, put an ad in the paper or do anything else which I might believe is the best thing to do. All of these behaviors are behaviors that I have used before; I know how to use them and they are immediately available to me. Because they are old and familiar and I know how to employ them, they are called **ORGANIZED**, and as **ORGANIZED** behaviors, I can use these behaviors just as they are. As will be explained shortly, all **ORGANIZED** behaviors are **TOTAL BEHAVIORS** which means that they are always made up of four components: **ACTING, THINKING, FEELING** and **PHYSIOLOGY**.

If we do not have an **ORGANIZED** behavior immediately available, we are capable of figuring out a new one. In fact, all of us have to figure out so many new behaviors that our **BEHAVIORAL SYSTEMS** are constantly **ORGANIZING** and **REORGANIZING** to create them. Once we use any of these reorganized or newly

created behaviors, however, they are **ORGANIZED**. Therefore, the behaviors shown to the left side of the diagonal that divides the **BEHAVIORAL SYSTEM** are all **ORGANIZED** behaviors because it is only **ORGANIZED** behaviors that come out of the **BEHAVIORAL SYSTEM** and act on the **REAL WORLD**. The right side of the diagonal shows the constant process of **ORGANIZING** and **REORGANIZING** that is always going on. Whether we decide to use it or not, our creativity never turns off.

Let us say, however, that in this situation, all of my old and familiar **ORGANIZED** behaviors do not work. My friend has disappeared and no one knows where he is and no one has seen him for weeks. Since I still want to see him, I keep his picture on the scale and become increasingly concerned. The tipped scale continues to send out a strong **FRUSTRATION SIGNAL** and my **BEHAVIORAL SYSTEM** is driven hard as I search for a behavior that will get us together.

This is the position in which those of us who counsel find most of our clients. They want something very much but they neither have an effective behavior to get it nor can they immediately figure one out. In this common situation, there is **no turning the system off**. As long as the scale is tipped, the **FRUSTRATION SIGNAL** will continue and the individual will drive his or her **BEHAVIORAL SYSTEM** until it achieves more effective control — the picture that he or she wants or closer to it. Driven by the **PICTURE WE NOW WANT**, frustrated people will either obtain the effective control that they want or, in desperation, turn to increasingly painful, self-destructive behaviors. If they cannot find a more effective behavior, they may eventually die in their attempt to gain or regain effective control or they may kill themselves because they believe that their situation is impossible to control.

At this point, it is necessary to explain the concept of **TOTAL BEHAVIOR**. All behaviors are "total" because they are **always made up of four individual components - ACTING, THINKING, FEELING and PHYSIOLOGY**, each of which is always present. They are shown on the chart as the four wheels of the gray **TOTAL BEHAVIOR** car which is riding in the middle of the **TOTAL BEHAVIOR** arrow coming out of the **ORGANIZED** side of the **BEHAVIORAL SYSTEM**. You can see that this arrow goes to the **REAL WORLD** where all **TOTAL BEHAVIORS** produce their effect.

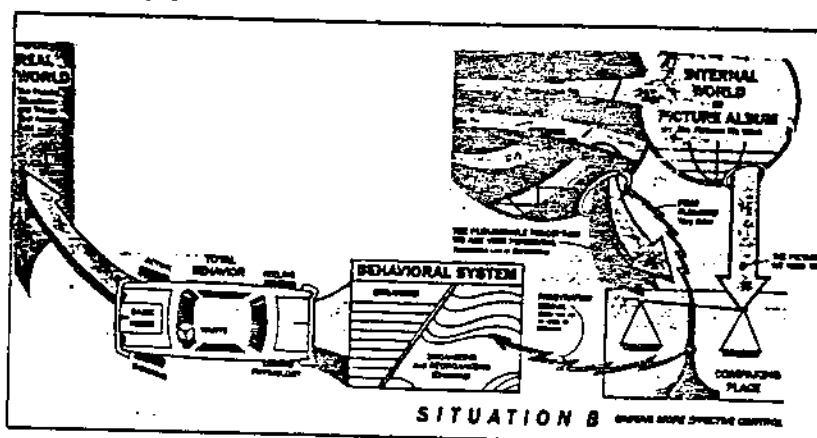
Keep in mind that every **TOTAL BEHAVIOR** is labeled by its most recognizable component. For example, depressing is a **TOTAL BEHAVIOR** in which **FEELING** is the most recognizable component, running would have **ACTING** as its most recognizable component and studying would have **THINKING** as its most recognizable component. While **PHYSIOLOGY** is always present in every **TOTAL BEHAVIOR**, there are only a few **TOTAL BEHAVIORS**, such as vomiting, which have this component as their most recognizable component.

To continue the illustration, when my friend continues to be missing, I find that I have no effective **ORGANIZED** behaviors to deal with this unhappy situation. What I will likely do is turn to an old, familiar, well-organized behavior like depressing that seems to me to be the best I can do at this time. In this instance, however, I do not realize that I am choosing to depress. I believe, because this is what I feel, that this feeling is happening to me. The only way that I can become aware that this is a chosen **TOTAL BEHAVIOR** with a strong and painful **FEELING** component is to learn the concepts of control theory which explain what is actually happening. For a more complete understanding, the reader should refer to Chapters Six, Seven and Eight of *Control Theory*, where this situation is explained in great detail.

On the chart, the **TOTAL BEHAVIOR** of depressing is shown as the mostly red arrow coming out of the **BEHAVIORAL SYSTEM**. The inside of the arrow represents the strong, recognizable **FEELING** component of this **TOTAL BEHAVIOR**. Since depressing is mostly painful, most of the inside of the arrow is red, but since it also has some elements of both pleasure and neutrality, these are shown inside the arrow as the narrow bands of yellow and green.

The best way to understand the important concept of **TOTAL BEHAVIOR** is to use the car analogy shown on the chart. In this very accurate analogy, the motor of the car could be considered to be the **BASIC NEEDS**. The car is always driven in what is considered to be the best direction to satisfy the need or needs in question. To steer the car, the front wheels, which are the wheels that can be turned, are the **ACTING** and **THINKING** components of the **TOTAL BEHAVIOR**. The rear wheels are the **FEELING** and **PHYSIOLOGY** components and, as in a car, these fixed wheels must go where the front wheels go. The analogy is highly accurate in the

SEGMENT SEVEN:



SITUATION B is shown with a yellow background because when we start regaining effective control, we begin to feel good. For example, suppose my friend suddenly calls and tells me he was away on a secret CIA assignment and he had to make a total and sudden disappearance. My choice to depress was not effective in getting him back but as they often do, things worked out well anyway. When I depressed, however, I did not consider acting upon some of my more creative thoughts such as to attempt suicide or turn to addicting drugs for solace. Depressing, miserable as it was, was enough for me. And, to that degree, the **TOTAL BEHAVIOR** of depressing was protective and effective. Now, as I perceive he is really back, this need-satisfying perception of him comes through my **PERCEIVED WORLD** to the **INTERNAL PERCEPTION** porthole as an increasingly yellow arrow, the **PLEASURABLE PERCEPTION WE ARE NOW PERCEIVING**, and as it does, the scale immediately begins to balance.

As it begins to balance, I get a burst of **PURE PLEASURE** analogous to the **PURE PAIN** that I felt as the scale unbalanced when I discovered he was not available. As the scale regains balance, the **FRUSTRATION SIGNAL** decreases. All we want to do now is to figure out some enjoyable things to do together. This is a much smaller, less urgent signal than the larger signal that was initiated by his disappearance. As we get together, these enjoyable **TOTAL BEHAVIORS** are shown on the chart as highly pleasurable (mostly yellow). There is, however, always green and also some red as, unfortunately, nothing is ever perfect.

The **PURE PAIN** and **PURE PLEASURE** that are shown on the chart represent how our system quickly tells us the state of control. These shortlived, intense feelings are called "pure" because they are not chosen and they are not a part of any **TOTAL BEHAVIOR**. They occur only when the scale is in the process of tipping and they stop as soon as the scale is stabilized in any position.

Any other pain or pleasure that we feel is part of the **TOTAL BEHAVIOR** we are choosing and, if we feel badly and we want to feel better, we must choose a more effective, more need-satisfying **TOTAL BEHAVIOR**. We must not be misled by our **pure feelings** into thinking that we do not choose our painful **TOTAL BEHAVIORS** just because it does not feel as if this is what is happening. The short initial burst of what can be excruciating **PURE PAIN** as the scale tips misleads all of us into believing that we have nothing to do with the continuing pain which is now a component of a **TOTAL BEHAVIOR** like depressing that we may be choosing in our attempt to regain effective control. For a further explanation of this complex subject, read Chapter Eight of *Control Theory*.

The main purpose of reality therapy is to help clients learn that they can choose more effective behaviors than depressing or other similar miserable behaviors. What we can do that will directly lead a client to feel better is to help him, as is shown on the chart, concentrate on the front wheels which means to steer his behavioral car in a more effective direction. In practice, this means to choose a more effective way to act and think. We can do this because in almost all situations, we have arbitrary control over our thoughts and actions if we want to exercise it.

APPENDIX C
Training Outline

Control Theory Training Plan

Goal

To have the students understand the principles of Control Theory and help them to apply it in their daily living.

Objectives

1. To have students understand segment one of Control Theory which involves a general introduction on how the flow chart explains humans as a living system.
2. To have students understand segments two, three, and four of Control Theory through explaining the concepts of human's basic needs, human perception, and the human's internal world, and have the students demonstrate their understanding.
3. To have students understand segments five, six, and seven of Control Theory, which include the human behavioral repertoire for each situation in our lives, and have the students demonstrate their understanding.
4. To have each student put the various elements of Control Theory together and attempt to apply it to their lives.

Strategies and Evaluation

Objective One:

To achieve this objective, several activities will be conducted, which include:

1. Warm-up exercises in which every student introduces himself or herself and recalls a major characteristic that their name may be associated with.
2. Introducing the program and mentioning that their participation is a major element throughout the training period.
3. Obtaining their informed consent forms, pretesting, and dividing them into two groups.
4. Exploring segment one of Control Theory with T₁, which involves a general introduction on how the flow chart explains human beings as a living system.

Visual Aids:

1. Flow chart for every student.
2. Projector.
3. Transparent flow chart.

Timetable: First Session, June 9, 1987

Activity #1	10 minutes
Activity #2	10 minutes
Activity #3	30 minutes
Activity #4	25 minutes

Objective Two:

To achieve this objective the following activities were designed:

1. Explaining segments two, three, and four which include the concepts of human needs, human internal world (wants), and human perceptual system through the flow chart using examples from the participants lives.
2. The students are to demonstrate their understanding by listing examples on worksheets C1, C2, C3, and the first three pictures of Rorschach.
3. Questions and answers.

Visual Aids:

1. Flow charts.
2. Projector.
3. Transparency flow chart.
4. Worksheets C1, C2, and C3.
5. Pictures 1, 2, and 3 of Rorschach Ink-plots Test.

Timetable: Second Session, June 11, 1987

Activity #1	45 minutes
Activities #2 and #3	30 minutes

Objective Three:

To achieve this objective, the following activities will be carried out:

1. Explaining segments five, six, and seven which include the human behavioral repertoire and how it operates in a happy, unhappy, and neutral situation using examples by the instructor.
2. The students will give examples from their own life and provide alternatives in dealing with each situation.
3. Questions and answers.

Visual Aids:

1. Flow charts.
2. Transparency flow chart.
3. Projector.

Timetable: Third Session, June 16, 1987

Activity #1	40 minutes
Activity #2	25 minutes
Activity #3	10 minutes

Objective Four:

To achieve this objective the following activities will be conducted:

1. Students in groups 3-4 will apply the flow chart in applying the whole theory to their life situations, with the instructor serving as consultant to the small groups.
2. Questions and answers.

Visual Aids:

1. Flow charts.
2. Transparency flow charts.
3. Projector.
4. Worksheet C4.

Timetable: Fourth Session, June 18, 1987

Activity #1	40 minutes
Activity #2	15 minutes
Posttesting	20 minutes

Worksheet (C1)

When I look within myself and as far as I can remember,
I can classify my needs as follows:

1.

2.

3.

4.

5.

6.

Worksheet (C2)

For each of my needs on the first page, some of what I have learned that I want some of the following:

For need #1, I want: a)

b)

For need #2, I want: a)

b)

For need #3, I want: a)

b)

For need #4, I want: a)

b)

For need #5, I want: a)

b)

For need #6, I want: a)

b)

Worksheet (C3)

I will show you 3 pictures in order, I would like everyone of you to look at them carefully and write down what you see in each picture. Please do not share or consult with your classmates regarding what you see and what you are going to write down. Use the following spaces for writing your opinion:

Picture #1 is _____

Picture #2 is _____

Picture #3 is _____

Worksheet (C4)

Specifically, please answer the following questions within 20 minutes, if you have any questions do not hesitate to ask.

At this moment I feel my need(s) is/are:

- | | |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |

To satisfy this/these need(s) I want:

- | | |
|----------|----------|
| 1. _____ | 2. _____ |
| 3. _____ | 4. _____ |
| 5. _____ | 6. _____ |

To get what I want I can choose from the following:

- | | |
|-------------|-------------|
| 1. a) _____ | 2. a) _____ |
| b) _____ | b) _____ |
| 3. a) _____ | 4. a) _____ |
| b) _____ | b) _____ |
| 5. a) _____ | 6. a) _____ |
| b) _____ | b) _____ |

APPENDIX D

Placebo Control Group Course Outline

THE PROVISIONAL ADMISSION PROGRAM

General Description

The PAP Program has four components: Orientation, Education 1131, Counselling Sessions and Tutoring. Provisionally admitted students are required to participate in all segments of the program.

Program Outline

1. Orientation - Monday, January 12, 1987 . The agenda includes the following: skills assessment, program requirements, discussion groups, guest speakers and class selection.
2. Education 1131 - This is a one-credit hour class for which a grade of pass or fail is given. ED 1131 meets on Mondays and ~~Wednesdays~~ Wednesdays. The first session is on January 19 at 1:30 in Room 6, University Hall.
3. Academic Counselling - You are required to meet individually with the Academic Counselor, Richard Massie, at least twice early in the semester. Depending on your progress, you may be asked to meet more often. You are also required to meet individually with your Peer Counselor at least once during the first few weeks of school.
4. Tutoring - The amount and type of tutoring received is based on plans from academic counselling sessions. All reading tutorial activities are with Mr. Richard Massie in 216 Davis Hall (283-3672). All other tutoring is in the SOAR Offices, 132 Hammond Hall (273-3684).

General Policies

1. Attend all required sessions as covered in the outline.
2. Full-time work is discouraged. If work is necessary to meet college expenses, it is strongly recommended that you work no more than 20 hours a week.
3. Keep all counselling appointments with the Academic and Peer Counselors. In the event of emergency or necessity to change an appointment, leave a message for Richard Massie at 273-3672.
4. Ten semester hours must be completed during the Spring. An overall grade point average of "C" (2.0) must be earned. If an average between 1.5 and 2.0 is earned, the Admissions Office will make a decision about continuing admissions as a PAP Student. A student can remain on the PAP Program for a maximum of two semesters.
5. You are not allowed to earn "F's" in any subject.
6. If you want to drop a course, you must get permission from Richard Massie. In general, students are not allowed to drop courses unless they have an excellent reason. IF YOU DROP A COURSE WITHOUT PERMISSION, YOU WILL NOT BE ALLOWED TO ENROLL AT UTA IN THE FALL OR SPRING.

EDUCATION 1131 - SPRING 1987
COURSE OUTLINE

Instructor - Richard Massie

Peer Counselors - Debra Comtois, Rory Owen, Talman Richie, David Vogelsang

Class Time - Mondays & Wednesdays 1:30 - 2:30

Textbook - Analytical Reading and Reasoning by Arthur Whimbey

Requirements: Students are required to attend all class sessions. All absences must be made up within one week of absence. Students must attend four academic seminars during the semester. Two seminars must be completed before March 1, 1987.

Students must complete all units in the textbook.

Students must keep a notebook containing all handouts and information given during the semester. Notebooks will be collected at the end of the semester.

All requirements must be completed to pass this course

<u>DATE</u>	<u>WEEK</u>	<u>TOPIC</u>	<u>ASSIGNMENT DUE</u>
1-19	1	Nelson- Denny Reading Test	
1-21	1	Course Outline	
1-26	2	Listening & Note-Taking	Unit 1
1-28	2	Listening & Note-Taking	Unit 1
2-2	3	Time Management	
2-4	3	Reading for Context Clues	Unit 2
2-9	4	Time Management	
2-11	4	Understanding the Main Topic & Analyzing Facts	Unit 3
2-16	5	Developing Professor/Student Relationships	
2-18	5	Comprehending Spatial Descriptions	Unit 4
2-23	6	SQ4R	
2-25	6	Test-Taking Strategies	Unit 5
3-2	7	How to use the Library	
3-4	7	Test Anxiety	Unit 6
3-9	8	Careers of the '80's	
3-11	8	Critical Thinking & Questioning	Unit 7
3-16	SPRING BREAK	SPRING BREAK	SPRING BREAK
3-18	Break	SPRING BREAK	SPRING BREAK
3-23	9	Study Hall	
3-25	9	Library Scavenger Hunt	Unit 8
3-30	10	Career's of the '80's	
4-1	10	Time Management	Unit 9
4-6	11	Study Hall	
4-8	11	Class Scheduling for Fall '87	Unit 10
4-13	12	Study Hall	
4-15	12	Activities and Organizations	Unit 11
4-20	13	Study Hall	
4-22	13	How to Study for Final Exams	
4-27	14	Study Hall	
4-29	14	To Be Announced	
5-4	15	To be Announced	
5-6	15	Final Examination	

APPENDIX E

A Copy of The Coopersmith's Self-Esteem Inventory
(Adult Form)

ADULT FORM

SEI

Coopersmith Inventory

Stanley Coopersmith, Ph.D.
University of California at Davis

Please Print

Name _____ Age _____

Institution _____ Sex: M ___ F___

Occupation _____ Date _____

Directions

On the other side of this form, you will find a list of statements about feelings. If a statement describes how you usually feel, put an X in the column "Like Me." If a statement does not describe how you usually feel, put an X in the column "Unlike Me." There are no right or wrong answers. Begin at the top of the page and mark all 25 statements.

	x4 =	
--	------	--



Consulting Psychologists Press, Inc.
577 College Ave., Palo Alto, CA 94306

- | Like
Me | Unlike
Me | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 1. Things usually don't bother me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 2. I find it very hard to talk in front of a group. |
| <input type="checkbox"/> | <input type="checkbox"/> | 3. There are lots of things about myself I'd change if I could. |
| <input type="checkbox"/> | <input type="checkbox"/> | 4. I can make up my mind without too much trouble. |
| <input type="checkbox"/> | <input type="checkbox"/> | 5. I'm a lot of fun to be with. |
| <input type="checkbox"/> | <input type="checkbox"/> | 6. I get upset easily at home. |
| <input type="checkbox"/> | <input type="checkbox"/> | 7. It takes me a long time to get used to anything new. |
| <input type="checkbox"/> | <input type="checkbox"/> | 8. I'm popular with persons my own age. |
| <input type="checkbox"/> | <input type="checkbox"/> | 9. My family usually considers my feelings. |
| <input type="checkbox"/> | <input type="checkbox"/> | 10. I give in very easily. |
| <input type="checkbox"/> | <input type="checkbox"/> | 11. My family expects too much of me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 12. It's pretty tough to be me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 13. Things are all mixed up in my life. |
| <input type="checkbox"/> | <input type="checkbox"/> | 14. People usually follow my ideas. |
| <input type="checkbox"/> | <input type="checkbox"/> | 15. I have a low opinion of myself. |
| <input type="checkbox"/> | <input type="checkbox"/> | 16. There are many times when I would like to leave home. |
| <input type="checkbox"/> | <input type="checkbox"/> | 17. I often feel upset with my work. |
| <input type="checkbox"/> | <input type="checkbox"/> | 18. I'm not as nice looking as most people. |
| <input type="checkbox"/> | <input type="checkbox"/> | 19. If I have something to say, I usually say it. |
| <input type="checkbox"/> | <input type="checkbox"/> | 20. My family understands me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 21. Most people are better liked than I am. |
| <input type="checkbox"/> | <input type="checkbox"/> | 22. I usually feel as if my family is pushing me. |
| <input type="checkbox"/> | <input type="checkbox"/> | 23. I often get discouraged with what I am doing. |
| <input type="checkbox"/> | <input type="checkbox"/> | 24. I often wish I were someone else. |
| <input type="checkbox"/> | <input type="checkbox"/> | 25. I can't be depended on. |

APPENDIX F

A Copy of the Adult Nowicki-Strickland Internal-External
Locus of Control

Directions

We are trying to find out what men and women your age think about certain things. We want you to answer the following questions the way you feel. There are no right or wrong answers. Don't take too much time answering any one question, but do try to answer them all.

In situations where you have difficulty selecting one answer, this is not an unusual happening. If it is a little more yes than no, then answer yes; if it is a little more no than yes, then answer no. You are urged to pick one or the other response and try to answer that and all items.

Please place an "X" in the appropriate box for the selected answer.

Item	Yes	No
1. Do you believe that most problems will solve themselves if you just don't fool with them?	[]	[]
2. Do you believe that you can stop yourself from catching a cold?	[]	[]
3. Are some people just born lucky?	[]	[]
4. Most of the time do you feel that getting good grades meant a great deal to you?	[]	[]
5. Are you often blamed for things that just aren't your fault?	[]	[]
6. Do you believe that if somebody studies hard enough he or she can pass any subject?	[]	[]
7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?	[]	[]
8. Do you feel that if things start out well in the morning that it's going to be a good day no matter what you do?	[]	[]
9. Do you feel that most of the time parents listen to what their children have to say?	[]	[]
10. Do you believe that wishing can make good things happen?	[]	[]
11. When you get punished does it usually seem it's for no good reason at all?	[]	[]
12. Most of the time do you find it hard to change a friend's (mind) opinion?	[]	[]
13. Do you think that cheering more than luck helps a team to win?	[]	[]
14. Did you feel that it's nearly impossible to change your parent's mind about anything?	[]	[]
15. Do you believe that parents should allow children to make the most of their own decisions?	[]	[]

Item	Yes	No
16. Do you feel that when you do something wrong there's very little you can do to make it right?	[]	[]
17. Do you believe that most people are just born good at sports?	[]	[]
18. Are most of the other people your age stronger than you are?	[]	[]
19. Do you feel that one of the best ways to handle most problems is just not to think about them?	[]	[]
20. Do you feel that you have a lot of choice in deciding whom your friends are?	[]	[]
21. If you find a four leaf clover do you believe that it might bring you good luck?	[]	[]
22. Did you often feel that whether you did your homework has much to do with what kind of grade you got?	[]	[]
23. Do you feel that when a person your age decides to hit you there's little you can do to stop him or her?	[]	[]
24. Have you ever had a good luck charm?	[]	[]
25. Do you believe that whether or not people like you depends on how you act?	[]	[]
26. Did your parents usually help if you ask them to?	[]	[]
27. Have you felt that when people were angry to you it was usually for no reason at all?	[]	[]
28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?	[]	[]
29. Do you believe that when bad things are going to happen they are just going to happen no matter what you try to do to stop them?	[]	[]
30. Do you think that people can get their own way if they just keep trying?	[]	[]

Item	Yes	No
31. Most of the time do you find it useless to try to get your own way at home?	[]	[]
32. Do you feel that when good things happen they happen because of hard work?	[]	[]
33. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?	[]	[]
34. Do you feel that it's easy to get friends to do what you want them to?	[]	[]
35. Do you usually feel that you have little to say about what you get to eat at home?	[]	[]
36. Do you feel that when someone doesn't like you there's little you can do about it?	[]	[]
37. Did you usually feel that it was almost useless to try in school because most other children were just plain smarter than you are?	[]	[]
38. Are you the kind of person who believes that planning ahead makes things turn out better?	[]	[]
39. Most of the time, do you feel that you have little to say about what your family decides to do?	[]	[]
40. Do you think it's better to be smart than to be lucky?	[]	[]

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