Personality and Peace: A Study of Person, Process, and Response in a Human Growth Group Procedure

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LOYOLA UNIVERSITY OF CHICAGO

PERSONALITY AND PEACE:

A STUDY OF

PERSON, PROCESS, AND RESPONSE

IN A

HUMAN GROWTH GROUP PROCEDURE

A DISSERTATION SUBMITTED TO

THE FACULTY OF THE GRADUATE SCHOOL

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CHAPTER I

INTRODUCTION

In the last decade American society has seen a very significant upsurge in the popularity and proliferation of support group approaches to dealing with personal and family problems (Hurley, 1988). More and more people have been seeking support for their personal problems through the rapidly expanding field of twelve-step programs modeled after the original Alcoholics Anonymous format, and through other self-help or group programs. Groups today address a very broad spectrum of personal concerns, ranging from topics that generate group names like “Mistresses Anonymous”, “Bald Headed Men of America”, “Fundamentalists Anonymous” to more traditional group topics such as 'ALANON', (designed to serve the family members of alcoholics), “Adult Children of Alcoholics” and “Alcoholics and Narcotics Anonymous”. By 1986 it was estimated that close to 804,000 people in the U.S. and Canada were attending Alcoholics Anonymous groups alone on a regular basis (Harley, 1988). Worldwide it was estimated that close to 1.5 million people belonged to A.A. and that at least 14 organizations had emerged which followed the A.A. format, tailoring it to other problem areas. Not only had the number of groups utilizing the A.A. format grown, but other “personal workshop” groups had developed as well. John Bradshaw, a psychologist and former priest, achieved significant media and popular attention for his personal recovery
workshops. Among other goals, these workshops purported to help people find and nurture their "child within". The past decade also saw the expansion of group programs that grew out of the Human Potential Movement of the 1950's and 1960's such as "The Forum" (previously known as Erhardt Seminar Trainings or "E.S.T."), and "Lifespring". Increasing numbers of people sought 'personal effectiveness' training, and enrolled in group programs to help promote enhanced interpersonal, vocational, and overall functioning. By 1987 the then U.S. Surgeon General Everett Koop, felt that the group movement was sufficiently strong to warrant the sponsoring of a national workshop to create an agenda of policies, programs and activities to promote self-help (Hurley, 1988).

There are several factors that have likely contributed to the burgeoning of group approaches to addressing personal problems. One factor may stem from the breakdown in the traditional family structure in the United States (the U.S. currently can boast of the highest divorce rate in the industrialized world; Trent & South, 1989) and people's consequent need to seek social support elsewhere. Another factor may include the fact that insurance companies have reduced the dollar amount they are willing to reimburse for ongoing individual psychotherapy. This has likely enhanced people's motivation to seek support from groups that either do not require payment, or that require only a one time fee (e.g., weekend workshops). When people do seek psychotherapy, they may be more willing to join groups rather than pay for more expensive individual treatment.

There is no indication that insurance policies are likely to change in the direction of providing more funding for outpatient individual psychotherapy, and in fact, this allotment appears to continue to decrease (Giles, 1993). For instance, prior to the mid
1980's, mental health care was delivered and reimbursed by insurance companies largely on a fee for service basis, which tended to encourage ongoing treatment, mostly individual psychotherapy (Giles, 1993). By 1990 mental health comprised the third largest health care expense to employers in the United States (Mines, 1990). Giles, (1993) explains that HMOs developed in the 1980's to attempt to cope with, and contain, the expanding cost of both general and mental health care. Between 1982 and 1987 HMO membership increased by 300%, and this membership has continued to rise substantially since that time. Reviewers for managed care companies and HMOs have been perusing the psychotherapy outcome literature, and reimbursing shorter lengths of individual treatment, as well as recommending more forms of group treatment for their patients (Giles, 1993).

The economic situation of many middle-class American families has also been shifting, with fewer families possessing adequate disposable income to render them willing or able to pay for expensive ongoing individual treatment. In addition, many clinicians have noted that their clients achieve significant benefits from participation in a support-group, twelve-step, or other group program, and increasing numbers of clinicians recommend participation in such a group as an adjunct to individual therapy for numerous patients (Hurley, 1988). All of this speaks to the timeliness, relevance and need for a re-evaluation of group approaches to psychological treatment and growth. These approaches are currently of interest both as primary and adjunctive forms of intervention. Current studies that can assess more specifically what types of individuals can benefit from various group-help formats, and what process elements of these formats are particularly
effective for whom, are sorely underrepresented in the literature, and could provide important information for those seeking to better evaluate today's psychotherapy marketplace. The personal growth group that the current study investigates is known as *Lifespring* and was founded in 1974 in San Rafael, CA. The program grew out of the Human Potential Movement which was grounded in the premises and practices of humanistic psychology that emerged in the 1950's and found increasingly widespread expression in the next two decades (Adams & Haaken, 1987). A forerunner to this development was the creation of the “T group” at the National Training Laboratories in Bethel, Maine in the 1940’s. The purpose of this type of group procedure, also known as sensitivity training, was to promote greater individual integrity, self-awareness, broader understanding of social conditions, as well as to enhance behavioral effectiveness in planning and achieving changes in one’s self and in one’s social environment (Bradford, Gibb, & Benne, 1964). In the 1970’s an effort was made by several persons to consolidate various practices like this into cohesive packages as training programs. This was first successfully initiated by Werner Erhardt with Erhardt Seminar Trainings (or *EST*). A forerunner to *EST* was a group called “Mind Dynamics” started by Alexander Everett in California. Mind Dynamics sponsored programs that also purported to help people achieve greater self-expression and self-actualization. Later, a contemporary of Everett’s, John P. Hanley, in conjunction with several individuals who had trained with Mind Dynamics, broke with that group and developed the training programs for *Lifespring*. The *Lifespring* “trainings” that were developed initially by these individuals have been informally revised throughout the years through the discussions and consensus of groups of “trainers” (people who run the trainings, generally not mental health
professionals). A more detailed description of the *Lifespring* training program will be presented later in this review.

**Efficacy of Group Interventions**

Past research has addressed the issue of whether group approaches to treatment and/or growth are effective (Cooper, 1987; Diamond & Shapiro, 1973; Foulds & Hannigan, 1976). Many studies have assessed such general group outcome criteria as changes in self-esteem, changes in one's ability to form meaningful social relations, and differences in level of self-insight (Bates & Goodman, 1986; Nidiffer & Zoff-Sievert, 1983; Shadish, 1985). By and large the results have been positive and have warranted a cautious conclusion that group therapy and/or growth groups can be beneficial (Bates & Goodman, 1986; Smith, 1980; Ware & Perry, 1987). Improvements derived from growth group participation in particular have been found in such areas as increased positive affect (Shadish, 1985), greater self-actualization (Foulds & Hannigan, 1976, Shostrom, 1978), movement toward greater internal locus of control (Diamond & Shapiro, 1973), decreases in participants' acknowledged psychological distress (Nidiffer & Zoff-Sievert, 1983), and increases in participants' willingness to acknowledge defensive styles (Waves & Perry, 1987). Harshaw (1985) compared 13 MMPIs of inmates at a Federal Corrections Institute in California and found that those who completed *EST* training versus those who dropped out after one session displayed significantly less deviant scores on the MMPI after the training than did their colleagues who failed to complete the training. This was so despite the fact that there were no significant differences in level of
deviance noted on the two groups’ pre-training MMPIs. Nidiffer and Zoff-Sievert (1983) administered the Mooney Problem Check-List (Mooney & Gordon, 1950) to 29 undergraduates before and after they participated in an encounter group experience. Nidiffer and Zoff-Sievert found that encounter group students indicated a considerable decrease in problems from pre to post-testing, while control group subjects failed to indicate a change in the number of problems listed. Lee Ross (1985, cited from Hanley, 1990), in studying 100 graduates of the Lifespring “Basic Training” (their initial course), found that one year after completing the course people were still likely to report increased self-esteem, less stress and strain in their role areas, and to view the world as containing more opportunities than they had prior to enrolling in Lifespring. Ross also asked participants to respond to a series of descriptive statements directly after the Basic Training. He found that 95% indicated that they experienced enhanced feelings of responsibility and control after the training, and 90% reported experiencing increased self-liking and self-acceptance.

Some research has addressed the question of whether growth group involvement poses potential risks (Lieberman, 1987). While a few studies have detected risk to a small number of participants in the form of some degree of psychological decompensation (e.g., Glass & Kirsh, 1977), other studies, narrowing the questions and the groups assessed, have detected much more limited risk from growth group participation (Lieberman, 1987). Lieberman, using the Clinical and Diagnostic Interview Scale, identified potential casualty risks in a pool of 300 subjects participating in a large group awareness training program (Lifespring). After the group experience he re-
assessed all people initially classified as casualty risks, and determined that only a very small number experienced any psychological distress, generally a minor stress reaction, and reported that no long-term psychiatric casualties were detected. Bates and Goodman, (1986) in their review of studies on the effectiveness of encounter groups, reported an overall group casualty rate of under 1%. The question of whether encounter group participation poses potential risk however, is still being debated.

A further question that has received mixed results in empirical studies is that of the longevity of benefits derived from growth group participation. While some studies have found enduring gain (e.g., Foulds & Hannigan, 1976), others have found this endurance to be limited (Smith 1975a, 1980d). The duration of benefits, therefore, also remains a topic worthy of further study.

The general outcome results thus indicate that growth group participation tends to yield some positive benefit, poses recognizable but limited risk, and is often subject to a degree of fade-out over time. One concern emphasized over and over in the research, however, for both growth groups and group therapy in general, is the lack of specific knowledge about subject and process variables that may be accounting for any of these results. The current study seeks to re-visit the question of the efficacy of growth group procedures on several outcome criteria, and perhaps more significantly, addresses the question of what specific aspects of the group process are reported to be most beneficial, for whom?

Bednar and Kaul in their review of experiential group research published in Garfield's Handbook of Psychotherapy (1978) recommended that studies search for the
specific treatment factors that account for the outcomes of group psychotherapy treatments. They suggested that researchers develop greater conceptual precision in delineating and describing the treatment factors that are implemented in group therapy or growth group programs. Garfield (1986), in his work on client variables in psychotherapy, also concluded that outcome research can profit greatly from increasing the degree of specificity in delineating not only treatment factors, but also the characteristics of persons who receive and who provide treatment. Bednar and Kaul suggested that, in fact, the viability of responsible group treatment studies may rest on the replication and extension of investigations that identify specific treatment factors, and on the development of matching procedures that consider treatment by person interaction patterns. Of all the research Bednar and Kaul reviewed on group therapy, no study was found in which a specific treatment variable had been isolated for study that was a logical extension of a major conceptual model. They concluded that group research needs to become more specified if it seeks to answer any question beyond merely "Does group therapy work?" We cannot know the causal relations of why and how group treatments work without solid process research, they suggested.

The growth group to be studied offered by Lifespring is designed to help people improve their sense of self-efficacy in various areas of their lives (e.g., relational, vocational, personal). Their “Basic Training”, (the training to be studied), spans the course of three full days, and is roughly 36 hours in length. The training is comprised of a series of specifically planned exercises, many corresponding to techniques from differing schools of psychotherapeutic intervention, interspersed between group
discussions led by a trainer. The current study investigates how people with differing personality types [as delineated by the Myers-Briggs Type Indicator (McCaulley & Myers, 1977)], respond to the different types of exercises that comprise the training. The types of exercises that are incorporated into this program include the following: (1) interactive and confrontative exercises (usually dyadic), designed to provide participants with personal feedback about their interaction style and an opportunity to explore their feelings about giving and receiving feedback; (2) imagery oriented exercises in which participants are asked to visualize themselves at different periods of their lives and in which a regressive emotional identification with past affects is promoted; (3) cognitive discussion components in which the “trainer” (generally not a mental health professional), provides information (often addressing patterns of thinking) and leads a discussion; (4) group activities and behavioral games designed to help participants gain insight into their interactive and competitive patterns; (5) emotive interpersonal exercises which might involve giving hugs or sharing other emotional displays with others; (6) homework. Therefore, some exercises are more interpersonal and confrontational, some are more regressive and imagery oriented, some are more cognitive, some involve more structured and behavioral activities, and some are more emotive and cathartic (a more specific description of exercises that comprise each exercise category is included in Appendix A). Thus studying participants’ responses to the different types of exercises that comprise this training, (including their feelings about the benefit they receive from each type compared to the other types), affords an opportunity to assess what type of “therapeutic” (or growth enhancing) techniques people with differing personality styles find most helpful, comfortable, and appealing. This can have important implications for
the question of therapy/client matching for both individual and group intervention. This topic is particularly relevant today when reimbursement for extended treatment is very limited, and when it has thus become particularly important to insure that the brief treatment that is available to a given client be the most effective therapeutic approach for that client.

**Psychotherapeutic Outcome**

Most research that has assessed the relative efficacy of differing therapeutic techniques has been conducted on samples of general psychotherapy clients, without regard to any particular client characteristic (Garfield, 1986). Far fewer studies have addressed the issue of the best match between client type and appropriate therapeutic technique. With regard to overall therapeutic outcome across client type, prior to 1990 a number of large scale comparative research projects and meta-analyses resulted in the conclusion that psychotherapy tended to have a moderate though significant positive impact, with little difference in efficacy found between different types of therapeutic intervention (Luborsky, Singer, & Luborsky, 1975; Smith, Glass, & Miller; 1980, Strupp & Hadley, 1979). This conclusion came to be known as the equivalence hypothesis and suggested to some that non-specific treatment factors (such as attention or empathy), may be the means by which therapeutic progress occurs (Giles, Neims, & Prial, 1993). Smith, Glass, and Miller (1980), purporting to have conducted a meta-analysis of all published studies in 1980 to date, repeated the conclusion of Luborsky, Singer, and Luborsky (1975) that: "Different types of psychotherapy (verbal or behavioral); psychodynamic,
client-centered, or systematic desensitization, do not produce different types or degrees of benefit.” (p. 184). A specific example of a comparative psychotherapy study finding equivalence was described by Garfield (1990) in an article on process research. He described the “Sheffield Psychotherapy Project” in which a psychodynamic/experiential psychotherapy was compared with a cognitive/behavioral therapy. While significant differences were secured in terms of expected differences in process between the two therapies, the outcomes of the two therapies were only marginally different (Stiles, Shapiro, & Firth, 1986). However, the usefulness and even meaning of these results of equivalence across therapeutic techniques has been criticized due to the fact that different researchers, whose results are compared to one another, use very different criteria for their measures of outcome (Beutler, 1991; Crits-Christoph & Mintz, 1991). For instance, while some researchers may take very specific evidence of change in a given behavior over a limited period of time as a measure of therapy outcome (e.g., decrease in panic attacks), others tend to study more self-reported global constructs to assess psychotherapy outcome, such as changes in self-esteem and satisfaction with life. Others suggest that findings of equivalence may be due to weakness in the design of specific outcome studies themselves, and/or inaccurate conclusions drawn from meta-analyses (Beutler, 1991; Kazdin, 1986).

Beutler (1991) in his article “Have all won and must all have prizes? revisiting Luborsky et al.’s verdict” argued against Luborsky’s conclusions in “… everyone has won and all must have prizes” (Luborsky, Singer, & Luborsky, 1975), by stating that the interaction effects of treatment by patient are not being picked up by the studies included
in this meta-analysis despite the fact that substantial within cell variation is present. This suggests, according to Beutler, that there are interaction effects that have not yet been captured by the dimensions selected for any given study, and that there are likely variables that mediate between treatment type and outcome that have not yet been adequately identified or understood. To render these results more meaningful and usable to clinicians, many researchers stress the need to look more closely at the question of what type of interventions work best for what type of people, seeking help with what type of difficulties (Garfield, 1990; Shoham-Salomon & Hannah, 1991).

While many have concluded that different psychotherapeutic techniques yield equivalent results (Bergin & Lambert, 1978; Luborsky, Singer, & Luborsky, 1975; Stiles, Shapiro, & Elliot, 1986), others, with increasing volume, are suggesting that, in fact, short-term cognitive/behavioral interventions for numerous conditions (e.g., agoraphobia, bulimia, enuresis, reactive depression, etc.) yield superior results to other forms of therapeutic intervention (Eysenck, 1993; Giles, Neims, & Prial, 1993; Lerner & Clum, 1990). Eysenck (1993) even suggested that the conclusions of Smith, Glass, and Miller (1980) drawn from their meta-analysis, are not in line with the hard data that they present, which, according to Eysenck, warrant the conclusion that behavior therapy is more effective than other techniques of psychotherapy. However, some researchers have detected significant “therapist effects” in the form of bias by therapist/researchers in favor of their own theoretical orientation in the design and analysis of their comparative studies of psychotherapies (Crits-Christoph & Mintz, 1991; Kazdin, 1986; Persons, 1991). Regardless of which overall conclusion researchers adhere to about the relative efficacy
of differing therapeutic techniques, there seems to be a general consensus that to understand this question in a more useful manner, more attention needs to be paid to the interaction between patient characteristics and treatment variables, including a greater focus on the impact of differing aspects of psychotherapy process on psychotherapy outcome (Berzins, 1977; Beutler, 1991; Elliot, Stiles, & Shapiro, 1993; Garfield, 1990; Shoham-Salomon & Hannah, 1991).

Process Research

Some group process elements that warrant further study include the following: the efficacy of specific techniques and exercises utilized in a group process; patient variables and how these interact with leader variables and/or technique variables to affect change; elements of the group dynamic, such as cohesion, alliances, and the impact of hearing the self-revelations of others. Past research has tended to focus either on aspects of psychotherapy and group process, or on outcome, with a limited number of studies linking both (Beutler, 1990; Garfield, 1990; Shoham-Salomon & Hannah, 1991). Garfield (1990) suggested that process researchers have been critical of studies of outcome that paid little or no attention to process because they could not address the question of what caused the changes they found. He concluded that it is desirable to evaluate outcome and process in the same study, and indicated that attempts to link in-session changes to overall treatment outcome are beginning to be made by researchers. Hill (1990), in her review of process research in individual psychotherapy, recommended, in the future, researchers do more to find links between client personality characteristics,
therapy process, and therapy outcome. She suggested that while several new methods of studying psychotherapy process, including linking behaviors with immediate outcome are helpful for analyzing process data, further work is still needed linking process with more distal outcome. Hill also suggested that more work needs to be done relating stable client personality characteristics (e.g., dominance, introversion), to what therapist techniques are offered, how techniques are responded to by clients, and how clients experience the therapy process. The current study seeks to make this link by investigating techniques and exercises that are part of the group program under study, and evaluating how different types of people respond differently to these varying techniques, and also, how this response relates to their overall response to the group experience.

**Therapy/Client Matching**

Although perhaps not extensive enough, some work has been done on the question of therapist/client matching and the implications of this for the potency and efficacy of both individual and group therapy. Many authors have noted a scarcity of this type of research, particularly in the group process literature (Garfield, 1986; German & Razin, 1977). German and Razin (1977) stated that experts and researchers generally prefer to relegate personality variables in their outcome studies to the domain of error, rather than investigate these in their own right. Some researchers that have looked at personality effects have found that pre-treatment matching of patient type and therapy and/or therapist type may improve efficacy of treatment. Carson and Heine (1962), using the MMPI to classify both patient and therapist type, concluded that moderately dissimilar
therapy dyads achieved the best results. Geller (1965) gave the Myers-Briggs Type
Indicator to counselors and 129 counselees at a college counseling center and found that
therapist/client dyads with medium similarity on the MBTI reported the most favorable
appraisal of counseling. He concluded that therapist/client type similarity was predictive
of duration of counseling, but not outcome. However, Swenson (1967) found that dyadic
complementarity rather than similarity on certain factors such as dominance, led to
greater improvement. Gassner (1970), using the Firo-B to classify therapists and clients
into various categories of therapy dyads, concluded that patients in compatibly paired
dyads evaluate the therapy relationship more favorably than do non-compatibly matched
patients. Clearly, further investigation of the impact of client type/therapist type
matching is warranted.

Even less research has been conducted which looks at the match between client
type and treatment type with respect to efficacy of intervention. Garfield (1986), in his
chapter on therapy/client matching in his Handbook of Psychotherapy, pointed out that
most patients only stay for very brief therapy (with the median length of treatment being
six sessions). Therefore, to be effective, such brief treatment should be geared, as much
as possible, to the specific needs and characteristics of the patient. Despite this, few
clinical settings conduct pre-therapy testing of patients with a view toward determining
which treatment or technique would be optimal for which patient (German, 1977).
Mendleson and Geller (1965) argued that studies of the relative efficacy of several
treatment approaches for alleviating problems offer only limited data for matching
purposes, unless the patient group is subdivided in a meaningful manner. One study that
did focus on patient variables was conducted by DiLoreto in 1971. He looked at the relative efficacy of systematic desensitization compared to rational emotive therapy and client-centered therapy. To do this he classified subjects as either introverts or extraverts using the Myers Briggs Type Inventory. DiLoreto found that both types responded equally well to systematic desensitization, introverts derived more gain from rational emotive therapy, and extraverts gained more from client-centered therapy. Gregoryk (1988) found that clients with higher internal locus of control, measured by the Mental Health Locus of Control Scale, showed a greater preference for non-directive rather than directive counseling.

There have been recent studies that have evaluated psychotherapy type by diagnosis and outcome. Giles (1993) in his book *Handbook of Effective Psychotherapy* suggested that many studies have found behavioral techniques to be superior in outcome for specific conditions such as agoraphobia (Agras, Leitenberg, & Barlow, 1968; Ascher, 1981), marital discord (Bornstein, 1981), sexual deviations (Alford, Webster, & Sanders, 1980; Barlow, Leitenberg, & Agras, 1969), etc. However, Persons (1991) argued against mere diagnosis being used as a matching variable to determine therapy technique. He stated that this type of assessment tends to be atheoretical and standardized. Treatment based on diagnosis, he argued, understands the problem at the symptom level and explicitly avoids any discussion of underlying mechanisms, whereas current theories of psychotherapy do not base treatment on diagnosis; instead, they focus on underlying psychological mechanisms described in the theory. Persons argued for a thorough, case specific, theory driven assessment and treatment. Beutler (1991) recommended that
studies match classes of procedures with personality, coping, and response style. Beutler also questioned using diagnosis as a predictor or interacting variable in outcome research, and suggested the relationship between diagnosis and outcome hasn't been explained well enough to warrant matching treatment techniques to clients based exclusively on this criterion. Beutler suggested that studies would do better delineating contrasting patient groups based on constructs about which theoretical premises propose differential rates of efficacy among psychotherapies. The Myers Briggs Type Indicator (the personality measure employed in the current study), delineates personality types and personality characteristics that lend themselves to different theoretical hypotheses about predicted treatment outcome, and has been found to be associated with different treatment preferences by type (Carskadon, 1979, cited in Myers & McCaulley, 1985; Weir, 1976, cited in Myers & McCaulley, 1985). Nevertheless, regardless of what matching criteria are used, very few studies have looked at how people with differing personality traits respond to a group experience as a whole, and to the specific components of this experience.

The current study was designed to look at how people with varying personalities respond to a growth group experience as a whole, and to the various process components that make up this experience. The question of whether certain process variables (e.g., exercise types) seem to yield greater results was examined, as was the question of whether certain personality types respond more to certain process components and particular exercise modalities than do others. The study included an overall outcome
assessment of gains in general areas of functioning such as purpose in life, satisfaction with life, social anxiety, general anxiety, and personal assertiveness.

The Myers-Briggs Type Indicator

The personality measure that was utilized in this research to delineate personality type is the Myers-Briggs Typology Inventory. The Myers-Briggs (self-scorable, form G) is a 96 item forced choice self-report inventory, self-administered and designed for use with normal subjects. This measure purports to delineate personality preferences in the areas of introversion versus extraversion, judgment versus perception, thinking versus feeling, and sensation versus intuition. Preferences or tendencies toward one of each of these four pairs of personality styles are assessed for each individual and an overall personality configuration is determined across these four basic areas. Sixteen possible personality configurations can be obtained from the test. Theory postulates specific dynamic relationships between the preferences. An explanation of these configurations as well as normative information on this measure is presented in greater depth in the Method section of this review.

The Myers-Briggs Type Indicator was created by Isabel Myers and her mother, Katherine Briggs, in a series of stages, beginning in 1942 and continuing until the publication of form G in 1977 (McCaulley & Myers, 1985). C. G. Jung's theory of personality types provided the theoretical assumptions on which the test was based. According to the manual (1985), Myers and Briggs thoroughly studied Jung's psychological types and drew on Jungian theory and their own observations to generate questions. The test measures personality preferences, not personality traits per se, with
the assumption being that preferences themselves are often not consciously formulated and indicate deeper personality attributes (Myers & McCaulley, 1985). The questions were tested on a series of criterion groups made up of persons whose preferences were clear enough to be manifested consistently in their observable behavior. Items were then tested on progressively larger samples.

Jung, in his theory of personality, postulates that people are different in recognizable but fundamental ways even though they all have a similar multitude of instincts (archetypes) that drive them (Keirsey & Bates, 1984). People's preference for a given "function" is characteristic, and people can be "typed" by this preference. The three dimensions on which Jung categorized personality preferences were Introversion versus Extraversion (I/E), INtuition versus Sensation (N/S), and Thinking versus Feeling (T/F). A fourth dimension or attitude was added by Myers and Briggs, that of Judging versus Perceiving (J/P). The Introverted/Extraverted dimension is supposed to refer to the direction of an individual's psychic energy flow, which is described to be extraverted if focused on objects and events in the external world, and introverted if focused on internal experiences and processes (Jacka, 1990). The intuitive individual is thought to perceive relations and possibilities primarily at an unconscious or subliminal level, whereas the sensate individual is thought to perceive phenomena more directly through the senses. The Thinking/Feeling dimension reflects an individual's tendency to judge experience on the basis of either logical reasoning (thinking), or values, likes, and dislikes (feeling). Perceivers are thought to conceptualize in terms of meanings, relationships,
and possibilities, and to prefer to leave their options open while judgers are believed to seek closure, and value their ability to organize facts (Keirsey & Bates, 1984).

Keirsey and Bates (1984) have also described attributes of four “temperament” styles they feel can be categorized using the Myers Briggs Type Indicator. Each of the 16 typologies contains one of the four temperament groups, which are determined by a combination of two attributes [either iNtuitive Feeling (NF), iNtuitive Thinking (NT), Sensate Perceiving (SP) or Sensate Judging (SJ)]. Every person’s MBTI score contains one of these four pairings. Those with the SP temperament (labeled by the authors “Dionysian”), are described by Keisey and Bates to be impulsive, freedom seeking, tending to live fully in the present, and hungering for action without fetter or constraint. SJ’s (labeled by these authors “Epimethean”), are described as motivated strongly by a desire to be useful and dutiful, and to generally believe in conserving hierarchy, rules, and order. NT’s (labeled “Promethean”), are described as being fascinated by power, particularly power to understand, control, predict, and explain. NT’s crave competence according to Keirsey and Bates, and are seen as strong individualists. Those with the NF temperament (labeled “Apollonian”), are described as motivated significantly by a search for self-actualization, unity and purpose. NF’s are deeply inspired to seek meaning in what they do, and to transmit ideas in an attempt to make a difference in the world.

The MBTI is a very widely used measure and, in fact, has become the most widely used personality instrument for non-psychiatric populations (Murray, 1990). Three hundred studies using the MBTI were cited in Buros (1965, 1978) and over 1500 studies are included in the latest edition of the Myers-Briggs Type Indicator manual (1985).
Several studies support the validity of the MBTI (e.g., Carskaden & Cook, 1982; Cohen, Cohen, & Cross, 1981; Myers & McCaulley, 1985; Thompson & Borrello, 1986). The MBTI has been found to be satisfactorily reliable as well as valid (Myers & McCaulley, 1985). Normative information on this measure is presented in greater depth in the Method section of this review.

There has been a good deal of research looking at personality type (as assessed by the MBTI) and cognitive style. Thinkers, given their logical approach, have been shown to display a greater capacity to deal with facts and figures than are people grouped as 'feelers' (Myers & McCaulley, 1985). Thinkers have also been shown to demonstrate more mental control than do feelers. In Brown's 1991 study, complexity of thought was also found to increase as intuition increased, suggesting that intuitors displayed a greater capacity for abstract and complex thinking compared to sensing types, especially as the prominence of this trait (or personality preference) approached the extremes. Intuition was also positively correlated with cognitive integration. In fact, the S (sensation) /N (intuition) scale was found to be the best predictor of conceptual level with higher intuition correlating with higher conceptual level. Hemisphere dominance studies support the claim that intuitors and perceivers are more right brain than left brain dominant. The right hemisphere is related to the abstract thinking process and to creativity. Thinking and sensing types were found to be more left hemisphere dominated (Taggart, Kroeck, & Escoffier, 1991).

Decision making efficacy and personality style has also been investigated. In one study, sensing types were found to perform more efficiently on an interactive computer
simulated business cost-performance exercise than were other types (Grove, Davis, & Knowles, 1990). Sensate Thinkers (STs), according to the authors, are thought to be practical and matter of fact in their decision making. Sensate Feelers (SFs) would be expected to be sympathetic and friendly. INtuitive Feelers (NFs) perceive problems in a Gestalt fashion and recognize a wide range of possible solutions. Thus, they are thought to be enthusiastic and insightful decision makers, although not necessarily efficient. INtuitive Thinkers (NTs) evaluate an array of possibilities with impersonal analysis and are thought to be logical and ingenious. The authors found that the best performance on a business decision making program using interactive computer software were, in order of efficacy, SFs, STs, NFs and then NTs. Sensates out-performed intuitors in efficiency, and feelers generally out-performed thinkers.

Probably the widest use of the MBTI has been in the area of career counseling. With respect to differing career interests, intuitives have been found to score higher on measures of artistic and investigative interests than have individuals with sensate personalities. Conventional interests in career have been found to be more common in women with sensate personality traits, while artistic interests have been related to high intuition in women (Apostal, 1991).

Another area that has been studied using the Myers-Briggs Type Indicator is the relationship between assertiveness, styles of conflict resolution, and psychological type. Administering the College Self-Expression Scale (a 50 item self-report measure of overall assertiveness) and the MBTI, Williams and Bickness-Behr (1992) found that extraverted students were more assertive than introverted students. Students ranking high
on the intuitive and thinking scales were found to be more assertive than high sensing and feeling types. The judging and perceiving function showed no relationship to assertiveness. In general, E(xtraversion) iN(tuition) & T(hinking) were found to be factors more predictive of assertiveness than their counterparts (I, S and F).

In a study of personality type and conflict handling intention, Percival, Smitheram, and Kelly (1992) administered the MBTI and the Thomas-Kilman Mode Instrument, which measures a person's relative preference for five modes of handling conflict. The five modes include competing, which is categorized in this instrument as assertive and uncooperative, accommodating, which is categorized as unassertive and cooperative, avoiding, which is categorized as unassertive and uncooperative, collaborating, which is seen as both assertive and cooperative (finding a solution that suits all parties), and compromising, which is seen as intermediate in both assertiveness and cooperativeness. Percival, Smitheram, and Kelly (1992), cite three studies (Chauin & Schneer, 1984; Kilman & Thomas, 1975; Mills, Robey, & Smith, 1985) that have correlated the four scales of the MBTI with the scales of the MODE instrument. In all three, thinkers were found more likely to be competitive than feelers, while feelers were more likely to be accommodating. Extraverts were more likely to use the assertive strategies of competition and collaboration, whereas introverts were more likely to use either accommodation or avoidance. A replication was conducted using 86 males and 74 females (Percival, Smitheram, & Kelly, 1992). Cut-off points for high and low scores on the MODE were determined. Feelers were again found more likely than thinkers to accommodate, and introverts were more likely than extraverts to avoid. Extraverted
thinkers preferred competing, extraverted feelers preferred collaborating, introverted thinkers preferred compromise, and introverted feelers preferred avoiding. The authors speculated that feelers avoid competition due to their emotional investment in maintaining harmony in relationships. Thus, for feelers things are won through accommodation and avoidance; they win peace and harmony, and can put their energy toward their own independent projects.

Some researchers have also looked at the relationship between personality variables and attitudes toward dream experiences. Cann and Donderi (1986) found that intuitive and introverted subjects recalled more dreams than subjects higher on other dimensions. This finding has been obtained before (Cohen, 1970; Hill, 1974). Cann and Dondei (1986) also found that intuitive subjects (who are theorized to be oriented toward internal, unconscious experiences), regarded their dreams as more emotionally intense and disturbing than did sensate subjects.

Finally, the use of the MBTI in counseling has also been studied, although some suggest that this has not been done adequately or often enough (Myers & McCaulley, 1985). Carlson (1989) stated that he is not aware of research showing particular MBTI client types to make more progress in one type of counseling than another, and suggests that more research, consequently, is necessary in order to justify the use of MBTI type for treatment type assignment. Some research has been conducted which assesses therapy preferences for different MBTI types. Carskadon (1979) asked college students what qualities they value in a counselor. Thinking types rated behavioral characteristics higher, while feeling types rated humanistic characteristics higher. Weir (1976, cited
from McCaulley & Myers, 1985) also found that feeling types who listened to an audiotape of a counselor demonstrating unconditional positive regard were significantly more likely to prefer this approach than were other types. Arian (1968, cited from McCaulley & Myers, 1985) found that among high school students seeking counseling, thinking types preferred cognitive characteristics in prospective counselors, while feeling types preferred affective characteristics. In the MBTI manual (1985) Myers and McCaulley state that, as of the time of that publication, no study had looked at actual response to different types of therapy approaches, only differences in preferences before therapy, (although one such study was found for this review). Myers and McCaulley concluded that studies of actual response to different therapeutic techniques by different MBTI types is an underdeveloped and important area for further study.

**Ethnic Differences**

One other facet of the growth group process the current study investigated is the question of whether the process as a whole, and/or specific process components, have an effect on changing participants' attitudes towards people from differing ethnic, religious, and national backgrounds. Changes in participants' level of tolerance, empathy and comfort with people from different backgrounds from one's own was assessed. One underpinning philosophy and stated goal of the Lifespring organization is to help people to recognize the degree of control they have in what happens to them in their lives. The trainings stress the value of taking greater personal responsibility for one's actions and involvements. This may be expected to have the impact of helping people to feel more
personally effective, agentic, and optimistic. It might be found, then, that participants' tendency to blame others for their problems or to be threatened by the differences of others, might diminish. The trainings encourage the view that people can take charge of their lives and can transcend potential limitations put on them solely by group identity membership or external opinion. In addition, the opportunity to hear the testimonials of others, and to work with people from different backgrounds on a relatively intimate level, might be expected to have an impact on changing attitudes.

A body of literature exists that suggests that when self-acceptance increases [as it has been seen to do, at least temporarily, after certain encounter group processes (Ross, 1985, cited from Hanley, 1990)], tolerance of the differences of others also increases (Shepard, 1979). It would be expected therefore, that if self-acceptance increases as a result of the Lifespring experience, negative or intolerant attitudes toward others of different groups would be expected to decrease. Since this group promotes a shift toward greater internal locus of control, one might predict that defensive blaming of others for one’s deficits would decrease, and that evaluating others based on their external group affiliations might diminish as well.

More intolerant attitudes have been associated by social scientists in the past with authoritarian traits in one's personality (Adorno, 1950). Such traits have been identified as including cognitive rigidity, repressed affect, and self-alienation. The Lifespring experience, which promotes an opening of more rigid or limiting ways of thinking, contacting and expressing withheld affect, and enhancing reflection about one's self and how one is “showing up in the world” would be expected to mitigate, at least temporarily,
certain types of authoritarian traits associated with intolerance. In addition, Katz (1991), in his review of Gordon Allport's landmark book *The Nature of Prejudice* (1954/1988) suggests, in some contrast to Allport's belief that ethnic aversions are acquired early in life and are not very malleable, that quasi-experimental studies of intergroup contact show that often when Whites and African Americans for instance, were brought together in non-competitive, equal-status settings, the majority group became more accepting of the other group; the more prolonged and intimate the contact, the more apparent was the favorable effect on attitude. The Lifespring training provides an unusual opportunity for people not only to spend time in close proximity with people from differing backgrounds, but to hear the personal testimonials of others, and to work with people from differing backgrounds on a relatively intimate level.

Studies have found that normative pressure toward egalitarian interracial behavior can reduce the expression of prejudice. When norms for situationally appropriate behavior are clear, Whites have been found to display considerably less behavior that discriminates against Blacks than when such norms are unclear (Blanchard, Lilly, & Vaughn, 1991). Blanchard et al. exposed 72 White undergraduate women to either antiracist, neutral, or racist remarks shortly before asking them to fill out an opinion poll. Participants expressed significantly stronger anti-racist sentiments when the normative influence (hearing remarks) was favorable towards this sentiment than when it was neutral or unfavorable. Next, Blanchard et al. tested whether this response was stronger when public behavior was measured (oral responses to questions) than when private response was assessed (written responses). No significant difference was found in
people's public versus private responses following a negative, neutral, or positive normative influence. Blanchard et al. concluded that anti-racist sentiment can be malleable and that "favorable normative influence can contribute to the establishment of a social climate that condemns racism" (p. 103). The Lifespring experience would provide one form of favorable normative influence toward the idea of acceptance of all groups, especially in its emphasis on internal causality for one's external results, and an emphasis on taking responsibility for one's situation and not blaming others, and in the promotion of an emotionally open context in which people from differing groups share intimate feelings.

For some of the reasons stated above, there has been a long history of applying group experiences similar to Lifespring (e.g., T-groups, sensitivity groups), to the area of conflict resolution, even addressing specific incidents of international conflict. One of the first researchers to use a group workshop format to promote conflict resolution was Leonard Doob (from Yale University) in the 1970's. Doob applied a Tavistock group and National Training Laboratory (NTL) T-group method, in a series of workshops designed to resolve various international crises, including a border dispute in the East African Horn and the conflict between Catholics and Protestants in Northern Ireland. This idea of applying a T-group process to international conflict resolution arose from the belief by various social scientists that conventional methods of third party intervention, based on the legal and diplomatic traditions, were not highly successful in resolving conflict (Hill, 1982). Some social scientists believed that conventional techniques relied too heavily on coercive methods, which resulted in solutions based on compromise and imposed
authority. Social science techniques were thought to advance integrative, win/win solutions to conflict resolution.

One workshop sponsored by Leonard Doob and his colleagues was known as the 'Fermeda Workshop' addressing a border dispute in East Africa. People of high standing in the different national groups in conflict, but not government representatives, were brought together for two weeks. Participants were broken down into two T-groups, in order to increase the possibility of building cross-national ties (Doob, Foltz, & Stevens, 1969). Initially, general conversation and discussion were promoted. Later a shift to the political dispute was made, and a subsequent phase included the development of resolution proposals for the conflict, which occurred in small brainstorming sessions. The first half of the workshop was designed to stimulate learning about the ways in which people function in organized groups. Games were played in small groups, and back home activities were planned. Although problems were identified and insights expanded, no full solution to the conflict emerged. Doob, in analyzing the results of this workshop, concluded that there would be great difficulty using this technique as a research tool in order to better understand what aspects of the process created results. This was mostly due to problems with confidentiality, the great sensitivity of the issues, the complexity of the processes, and the small numbers of people involved in the workshop. Nonetheless, he indicated that this type of research, if it could be conducted in a less sensitive setting, would be highly beneficial.

Another group of researchers around this time (Lakin, Lomranz, & Lieberman, 1969), organized human relations training programs which were applied to the Israeli-
Palestinian conflict. These meetings involved a pre-training assessment of perceptions of the other group, including fears and anticipations. The next stage involved dialogue between the groups. Next there were skill training exercises to improve communication, and last, a post-training assessment (Hill, 1982). While some positive results of this procedure were discussed, not much actual research was conducted. Hill (1982), in her review of conflict resolution workshops and techniques, concluded that future research should address in greater detail the question of what specific structure the discussion and format of these group procedures should take to achieve the greatest results.

It is a goal of the current study to attempt to determine if there is change in attitudes toward members of different ethnic and national groups as a result of this growth group experience, and if so, what the specific mechanisms or elements of this experience are that contribute most to promoting this change. This may have important implications for, among other things, the second-track diplomacy movement, which is an outgrowth of earlier attempts to apply techniques and insights from social science to political conflict resolution. Currently, there is an effort among various diplomats, negotiators, and psychologists to better systematize an approach to diplomacy that brings members of ethnic, national, and racial groups that are in conflict together in a workshop type format (Montville, 1991). This workshop is meant to provide an opportunity for the exploration of each group's attitudes and fears towards the other in order to promote greater acceptance, understanding, and tolerance, and ultimately to promote peaceful relations (Saunders, 1987). Montville (1991), a diplomat, referred to this type of unofficial diplomacy as "Track II" diplomacy, meant to be a supplement to Track I diplomacy which
is focused more exclusively on geo-political considerations. It is possible that greater insight into the type of exercises or elements of a group process (such as the Lifespring training), that can affect change in this area, will offer important implications for the structure of future Track II diplomacy and/or conflict resolution workshops.

**Hypotheses**

Summarizing from this review of literature several hypotheses regarding the main focus of this study are indicated:

1. Subjects, across the different personality types, would be expected to show improvement in certain general areas of functioning after group participation. Since positive affect has been found to increase after participation in similar growth groups (Shadish, 1985), subjects will display increased satisfaction with their lives after this group experience, as measured by significantly increased scores on the Satisfaction With Life Scale.

2. The Lifespring training will have a significant positive effect on participant's sense of purpose in life, as measured by significantly increased scores on the Purpose in Life Test. This would be expected due to the group’s claims to have an impact in this area, and past research which has found increased internal locus of control (Diamond &
Shapiro, 1973), and greater self-actualization (Foulds & Hannigan, 1976) as a result of

3. The Lifespring training will have a significant effect on decreasing participant's level of acknowledged social anxiety, as measured by significantly increased scores on the modified Social Anxiety and Distress Scale. This would be expected due to the group's focus on encouraging participants to examine their interpersonal relational style, as well as results of past research which found positive changes in participants’ ability to form meaningful social relations as an outcome of group experience (Bates & Goodman, 1986).

4. The Lifespring training will have a significant influence on decreasing participants’ general anxiety, as measured by significantly decreased scores on the State Trait Anxiety Inventory. This would be expected due to increases in self-esteem and decreases in acknowledged psychological distress that have been associated with growth group participation (Nidiffer & Zoff-Sievert, 1983).

5. The Lifespring training will have a significant positive impact on enhancing participants’ self-assertion, as measured by significantly increased scores on the Rathus Assertiveness Schedule. This would be expected due to findings of increases in internal locus of control, self-esteem, and self-actualization following growth group participation (Foulds & Hannigan, 1976; Nidiffer & Zoff-Sievert, 1983).
6. People with differing personality profiles would be expected to respond differently to the various components of the group process. Intuitives will report deriving more overall benefit from imagery oriented exercises than will sensate subjects. This would be expected due to intuitives' imputed greater access to their internal, unconscious or subliminal experiences than sensates and other types have, as well as findings that intuitives recalled more dreams than other subjects (Cann & Donderi 1986), and that intuitives regarded their dreams as more emotionally intense than did sensate subjects (Jacka, 1990).

7. Introverted subjects will report deriving more overall benefit from imagery oriented exercises than will extraverted subjects. This would be expected due to introverts' imputed greater access to their inner subliminal and unconscious world, as well as findings that introverts recalled more dreams than did extraverts (Cann & Donderi, 1986).

8. Intuitors will report deriving more overall benefit from imagery oriented exercises than from other types of exercises.

9. Introverts will report deriving more overall benefit from imagery oriented exercises than from other types of exercises.
10. Sensates will report gaining more overall benefit from exercises involving non-imagery, where they might better "see" the results of their behavior, than from imagery oriented exercises. This would be expected due to sensates’ imputed focus on practical, tangible facts perceived directly through the senses, as opposed to greater focus on their internal, subliminal life (Keirsey & Bates, 1984).

11. Sensates will report gaining more overall benefit from behavioral game exercises than from imagery oriented exercises, due to sensates’ preference for practical, tangible facts and experiences perceived directly through the senses.

12. Sensates will report deriving more overall benefit from behavioral game exercises than will intuitives.

13. Extraverts will report deriving more overall benefit and comfort from exercises involving confrontation and feedback than will introverts, who have been found to prefer to handle conflict through avoidance (Percival, Smitheram, & Kelly, 1992).

14. Thinkers will report deriving more overall benefit from cognitive components of the trainings than will feelers. This would be expected due to results of research that
suggest that thinkers have a greater capacity to deal with facts and figures (Myers & McCaulley, 1985).

15. Feelers will report experiencing greater comfort with, and deriving greater overall benefit from, emotive components of the trainings than will thinkers. This would be expected due to findings that feelers prefer greater warmth and humanistic characteristics in their therapy, while thinkers prefer cognitive characteristics (Arian, 1968; Weir, 1976; cited from McCaulley & Myers, 1985).

16. Extraverts will report experiencing greater comfort with, and deriving greater overall benefit from, emotive components of the trainings than will introverts. This would be expected due to extraverts’ imputed tendency to focus their energies more on objects and people in the external world, and findings that they are more comfortable in collaboration with others than are introverts (Percival, Smitheram, & Kelly, 1992).

17. Feelers will report deriving greater overall benefit from emotive components of the trainings than from other components.
18. Judgers will report more comfort with feedback components of the trainings (giving and receiving), than will perceivers, who are considered to desire to keep options and possibilities open rather than coming quickly to closure and judgment.

19. Subjects, across the different personality types, will report experiencing more tolerance of, and greater empathy with, people of differing ethnic groups from their own after the trainings. This would be expected due to findings that suggest that the more prolonged and intimate the non-competitive contact is between members of different ethnic groups, the more apparent is a favorable effect on attitude toward members of differing groups (Katz, 1991).
CHAPTER II

METHOD

Subjects

Subjects are 51 people who have enrolled in the Lifespring training. Their ages ranged from 19 years of age to 70 years of age. The mean age of the sample was 38.54, with a standard deviation of 13.96 years of age. The subjects included 30 females and 21 males. The mean number of years of education across subjects was 15.60, with a standard deviation of 2.36. While there is no exact measure of the ethnic diversity of the sample, the training session that 60% of the subjects came from was highly diverse (approximately 30% African American, 10% Asian, 10% Hispanic, 5% East Indian, 10% foreign born, and the remaining European American), and the subject sample reflected this diversity. All subjects were volunteers recruited either by letter (which came to them with their Lifespring registration packet), or in person (during the actual training registration), to participate in the study. Most subjects were sent a research packet with their general registration materials for the Lifespring trainings. Some subjects did not receive the research packet in advance (usually due to a late registration for the training), but were willing to complete the pre-packet of questionnaires during the registration process, on the first morning of the training. When this occurred, the pre-training packet of questionnaires was shortened (the Rathus Assertiveness Schedule and the Social
Avoidance and Distress Scale were left out). Consequently 19 subjects did not complete those two questionnaires, but did complete all the remaining study questionnaires. Subjects were drawn from five different trainings, four of which took place in Ft. Lauderdale, Florida, and one in New York City. All people who registered for these five trainings (approximately 280 total) were asked whether they wanted to participate in this research project. While 134 individuals completed pre-training questionnaires, only 51 individuals completed the post-training questionnaires as well. Only data from those who completed both sets of questionnaires were included in the study. Subjects were not paid for their participation.

Measures

Satisfaction With Life Scale: The Satisfaction With Life Scale (SWLS), developed by Diener, Emmons, Larson, and Griffen (1983) is a five item measure assessing people's global satisfaction with their lives. Examples of questions include: "In most ways my life is close to my ideal" and "I am satisfied with my life". Subjects rate these statements on a 7 point Likert type scale ranging from 1 = strongly disagree to 7 = strongly agree. The range of scores possible on the scale is from 5 to 35. All items show high factor loadings on a single common factor. The scale has a very high alpha and test-retest reliability. The scale is balanced in terms of response direction so acquiescence is not a problem.

Purpose in Life Test: The Purpose in Life Test (PILT), developed by Crumbaugh and Maholick (1964) is a 20 item attitude scale designed to assess the extent to which individuals have a sense of purpose and meaning in life. The scale was constructed from
the orientation of logotherapy, a system of existential psychotherapy developed by Victor E. Frankl which aims to treat people suffering from psychological difficulties by helping them find meaning in life. Subjects rate each test item on a 7 point Likert type scale. Examples of test items include: "In life I have": with the answer choices ranging from 1 = no goals or aims at all to 7 = very clear goals and aims. "My personal existence is": 1 = utterly meaningless without purpose to 7 = very purposeful and meaningful. "I regard my ability to find a meaning, purpose, or mission in life as": 1 = practically none to 7 = very great. Raw scores from responses to the 20 items are tabulated. Scores are interpreted in ranges. A raw score from 92 to 112 is in the indecisive range. Scores above 112 indicate the presence of definite purpose and meaning in life; Scores below 92 indicate the lack of clear meaning and purpose. Possible scores range from 20 to 140. Norms are provided for normal and patient groups. Construct validity has been assessed through correlation of PILT scores with therapists’ ratings of patients’ sense of meaning and purpose in life as well as ministers’ ratings of parishioners’ sense of purpose in life. Correlation between the PILT and therapists’ ratings = .38. Correlation between the PILT and ministers’ ratings = .47.

Social Evaluative Anxiety Scales: Constructed in 1969 by Watson and Friend, this self-report instrument breaks down into two main scales, one designed to measure Social Avoidance and Distress (SAD), the other Fear of Negative Evaluation (FNE). The first scale assesses subjects’ overall comfort with people and their tendency to avoid social contact, and was the only scale used in this study. This scale is made up of 28 items. Each item represents a statement about level of social comfort such as "I feel relaxed even
in uncomfortable social situations", "I often want to get away from people", "I often worry that I will say or do the wrong things", to which subjects must choose “true” or “false”. To control for an acquiescence response set for half of the responses false indicates a lack of agreement with the statement, while for the other half false indicates a positive agreement with the statement. There are two subscales that make up the social avoidance and distress scale: One measures social avoidance and the other distress. The creators tried to minimize social desirability. They report the correlation between this scale and the Crowne-Marlowe (Jackson 1966a, 1967), a scale in which items were selected to minimize covariation with social desirability as a response style, as -.25 (N=205, p < .01). The test-retest reliability was measured with a sample of 154 subjects who were students at the University of Toronto. With a time lag of one month between administrations the product-moment correlation of the SAD yielded .68. For a second sample of 29 subjects measured also at a month lag between administrations the reliability figure of .79 for SAD was obtained. With respect to criterion validity, people who are high on SAD would be expected to be uncomfortable in social situations and prefer to be alone. In one experiment subjects grouped as having high social anxiety and low social anxiety as assessed by the SAD were asked to indicate the extent to which they would be interested in returning after one experiment to participate in an essay (solitary condition) versus group discussion in an interesting controversial topic. Significantly less high anxiety group members were interested in returning at all (F=9.49, p < .01) and if they would return, they were significantly more interested in participating in the essay (solitary) condition (F= 45.73, p < .001). High anxiety subjects also indicated talking significantly less to fellow subjects during participation in an experiment (t=2.20, p < .05).
In correlational studies, the SAD correlated $r = -0.76 (p < .01)$ with the affiliation subscale of Jackson's (1966a, 1966b) Personality Research Form, and correlated $r = 0.54 (p < .01)$ with Taylor's Manifest Anxiety Scale (1953). These results were said to lend correlational and behavioral evidences of construct validity to the two scales.

The SAD was modified for use in this study by expanding the range of responses a subject could offer to questions from a choice of only "true" or "false", to a choice of 7 options (ranging from +3 - very characteristic of me, extremely descriptive, to 0 - neither descriptive nor non-descriptive, through -3 - very uncharacteristic of me, extremely non-descriptive). This was modified so that the instrument would be sensitive enough to detect small but significant changes in response. The scores were then tabulated in a manner that eliminated negative scores, so that the range of scores on a given question was tabulated as between 0 and +6. Thus the possible range of overall scores was 0 to 168. Higher scores indicate lower levels of social anxiety.

**Rathus Assertiveness Schedule:** The Rathus Assertiveness schedule (RAS) is a 30 item schedule for assessing assertive behavior. Subjects are asked to respond to statements such as: "Most people seem to be more aggressive and assertive than I am", "I am careful to avoid hurting other people's feelings even when I feel that I have been injured", or "I enjoy starting conversations with new acquaintances and strangers". They are asked to rate the extent to which these statements are characteristic of them on a 6 point Likert-type scale ranging from -3 = Very uncharacteristic of me, extremely non-descriptive, to +3 = very characteristic of me, extremely descriptive. The possible range of scores on this scale is between -90 - +90. This scale has been noted to possess moderate to high
test-retest reliability (based on a subject pool of 68 undergraduates from 17-27 yrs. of age over a two month period). Validity has been assessed by evaluating impressions subjects made on others. The RAS was given to 67 subjects by 18 students who claimed to know them well. Then the students rated these subjects on a 17 item schedule constructed according to the semantic differential technique (Osgood, Suci, & Tannenbaum, 1957). The correlations between the RAS and students' rated behavior fell between .33 and .61. The RAS scores were also correlated with subjects' self-report measures of what they would do in situations in which assertive, outgoing behavior could be used with profit. The correlation came to r=.70 (p<.01) and taken together, validity of this instrument is seen to be satisfactory. The failure of the RAS to covary with scales of intelligence, happiness and fairness suggests that RAS scores are not confounded by social desirability (Rathus, 1973).

**Myers-Briggs Type Indicator:** The MBTI is a paper and pencil, self-report personality inventory. The form used in this study, self scoring form G, contains 96 forced-choice items (Myers, 1977). Each item is intended to reflect a choice between opposites. The subject is asked to choose the one of two endings to sentences which comes closest to reflecting how the subject usually feels or acts, or to choose one of two words based upon how much it appeals to the subject. An example of an item is as follows: "Does following a schedule" (A) - appeal to you or (B) cramp you"? The MBTI contains four scales purporting to measure extraversion versus introversion (E/I), sensation versus intuition (S/N), thinking versus feeling (T/F), and judging versus perception (J/P).
Answers are weighted as worth either one or two points. The weights are assigned to counter social desirability.

Internal consistency reliabilities for the individuals scales generally range from .59 to .81 (E/I), .66 to .85 (S/N), .63 to .78 (T/F for males), 63 to .69 (T/F for females) and .53 to .82 (J/P) based upon continuous scores (Carlson, 1985; Carlyn, 1977; Mendelsohn, 1965). Test-retest reliability for EI, SN and JP has been reported as .70 and .48 on TF (Mendelsohn, 1965). Carlson (1985), reported test-retest EI, TF, and SN coefficients ranging from .56 to .89. Factor analyses performed on the MBTI generally support its construct validity (Sipps & Alexander, 1985). Comrey (1983) factor analyzed the MBTI and found five major factors. He labeled them IE, NS, TF, FT and PJ. In the EI factor, 15 out of 22 items were from the MBTI-EI scale. In the NS factor, 21 out of 26 items were from the MBTI-SN scale. In the TF factor, 8 out of 23 items were from the MBTI-TF scale. In the PJ factor, all of the 24 items were from the MBTI-JP scale.

With respect to criterion validity, Coan (1972) and Mendelsohn (1965) summarized most of the criterion related validity studies performed on the MBTI. Their conclusions were that the EI scale seems to measure extraversion and introversion in more like a popular sense of sociability than in the Jungian sense. The SN scale seems to refer to a practical, conventional, realistic attitude in contrast to an attitude more idea and theory oriented. The T side of the TF scale seems to reflect a legalistic, rationalistic, versus humanistic, sympathetic approach. The J side of the JP scale seemed to refer to a preference for order and planning as opposed to spontaneity and novelty. Myers and McCaulley (1985) reported that the extraversion scale correlates with other popular scales of extraversion/introversion from .77 to .40. The correlation between extraversion on the
MBTI and the sociability scale of the California Personality Inventory was .67. The correlation of the extraversion scale of the MBTI and the Eysenck Personality Questionnaire was .74. Social introversion on the MMPI was found to correlate with introversion on the MBTI at .63. Myers and McCaulley (1985) stated that significant correlations with the Sensing scale of the MBTI and other similar measures have been found to range from .67 to .40. This includes measures of practical outlook, economic interests, order, and self-control. The Intuitive scale on the MBTI was found to correlate in a similar range with other measures of intuitive characteristics (including flexibility, complexity, artistic qualities, creativity, inner-directedness), spanning between .62 and .40. The Thinking scale correlated with other popular measures of thinking associated with an analytical, logical, skeptical approach to problems, in the .57 to .40 range. The Feeling scale correlated with other measures between .55 to .40. The Judging scale was found to correlate with measures of qualities like order, a rule bound attitude, endurance, self-control, and achievement, from .59 to .40. The Perception scale was found to correlate with measures of spontaneity, adaptability, curiosity, openness, and flexibility from .57 to .40.

The four factors of the MBTI are arranged into 16 different typologies with each subject receiving some combination of the four main factors assessed based on which of each two factors they expressed predominately, or which score on each pair of independent scales is higher (introversion (I) or extraversion (E); sensation (S) or intuition (N); feeling (F) or thinking (T), and Judging (J) or perceiving (P)). Characteristics of people falling into these typologies (e.g., ESTJ; ENTJ) are described in the Myers-Briggs Manual (1985). Examples of the characteristics described for a few
four factor typologies are as follows: ESTJ - Subjects with this profile are considered to rely on sensing more than intuition and thus, be most interested in matter of fact, practical, realistic, here and now information. They want ideas and decisions to be based on solid fact. They like tangible results. INTP - These people value facts but also see possibilities. These individuals are apt to have insight, ingenuity, and intellectual curiosity. They are more interested in reaching solutions than in implementing them. INFP - These people are understanding, see possibilities, tend to have insight, and long range vision. They like to concentrate on projects and dislike details not related to deep interest. They can be ingenious on subjects of their enthusiasms, especially in possibilities for people. For descriptions of the remaining configurations see Mendelsohn, (1965).

Ethnic Differences Scale: This scale (EDS) was designed by the experimenter for use in this study and is attached as appendix B. Subjects are asked to rate on a Likert-type scale ranging from 1 = not at all, to 7 = very much, the extent to which they feel that their attitudes towards people of different ethnic, racial, and national backgrounds changed as a result of this experience. Subjects are then asked to rate on a scale of 1 to 7 (ranging from 1 = decreased, to 4 = same, to 7 = increased) the extent to which their attitudes changed in the areas of tolerance, the extent to which they feel empathic toward people from other backgrounds, and the extent to which they feel comfortable with people from other groups. They are then given an open-ended question with space to elaborate on whether their opinions changed, and in what ways. A further question asks subjects to rate the extent to which they believe their attitudes toward people of the opposite gender
changed as a result of the training. The next section asks subjects to rate different elements of the program on a 1 to 7 scale with respect to how much they felt this element affected a change in their attitudes, if any. The elements include: Hearing personal stories and testimonials of others; emotive exercises such as the "hugging" exercise; working closely with others in personal feedback/interactive exercises; general discussion by the trainer; or other, on which they can fill in whatever other training element affected their views on difference. They are then asked to rank order these exercise types with respect to the extent to which each affected change. They are then given an open space to describe in more detail what elements of the program specifically had an impact on affecting their views on difference if any, what elements they feel could be added or strengthened within the program to affect change, and whether they found any components to be detrimental or destructive in this area. No composite score is calculated for this measure. An informal attempt to gauge the construct validity of this measure was conducted to ascertain the extent to which independent raters believed this measure assesses what it is purported to assess. A staff member of the Lifespring organization, and a Ph.D. psychologist unconnected with Lifespring, rated how well each felt that this measure assessed change in attitudes about difference as a result of the training, as well as what training elements affected change. This was rated on a 1 to 10 scale, with 1 being not at all a good measure of change, and 10 being a very good measure of change. The average of the two raters' scores was 8.5.

**Exercise Type Efficacy Scale:** This scale (the ETES) was designed by the current investigator for use in this study. Subjects are asked to rate on a 7 point Likert-type scale
how they felt that various types of exercises affected them in the areas of the enjoyment they gained from the exercise category, their comfort level with the exercise(s), and the overall benefit they derived from the exercise(s). Subjects are then asked to describe, in an open space provided, what aspects of this exercise category were most helpful, harmful, and/or meaningful to them for promoting change, and any other comments they might have on the exercise type. At the end of this section subjects are asked to rank order the various exercise modalities in terms of which exercises were overall most effective for them. No composite score is calculated for this measure. The types of exercises surveyed included Imagery oriented exercises, Interpersonal feedback and confrontation exercises, Cognitive discussion and lecture components of the trainings, Emotive inter-personal exercises (involving giving or receiving greetings or physical touch such as hugs), Group projects and behavioral games, and Personal reflection or homework. A further description of each exercise category can be found in Appendix A. At the very end there is one other open space where subjects can add a description or other comment about how the components of the training affected them and why. A full version of this questionnaire can be found in Appendix C. An informal assessment of construct validity for this measure was conducted to ascertain the extent to which independent raters believed this measure assesses what it is purported to assess. A staff member of the Lifespring organization, and a Ph.D. psychologist unconnected with Lifespring, rated how well each felt that this measure assessed participants’ responses to different exercise types that comprise the training, on a 1 to 10 scale, with one being not well at all, and 10 being very well. The average of the two raters’ scores is 9.0.
State- Trait Anxiety Inventory: Developed by Spielberger, Gorsuch, and Lushene (1967), the State-Trait Anxiety Inventory is comprised of separate self-report scales for measuring two distinct concepts of anxiety: state anxiety (A-State), and trait anxiety (A-Trait). The only scale that was utilized in this study was the STAI A-Trait scale. This scale consists of 20 statements that ask people to describe how they generally feel. The A-State scale also consists of 20 items, but the instructions require subjects to report how they feel at a particular moment in time. Since an objective of the current study was to measure changes in general anxiety level, and changes in anxiety level moment to moment are less relevant to the objectives of the study, only the A-Trait scale was administered to subjects. According to the test’s authors, trait anxiety refers to relatively stable individual differences in anxiety proneness, or tendency to respond to situations perceived as threatening with elevations of anxiety intensity. The STAI is self-administering and consists of items such as “I am calm, cool and collected”, “I feel that difficulties are piling up so that I cannot overcome them”, and “some unimportant thought runs through my mind and bothers me” to which the subject is asked to respond on a four point scale ranging from 1 = Almost never to 4 = Almost always. To reduce the potential influence of an acquiescence set on STAI responses, the A-Trait scale has seven reversed items for which high ratings indicate low anxiety, while for the other 13, high ratings indicate high anxiety. Certain items are again reversed for scoring, and overall a lower score indicates less anxiety. The possible range of scores on this measure ranges from 20 to 80.

Norms for various groups, including high school and college students, are provided in the manual. Test-retest reliability for college students taking the STAI A-
Trait scale one hour after its initial administration are also reported. During this hour students were exposed to one of three conditions: either a brief period of relaxation training, a difficult IQ test, or a film depicting accidents resulting in serious injury or death. The test-retest correlations were found to be reasonably high, ranging from .76 to .84. Over a 20 day and then a 104 day lag between test and re-test, the correlation range was from .73 to .86. Measures of internal consistency such as the alpha coefficient were computed and ranged from .83 to .92. Evidence of the concurrent validity of the STAI A-Trait includes correlations with the IPAT anxiety scale (Cattell & Scheier, 1963; r=.75 for college females, and .76 for college males), correlations with the Taylor (1953) Manifest Anxiety Scale (r=.80 for college females, and .76 for college males), and correlations with the Zuckerman (1960) Affect Adjective Checklist (r=.52 for females, and .58 for males). Correlations between the STAI and other personality tests have also been conducted. The correlations between the STAI A-Trait Scale and the number of problems checked on the Mooney Problem Checklist, College Form (Mooney & Gordon, 1950), for introductory psychology students at Florida State University are also reported in the manual. High A-Trait scores were found to be associated with reports of a larger number of problems in almost every area of adjustment assessed in the Mooney Problem Checklist.

Procedure

Most subjects were sent a research packet for this study which was included with their general registration materials for the Lifespring Basic Training. The packet included a cover letter describing the purpose of the study and asking individuals to volunteer to participate in the study by filling out several questionnaires included in the packet.
Subjects were assured that their ability to participate in the Lifespring training would not be affected in any way by their decision to participate in the study or not to, and that they were free to drop out of the study at any time while still continuing their involvement with Lifespring. Subjects were sent a packet of questionnaires, including a consent form, demographic sheet, the Purpose in Life Inventory, Satisfaction With Life Scale, a modified Social Evaluative Anxiety Scale, Rathus Assertiveness Schedule, a modified State-Trait Anxiety Inventory, and the Myers-Briggs Type Indicator, when they were sent their registration materials (approximately two weeks in advance of the training).

Subjects were asked to complete the forms and to bring the packet of forms with them to the training, and to give this packet to the researcher during the registration period on the first morning of the training. Some of the subjects (approximately 30%) did not receive the research packet in the mail, but agreed to fill it out on the morning of the training, during the registration process. All materials were categorized by number rather than name to preserve anonymity. Subjects were given a second packet of questionnaires to fill out one to two nights prior to a post-training meeting that took place approximately one and a half weeks after the end of the first training. This second packet included all of the above named instruments minus the consent form, demographic form, and Myers-Briggs Type Indicator. Added to the rest of these questionnaires was the Exercise Type Efficacy Questionnaire and the Ethnic Differences Scale. Subjects were asked to complete these questionnaires and bring this packet with them to the post-training meeting. Subjects were also instructed to respond to the questions in the post-training packet based as much as possible, when relevant, on how they have felt or behaved since the training. Subjects were recruited (based on who volunteered - all participants of the
trainings were asked whether they would like to volunteer), from five separate Lifespring
trainings, four of which took place in Ft. Lauderdale, Florida and one in New York City.
There was no need to debrief subjects because they were informed from the beginning
about the true purpose of this study.
CHAPTER III

RESULTS

Means and standard deviations for all measures administered pre and post training for the full sample, and for males and females in the sample are reported in Table 1. A t-test was conducted to determine significant gender effects for each of the variables in this study, but none were found to be significant. As a result, unless otherwise indicated, all subsequent analyses combined males and females.

The Myers-Briggs Type Indicator was utilized in this study to delineate personality type. Types include four characteristics of eight qualities which are measured by separate scales (introversion/extraversion, intuition/sensation, thinking/feeling, and judging/ perceiving) and each person is categorized into one of each of the four characteristics, based on his/her score on each of the eight scales. A subject is designated as extraverted or introverted, intuitive or sensate, thinking or feeling, and judging or perceiving. If a subject’s score on the extraversion scale (ranging from a possible 0 to 26 points) is higher than his or her score on the introversion scale (ranging from a possible 0 to 28 points), then he or she is designated as an Extravert. A tie or higher score on the introversion scale leads to a designation of Introvert. Similarly if a subject’s score is higher on the sensation scale (ranging from a possible 0 to 34) than on the intuition scale (ranging from 0 to 25), he or she is designated as a Sensate. A tie or higher score on the intuition scale leads to a designation of Intuitive. A higher score on the thinking scale
(ranging from 0 to 32 for females, and 0 to 34 for males) than on the feeling scale 
(ranging from 0 to 21 for females and 0 to 19 for males), designates one as a Thinker. A 
tie or higher score on the feeling scale leads to a designation as a Feeler. Last, if a 
subject’s score is higher on the judging scale (ranging from a possible 0 to 28) than on the 
perceiving scale (ranging from a possible 0 to 32), then he or she is designated as a 
Judger. A tie or higher score on the perceiving scale designates one as a Perceiver.

The study sample included 23 people designated as Introverts, while 28 people 
were designated as Extraverts. Twenty-five people were also designated as Intuitives and 
26 subjects were categorized as Sensates. The sample also consisted of 25 people 
categorized as Thinkers, while 26 people were categorized as Feelers. Additionally, 24 
people were designated as Judgers, while 27 people were designated Perceivers. Various 
combinations of personality variables that are thought to indicate differing temperaments 
(Keirsey & Bates, 1984) were also combined for the present study. Eight people in the 
study were classified as Sensate Perceivers (SP), 18 were classified as Sensate Judgers 
(SJ), nine were classified as Intuitive Thinkers (NT), and 16 were designated Intuitive 
Feelers (NF). Table 2 reports the mean scores and standard deviation scores for the full 
sample, and for males and females on each of the eight scales of the Myers-Briggs Type 
Indicator. Table 3 shows the frequency of people that fall into each MBTI temperament 
category. Table 4 shows the number of people that fall into each one of the sixteen 
typologies delineated by the MBTI.

Table 5 reports the results of a t-test conducted to investigate whether there were 
any significant differences in any of the pre-testing measures administered for this study 
between introverted and extraverted subjects (as delineated by the MBTI). Introverts
## TABLE 1

**DESCRIPTIVE STATISTICS OF MAJOR STUDY VARIABLES**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>TOTAL SAMPLE</th>
<th></th>
<th>FEMALES</th>
<th></th>
<th>MALES</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td><strong>Mean</strong></td>
<td><strong>S.D.</strong></td>
<td><strong>Mean</strong></td>
<td><strong>S.D.</strong></td>
<td><strong>Mean</strong></td>
<td><strong>S.D.</strong></td>
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<td>Age</td>
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<td>13.77</td>
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<td>5.99</td>
<td>18.60</td>
<td>6.51</td>
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<tr>
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<td>10.66</td>
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<tr>
<td>PPILT</td>
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<td>10.48</td>
<td>118.55</td>
<td>9.92</td>
<td>118.95</td>
<td>8.53</td>
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<td>PSADS</td>
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<td>RAS</td>
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<td>.51</td>
<td>.83</td>
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<td>.68</td>
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<tr>
<td>PRAS</td>
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<td>.65</td>
<td>1.08</td>
<td>.59</td>
<td>1.01</td>
<td>.76</td>
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</table>

*Note: SWL = Pre-test Satisfaction With Life Scale, PSWL = Post-test Satisfaction With Life Scale, PIL = Pre-test Purpose in Life Test, PPIL = Post-test Purpose in Life Test, SADS = Pre-test Social Anxiety and Distress Scale (modified), PSADS = Post-test Social Anxiety and Distress Scale (modified), STAI = Pre-test State-Trait Anxiety Inventory (trait), PSTAI = Post-test State-Trait Anxiety Inventory (trait), RAS = Pre-test Rathus Assertiveness Schedule, PRAS = Post-test Rathus Assertiveness Schedule.*
TABLE 2
DESCRIPTIVE STATISTICS FOR MYERS-BRIGGS TYPE INDICATOR

<table>
<thead>
<tr>
<th>Variables</th>
<th>Total</th>
<th>Mean Score</th>
<th>S.D.</th>
<th>Total</th>
<th>Mean Score</th>
<th>S.D.</th>
<th>Total</th>
<th>Mean Score</th>
<th>S.D.</th>
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<tr>
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<td>14.05</td>
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<td>11.88</td>
<td>4.90</td>
<td>13</td>
<td>11.10</td>
<td>4.69</td>
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<td>13.00</td>
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<td>8.19</td>
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<td>12.76</td>
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<td>Judging</td>
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<td>13.80</td>
<td>6.91</td>
<td>15</td>
<td>14.63</td>
<td>6.77</td>
<td>9</td>
<td>12.62</td>
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<tr>
<td>Perceiving</td>
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<td>13.37</td>
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<td>6.79</td>
<td>12</td>
<td>14.33</td>
<td>7.61</td>
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TABLE 3
DESCRIPTIVE STATISTICS FOR MBTI TEMPERAMENT GROUPS

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<thead>
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<th>Variables</th>
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<th>MALES</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Total</td>
<td>Total</td>
</tr>
<tr>
<td>Sensate Perceivers (SP)</td>
<td>8</td>
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<td>4</td>
</tr>
<tr>
<td>Sensate Judges (SJ)</td>
<td>18</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Intuitive Thinkers (NT)</td>
<td>9</td>
<td>5</td>
<td>4</td>
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<tr>
<td>Intuitive Feelers (NF)</td>
<td>16</td>
<td>9</td>
<td>7</td>
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**TABLE 4**

**FREQUENCY STATISTICS FOR MBTI TYPLOGIES**

**FULL SAMPLE**

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<td>ISTJ</td>
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<td>ISTP</td>
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<td>Extraverts</td>
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<tr>
<td>INTJ</td>
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</table>

**NOTE:**

ISTJ = Introverted Sensate Thinking Judgers; ISTP = Introverted Sensate Thinking Perceivers; ISTJ = Introverted Intuitive Thinking Judgers; ISFP = Introverted Sensing Feeling Perceivers; ISFJ = Introverted Sensate Feeling Judgers; INFJ = Introverted Intuitive Feeling Judgers; INFP = Introverted Intuitive Feeling Perceivers; INTP = Introverted Intuitive Thinking Perceivers; ENFP = Extraverted Intuitive Feeling Perceivers; ESFP = Extraverted Sensate Feeling Perceivers; ENFJ = Extraverted Intuitive Feeling Judgers; ESFJ = Extraverted Sensate Feeling Judgers; ENTJ = Extraverted Intuitive Thinking Judgers;
### TABLE 5

**STUDY MEASURES BY INTROVERSION/ EXTRAVERSION**

<table>
<thead>
<tr>
<th>Variable</th>
<th>MBTI Type</th>
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<th>S.D.</th>
<th>t-Value</th>
<th>df</th>
<th>P</th>
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<td>Extravert</td>
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<td>PILT</td>
<td>Introvert</td>
<td>102.41</td>
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<td>STAI</td>
<td>Introvert</td>
<td>42.68</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SADS</td>
<td>Introvert</td>
<td>31.15</td>
<td>22.56</td>
<td>-1.41</td>
<td>26.67</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Extravert</td>
<td>42.91</td>
<td>23.56</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAS</td>
<td>Introvert</td>
<td>.05</td>
<td>.64</td>
<td>-3.05</td>
<td>24.89</td>
<td>.005</td>
</tr>
<tr>
<td></td>
<td>Extravert</td>
<td>.81</td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: SWL= Satisfaction With Life Scale, PIL= Purpose in Life Test, STAI= State-Trait Anxiety Inventory, SADS= Social Anxiety and Distress Scale, RAS= Rathus Assertiveness Schedule.*
were found to report significantly lower levels of assertiveness pre-training as measured by the Rathus Assertiveness Schedule, than were extraverts. The possible range of scores on the Rathus Assertiveness Schedule is between -90 (extremely unassertive) and +90 (extremely assertive). The mean score for introverts on this measure was .05 while the mean score for extraverts was .81, \( t(24.89) = -3.05, p < .01 \), two-tailed. Introverts were not found to significantly differ from extraverts on any of the other pre-measures.

The Exercise Type Efficacy Scale was used in this study to assess reported efficacies of differing exercise interventions in the Lifespring training. The mean and standard deviation of overall benefit derived from each exercise type for the full sample, and for females and males is displayed in Table 6. The main effect of a repeated measures ANOVA comparing the means of the six scales which assess overall benefit of each exercise type across all subjects was found to be significant, \( F(5, 44) = 4.26, p < .01 \), demonstrating that subjects benefited differently from various types of exercises. For the full sample emotive interpersonal exercises were rated as most efficacious (mean = 6.40, on a scale that ranged from 1 to 7), with cognitive discussion second (mean = 5.96), while personal reflection and homework was rated as least efficacious with a mean score of 5.58. Males and females were found to differ significantly in their response to only one exercise category, behavioral games. Males indicated deriving significantly more benefit from behavioral game exercises than did females, with the mean benefit rating for males = 6.45, while the mean benefit rating for females = 5.53, \( t(40.90) = -2.37, p < .05 \), two-tailed. Subjects were also asked to rank order exercise type from most to least effective. Median and mean ranks are also reported for this measure in Table 7. Emotive


<table>
<thead>
<tr>
<th>Variable</th>
<th>FULL SAMPLE</th>
<th></th>
<th>FEMALEs</th>
<th></th>
<th>MALES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Mean</strong></td>
<td><strong>S.D.</strong></td>
<td><strong>Mean</strong></td>
<td><strong>S.D.</strong></td>
<td><strong>Mean</strong></td>
<td><strong>S.D.</strong></td>
</tr>
<tr>
<td>Emotive Exercises</td>
<td>6.40</td>
<td>.86</td>
<td>6.40</td>
<td>.97</td>
<td>6.40</td>
<td>.68</td>
</tr>
<tr>
<td>Trainer Discussion</td>
<td>5.96</td>
<td>1.29</td>
<td>6.00</td>
<td>1.73</td>
<td>6.25</td>
<td>.91</td>
</tr>
<tr>
<td>Behavioral Games</td>
<td>5.90</td>
<td>1.61</td>
<td>5.53</td>
<td>1.91</td>
<td>6.45</td>
<td>.76</td>
</tr>
<tr>
<td>Imagery Oriented Exercises</td>
<td>5.61</td>
<td>1.47</td>
<td>5.50</td>
<td>1.55</td>
<td>5.76</td>
<td>1.37</td>
</tr>
<tr>
<td>Homework</td>
<td>5.58</td>
<td>1.43</td>
<td>5.57</td>
<td>1.50</td>
<td>5.60</td>
<td>1.35</td>
</tr>
</tbody>
</table>

Note: Reported means are based on a scale assessing self-reported overall benefit of exercise, ranging from 1 (Very Little Benefit), to 7 (Very Much Benefit).
### TABLE 7
RANKINGS FOR EXERCISE BENEFIT ON THE EXERCISE TYPE EFFICACY SCALE

<table>
<thead>
<tr>
<th>Variable</th>
<th>Median</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotive Exercises</td>
<td>3.0</td>
<td>2.76</td>
<td>1.55</td>
</tr>
<tr>
<td>Trainer Discussion</td>
<td>3.0</td>
<td>2.81</td>
<td>1.65</td>
</tr>
<tr>
<td>Interpersonal Feedback</td>
<td>3.0</td>
<td>3.21</td>
<td>1.37</td>
</tr>
<tr>
<td>Imagery Oriented Exercises</td>
<td>3.0</td>
<td>3.27</td>
<td>1.70</td>
</tr>
<tr>
<td>Behavioral Games</td>
<td>4.0</td>
<td>3.61</td>
<td>1.67</td>
</tr>
<tr>
<td>Homework</td>
<td>5.0</td>
<td>4.90</td>
<td>1.46</td>
</tr>
</tbody>
</table>

**Note:** Rankings are based on a scale of 1 to 6 with 1 = highest ranking, greatest overall benefit, and 6 = lowest ranking, least overall benefit.
interpersonal exercises achieved a highest mean ranking across subjects, with homework achieving a lowest mean ranking.

Table 8 reports means and standard deviations for each aspect of the Ethnic Differences Scale for the full sample, and for females and males. This scale assesses reported changes in attitudes regarding ethnic and gender differences as a result of the training, as well as degree of influence on attitude change of various training exercises. Table 9 reports the means and standard deviations for the influence of various exercise types on attitude change. Subjects rated working closely with others in feedback or interactive exercises as the training aspect most influential on attitude change (Mean=5.82 on a scale of 1 to 7). A repeated measures ANOVA was computed to assess whether subjects, across all groups, rated the impact of various exercise modalities as significantly different in affecting attitude change toward ethnic difference. This was not found to be significant. Thus, while all exercise types were found to have impact on affecting change in this area, they were not found to significantly differ from one another in their degree of impact on attitude change. Table 10 reports median and mean rankings of the relative influence of different training aspects on changing attitudes towards people of differing ethnic and national backgrounds. Hearing personal stories and testimonials, and emotive exercises, were ranked highest (median for both = 2.0 on a scale of 1 to 5) for influence on attitude change.

The first five main hypotheses of this study were assessed through a series of t-tests comparing pre and post training measures. Results for these analyses are presented in Table 11. All five t-tests were found to be significant, and thus all five hypotheses
### TABLE 8
DESCRIPTIVE STATISTICS OF CHANGE IN ATTITUDE ON ETHNIC DIFFERENCES SCALE

<table>
<thead>
<tr>
<th>Change in Attitude Toward</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ethnic groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Different From Own</td>
<td>4.45</td>
<td>2.01</td>
</tr>
<tr>
<td>1a. Tolerance</td>
<td>5.54</td>
<td>.95</td>
</tr>
<tr>
<td>1b. Empathy</td>
<td>6.00</td>
<td>.95</td>
</tr>
<tr>
<td>1c. Comfort</td>
<td>5.68</td>
<td>1.20</td>
</tr>
<tr>
<td>2. Opposite Gender</td>
<td>4.90</td>
<td>1.74</td>
</tr>
<tr>
<td>3. Other</td>
<td>4.35</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Note: Scores for Table 8 are based on a Likert scale ranging from 1 to 7, 1 = negative change in attitude, 4 = no change, 7 = positive change in attitude.
### TABLE 9

INFLUENCE OF EXERCISE TYPE ON ATTITUDE CHANGE TOWARD DIFFERENCE

<table>
<thead>
<tr>
<th>EXERCISE TYPE</th>
<th>MEAN</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Stories and Testimonials</td>
<td>5.74</td>
<td>1.26</td>
</tr>
<tr>
<td>Emotive Exercises</td>
<td>5.72</td>
<td>1.36</td>
</tr>
<tr>
<td>Working Closely with Others</td>
<td>5.82</td>
<td>1.12</td>
</tr>
<tr>
<td>Trainer Discussion</td>
<td>5.74</td>
<td>1.32</td>
</tr>
<tr>
<td>Other</td>
<td>6.26</td>
<td>.86</td>
</tr>
</tbody>
</table>

*Note: Scale ranges from 1 = negative impact, 4 = no impact, to 7 = strong positive impact.*
TABLE 10
RANKINGS FOR INFLUENCE OF TRAINING ELEMENTS ON ETHNIC DIFFERENCES SCALE

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MEDIAN</th>
<th>MEAN</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Stories and Testimonials</td>
<td>2.0</td>
<td>2.14</td>
<td>1.17</td>
</tr>
<tr>
<td>Emotive Exercises</td>
<td>2.0</td>
<td>2.31</td>
<td>1.26</td>
</tr>
<tr>
<td>Working Closely with Others</td>
<td>3.0</td>
<td>2.68</td>
<td>1.14</td>
</tr>
<tr>
<td>Trainer Discussion</td>
<td>3.0</td>
<td>3.00</td>
<td>1.33</td>
</tr>
<tr>
<td>Other</td>
<td>4.0</td>
<td>3.69</td>
<td>1.56</td>
</tr>
</tbody>
</table>

Note: Rankings are based on a scale of 1 to 5, 1= highest ranking, most influential on attitude change, to 5= lowest ranking, least influential on attitude change.
were confirmed. The mean total pre-score for the Satisfaction With Life measure was
19.88, and the mean post-score for this measure was 23.90, \(t(48) = -4.52, p<.001\).
Therefore, Hypothesis 1, stating that subjects would report significantly higher levels of
satisfaction with their lives after the training was confirmed. Hypothesis 2, stating that
subjects would report a significant increase in their sense of purpose in life after the
training was also confirmed. The mean pre-score on the Purpose in Life Test was 102.48,
while the mean post score was 118.77, \(t(47) = -9.46, p<.001\). Similarly Hypothesis 3,
asserting that the Lifespring training will have a significant effect on decreasing
participants’ level of acknowledged social anxiety was also confirmed. The mean pre-
score on the Social Anxiety and Distress Scale (modified) was 38.98, while the mean post
score was 54.83, \(t(27) = -3.78, p<.001\). For the State-Trait Anxiety Inventory (Trait), the
mean pre-score was 41.43, the mean post score was 33.99, \(t(46)=6.58, p<.001\). Subjects
did report a significant decrease in their level of general trait anxiety after the training
supporting Hypothesis 4. Hypothesis 5, that subjects’ reported assertiveness would
increase significantly after the training was also confirmed. The mean pre-score on the
Rathus Assertiveness Schedule was .51, and the mean post-score was 1.05, \(t(30)= -5.13,
p<.001\).

Two methods were used to test Hypotheses 6, 7, 12 through 16, and 18.
Independent samples \(t\)-tests were computed to assess the difference between two groups
on reported benefit and/or comfort with various exercise types based on their response to
questions that asked subjects to rate the benefit and comfort of various exercise
modalities on Likert-type scales. Additionally, the Mann-Whitney U-test was used to
### TABLE 11

**PRE-POST CHANGE IN STUDY MEASURES**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Test Time</th>
<th>Mean</th>
<th>S.D.</th>
<th>t-Value</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWL</td>
<td>Pre</td>
<td>19.88</td>
<td>6.23</td>
<td>-4.52</td>
<td>48</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>23.90</td>
<td>5.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIL</td>
<td>Pre</td>
<td>102.48</td>
<td>11.67</td>
<td>-7.75</td>
<td>47</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>118.77</td>
<td>10.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SADS</td>
<td>Pre</td>
<td>38.98</td>
<td>23.61</td>
<td>-3.78</td>
<td>27</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>54.83</td>
<td>20.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STAI</td>
<td>Pre</td>
<td>41.43</td>
<td>8.58</td>
<td>6.58</td>
<td>46</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>33.99</td>
<td>8.22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAS</td>
<td>Pre</td>
<td>.51</td>
<td>.76</td>
<td>-5.13</td>
<td>29</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Post</td>
<td>1.05</td>
<td>.66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** SWL = Satisfaction With Life Scale, PIL = Purpose in Life Test, STAI = State-Trait Anxiety Inventory, SADS = Social Anxiety and Distress Scale, RAS = Rathus Assertiveness Schedule.
assess the difference between two groups on their relative rankings of the overall benefit they derived from differing exercise types. When relevant an ANOVA was also run to test the effect of personality type on rated benefit of exercise type. The Exercise Type Efficacy Scale included both questions that asked subjects to individually assess the benefit (as well as comfort and enjoyment) they derived from different exercise types on a series of Likert-type scales (ranging from 0 to 7), and a separate question which asked subjects to rank order the six exercise types in terms of overall benefit they derived from each one, in the order of most to least (see Appendix C for a copy of the full Exercise Type Efficacy Scale).

For Hypothesis 6, a t-test was computed to assess whether intuitives reported deriving significantly greater benefit from imagery oriented exercises than did sensates, and this was found to be significant. The mean score for intuitives on imagery oriented exercises was 5.96, while for sensates it was 5.27, \( t(43.96) = 1.72, p < .05 \). Thus, Hypothesis 6 was confirmed. This result is listed in Table 13. A Mann-Whitney U-test was also conducted to assess differences in benefit rankings of intuitives and sensates on imagery oriented exercises. While this approached significance (\( U = 206.5, W = 621.5, Z = -1.5, p = .07 \)), it did not reach significance. Also a 2 x 2 factorial design analysis of variance was computed with the first factor being one personality attribute (sensate versus intuitive), and the second factor being another personality attribute (introversion versus extraversion). The dependant measure was rated benefit of imagery oriented exercises. A main effect for sensate versus intuitive on imagery approached significance, \( F(1, 50) = 3.22, p = .08 \).
To test Hypothesis 7, a t-test was computed to assess whether introverts reported deriving significantly greater benefit from imagery oriented exercises than did extraverts, and this was found to be non-significant. A Mann-Whitney U-test was also conducted to assess differences in benefit rankings of introverts and extraverts on imagery oriented exercises, and this was also found to be non-significant. Thus Hypothesis 7 was not confirmed.

To test Hypothesis 8, that intuitive subjects would report deriving more overall benefit from imagery oriented exercises than from other types of exercises, a paired samples t-test was run comparing the mean score on imagery oriented exercises and the mean score on all non-imagery oriented exercises for the intuitive group. This test was not significant, thus Hypothesis 8 was not confirmed. This result is presented in Table 14.

To test Hypothesis 9, which stated that introverts would report deriving more benefit from imagery oriented exercises than from other types of exercises, another paired samples t-test was run comparing the mean score on imagery oriented exercises and the mean score on all non-imagery oriented exercises for the introvert group. While this was not significant, interestingly, the inverse was significant. Introverts indicated that they derived significantly greater benefit from non-imagery oriented exercises. Introverts’ mean score for imagery oriented exercises was 5.59, while for non-imagery oriented exercises it was 6.13, t(21) = -2.40, p < .05, two-tailed. This result is listed in Table 14, and the implications of this inverse finding will be discussed in the discussion section. Nonetheless, Hypothesis 9 was not confirmed.

Hypothesis 10, that sensates would report deriving more overall benefit from non-imagery oriented exercises than from imagery oriented exercises was confirmed. On the
paired sample t-test, sensates’ mean score for imagery oriented exercises was 5.27, while for non-imagery oriented exercises it was 5.79, $t(25) = -2.00, p<.05$. Thus, the notion that sensates would report more benefit from non-imagery oriented activity was confirmed.

To test Hypothesis 11 that sensates would report deriving more overall benefit from behavioral game exercises than from imagery exercises a paired samples t-test was conducted, comparing sensates’ mean score on benefit from behavioral games to their mean score on benefit from imagery. This analysis was not found to be significant. Thus Hypothesis 11 was not confirmed.

To test Hypothesis 12, that sensates would report deriving more overall benefit from behavioral game exercises than would intuitives, an independent samples t-test was run, and was found to be non-significant. Additionally, a Mann-Whitney U test was run comparing the rankings of behavioral game exercises for intuitive subjects versus sensates. Neither of these tests were found to be significant as hypothesized, thus Hypothesis 12 was not confirmed. This result is reported in Table 12.

Hypothesis 13, that extraverts would report deriving more overall benefit and comfort from feedback than would introverts was not confirmed. Results of the independent samples t-test and comparative rankings through the Mann-Whitney U test were both found to be non-significant.

Hypothesis 14, which suggests that thinkers would derive more overall benefit from cognitive components of the trainings than would feelers, was confirmed. For the independent samples t-test the mean score on benefit of cognitive exercises for thinkers was 6.36, while for feelers it was 5.54, $t(43.44)= -1.72, p <.05$. Compared mean rankings
TABLE 12
SENSATES’ BENEFIT FROM IMAGERY AND NON-IMAGERY EXERCISES

<table>
<thead>
<tr>
<th>EXERCISE TYPE</th>
<th>Mean</th>
<th>S.D.</th>
<th>t Value</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback</td>
<td>5.62</td>
<td>1.63</td>
<td>1.10</td>
<td>25</td>
<td>ns</td>
</tr>
<tr>
<td>Imagery Oriented</td>
<td>5.27</td>
<td>1.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Games</td>
<td>5.53</td>
<td>1.92</td>
<td>-.81</td>
<td>25</td>
<td>ns</td>
</tr>
<tr>
<td>Imagery Oriented</td>
<td>5.27</td>
<td>1.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Imagery</td>
<td>5.79</td>
<td>1.25</td>
<td>-2.00</td>
<td>25</td>
<td>.028</td>
</tr>
<tr>
<td>Imagery Oriented</td>
<td>5.27</td>
<td>1.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exercise Type</td>
<td>MBTI Type</td>
<td>Mean</td>
<td>S.D.</td>
<td>t Value</td>
<td>df</td>
</tr>
<tr>
<td>--------------------</td>
<td>-----------</td>
<td>------</td>
<td>------</td>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td>Cognitive Exercises</td>
<td>Thinkers</td>
<td>6.36</td>
<td>1.08</td>
<td>-2.31</td>
<td>43.44</td>
</tr>
<tr>
<td></td>
<td>Feelers</td>
<td>5.54</td>
<td>1.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotive Exercises</td>
<td>Thinkers</td>
<td>6.39</td>
<td>.90</td>
<td>.13</td>
<td>48.00</td>
</tr>
<tr>
<td></td>
<td>Feelers</td>
<td>6.42</td>
<td>.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imagery Exercises</td>
<td>Intuitives</td>
<td>5.96</td>
<td>1.14</td>
<td>1.72</td>
<td>43.96</td>
</tr>
<tr>
<td></td>
<td>Sensates</td>
<td>5.27</td>
<td>1.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Homework</td>
<td>Introverts</td>
<td>6.00</td>
<td>.76</td>
<td>2.05</td>
<td>38.72</td>
</tr>
<tr>
<td></td>
<td>Extraverts</td>
<td>5.25</td>
<td>1.74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 14
EXERCISE EFFICACY BY PERSONALITY TYPE

<table>
<thead>
<tr>
<th>MBTI Type</th>
<th>Exercise Type</th>
<th>Mean</th>
<th>S.D.</th>
<th>t Value</th>
<th>df</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feelers</td>
<td>Emotive</td>
<td>6.42</td>
<td>.83</td>
<td>3.78</td>
<td>23</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Non-Emotive</td>
<td>5.42</td>
<td>1.73</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intuitives</td>
<td>Imagery</td>
<td>5.92</td>
<td>1.14</td>
<td>-.77</td>
<td>23</td>
<td>ns</td>
</tr>
<tr>
<td></td>
<td>Non-Imagery</td>
<td>6.08</td>
<td>.72</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introverts</td>
<td>Imagery</td>
<td>5.59</td>
<td>1.01</td>
<td>-2.40</td>
<td>21</td>
<td>.026</td>
</tr>
<tr>
<td></td>
<td>Non-Imagery</td>
<td>6.13</td>
<td>.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensates</td>
<td>Imagery</td>
<td>5.27</td>
<td>1.69</td>
<td>-2.00</td>
<td>25</td>
<td>.028</td>
</tr>
<tr>
<td></td>
<td>Non-Imagery</td>
<td>5.79</td>
<td>1.25</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
however on the Mann Whitney U Test did not reveal a significant difference in ranking of cognitive exercises between these two groups. A 2 x 2 factorial design analysis of variance was also run assessing the impact of personality type on the benefit rating of cognitive exercises. The first factor was one personality attribute (thinking versus feeling), and the second was another personality attribute (introversion versus extraversion). The dependant measure was rated benefit of cognitive exercises. A significant main effect for thinking versus feeling on cognitive exercises was found $F(1, 48) = 9.90, p<.005$. Table 13 reports the results of this and other analyses.

To investigate whether feelers would report experiencing greater comfort with, and deriving greater overall benefit from, emotive interpersonal components of the trainings than would thinkers, (Hypothesis 15) an independent samples t-test and a Mann-Whitney U test were conducted. Feelers were not found to significantly differ from thinkers in either benefit or comfort with emotive exercises. Thus this hypothesis was not confirmed.

Extraverts were not found to report experiencing either greater comfort with, or deriving greater benefit from, emotive interpersonal components of the trainings than were introverts, thus Hypothesis 16 was not confirmed. In fact, while the t-tests showed no significant difference between the two groups, results of the Mann-Whitney U test comparing rankings revealed that the opposite was found. Introverts ranked emotive exercises significantly higher in benefit than did extraverts, (introverts’ mean ranking for these exercises was 17.88, while extraverts’ was 27.83, $U= 147.5, W= 357.5, Z= -2.55, p<.01$, two-tailed). Implications of this will be discussed in the discussion section.
Feelers in the test sample were found to report deriving greater overall benefit from emotive components of the trainings than from other components. Thus Hypothesis 17 was confirmed. For feelers the mean reported benefit from emotive exercises was 6.42, while for non-emotive exercises it was 5.55, t(23) = 3.78, p<.001. These results were significant for both introverted and extraverted feelers. Table 14 reports the result of this, as well as other exercise benefit by personality type comparisons.

Hypothesis 18, which stated that judgers would report more comfort with exercises involving interpersonal feedback than would perceivers, was not confirmed.

To investigate the final hypothesis of this study, that subjects across all personality types would report increased levels of tolerance and empathy for people from differing ethnic backgrounds after the training, one sample t-tests were conducted. Both of these analyses were found to be significant at the .001 level. Table 15 summarizes these results. Subjects indicated that their tolerance, empathy, and comfort with people from differing ethnic backgrounds from their own, as well as with people of the opposite gender, significantly increased after the trainings. Subjects rated hearing personal stories and testimonials, and participating with others in emotive exercises, as most influential in affecting change in their attitudes toward those different from themselves.

Further analyses beyond those hypothesized that were found to be significant included a finding that introverts reported deriving significantly more benefit from homework than did extraverts (mean for introverts was 6.00, while the mean for extraverts was 5.25, t(38.72) = 2.05, p<.05, two-tailed). A main effect was also found in a
<table>
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<th>Change in Attitude</th>
<th>Mean</th>
<th>S.D.</th>
<th>Mean Difference</th>
<th>t Value</th>
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<td>Comfort with ethnically different</td>
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<tr>
<td>Empathy toward ethnically different</td>
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<td>0.96</td>
<td>2.00</td>
<td>14.62</td>
<td>48</td>
<td>0.000</td>
</tr>
<tr>
<td>Gender Difference</td>
<td>4.90</td>
<td>1.74</td>
<td>0.90</td>
<td>3.66</td>
<td>49</td>
<td>.001</td>
</tr>
</tbody>
</table>

*Note: Scale based on 1 to 7 ratings, with 1= negative change, 4= no change, and 7= very positive change.*
2 x 2 factorial design analysis of variance with the first factor being one personality attribute (extravert versus introvert), and the second being another personality attribute (sensation versus intuition). The dependant measure was rated benefit from homework. Introverts were found to report significantly more benefit from homework than were extraverts, $F(1, 49) = 2.96$, $p < .05$. In addition, judgers were found to report deriving more benefit from non-imagery oriented exercises than from imagery oriented exercises (mean for non-imagery was 5.80, and for imagery it was 5.20, $t(23) = -2.11$, $p < .05$, two-tailed).

Also, perceivers indicated that they derived more benefit from imagery oriented exercises than did judgers, in a manner that approached significance (mean for perceivers was 5.96, while the mean score for judgers was 5.20, $t(36.62) = 1.82$, $p = .077$, two-tailed).

Some interesting interactions were also found in the analyses of variance. A 2 x 2 factorial design ANOVA was run with the first factor being one personality attribute (sensate versus intuitive), and the second being another personality attribute (introvert versus extravert, thinking versus feeling, judging versus perceiving, run separately). The dependant measure was benefit from imagery oriented exercises. A significant two-way interaction between the S/N function and the J/P function on benefit from imagery oriented exercises was found to approach significance, $F(1, 50) = 3.85$, $p = .057$. While both intuitive judgers and intuitive perceivers reported high benefit from imagery oriented exercises (mean of NP’s score on imagery = 5.95 on a scale of 1 to 7, mean of NJ’s imagery score = 6.00), sensates significantly varied in their benefit from imagery depending on whether they were judgers or perceivers (mean of SP’s imagery score = 6.00, while the mean of SJ’s = 4.94). Thus, sensate judgers derived considerably less benefit from imagery oriented exercises than did the other three groups. The groups (eg.,
intuitive judgers, intuitive perceivers, sensate judgers, and sensate perceivers) were made up of all individuals in the sample that had both these personality attributes. Each subject falls into one of these four groups depending on their personality attribute configuration.

A significant two-way interaction was also found in a 2 x 2 factorial design ANOVA between the S/N function and the T/F function on rated benefit from cognitive exercises, \( F(1, 48) = 4.62, p < .05 \). While both sensate thinkers and intuitive thinkers reported deriving high benefit from cognitive exercises (ST’s mean benefit score = 6.31 on a scale of 1 to 7, NT’s mean score = 6.44), feelers varied significantly in benefit from cognitive exercises depending on whether they were sensate feelers or intuitive feelers. The mean benefit score on cognitive exercises for sensate feelers = 4.78, while the mean benefit score for intuitive feelers = 6.00. Thus, intuitive thinkers reported deriving the highest benefit from cognitive exercises of these four groups, while sensate feelers reported deriving significantly less benefit from cognitive components of the training.

One additional significant two-way interaction on a 2 x 2 factorial design ANOVA was found between the E/I function and the J/P function on benefit from homework, \( F(1, 49) = 4.52, p < .05 \). While both introverted judgers and introverted perceivers rated benefit from homework reasonably high (IJ’s mean = 6.15, IP’s mean = 5.78), extraverts varied significantly on benefit from homework depending on whether they were judgers or perceivers. The mean score for extraverted judgers on benefit from homework was 4.36, while the mean score for extraverted perceivers on benefit from homework was 5.82. Thus, perceivers and introverts tended to rate benefit from
homework reasonably high across conditions, while extraverts varied significantly, with extraverted judges reporting the lowest benefit from homework of the four groups.

A series of additional analyses were run with the data, including one-way ANOVAs investigating the differences between temperament groups (NTs, NFs, SJs, and SPs) on their rated benefit from differing exercise modalities. No significant differences were found between these four groups on rated benefit of any of the six exercise categories. In addition, five relatively highly represented typologies [ISTJs (n= 8), ISFJs (n= 5), INFPs (n= 6), ESTPs (n= 5), and ENFPs (n= 7)] were compared with one another on each group's rated benefit from the six exercise categories. A series of one-way ANOVAs were computed, and the groups were found to significantly differ in their response to imagery oriented exercises, F (4, 29) = 3.13, p< .05. The Newman-Keuls test was used to probe this significant finding and revealed that ISFJs significantly differed from all other groups in their response to imagery, displaying the lowest mean benefit rating of the five groups on imagery = 4.50 (on a scale of 1 to 7). The groups with the highest mean rating for benefit from imagery oriented exercises were ENFPs with a mean rating of 6.23, and INFPs with a mean rating of 6.17. The typology groups did not significantly differ in their response to any of the other five exercise categories.
CHAPTER IV

DISCUSSION

Several of the main hypotheses of this study were supported by the results of the empirical analysis. Most notably, the growth group experience investigated was found to have significant benefit in several important areas of functioning. Some interesting and conceptually meaningful patterns were also discovered related to the question of whether different types of therapeutic interventions yield different benefit for different types of people. Finally, the growth group experience was found to significantly affect participants' level of comfort with, as well as tolerance and empathy for, people of differing ethnic, national, and gender backgrounds.

Participants were found to demonstrate significantly increased levels of satisfaction with their lives, sense of purpose in their lives, and personal assertiveness, after the growth group experience. This supports past findings of increases in well-being following growth group participation, including enhanced positive affect (Shadish, 1985), and greater levels of self-actualization (Foulds & Hannigan, 1976; Shostrom, 1978). It also expands these findings into additional areas. Further, participants reported significantly decreased levels of social anxiety and general anxiety following their growth group experience. Such findings are consistent with past evidence of decreased acknowledgment of psychological distress following growth group participation (Nidiffer & Zoff-Sievert, 1983). The current findings add specificity to these past reports of
decreased distress, most notably demonstrating decreased anxiety in one's self and with others, following growth group involvement. In addition, in the pre-training measures, introverts were found to demonstrate less assertiveness than were extraverts. This finding provides support for the negative relationship between introversion and assertiveness that has been reported previously in the literature (Percival, Smitheram, & Kelly, 1992; Williams & Bickness-Behr, 1992).

The changes in anxiety, assertiveness, and well-being discovered in this study not only were found to reach statistical significance, but to demonstrate that significance in a highly robust fashion (with the probability that they occurred by chance equaling significantly less than one in one thousand). This supports a conclusion that some aspect(s) or element(s) of the group procedure studied contained a powerful agent of change. While a selection bias in the current sample may have influenced the degree of change reported in the study (only approximately 38% of those who filled out the pre-training questionnaires also completed the post-training questionnaires, and it could be hypothesized that subjects with a more favorable response to the program were more likely to complete the study), the strength of the significance of these findings suggests the likelihood that some degree of significance would have maintained with a more fully representative sample. Whether or not these changes endure over time was not a subject of this study, but has been noted to be an important consideration in the literature (Smith 1875a, 1980d). Nonetheless, in terms of affecting therapeutic change, even temporarily, the growth group procedure investigated appears to contain some highly effective elements. Group procedures that could capture some of these growth promoting elements, in a format where they could be implemented in a continuing fashion over time, would be
of considerable benefit. Such procedures might take the form of group therapy or support
groups that incorporate highly effective training elements or exercises. This has
particular relevance in the current climate where increased demand for mental health
services and decreased funding are making group procedures of many kinds more
relevant and more important than ever.

The question of which elements in this group procedure were particularly
effective for promoting change was addressed by the current study. Subjects, across all
personality groups, were found to indicate that they derived more benefit from certain
categories of exercises than from others. Participants reported that they derived most
benefit from emotive interpersonal exercises and cognitive discussion, and least from
personal reflection and homework. The emotive interpersonal exercises involve giving
and receiving greetings, and are designed to help people examine the expectations, fears,
and wishes they bring with them to their interactions with others (see Appendix A for a
full description). These exercises also help people gain insight into the ways in which
such concerns manifest in others, and how this process affects interpersonal relationships.
Enhanced interpersonal functioning appears to be a central concern for many people
seeking growth or change. The strong positive response to these exercises, across all
categories of people, suggests that specific exercises targeted to explore these issues
could be particularly effective for enhancing social confidence and competence. These
might be more effective for such concerns than solely open-ended eclectic or
psychodynamic therapy. Future research that targets this comparison more directly would
be of significant value.
Subjects, across all personality styles, also indicated deriving very positive benefit from the cognitive components of the trainings. The focus on taking responsibility for one’s interpretations of life events, avoiding a mentality of victimization, as well as highlighting ways in which one’s thought patterns can limit one’s possibilities, were all mentioned frequently in the open-ended section of the exercise efficacy questionnaire as having particular benefit. Personal reflection and homework was rated as significantly less beneficial than other exercises for promoting change by most subjects, although this was more true for some types of subjects than for others. This will be expanded upon later in this section. Males and females reported largely similar responses to the exercises with one notable difference, their response to behavioral game exercises. These exercises, designed to help reveal the competitive and cooperative strategies people use, were experienced as significantly more beneficial by the males in this sample than by the females. The question of whether certain therapeutic interventions are more often effective for one gender than for the other warrants further investigation.

There certainly may be limitations to the extent to which these findings can generalize to therapeutic settings, which most often do not provide an intensive, diverse and comprehensive multi-day group program. Within the program studied various exercises do build upon one another, and are purposely interspersed and varied to create a certain overall effect. Nonetheless, subjects were able to differentiate exercises within the program that provided more or less benefit to them, in a significant fashion. Future research that can attempt to duplicate these findings in actual clinical settings is indicated, and would be essential to determine how generalizable the present results are, and to expand upon them.
Certain interesting and conceptually meaningful patterns emerged in this study in response to the question of whether people with different personality types respond differently to particular types of interventions. While several of the hypotheses related to this question were not confirmed, many of them were confirmed in a manner that yields important information. Sensates, who are thought to be oriented toward concrete, practical, and tangible thought patterns and interests, as expected, reported deriving significantly more benefit from non-imagery oriented exercises than from imagery oriented activity. While certain specific exercise relationships were not confirmed for sensates, (e.g., they did not report deriving greater benefit from behavioral games than from imagery), in general, non-imagery oriented activity was found to benefit sensates' more than imagery oriented activity. This is qualified to some extent depending on whether the sensate is also a judger, or a perceiver. Sensate judgers showed the least benefit from imagery oriented activity. A few quotes from sensate judgers taken from the open-ended section on the exercise efficacy questionnaire, illustrate some of the attitudes toward imagery that these type of individuals reported. One sensate woman indicated: “I have done these kind of exercises before and didn’t get much from them. They were even less effective the second time.” Another subject with the sensate judging classification indicated that, with respect to imagery “It was difficult to ‘zero in’ on those things that are significant in my life during these exercises.” It appears that such subjects have difficulty accessing and using imagery as a means to furthering self-knowledge or growth. It may be that such subjects would do better with interventions that focus on more tangible and measurable goals, such as behavioral techniques.
Judgers were also found to derive more benefit from non-imagery oriented activity than from imagery. Judgers, across all categories, reported deriving less benefit from imagery oriented exercises than did perceivers. Judgers also reported benefiting more from behavioral games than did perceivers. When incorporated into a full typology, the ISFJ type rated benefit from imagery oriented activity significantly lower than did several other types (ENFPs, INFPs, ESTPs, and ISTJs). Extraverted judgers were also found to benefit significantly less from personal reflection and homework than either introverted judgers, introverted perceivers, or extraverted perceivers. These results suggest that judgers, like sensates, might also be expected to do better with active behavioral interventions to promote change, than with introspection or imagery. Future research on this question is warranted.

In contrast to most sensate and judging subjects, intuitive and perceiving subjects reported working well with imagery. Intuitive subjects reported gaining more benefit from imagery than did sensates, and perceivers indicated deriving more benefit from imagery than did judgers, in a manner that approached significance. Individuals with typologies including both intuitive and perceiving characteristics (specifically ENFPs and INFPs) reported the highest benefit from imagery oriented activity out of the five typologies contrasted (including ISTJs, ISFJs and ESTPs). Two subjects with the ENFP typology illustrate their ability to use imagery as a vehicle for changing attributions and negative thought patterns in the following quotes, taken from the open-space area of the exercise efficacy questionnaire:

I found these [imagery oriented] exercises quite meaningful. I was able to bring back memories and experiences of my childhood. It reinforced the warm and loving family life I had as a child. I also realized I gave my children that kind of life, and
I really am not responsible for my daughter's addiction, or the mistakes my other children have made. They chose to make their own decisions.

Another ENFP subject expressed it this way:

I found the imagery especially useful. The suit of armor was a very accurate symbol of the "weight" of emotional "stuff" we carry around. I found the exercise liberating, and was especially gratified when I was able to forgive myself for all the guilt I associated with my past.

These results suggest that individuals with strong intuitive and perceiving attributes might work particularly well with interventions that involve imagery, such as guided imagery, visualization, or perhaps even Gestalt techniques that focus on one's 'inner child'. These results also suggest that such techniques might be helpful to these individuals not only for relaxation or mind-body concerns, as they have most commonly been used, but also for changing negative attributions and thought patterns. Clearly more research needs to be conducted in this area to support this conclusion. The current results also suggest that individuals in certain types of careers which attract highly intuitive and creative peoples, such as the arts (Apostal, 1991), should be considered potentially good candidates for imagery oriented interventions.

As was expected, thinkers reported deriving more benefit from cognitive components of the training than did feelers. Thinkers also demonstrated a trend toward preferring cognitive exercises to non-cognitive exercises. Both sensate and intuitive thinkers reported high degrees of benefit from cognitive exercises, with the highest scores reported from intuitive thinkers. This supports past research that has found individuals high in intuition to demonstrate high levels of complexity of thought and abstract reasoning (Brown, 1991; Taggart, Kroeck, & Escoffier, 1991). Feelers varied in their response to cognitive exercises, with intuitive feelers reporting reasonably high benefit,
while sensate feelers reported relatively low levels of benefit from this type of intervention. This makes conceptual sense since sensate feelers combine a tendency to value feeling over thinking, and a concrete, pragmatic, largely non-abstract thought process. Thus, cognitive approaches to therapeutic intervention, (which involve analysis of patterns and styles of thought), might not be the therapeutic intervention of choice for sensate feelers. Further research to investigate this possibility further would be fruitful. A few quotes that illustrate the way in which certain thinkers in this sample were able to do some of their most important work of the training during the cognitive exercises follows: “I enjoy lectures as learning experiences, and I provided and received most of my feedback of the training during these discussions.”

Also:

The discussion about responsibilities and how taking them changes the way one views the past, and how to view your future to create your present, left a profound influence on me that will be affecting my present and future choices for years to come.

These results confirm the notion that thinkers appear to be able to use cognition particularly well as a vehicle for growth and change. The results also suggest that cognitive approaches to therapeutic intervention should be considered seriously for individuals with a thinking orientation. Many cognitive and cognitive/behavioral approaches to treating various problems (e.g., depression, low self-esteem, panic disorder), are now gaining more popularity even in group formats, and thinkers may be particularly good candidates for such intervention. It is possible that cognitive group interventions might be more effective for these individuals than more eclectic forms of group therapy. Again, research that addresses this comparison, in a clinical context, would be necessary to confirm this hypothesis.
Feelers in the study, as expected, were found to benefit more from emotive interpersonal exercises than from other types of exercises. While all subjects reported benefiting significantly from emotive exercises, feelers (both introverted and extraverted), indicated particular benefit from these approaches. A quote from a feeler in the study sample that demonstrates a natural receptivity to this type of intervention is the following: “I have always been a tactile person. I felt the hugging gave me an opportunity to convey my loving and caring to the person I was hugging.”

Several particularly interesting and unexpected findings about introverts emerged in the data. Much of the findings about introverts tended to run counter to or opposite what was expected. Introverts, counter to what was hypothesized, were found to report significantly greater benefit from non-imagery oriented exercises than from imagery oriented activity. Introverts also reported deriving more benefit from emotive interpersonal exercises than from non-emotive exercises. Further, again counter to what was expected, introverts were found to rank emotive exercises significantly higher in benefit than did extraverts. Additionally, it was hypothesized that introverts would feel less comfortable with, and thus derive less benefit from, confrontation and interpersonal feedback than would extraverts. This was not found to be the case, as there was no significant difference between these two groups in this area.

The implication of these surprising results might be that introverts actually derive more benefit from exercises and interventions that get them “out of their head” and interacting with others. Imagery oriented activity, which keeps one involved with one’s internal thoughts, images, and affects, was not preferred, while close interpersonal interaction and even confrontation was valued. Emotive interpersonal activity was seen
as particularly beneficial. This might suggest that interventions that are more interactive and expressive, such as various forms of group therapy, might be more change promoting for introverts than introspective approaches alone (perhaps particularly psychoanalysis, where free association in the presence of one person who remains largely unobtrusive is the primary technique). While such approaches may be comfortable and play to introverts' strengths, they might be more powerful in conjunction with interactive and expressive techniques including group therapy. Of course this conclusion would need to be confirmed with more research on actual therapy with a clinical population, but the implications are intriguing.

Introverts did report benefiting more from homework than did extraverts. This is one finding that might be expected, suggesting that introverts can benefit from solitary reflective activity. However, given the other findings about introverts, homework that is geared toward backing up more expressive work and helping introverts better understand and reinforce or challenge their interactive patterns, might be particularly useful to them. Extraverts varied in their response to homework, with extraverted perceivers reporting significantly more benefit from homework than extraverted judges. One extraverted perceiver who expressed both ambivalence about, and benefit from, homework put it this way: “I mostly found this [homework] helpful because I am generally reluctant when it comes to writing down my feelings. However, I thought it was also helpful as a tool for recapping the days events, results, experiences.”

Several expected relationships between personality type and benefit from differing exercises were not confirmed in this study. As mentioned above, introverts did not benefit more from imagery oriented activity than non-imagery oriented activity, nor did
they benefit more from this type of activity than did extraverts. Similarly, extraverts and introverts were not found to differ in their response to feedback, and they differed in an unexpected direction in their response to emotive exercises. Intuitives were not found to derive more benefit from imagery oriented activity than from non-imagery oriented activity. Further, judgers were not found to be more comfortable with feedback than were perceivers. Additionally, sensates did not derive more benefit from behavioral games than from imagery, and feelers did not derive more benefit from emotive oriented exercises than did thinkers.

While not all expected relationships between personality type and exercise type benefit were found in the current study, many meaningful patterns did emerge, and a number of expected relationships were confirmed. These results clearly provide support for the value of continued research in the area of personality style/intervention style matching. This is particularly warranted in light of the fact that very few studies of the relationship between personality style and actual intervention outcome, not merely intervention preference, have been conducted. The results also seem to suggest that different types of people can access and use differing mediums for achieving intrapsychic or interpersonal change. Some avenues appear to be more effective for some people than for others. For instance, in the examples cited above, some individuals suggested that much of the benefit they derived from the training, including changing attributions, thought patterns, or even giving and receiving feedback, occurred during the cognitive exercises. Others suggested that they changed attributions, thought patterns, and altered other aspects of psychic functioning significantly during their participation in the imagery
oriented exercises. Still others (not quoted here), described the value of exercises involving feedback and confrontation for affecting similar change.

Several writers who have reviewed the outcome literature have suggested that diagnosis alone may not be an adequate criterion on which to base treatment choice, and that certain variables that mediate between treatment type and outcome have not yet been adequately identified or understood (Beutler, 1991; Persons, 1991). These arguments have been used at times to challenge the “equivalence hypothesis” (that different forms of therapy yield equivalent results) by suggesting that most studies investigating this topic have collapsed treatment type across all different types of subjects, such that personality variables that could be interacting with treatment variables to produce differing results are being lost. The current study provides clear support for including personality variables as a significant independent dimension in comparative therapy studies. In addition, Persons (1991) also suggested that mere diagnosis alone is not an adequate matching variable to determine therapeutic technique. He argued that a difficulty with relying on diagnosis alone to determine treatment choice is that current theories of psychotherapy do not base treatment on diagnosis, but rather focus on patients’ underlying psychological mechanisms. Future research that could combine personality style and diagnosis as individual, and possibly interacting factors, in examining different types of treatment efficacy is clearly indicated and would be quite valuable. The current results are particularly meaningful in the context of today’s psychotherapy climate. Giving prospective psychotherapy patients a simple personality questionnaire like the MBTI is a very inexpensive and time-efficient activity, especially if it could promote more effective treatment type/person type matching.
Clearly the findings of the current study need to be confirmed and expanded upon with an actual clinical population, assessing the effect of actual clinical interventions, before a firm conclusion about the relationship between personality style and preferred therapeutic approach can be drawn. The current study was not conducted on a clinical population, nor in a clinical setting. The exercises that were studied were also conducted as part of a larger program, in which various exercises fit together in a particular manner. The extent to which these findings could be replicated with independent clinical interventions and a clinical population, administered in a clinical setting, is not yet known.

Despite its limitations, investigating individuals' responses to exercises from a growth group procedure offered certain clear benefits with respect to the question of personality style/intervention style matching that would have been hard to replicate in a different setting. Namely, all subjects experienced exercises drawn from at least six different intervention styles. This allowed a within subjects comparative benefit rating to be conducted. It would be virtually impossible to find a clinical population that could go through six different types of therapy and rate each one. Similar research conducted in an actual clinical setting would have to be reproduced with many different samples, and this would require a considerable amount of research expenditure and time. Results of the current study however, suggest this might be worth the effort. One further limitation of the current study is its limited sample size. While a significant number of training participants agreed to fill out the pre-training questionnaire, it was considerably more difficult to get the post-training questionnaires returned. Thus, future research of a
similar nature that could incorporate a larger sample would help to add perspective on the meaning and strength of the current results.

The final area that this study addressed was the question of the growth group's impact on changing attitudes towards difference. The results indicate that the group experience did have a significant impact on enhancing subjects' tolerance of, as well as empathy and comfort with, people from national, ethnic, and gender groups different from their own. It was interesting to note that in response to a general question of whether participants felt that their view of people from different backgrounds changed as a result of the training, subjects reported significantly more limited change than they did to questions probing specific areas, such as changed levels of tolerance, comfort, or empathy. In the open-spaced area under the first question many subjects indicated that their views were not biased or prejudiced before the training, so the training did not have to change their views. Nonetheless, most subjects went on to indicate that in specific areas they did experience change. This may imply that people have a bias toward believing that they are less pre-judging and more accepting of others than they actually are, and that this belief gets challenged when specific areas are focused on and probed.

Some of the ways in which people indicated (in the open-space area of the Ethnic Differences Questionnaire), that their attitudes changed during the training are quoted below. One man indicated:

I did notice that I judged people mostly on their eloquence and how they expressed themselves, criticizing them on what I "interpreted" was a measure of their intelligence. I have become more open and less judgmental of peoples' various means of communicating their feelings, although this is an area that still needs further addressing on my part. Also, some typically "corporate-looking" people were much warmer and more sincere than I anticipated.
Another individual stated "I am no longer homophobic. I was however, prior to my basic training." One other man indicated that "Although my attitude has always been tolerant, to experience the connectedness and love of such a diverse group of people was the highlight of the training." A female in the sample stated:

I feel I do not have to prove anything anymore when I am talking to a male. Now it is not a matter of being stronger that is most important, but just to get along as humans that are part of one common world.

With respect to the question of what aspects of the training affected attitude change, no significant difference was found between subjects' ratings of the benefits of several different training components. The four components that were studied all were rated as having significant impact on improving attitudes toward difference. In terms of ranking, subjects ranked "hearing the personal stories and testimonials of others," and "participating in emotive interpersonal exercises with others," as the training elements most significant in affecting attitude change. The other two training elements examined, which were also rated as significant in affecting attitude change, were "working closely with others" and "trainer discussion". The way in which emotive interpersonal exercises had an impact on attitude change was expressed this way by one participant:

These [emotive] exercises helped to open up my more compassionate side. I am now able to overlook what a person is, and to be more passionate about who they are. For example, I was truly homophobic prior to the workshop. Now I can, and have, hugged and interacted with gay men.

Another participant indicated that these exercises "Gave an opportunity for everyone to feel loved. They broke down any prejudicial barriers with race, gender and appearance."

Subjects, across different personality types, indicated that many aspects of the training which involved interacting with, sharing with, and hearing from, others from
diverse backgrounds, had a positive impact on changing attitudes toward difference, or enhancing prior positive attitudes. These results clearly reinforce past findings that suggest that bringing diverse people together in non-competitive, equal status settings, has a positive impact on promoting inter-group acceptance; the more prolonged and intimate the contact, the more apparent the favorable result (Katz, 1991). The findings suggest that forums, town-meetings, or other group processes, in which some intimate sharing can occur between members of different groups, (not just proclaiming or declaring positions), can help to promote inter-group empathy and harmony. Such experiences may be more beneficial for promoting attitude change than mere academic study or intellectual exercises alone. This is suggested by the fact that while many subjects indicated that they had unbiased attitudes toward members of different groups prior to the training, most went on to state that the actual exercises in the training did have a significant impact on changing their levels of comfort, tolerance and empathy. Some became more aware of biases that were operative in them before the training, of which they were previously unaware.

In sum, results of the current study suggest that growth group procedures, such as the one investigated, do appear to affect change in several significant areas. Forums or other group interventions that could offer similar change promoting exercises and activities, in a more ongoing context, could be quite worthwhile. Also, differing types of people appear to benefit differently from different types of therapeutic or growth promoting interventions. Continued study of this phenomena, alone, and in conjunction with diagnostic information, conducted in actual clinical settings, is strongly indicated. Last, this group procedure was found to significantly influence participants’ attitudes
towards members of ethnic and gender groups different from their own in a positive direction. Thus, non-defensive, non-competitive, group interaction and sharing can have a beneficial impact on enhancing peace; this enhancement appears to take place on an intrapsychic, interpersonal, and inter-group level, and these levels are apparently interconnected.
APPENDIX A

DESCRIPTION OF EXERCISE CATEGORIES
APPENDIX A

DESCRIPTION OF EXERCISE CATEGORIES

The Lifespring corporation requests (legally) that participants refrain from describing their exact exercises, or publishing highly specific descriptions of these exercises. Therefore general descriptions of exercise categories follow.

1. Imagery Oriented Exercises:

   These include several closed eye processes whereby participants are asked to visualize themselves and/or important others in various situations, at different life stages, as guided by the trainer. Frequently music and the lowering of lights are used during these processes to facilitate relaxation and promote an identification with earlier affective states. Participants are at times asked to visualize themselves interacting with important others at earlier life stages, and at other times to visualize themselves alone, at the present time or in the future.

2. Interpersonal Feedback or Confrontation:

   Most of this occurs in dyads which consist of a one on one interaction with another participant. During these interactions participants may be asked to answer a series of questions, to tell their partner a story related to events in their life, to assume a particular body stance, and/or to give feedback to their partner about how he or she is coming across. Partners exchange feedback. Sometimes this is also done in small groups to which each person is assigned at the beginning of the training. Participants eat all meals during the training with the members of their small group.
3. Cognitive Discussion by Trainer:

The trainer speaks about various subjects relevant to contemporary life, and advances points of view about these subjects. Much of this relates to pointing out patterns of thought that people tend to engage in that are thought to be limiting or otherwise obstructing their ability to deal most effectively with their life circumstances. Basic assumptions inherent in various thought processes are examined and challenged. Subjects are asked to examine the assumptions inherent in their thought, and to observe how these affect their participation in the workshop, and in their lives in general.

4. Emotive Inter-personal Exercises:

Participants engage in a few interpersonal exercises in which expressing emotion to others, indicating the type of interaction one wants with others, and displaying emotion, is emphasized. One particularly significant exercise involves giving and receiving greetings with others that include hugging (if one chooses this). Part of the point of these exercises is to help people see more clearly through experience, the assumptions they bring to interactions with others, the yearnings they have, the ways in which they behave based on these assumptions, and the effect of this behavior. Participants have the opportunity to see how these concerns manifest in others as well.

5. Group Projects and Behavioral Games:

There are a few projects that the entire group works on together. The group may play games to reveal the competitive and cooperative strategies people use, and to help people observe their own form of participation, and what this indicates about the ways
they participate in competitive and cooperative ventures in their lives. This also serves to illustrate the dynamics of group versus individual commitment.

6. **Personal Reflection and Homework:**

Before the training starts (included in the registration packet), and at the close of each workshop day, participants are given a homework assignment to be completed before the next session begins. The homework is purported to be designed to help participants articulate their goals, reflect on their insights and experiences, bring greater clarity to what they are learning, and prepare for the next day's session. The homework is generally reflective in nature rather than activity filled.
APPENDIX B

ETHNIC DIFFERENCES SCALE
APPENDIX B
ETHNIC DIFFERENCES SCALE

1. Do you feel that your attitudes towards people of different ethnic, religious, or national backgrounds changed in any way as a result of this experience?

1  2  3  4  5  6  7
Not at all                      Very Much

In which of the following areas have you changed, and how much?

**Tolerance** of those in different groups -
1  2  3  4  5  6  7
Decreased                        Same                        Increased

**Ability to empathize** with others -
1  2  3  4  5  6  7
Decreased                        Same                        Increased

**Comfort** with people from different backgrounds -
1  2  3  4  5  6  7
Decreased                        Same                        Increased

Please explain in the space below (or on the back) any other types of changes you have noticed in this area (including negative change) and explain:
2. Do you feel that your attitudes toward people of the opposite gender changed in any way as a result of this experience?

1  2  3  4  5  6  7
Not at all  Very Much

In what way? Please explain:

3. Were there any other categories of people different from yourself (list the category, e.g., sexual orientation, profession) __________________________________________ that you noticed a change in attitude toward as a result of this experience?

1  2  3  4  5  6  7
Not at all  Very Much

In what way? Please explain:
What elements of the training do you feel helped affect your changes, if any?

1. **Hearing Personal Stories and Testimonials** -
   
   Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Strong Impact

2. **The Hugging Exercise** -
   
   Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Strong Impact

3. **Working Closely with Others in Feedback or Interactive Exercises** -
   
   Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Strong Impact

4. **General Discussion by Trainer** -
   
   Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Strong Impact

5. **Other**
   
   Not at all | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Very Strong Impact
Please rank order these training elements (the five listed above) in terms of which affected change (in the direction of greater acceptance of those from other ethnic backgrounds) in you the most.

1.

2.

3.

4.

5.

Please describe any other aspects of the trainings that affected your views in this area, if any. Are there any elements you feel could be added to or strengthened within the program to affect change? Were there any components you found detrimental in this area?
APPENDIX C

EXERCISE TYPE EFFICACY SCALE
APPENDIX C

EXERCISE TYPE EFFICACY SCALE

Please rate below the extent to which you derived overall benefit, enjoyment and felt comfortable with the different types of exercises that comprised this training.

1. Imagery Oriented Exercises (like the 'junkyard', ones that involve memory of yourself at other stages in life):

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Please use this space to describe what aspects of this type of exercise you found helpful, harmful and/or meaningful and why. Add any additional comments you wish to make.
2. **Exercises Involving Interpersonal Feedback and/or Confrontation**

A. **Enjoyment of Exercises:**

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Please use this space to describe what aspects of this type of exercise you found **helpful**, **harmful** and/or **meaningful** and why. Add any additional comments you wish to make.

3. **Trainer Discussion and Lecture Components** -

A. **Enjoyment of Exercises:**

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Please use this space to describe what aspects of this type of exercise you found helpful, harmful and/or meaningful and why. Add any additional comments you wish to make.

4. **Emotive Inter-Personal Exercises (like "hugging" exercise):**

A. **Enjoyment of Exercises:**

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Please use this space to describe what aspects of this type of exercise you found helpful, harmful and/or meaningful and why. Add any additional comments you wish to make.
5. Group Project and Game Exercises (like 'win/win' game or others):

A. Enjoyment of Exercises:

1 2 3 4 5 6 7

Very Little

B. Comfort with Exercise:

1 2 3 4 5 6 7

Very Little

C. Overall Benefit:

1 2 3 4 5 6 7

Very Little

Please use this space to describe what aspects of this type of exercise you found helpful, harmful and/or meaningful and why. Add any additional comments you wish to make.

6. Personal Reflection and Homework:

A. Enjoyment of Exercises:

1 2 3 4 5 6 7

Very Little

B. Comfort with Exercise:

1 2 3 4 5 6 7

Very Little
Overall Benefit:

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Very Little                                     Very Much

Please use this space to describe what aspects of this type of exercise you found helpful, harmful and/or meaningful and why. Add any additional comments you wish to make.

Please rank these six exercise types in terms of which exercises you derived the most overall benefit from (from most to least):

1.
2.
3.
4.
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6.

Please feel free to add any other description or comments about any components of the trainings you would like to discuss:
REFERENCES


Luborsky, L., Singer, B., & Luborsky, L. (1975). Comparative studies of psychotherapies: Is it true that “everyone has won and all must have prizes”? *Archives of General Psychiatry, 32*, 995-1008.


VITA

The author, Julie Oxenberg, was born May 3, 1963 in Manhasset, New York. Her undergraduate education was completed at Washington University in St. Louis, Missouri where she majored in psychology and minored in history. She earned the Bachelor of Arts degree in May, 1985, graduating Magna Cum Laude. While attending Washington University Ms. Oxenberg co-authored two published research studies.

Prior to entering graduate school Ms. Oxenberg was awarded the Jerusalem Leadership Training Fellowship which allowed her to study politics and religion in Israel. In August of 1987 she entered the doctoral program in Clinical psychology at Loyola University of Chicago. While in residence at Loyola University Ms. Oxenberg completed clinical externships at the Lakeside V.A. Hospital, the Doyle Center, the Loyola University Counseling Center, and Illinois Masonic Hospital. In 1991 Ms. Oxenberg completed the Master of Arts degree in Clinical Psychology.

In 1991 Ms. Oxenberg took a leave of absense from the doctoral program to pursue a Master of Arts degree in International Diplomacy at the Fletcher School of Law and Diplomacy located at Tufts University in Boston, Massachussets. This degree, which was a planned part of an overall vision Ms. Oxenberg had for her graduate education, was conferred upon her in 1993. She later went on to complete a two year clinical internship at Beth Israel Hospital of the Harvard Medical School.
The Dissertation submitted by Julie Oxenberg has been read and approved by the following committee:

Alan DeWolfe, Ph.D., Director
Professor, Psychology
Loyola University of Chicago

James Johnson, Ph.D.
Dean, Professor, Psychology
Loyola University of Chicago

Gerald Wagner, Ph.D.
Adjunct Professor, Psychology
Loyola University of Chicago

Richard Maier, Ph.D.
Professor, Psychology
Loyola University of Chicago

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the committee with reference to content and form.

The dissertation is, therefore, accepted in partial fulfillment of the requirements for the degree of doctor of philosophy.

12/11/95
Date

[Signature]
Director's signature