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AN INVESTIGATION OF THE RELATIONSHIP
BETWEEN
SELF-ACTUALIZATION,
MEANING IN LIFE,
AND PERSONAL MORTALITY

By

Jay R. Palmatier

B.S., St. Lawrence University, 1973

Presented in Partial Fulfillment

of the


Requirements for the Degree of

Master of Arts

UNIVERSITY OF MONTANA

1978

Approved by:



Dr. H.A. Walters, Chairman



Dean, Graduate School

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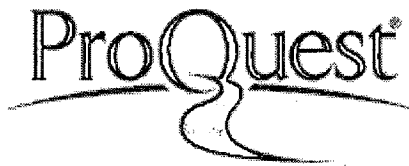


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Psychology

An Investigation of the Relationship Between Self-Actualization,
Meaning in Life, and Personal Mortality

Director: H.A. Walters, Ph.D. *H. Walters*

Review of the psychological literature on death and dying leads to three hypotheses. One, there is a positive correlation between self-actualization (Personal Orientation Inventory score) and a successful fantasy confrontation with one's own death. Second, there is a positive correlation between meaning in life (Purpose-in-Life test score) and personal mortality as assessed on a fantasy task. Third, a fantasy encounter with death would increase meaning in life more than a fantasy per se. Sixty college undergraduates were administered the POI and PIL and were then divided into three groups according to POI score. Half of each group was randomly assigned to an age progression fantasy task and half to a neutral fantasy task. Participation in the fantasy task occurred one week later. During the third week, a post-experimental questionnaire was administered and the PIL was readministered.

The first two hypotheses were evaluated by means of a Pearson product moment correlation and the third by a split-plot ANOVA. No statistically significant results were obtained.

These results were discussed as possibly indicating that a revision of current theory may be in order. However, a number of circumstances may limit this view. These circumstances included a possibly inappropriate criterion group, lack of vividness of the fantasy task, and demand characteristics of the age progression fantasy. Where appropriate, suggestions for improvement in the present design were offered.

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Chapter I

Introduction

The purpose of the present study was to investigate the validity of the humanistic and existential perspective that there is a relationship between one's self-actualization and sense of meaning in life, and one's ability to confront one's own mortality. A review of the literature on death and dying leads to the hypothesis that self-actualization and meaning in life are both, individually, positively related to the ability to fantasize one's own mortality.

On Death and Dying: Literature Review

The past fifteen years have seen a tremendous rise in the number of publications, journal articles, books, and papers on the topic of death (Lester, 1967; Fiefel, 1974). This rise may be measured by the establishment of the Foundation of Thanatology and the regular publication of a journal dedicated to the issues of death and dying (Omega: The Journal of Death and Dying). Although various authors generally conclude that scholarly works on death have been useful and educative both for professional and lay public, some authors have begun to suggest that enough has already been written on death and dying (Schnaper, 1975; Cohen, 1976).

This is likely a very natural evolution because after birth, death is perhaps the only experience which all human beings are assured of having in common. Throughout the ages man has attempted in his religions, philosophies and more recently through medicine and psychological studies to deal with this ever-present fact.

Most religions and philosophies have been concerned with the

possibility of an afterlife. Beliefs range from the assertion that there is no existence or awareness of existence in the existentialist camp, through the belief in sensate luxury of the Moslem religion, to the beatific or hellish visions of afterlife embodied in Christianity and the ideas of rebirth, nirvana, and blissful awareness found in certain Eastern religions (e.g., Taoism, Buddhism, and Hinduism).

Which viewpoint, if any, is correct is of course without answer. Still all these religions and philosophies have in common a belief that life is radically different from death. In this most people would agree. Nevertheless, recent advances in medicine, the current debate over what constitutes death (e.g., the Quinlan case) and recent reports of E. Kubler-Ross and others of the experiences of people, who, after revival from clinical death, reported awareness while they were dead, are perhaps changing the distinction. Thus the transition itself from life to death is now being studied, although perhaps not for the first time (e.g., The Tibetan Book of the Dead, 1960).

Apart from the above recent developments, three major areas of interest in the psychological aspects of death have received the majority of attention. The first area has been studies of attitudes toward death and the personality and demographic variables which correlate with them. The second major area of interest has been the psychological state and management of the dying patient with concomitant definitions of the roles of the physician and therapist. The third emphasis, although mainly clinical and theoretical speculation, has been concerned with the effects of the inevitability of death upon life. The present study draws from and attempts to integrate aspects of these three areas of inquiry.

Almost the entire experimental literature on death has been concerned with studying some aspect of fear of death or the correlates of fear of death. Nagy (1948) attempted to place children's conceptions of death into a developmental framework. Nagy found that from 3 to 5 years the child denies that death is final and distinguishes degree of death. From ages 5 to 9 children tend to personify death, and from 9 or 10 onward her subjects had a realistic view of death, i.e., death is biologic and final.

A more recent attempt to categorize children's conceptions of death within a developmental framework was reported by Melear (1973). Here a somewhat different framework was reported. Forty-one children ages 3-12 participated in the study with the following results: 1) six subjects 3 and 4 years old reported no knowledge of death nor any knowledge of its meaning; 2) ten subjects ages 4-7 described death as temporary; 3) four subjects 5-10 felt that death was final, but that dead people could see, hear, and feel, and; 4) two subjects age 4 and 5, one subject age 6, and 18 subjects 6 and older expressed a realistic view of death, i.e., death was viewed as permanent and biologically based. Koocher (1973) investigated the same topic using Piaget's framework for cognitive development. In general, his findings supported both Nagy's and Melear's, i.e., children's conception of death changed in the direction of becoming more realistic as they progressed to the formal operational level.

Death education in various forms has been attempted in the public schools (Cruse and Cruse, 1974; Peterson & Satore, 1975), as part of psychiatric training (Barton, 1973), via films (Erp, 1973), and in the laboratory (Kopel, O'Connell, Paris & Giraiden, 1973). However, to

date the results and implications of these studies and courses are equivocal or merely speculative.

Lester (1967) reviewed the literature on fear of death. He found little distinction made in the literature among parts of fear of death, fear of dying (own death), fear of others dying, and fear of the effects of death, which may account for some of the contradictory findings. Lester noted a wide variety of techniques that have been used to assess fear of death: questionnaires, including open-ended essays, interviews, forced choice scales and checklists, and projective techniques of various sorts. Using these techniques many studies have looked at the relationship between fear of death and various demographic variables, i.e., sex, occupation, residence, marital status, interests, health, age, and education. Most studies indicate an absence of relationship, and even when a relationship was found, it did not hold across studies. Other studies looked at the consciousness of fear of death, its relationship with other specific and generalized anxiety, with psychopathology, and with religiosity. Again, Lester stated that the evidence is conflictual and equivocal.

In general, Lester criticized the literature on fear of death for:

- 1) rarely assessing the reliability and validity of the measuring instruments;
- 2) a general lack of clarity concerning which of the aspects of fear of death was being measured;
- 3) choice of variables were usually limited to those readily available, and;
- 4) researchers rarely manipulated variables in their studies. This resulted, according to Lester, in the literature being a hodgepodge from which little could be stated unequivocally.

Since Lester's 1967 review research concerning fear of death and

its correlates has continued with some increase in the range of variables investigated. Nogas, Schweitzer, & Grenst (1974) investigated the relationship between death anxiety, sense of competence, and need for achievement. They found, contrary to their expectations, that sense of competence was inversely related to death anxiety and that there was no relationship between death anxiety and need for achievement, nor were there any interaction effects. In their discussion, Nogas et al felt they were investigating the wrong relationships and that perhaps an investigation of the relationship between death anxiety and a person's actualization of his intellectual or object-world skills might be more appropriate and more fruitful. Ray & Najman (1974), working in the same area, found need for achievement to be positively related to, not fear of death, but rather death acceptance. Further, they began initial investigations toward a "death acceptance scale" following Lester's (1967) advice.

This trend toward measuring attitudes toward death has found expression in a number of other studies. Durlak (1972) used the Purpose-in-Life (PIL) test (Crumbaugh & Maholick, 1964) to assess meaning in life and found a high meaning in life to be associated with a more acceptance attitude toward death and less fear of death. Hardt (1975) began investigation of a questionnaire designed to measure attitudes toward death. His preliminary results indicated that frequent churchgoers were more acceptant of death and lower socioeconomic class members were less acceptant of death, although the data was not subjected to statistical analysis.

Following closely the study of Durlak (1972) was a similar investigation by Blazer (1973). Blazer also used the PIL to assess

meaning in life, but used Lester's 1967 "Fear of Death" scale to assess subjects' attitudes toward death. Blazer's findings were consistent with the literature, i.e., subjects with a high PIL score showed less fear of death and a more positive attitude and a more accepting attitude toward death. The converse was also true while neither age, sex, nor marital status made a significant difference. He concludes: 1) to estimate a person's fear of death or attitude toward death, look at the pattern of his life reflected in his goals and purposes; 2) educators should concern their teaching with the value of learning meaning in life, and; 3) following Frankl, guiding people toward greater acceptance of death will yield more directed, mature adults, who are less neurotic.

Drawing on both experimental and theoretical (humanistic and existential) sources, Gamble (1974) investigated the relationship between "self-actualization and authenticity" and the ability to confront one's own mortality. Unfortunately, definitional problems (i.e., of self-actualization and authenticity) and other methodological deficiencies render Gamble's results difficult to interpret.

Still other related work was concerned with whether or not people really felt afraid of death (Chadwick, 1929) or even thought of it (Cameron, 1968). Investigations in this vein have continued at intervals through the recent past. Alexander, Colley, & Alderstein (1957) used a work latency test and GSR readings and found anxiety at the presentation of death related words vs. non-death related words in normal subjects who reported no conscious fear of death.

In a major study, Feifel and Branscomb (1973) used a mixture of self-report, fantasy essay questions (e.g., Describe death as a

person. What would she/he be like?) and a response latency measure to assess fear of death on the conscious, fantasy, and unconscious levels of awareness. They found 71% of their 371 normal subjects to be afraid of death and 29% unafraid at the conscious level, and 62% were ambivalent at the fantasy level, while 27% expressed negative feelings and 11% positive feelings (reunion) at this level. At the unconscious level of awareness, subjects expressed negativity predominantly. Additionally, Feifel and Branscomb found religious self-rating and age to correlate with fear of death at the conscious level and religious self-rating correlated with fear of death on the fantasy level. Sex, education, intelligence, socioeconomic status, recent experience with death, personal nearness to death, marital status, and number of children showed no significant relationship. Feifel and Herman (1973) replicated the study comparing normal subjects vs. neurotic subjects vs. psychotic subjects. No differences were found among groups; all showed a disavowal of fear of death at the conscious level, ambivalence at the fantasy level, and negativity below the level of awareness. As provocative as these results are, conclusions must be tempered by the fact that their measures of fantasy and unconscious material are, at best, only at the level of unstandardized projective tests in terms of reliability and validity. However, similar findings utilizing word latency tasks have appeared periodically in the literature (e.g., Alexander et al, 1957).

Citing only a few studies such as Feifel and Herman (1973) as exceptions, Bell (1975), Feifel and Branscomb (1973), and Lester (1967), all review and criticize the literature as mainly clinical speculation and case studies. Empirical studies are meager and suffer

from inadequate conceptualizations, narrowly defined populations and limited measurement. While each of the above authors suggested various remedies, Lester concentrated on reliability and validity of measuring instruments and increased manipulation of variables, Feifel and Branscomb, better definition of the fear of death concept (e.g., fear of own death, of other's death, of dying), and Bell, greater variable manipulation, especially non-cognitive variables, it appears Lester's 1967 statement still holds. "Although the fear of death has occupied psychologists at least since Scott (1896), our understanding of this fear has increased very little compared to the progress in other areas of psychology" (p. 34).

Although drawing more from their own clinical observations than from the experimental literature, a variety of writers (Sardello, 1974; Ehenwall, 1974; Gold & Ohlendorff, 1974; Paul, 1967) have noted that the occurrence of death as a natural event in modern day society is virtually absent. Sickness and death are removed from everyday life and placed in institutions, both shrouded in secret and depersonalized. Indeed, they agree, so great has been our denial of death that the elderly, who are merely approaching death, not yet dying, are shuttered away from sight. From these basic facts these writers all have drawn similar conclusions. They ascribe a large number of modern day ills: suicide, alcoholism, cigarette addiction, drug abuse, and the epidemic of depressive disorders and so on, to a basically inauthentic, non-actualizing life style.

This denial of death is supported and maintained, they feel, by an ideology that emphasizes progress and technology. This ideology denies the fact of mortality, emphasizes a fleeting and false sense

of mastery over the world, encourages a life of incessant activity, and perpetuates and aggravates the delusions of the past. One is then left with the feeling that only if enough were known and/or enough order imposed, interpersonal and environmental interactions and even death can be approached with the outcome known and under control. This apparent impossibility leads to a denial of death and a lack of a full and satisfying encounter with other humans and the environment.

Becker (1973) has taken the denial of death as an underlying motivation and the encounter with death as the ultimate goal of all human behavior. He then goes on to reinterpret Freudian psychology in this manner, highlighting this essentially existentialist viewpoint.

Sobel (1973) is even more explicit. Our object, he states, should not be to unlearn the fear of death, for that is not the issue. Rather, it is rigidity and the need to control all that is painful, including death, that keeps the person from living fully. Thus, as with the dying person, it is only when the inevitability of death is acknowledged does growth occur, according to Sobel.

A great deal of clinical and anecdotal evidence for growth following the acceptance of the inevitability of death has been provided by Elizabeth Kubler-Ross (1969, 1974, 1975) and others. Although there remains the possibility of variety and differing sequences of experiences and behaviors, Kubler-Ross (1969) describes five stages of awareness of death which people in American society seem capable of progressing through before dying.

The first stage involves the shock when a person is informed he is dying. This is rapidly followed by denial (partial or complete)

which seems to function as a buffer to allow time to marshal defenses.

The second stage is characterized by anger, rage, envy, and resentment. Stage three is a bargaining stage, where the person attempts to postpone the inevitable.

The fourth stage is one of depression, where the person confronts his illness and the inevitable. The realization of loss is the dominant feature of the depression. Simpson (1973) aptly described this feeling of loss. "...consider the extent of our sadness when we lose one person we love...the patient is preparing to lose everyone and everything he loves..." (p. 406).

The final stage is one of acceptance. At this point the person seems to have acquired almost miraculously the ability to actualize these potentialities within himself to the extent time permits.

More recently Dr. Kubler-Ross has gone beyond the immediately dying person in her theorizing (Kubler-Ross, 1975).

...dying is something we human beings do continuously, not just at the end of our physical lives on this earth. The stages of dying that I have described apply equally well to any significant change (e.g., retirement, moving to a new city, changing jobs, divorce) in a person's life, and change is a regular occurrence in human existence. (p. 145)

The message would seem clear, to face death, even the "little deaths" of everyday existence, is the key to positive growth.

Kubler-Ross is not alone in this belief. McKissack (1973) suggests that the challenge of facing death may be a fundamental growth experience. Facing death has been used as a therapeutic tool to promote growth by a number of therapists. Abraham (1972) and Siroka and Schloss (1968) used death scenes and rebirth in the context of psychodrama as a therapeutic tool to give meaning and choice to

life. Leuner (1969), using a technique he calls Guided Affective Imagery to allow patients with a great fear of death to "desensitize" the concept and expand their ability to choose a meaningful (for them) life. Still another technique was presented by Bugenthal (1973/74). Here a meaningful confrontation with the concept of "my death" was attempted in a therapeutic group context via four procedures, 1) drawing a life-life; 2) confronting death contingencies; 3) the Orpheus experience, and; 4) writing your own obituary.

Frankl (1965) has used confrontation with death heavily in his theoretical thinking. He feels the essence of human motivation is "will to meaning." This meaning is unique and specific to each man alone and only fulfilled by him through his own achievements. To find true meaning and purpose in life one must accept and find meaning in his suffering and ultimately in his death. Death, according to Frankl, actually becomes a factor in life's meaningfulness. The issue is not that life has no meaningfulness if death is so unpredictable and merely happenstance; rather, it is the fact that if death has no meaning, life has none either.

Bulka (1974) expands on Frankl's themes on the basis of his own use of Frankl's logotherapeutic technique.

...man would not be faced with an imperative to act and accomplish if his life were endless. That his existence may be terminated suddenly is a reality which forces or should force man to utilize his allotted moments as meaningfully as possible. (pp. 34-35)

Feifel (1974) appears in complete agreement. He states that a philosophy of death lies at the nexus of meaning, values and personality. Further, the meaning of death is a major organizing principle in determining how we conduct ourselves. Perhaps a more poetic version of

this can be found in Castenada (1971):

...without the awareness of death he would be only an ordinary man involved in ordinary acts. He would lack the necessary potency, the necessary concentration that transforms one's ordinary time on earth into magical power. (p. 183)

Finally, Kubler-Ross (1975) sums up the point of view. "Death is the key to the door of life. It is through accepting the finiteness of our own individual existences that we are able to find the strength and courage to reject those extrinsic roles and expectations and devote each day of our lives -- however long they may be -- to growing as fully as we are able." "...when you fully understand that each day you awaken could be the last you have, you take the time that day to grow, to become more of who you really are, to reach out to other human beings." (p. 164).

The Present Investigation: A Theoretical Statement

From the preceding review it appears that the theorists cited all have in common the ideas of growth and/or positive mental health resulting from an encounter with death. Shostrom (1973), writing in the humanistic tradition, posited that behavior is motivated by two processes coactively; the need to survive and the need to self-actualize. The type of behaviors that result in an avoidance of encounter with death, with a denial of death, may be looked upon as survival behaviors; narrowly strategic attempts to cope with a world which is felt to be basically unliveable. On the other hand, the growth, positive mental health, and meaningfulness written of by Frankl, Feifel, Kubler-Ross, McKossack, and others, that results from confronting one's own mortality may be seen as self-actualizing behavior or the result of self-actualizing behavior; expressive behavior

which is rhythmic and relationship enhancing.

It appears possible, then, that the fully functioning person (Rogers, 1961) or the self-actualizing person (Maslow, 1954, 1962, 1970, 1971) is one who has confronted (or at least is easily capable of confronting) his own mortality. Maslow (1954, 1962) describes this person as someone who lives a more enriched life than does the average person. He seems to be capable of developing and utilizing all of his unique characteristics, capabilities, or potentials, relatively free from the constraints of the past and fears of the future. This person, who functions relatively autonomously and has a more benevolent outlook on life and human nature than the average, is the ideal of mental health, the ideal of outcome of therapy (Rogers, 1961).

The intent of the present investigation was to: 1) investigate the possibility of a relationship between self-actualization and the ability to confront one's own mortality; 2) investigate the possibility of a relationship between the ability to confront one's own mortality and meaning in life, and; 3) investigate the possibility that a fantasy encounter with death via an age progression fantasy (Gamble, 1974) is related to an increase in the meaningfulness of life within levels of self-actualization. To assess self-actualization and meaning in life, the Personal Orientation Inventory (POI) (Shostrom, 1966) and the Purpose-in-Life (PIL) test (Crumbaugh & Maholick, 1964), respectively, were used.

Personal Orientation Inventory: Test Review

Gynther and Gynther (1976), in reviewing personality inventories, reported that the POI is the eighth most researched personality inventory. Buros (1972) lists 123 references for the POI.

The POI consists of 150 pairs of two-choice items and is scored for two major scales and ten subscales. One form is applicable for grades 9-16 and adults. Only the two major scales, Time Competence (TC, 23 items) and Inner Directedness (I, 127 items) are independent. For the ten subscales item overlap averages 94%.

Percentile scores and standard scores on the profile are based on a normative sample of 2607 college freshmen (1514 males and 1093 females). Sample profiles are available in the manual (Shostrom, 1966) for business supervisors, student nurses, Peace Corps volunteers, college juniors and seniors, entering college freshmen, high school students, hospitalized psychiatric patients, delinquent males, and alcoholic males. Also, profiles of clinically nominated self-actualizers, normal and nonself-actualizing adults are presented. There is a significant sex difference on TC (1.1 raw score points) and on some subscales (less than one raw score point), although Shostrom (1966) suggests this may be of little practical importance.

Three major studies bear on the reliability of the POI in addition to Shostrom's original 1964 work (Tosi & Lindamood, 1975), which was weakened by his failure to report the time lapse between test and re-test. A test-retest coefficient for a 9 week time lapse computed for mean scale scores of a control group resulted in an r of .96 (Foulds, 1970). Itard and May (1968) reported a 50 week test-retest reliability for all 12 scales ($n = 46$, range .32-.71, median 155). I and TC had correlation coefficients of .71 and .55 respectively. Finally, Klavetter and Mogar (1967) reported one week test-retest reliabilities for the 12 subscales for a sample of 48 college students, which ranged from .52 to .82 with a median of .71. They also reported that most of

the variance may be accounted for by the I, TC, and SAV (Self-actualizing Value) scales.

Shostrom (1964) offered pioneering evidence for the construct validity of the POI. In this study he used the instrument to differentiate three adult groups who were clinically nominated as "self-actualized" ($n = 29$), normal ($n = 160$), and "nonself-actualized" ($n = 34$). All scales of the POI, except NC (Nature of Man), significantly differentiated self-actualized from the nonself-actualized groups. Furthermore, the self-actualized group's mean scores were greater than normal's which were greater than the nonself-actualized group's mean scores.

Wall (1970) compared Rotter's I-E scale with the POI. There was a lack of significant correlation between internal control on the I-E scale and the I scale of the POI ($r = .07$). This relative independence of the I scale from Rotter's concept of internal control lends further support to the construct of the I scale as measuring inner-directedness rather than internal control (Tosi & Lindamood, 1975).

Further evidence for the construct validity of the POI may be found in studies which employed the POI as a predictive measure. Foulds (1969) found that the POI could predict which counsellor trainees would create "facilitative" conditions during counselling sessions. Graff, Bradshaw, Danish, Austin, and Altekruise (1970), studying the effectiveness of dormitory assistants, found the POI to significantly predict rated effectiveness. Furthermore, that the POI significantly predicts success in those areas where values, beliefs, emotions and interpersonal relationships are criteria (e.g., Uhes & Shybert, 1971; Foulds, 1969) is further evidence for the predictive validity of the POI. Moreover, these studies give

additional support to the construct validity of the POI (Tosi & Lindamood, 1975).

Both Buros (1972) and Tosi and Lindamood (1975) reported a number of studies which indicated evidence for the concurrent validity of the POI, especially the I scale (Buros, 1972). One group of studies (see Tosi & Lindamood, 1975) related POI scores to clinical ratings in a variety of settings, graduate school psychology programs, counselling programs, hospitalized psychotics and psychopathic felons. Shostrom's (1964) study cited earlier is representative. The other group of studies gave evidence concerning the concurrent validity on the basis of its complementary use with various personality scales, e.g., Minnesota Multiphasic Personality Inventory, Edwards Personal Preference Schedule (EPPS), Gordon Personal Inventory, and the 16 PF (see Tosi & Lindamood, 1975). For instance, LeMay and Damm (1969) related the POI to the EPPS and noted various significant relationships among subscales as well as a sex difference. They hypothesized a possible difference in the self-actualizing factor between sexes.

A number of studies (e.g., Cooper, 1971) demonstrated that scores on the POI tend to rise following psychotherapy and counselling. This general finding has also been reported in Buros (1972) and in Tosi and Lindamood (1975). These findings are bolstered by the results of Foulds and Warehime (1971) and others (see Tosi & Lindamood, 1975). These studies indicated that attempts to fake good by normal, naive college students generally resulted in lower POI scores. These results appeared to hold regardless of the population sampled (Tosi & Lindamood, 1975), however, Brown and LaFaro (1969) caution that subjects with

specific knowledge of self-actualization in general and the POI in particular can significantly raise their scores.

Conclusions on the effect of a social desirability response set on scores on the POI have in general been drawn from studies such as Foulds and Warehime (1971). While it may be inferred that a social desirability response set will result in lower POI scores, an adequate test of this prediction is yet to be performed.

Damm (1969) reported a study designed to determine the best overall indicator of self-actualization based on the POI. In this study Damm administered the POI to 208 subjects. On the basis of the intercorrelations of the major scales and subscales, Damm concluded that the raw score for the I scale or the combined raw score for the I and TC scales were the best overall measure of self-actualization. The latter procedure was followed in the present study to measure self-actualization.

The Purpose-in-Life Test: Test Review

The PIL is an attempt to measure Frankl's concept of noogenic neurosis (Crumbaugh & Maholick, 1964). The test has three parts. Part A consists of 20 items to be rated on a seven-point (Likert) scale. In each case position four is defined as neutral and different descriptors are presented as anchors for points one and seven.

For example: I am usually:

1	2	3	4	5	6	7
Completely bored			Neutral			Exuberant, Enthusiastic

Adding across all items yields a person's score and higher scores indicate higher degrees of meaning and purpose in life. Part B

consists of 13 sentence completion items and Part C is an essay on personal ambitions and goals. Only Part A is routinely scored and treated quantitatively (Buros, 1972). Further, to date research has dealt only with Part A scores.

In Buros (1972) the split-half reliability was reported to be .90-.92, while Crumbaugh (1968) reported a Spearman-Brown corrected r of .92 for split-half (odd-even) reliability.

Evidence for the construct validity of the PIL has been provided by a number of studies. Crumbaugh and Maholick (1964) in their original validity study gave the PIL to a group of 225 subjects. They reported that the subjects represented five subpopulations: Group I, 30 "high purpose" nonpatients, composed of Junior Leaguers and Harvard summer school college graduates. Group II, 75 undergraduate college students, all nonpatients. Group III, 49 outpatients of various cooperating psychiatrists in private practice (their diagnoses were reported only as "mixed"). Group IV, outpatients of a privately endowed nonprofit outpatient psychiatric clinic, a total of 50 cases of mixed diagnoses. Group V, 21 hospitalized alcoholic patients.

Crumbaugh and Maholick (1964) found the PIL capable of significantly discriminating patients from nonpatients, and a progressive decline in mean scores from Group I through V, both for total scores and for most individual items. Thus, there was a consistent progression of increasing test scores from those considered least motivated, to those considered most highly motivated.

Crumbaugh (1968) conducted a cross-validation study. The PIL again correctly distinguished psychiatric patients from nonpatients

and various groups of normals; from professionals with high PIL scores to indigents with low PIL scores. A new finding was that schizophrenics scored unusually high (for psychiatric groups), which was felt to be likely due to nonconsensually validated meanings. Yarnell (1971), however, was unable to replicate this finding with his sample of schizophrenics.

Garfield (1973) also provided evidence for the construct validity of the PIL. A total of 222 subjects in five cultural subgroups were given the PIL along with the California Psychological Inventory (CPI), the Strole Anomie Scale, and the McClosky-Schoar Anomie Scale. The subgroups were: ghetto residents, professional engineers, graduate students in psychology, members of a rural commune, and graduate students in religion. The mean PIL score for each group showed significant differences among groups. Further, Garfield found only one significant intragroup correlation between the PIL and one of the anomie scales, while the correlation between both anomie scales was significant for all groups. He concludes that the PIL and the anomie scales are not measuring the same attribute and thus this provides evidence for the discriminative validity of the PIL. Finally, Garfield reported that not one of the CPI scales correlated significantly with the PIL across all groups. Although some scales did correlate significantly with PIL scores in some groups, Garfield concluded that there were no consistent significant relationships between the PIL and any of the CPI scales.

Finally, Sheffield and Pearson (1974), working with the PIL with a group of British psychiatric outpatients, were able to discriminate the more severe from the less severely disturbed.

Some evidence for concurrent validity may be drawn from studies which correlate scores on the PIL with various other measures of personality. Crumbaugh and Maholick (1964) found insignificant r 's with MMPI scales, indicating a separate construct was being measured. Pearson and Sheffield (1974) found negative correlations between the PIL and neuroticism on the EPI, second order anxiety on the 16PF and scales 2 and 0 on the MMPI. All of these findings are in the expected theoretical directions. Further, again in accordance with expectations, the PIL was positively correlated with Extraversion and Sociability on the EPI. Two studies, Durlak (1972) and Blazer (1973), looked at the relationship between fear of death and the PIL. Both found those with high PIL scores had less fear of death and a more accepting attitude toward death. Again, these findings are in the direction of theoretical expectations. Finally, Battista and Almond (1973) found a high positive correlation between the PIL and POI and concluded they are measuring approximately the same thing. However, he criticizes both as measuring only values and not experiences like the clinically nominated (self-actualizing) criterion groups.

Fantasy Approaches in Psychotherapy and Behavior Modification:

Literature Review

The use of fantasy techniques in psychotherapy, behavior modification and in research has been well documented (Singer, 1974; Sheikh & Panagiotau, 1975). Fantasy techniques have been shown, both in clinical studies and in controlled research to often have a powerful effect on the person's overt behavior and covert processes, if applied properly (e.g., Stampfl, 1967; Assogioli, 1965;

Bándura, 1969; Cautela, 1966; 1967; 1970; 1971; Lerner, 1969; Morgan and Bakaan, 1965). These techniques vary widely with regard to the rigorousness of their experimental underpinnings. Some appear to have few reported experimental findings to support their use in general nor to support the use of various aspects of the techniques. Others, especially those used in behavior modification procedures, are closely tied to experimental studies of the efficacy of the techniques.

The directed daydream technique of Robert Desoille (Desoille, 1966) has been the major impetus to the fantasy techniques practiced in Europe (Singer, 1974). In this method, the patient reclines with eyes shut, in semi-darkness and receives modified Jacobsonian progressive relaxation instructions. He is then asked to visualize one of six basic scenes, imagine himself in the scene, and finally begin to move around in it. The therapist occasionally provides directions but attempts to allow the patient's images to unfold at their own rate.

Desoille claims that the six standard images he has evolved cover the six major problem areas of life. They are: a sword (if male) or a vessel or container (if female), for confronting one's own personality characteristics, descent into the ocean or moving underground for confronting one's own suppressed characteristics, confronting a witch (if male) or a wizard (if female) for coming to terms with the opposite sex parent, reversed for the same sex parent, a descent into a cave to deal with the constraints of society, and the image of the castle of Sleeping Beauty located in a deep forest for focusing on the Oedipal conflict.

After a directed daydream the patient usually relaxes and between sessions writes out his experience in detail. This often serves as a point of discussion or more usually as the jumping off point for the next daydream.

Desoille claims that his technique is of great diagnostic value because the fantasy approach allows the undisguised expression of fundamental problems without the active resistance of the patient. The technique serves a desensitization function as the patient often confronts quite frightening images and emotions while relaxed and in the presence of the therapist. Finally, there is a reeducation aspect where the patient can begin to develop new patterns of responses.

Leuner (1969) presents a technique he calls Guided Affective Imagery, which closely parallels Desoille's, although it is far more systematized and extensive (Singer, 1974). Leuner's technique involves 10 standard imagery themes, five major methods for evoking fantasy and also for interpreting fantasy. Leuner's work contains distinct psychoanalytic elements including some traditional free association sessions and dream interpretation, which reflects his prior training as an analyst.

An important aspect of Leuner's work has been that it has generated a fairly large number of articles, approximately 30, which involve careful clinical case studies and in a few instances, controlled research (Singer, 1974). The technique appeared to be effective with children (in modified form) and adults along a broad range of disorders from mild test anxiety through severe obsessional neurosis, alcoholism and somnambulism (Leuner, 1969; Singer, 1974).

Imagery and fantasy techniques have been used by many American therapists (Singer, 1974). Examples of the range of work may be found in Moreno's psychodrama (Abraham, 1972), Gestalt therapy (Perls, 1970), neo-Freudian psychoanalysis (Sullivan, 1953), and in Psychosynthesis (Assogiolli, 1965). However, as may be noticed upon inspection, these methods have in general been used mainly as adjuncts to therapy and are quite unstructured in their presentation. Thus, they are not immediately relevant to the present discussion.

The Wolpean (1961) method of systematic desensitization includes the development and presentation of a hierarchy of imagined scenes which when paired with relaxation leads to a marked reduction of anxiety (Bandura, 1969; Goldfried & Davison, 1976; O'Leary & Wilson, 1975). However, a review of attempts at a component analysis of systematic desensitization questions the necessity of relaxation for the effectiveness of the method (Mathews, 1971). Wilkins (1971, 1972) concluded that only the intentional shift of attention to and away from anxiety producing scenes is a necessary element in systematic desensitization. Davison and Wilson (1972) have attacked this position. The resolution of the controversy is still to come, according to Singer (1974).

Bandura (1969) and others have worked extensively with modeling behavior. An overview of this work indicates that there can be an imaginal component to behavior change that follows viewing a model (e.g., Kazdin, 1975).

Stampfl (1967) has developed implosion therapy where a client is immersed in images of, relating to, and going far beyond those conditions which produce anxiety. By this fantasy technique alone,

Stampfl and other clinicians have been able to demonstrate significant reductions in anxiety and maladaptive behavior (Singer, 1974).

Cautele (1966, 1967, 1970, 1970) has developed a variety of covert fantasy techniques to treat maladaptive behavior. He has the client relax and then imagine a prepared scene where he is faced with an aversive stimulus (covert sensitization), a rewarding experience (covert reinforcement), or a lack of anxiety producing consequences (covert extinction). Cautele has cited clinical applications of his techniques which include compulsive disorders, obesity, sexual fetishes, homosexuality, and alcoholism. Recently, Bellack, Glany and Seimon (1976) cited experimental evidence for the efficacy of imaginal self-reinforcement and imaginal self-punishment techniques in treatment of obesity.

The Age Progression Fantasy

The foregoing review of the uses of fantasy in psychotherapy and behavior modification suggests that fantasy techniques are viable for assessing and modifying behavior, beliefs, and emotional reactions. The fantasy technique to be used in the present study will combine aspects of Leuner's work, systematic desensitization, and a number of specific studies which deal with the use of age progress fantasies. Kleine (1951) found that under hypnosis a woman could be age progressed and reliable changes in her Wechsler-Bellevue resulted. Kastenbaum (1971) demonstrated various cognitive and "perceptual" changes could be elicited from young subjects while engaging in an age progression fantasy. Gamble (1974) found subjects, whom he felt to be psychologically healthy, to be better able to

produce a death scene at the end of an age progression fantasy than were hospitalized alcoholics. Finally, Einstein (1975) found differences in cognitive vs. performance tasks when young subjects were asked to imagine being eighty years old and the tasks were readministered.

Statement of Hypotheses

The present investigation was concerned with three hypotheses: 1) there is a significant positive correlation between a high score on the POI and a realistic fantasy production of the subject's own death in the APF group; 2) there is a significant positive correlation between high PIL score and a realistic fantasy production of the subject's own death in the APF group; and, 3) there is a significant difference between the APF and NF groups on pre and post fantasy PIL scores. Specifically, those in the APF condition show a significantly larger gain in pre-post PIL scores than those in the NF condition.

Chapter II - Method

Subjects

The subjects were 60 students enrolled in undergraduate psychology courses at the University of Montana. The total subject sample contained an equal number of males and females. Each subjects' age and education level was obtained. Subjects were informed of what their participation in the study would entail prior to commencement of the study. Agreement to participate in all phases of the present investigation was secured.

Procedure

An original pool of subjects was administered the Personal Orientation Inventory (POI) (Shostrom, 1966). On the basis of their full score on both the Inner Support (I) and Time Competence (TC) scales of the POI, 20 subjects were assigned to a high self-actualizing (HSA) group, 20 to a medium self-actualizing (MSA) group, and 20 to a low self-actualizing (LSA) group. The groups were examined and no differences existed among groups due to the demographic variables mentioned above.

The Purpose-in-Life (PIL) test (Crumbaugh & Maholick, 1964) was administered to each subject concurrent with the POI. The PIL was readministered to each subject approximately three weeks after the first test administration. At that time, Ferguson's (1967) R scale was administered to obtain a rating of each subject's religiosity.

Ten subjects each from the HSA, MSA, and LSA groups were randomly assigned to an Age Progression Fantasy (APF) group. The other 10 subjects were assigned to a Neutral Fantasy (NF) group. This resulted

in six groups with 10 subjects in each (see Figure 1).

Figure 1

	APF	NF
HSA	N=10	N=10
MSA	N=10	N=10
LSA	N=10	N=10

Experimental and Control Groups

Six advanced undergraduates and one graduate student were trained in the fantasy production methods and administered the treatments to all groups. (For specific instructions, see the "Experimenter Training Manual" in Appendices A and B.) These experimenters were blind with regard to the subjects' self-actualization ratings and the experimental hypotheses in order to control for experimenter bias.

Approximately one week after the POI (and PIL) administration, the subjects took part in the fantasy experience. These sessions took place at the Clinical Psychology Center at the University of Montana. Testing was in a group format. Fantasy tasks were individually administered. The Clinical Psychology Center has private rooms which were equipped with a tape recorder, a chair for the experimenter and a recliner for the subject. The subject's permission to record his fantasy productions was obtained with the understanding that while group data and differences would be reported, the subject's name would in no way be associated with the present investigation.

For both the APF and NF groups, the subjects were asked to recline with their eyes closed, the lights were dimmed and brief modified Jacobsonian relaxation instructions were given. (See Appendices

A and B for a detailed description of the APF and NF procedures.) Each subject was then asked to describe the meadow. If the subject experienced difficulty, some appropriate prompts (grass, flowers, clouds, etc.) to aid in visualization of the scene were supplied by the experimenter. The subject was then asked to visualize himself in the meadow, describe how he looked, and what he was thinking and feeling.

The purpose of this introductory task was threefold. First, it allowed the experimenter to determine if the subject was capable of this type of task. Second, it provided the subject with the opportunity to learn and/or practice this type of task. Finally, it allowed the experimenter to gauge the subject's reactivity before the APF task or the NF task proper began.

After this point, the procedures for the NF and APF tasks diverged. In the NF procedure (see Appendix B), instructions set the stage for movement out of the meadow by suggesting some aspect of the meadow scene, the flow of a stream, walking on a path, etc. The subject was asked if he could visualize himself traveling to a pleasant place, familiar or not, of his choice. He was then asked to describe the sights and sounds of the place, and what he was thinking and feeling. Finally, he was asked to describe himself as he engaged in some enjoyable activity. When this was completed or when the subject indicated he could not visualize any part of the task, the NF procedure would be terminated by a return to the meadow.

For the APF groups, the next phase of the fantasy production was initiated in much the same fashion as with the NF groups. That is, instructions setting the stage for movement, here into the future,

were affected by relating some aspect of the meadow scene to the flow of time, e.g., a breeze, the flow of a stream, etc. (See Appendix A). The subject was then asked if he could imagine himself one year older. Following this, the subject was asked if he could imagine himself being two or three years older. Progressions that followed were made in jumps of from one to five years, depending on the case with which the subject progressed and the nature of the material produced.

This process was continued until one of the following occurred: a) the subject indicated he wished to stop; b) the experimenter felt the subject would go on without end; c) the subject reached a totally unrealistic age (greater than 120 years); or d) the subject produced a fantasy of death, dying, or the absence of life.

After each transition the subject accomplished, he was asked various questions designed to elicit his experiences at each age. Following this, he was asked if he was willing to continue, i.e., if he was willing to progress in age and time. If he stated that he was willing to continue, he was asked to move forward to some older age. Again, the subject was questioned. At no time during the procedure was reference to death or dying made by the experimenter. The subject was simply asked to imagine himself at ever advancing ages.

The readministration of the PIL, the administration of the Ferguson scale, and a post-experimental questionnaire (see Appendix F) completed the experimental procedure.

Successful completion of the task in the NF groups was defined as verbal report of the required fantasies (see Appendices C and D). Successful completion of the task for the APF groups is related to

the humanistic perspective implicit in the Introduction and in the hypotheses, i.e., that a self-actualizing life style is at least in part a by-product of an ability to deal with, come to terms with, or envision one's own eventual death in a realistic fashion. Therefore, a successful APF production included all of the following four criteria (see Appendices C and E). First, the subject should age to at least 65, approximately the natural life expectancy. Second, the subject should picture a cause of death, if specified, which is not external, e.g., not accidental. This is in accordance with the humanistic perspective that death is part of the ongoing organismic process of every human being. Third, there must be an awareness of the approach of death at least one year prior to the fantasy production of death or a statement indicating an absence of life. This may be an explicit acknowledgement or it may be demonstrated implicitly by fantasizing physical and/or mental changes usually associated with aging. Finally, there must be an explicit fantasy of death or a statement of the absence of life.

Unsuccessful completion of the APF task was failure to reach any one of the four criteria for successful completion.

Chapter III - Results

Subject Loss

APF data from ten subjects and NF data from four subjects were lost during the course of the present investigation. Tape recorder malfunction and experimenter errors in procedure accounted for these losses. In order to maintain equal numbers of subjects at each level of self-actualization and in both APF and NF conditions, two additional subjects from the APF condition and eight from the NF condition were randomly eliminated. The results of the present study are therefore based on data from the remaining 36 subjects. These data are presented in Appendix G.

Inter-rater Reliability

To demonstrate that the success or failure of each subject on the APF or NF task could be reliably rated, the percent agreement of the three raters was computed. Two raters achieved 100% agreement, while the third rater agreed with the first two 86% of the time. The ratings of the first two raters were used in the present study. These ratings are presented in Appendix G.

Relationship Between POI Score and APF Task

To examine the degree of relationship between self-actualization and the ability to confront, in fantasy, one's own mortality, a Pearson product moment correlation was computed between POI scores and success or failure on the APF task. This resulted in an r of $-.16$, which did not attain statistical significance ($p > .05$).

Relationship Between PIL Score and APF Task

The relationship between meaning in life and the ability to

entertain a realistic death fantasy, was also evaluated by means of a Pearson product moment correlation. The correlation between PIL score and success or failure on the APF task was .07. This correlation coefficient was not statistically significant ($p > .05$).

Relationship Between Pre - Post PIL Scores: APF Group vs. NF Group

The prediction of an increase in Pre-Post PIL scores for the APF vs. NF groups was evaluated by a split-plot ANOVA. None of the effects of interest approached statistical significance at the .05 level (see Table 1). Specifically, for FT x SA, $p = .371$, for FT x RM, $p = .254$, for SA x RM, $p = .524$, and for FT x SA x RM, $p = .099$.

Table 1
Split-Plot ANOVA

Error terms

	Sums of Squares	Mean Square	DF
1	9219.50	307.317	30
2	545.833	18.1944	30

Sources	Sums of Squares	DF	MS	Error	F
Fantasy task (FT)	50.000	1	50.00	1	.163
Self-actualization level (SA)	2517.44	2	1258.72	1	4.096
FT x SA	533.333	2	316.67	1	1.030
Repeated Measure (RM)	98.000	1	98.00	2	5.386
FT x RM	24.500	1	24.50	2	1.347
SA x RM	24.333	2	12.167	2	.669
FT x SA x RM	90.333	2	45.167	2	2.482
Total	13203.3				

Demographic Data

An attempt was made to build a prediction equation for success or failure on the APF task by means of multiple regression techniques. Subject's POI score, PIL score, age, sex, marital status, years of education, high school GPA, college GPA, and religiosity score on

the Ferguson scale were evaluated as predictor variables in a stepwise multiple regression. None of these variables were found to be significantly related to the dependent measure. The above data are presented in Appendices G and H.

Post-experimental Questionnaire

The post-experimental questionnaire was not analyzed quantitatively with the exception of the frequency counts listed below. Perusal of the data indicated the following:

1. Seven subjects reported difficulty with the APF or NF task.
 - a. These were not necessarily the subjects who failed their respective tasks.
 - b. All but one of these subjects were in the low POI group.
 - c. Five of these were in the APF condition.
2. Nine subjects appeared uninvolved in their respective tasks.
3. The majority of the subjects reported enjoying their respective tasks and being relaxed.
 - a. The enjoyment and relaxation were not reported by subjects in the low POI group regardless of experimental condition.
 - b. In contrast, subjects in the low POI groups reported anxiety, nervousness, and mistrust as their reactions to the experimental procedure.
4. Only one subject linked death to the purpose of the experiment.
 - a. Sixteen subjects in the higher POI groups felt that the purpose of the experiment was to relate fantasy and/or relaxation abilities to: 1) personality traits; 2) expectations of the future; or 3) self-concept.
 - b. By contrast, eight subjects, all in the low POI group, felt

the study was measuring stability, consistency, manipulability, or assertiveness.

- c. Twelve subjects did not give a purpose for the experiment and generally expressed confusion over what was expected of them.

Chapter IV - Discussion

The intent of the present investigation was to study the humanistic and existential perspective that there is a relationship between self-actualization and meaning in life, and the ability to confront, in fantasy, one's own mortality. Three relationships were hypothesized: 1) between POI score and APF task; 2) between PIL score and APF task, and changes on pre-post PIL scores. The results of this study failed to support any of the three hypotheses.

On the basis of the present investigation, three conclusions can be drawn. First, self-actualization as measured by the POI did not appear to be related to a fantasy encounter with one's own death, as assessed by the APF task. Secondly, meaning in life as assessed by the PIL appeared unrelated to the APF task. Finally, a fantasy encounter with personal mortality (the APF task) was no more effective in changing a subject's meaning in life (PIL score) than was a neutral fantasy (the NF task).

An additional finding should also be noted. Most of the previous studies in this area have shown demographic variables to be unrelated to fear of death, fear of dying, fear of one's own death and related concepts. The evidence of the present study extends these earlier findings into the area of a fantasy encounter with death (the APF task). Additionally, the Ferguson religiosity scale had not previously been used in this general context. It proved no more useful than other measures of religiosity, e.g., church attendance or religious preference.

The lack of support for the hypothesized relationships is inconsistent with the theoretical perspective and clinical observations

of writers such as Kubler-Ross and Frankl, as well as with earlier experimental work by Gamble (1975). There are a number of possible explanations for this inconsistency, many of which would mitigate the negative findings; however, the design of the present investigation did not allow rigorous evaluation of the likelihood of these alternatives. Therefore, consistent with the principle of parsimony, alternatives will be examined in ascending order of the number of unsupported inferences necessary to accept each alternative. In addition, where appropriate, suggestions for improvement of the present design and directions for future research will be offered.

It requires a zero order inference to state, as above, that the nomothetic net from which the present hypotheses were drawn does not bear a one-to-one relationship with the real world. This alternative does not, of course, resolve the above inconsistency, but rather renders it moot.

It is possible that the POI and PIL do not measure the same attributes or processes that Frankl, Kubler-Ross, Gamble, and others were studying. This alternative suggests that a semantic confusion existed among writers in the field. Specifically, that terms such as "growing", "actualizing", "authentic", etc., were not used in the sense of the POI and PIL. Perhaps the special situations of those people (e.g., having a terminal illness) gave birth to a growth process that was different from self-actualization. Frankl and the others did not objectively assess the growth processes they observed. Therefore, before this issue can be evaluated, any future workers in this area should perform one of two relatively simple tasks. First, major theorists could be polled as to the appropriateness of

the POI and PIL to their reference groups. Or, second and perhaps a better choice, some of the individuals could be administered the POI and PIL. With this done, further specification of the parameters of this area can proceed on a firmer footing.

The possibility exists that the population sampled was not entirely appropriate for an adequate test of theory at this stage. Shostrom (1966) pointed out the possibility of a "pseudo-self-actualizing" process. Maslow (1954) indicated self-actualization is a developmental process and could not be expected in most college age individuals. Further, although the mean of the high self-actualizing group was above the mean of a reference group of college students (Shostrom, 1966), it was still within the normal range. Compare this with the only other experimental study in the area (Gamble, 1974), which used extreme groups (highly self-actualizing mental health workers vs. hospitalized alcoholics) and it is clear that the subjects in the present investigation may not have formed an adequate criterion group. A more diverse age, occupational, and status group with more extreme self-actualization scores might be a more fruitful group for research in this area.

The possibility exists that the APF task did not foster a death fantasy. Certainly, the subjective experience of the APF procedure could not reasonably be compared with that of a person suffering from a terminal illness. Nor is it likely that subjects in this study had experiences as intense as those in some phases of intensive, successful psychotherapy. However, even though it was not assumed that the APF task would necessarily produce experiences of this order, there were a number of inferences that could be drawn from the post-experimental

questionnaire which are germane here. It must be remembered that the post-experimental questionnaire was administered to provide supportive, anecdotal data for the hypothesized relationships. It did not provide for evaluation of inferences drawn from it. As such, no probability estimates can be attempted.

Only one subject indicated that a fantasy encounter with death, as opposed to simply growing older, was the implicit purpose of the APF task. Further, this subject could not finish the task. Many of the other subjects reported that they were intrigued by imagining their own futures and their own imagined wants and needs at ever increasing ages. These subjects reported viewing that as the object of the APF task. It is possible, then, that they reported a death fantasy only as a logical stopping place for the fantasy experience. At that level of emotional involvement nearly every subject would be expected to successfully complete the task. Thus the lack of statistically significant relationships would be expected.

In addition to merely misinterpreting the nature of the task, some further evidence suggested that the APF task may not have produced a vivid death fantasy due to lack of subject involvement and/or subject difficulty with the task. Only seven of the 36 subjects were unsuccessful with the APF or NF task. More than twice that number could be identified as being uninvolved in their task or as experiencing difficulties. In addition, 12 subjects were so perplexed by the procedure that they could not even guess at the purpose of the fantasy experience. Yet the majority of these subjects completed the fantasy tasks successfully. This suggests the possibility that the fantasy experience lacked vividness and

emotional impact for many.

Perhaps subjects continued verbalizing simply because they felt it was expected of them. It was thought that the APF and NF tasks were presented in such a way as to minimize demand characteristics. Whether or not this was so is an open question. However, more careful post-fantasy questioning regarding the vividness of an individual's fantasy production and an attempt to elicit more detailed fantasy material early in the procedure may accomplish two purposes. First, it would eliminate those who would be continuing because of demand characteristics, although experiencing no fantasy. Secondly, and most important, it would aid in determining if the APF task produced a death fantasy. Unfortunately, this type of inquiry is subject to the well-known difficulties of self-report data. This becomes problematic in all fantasy related research because an adequate method of assessing imagery has not yet been developed.

In summary, present evidence for a relationship between personal mortality and self-actualization, and between personal mortality and meaning in life is drawn mainly from clinical and observational data. The present study attempted to directly assess that relationship. The presence of a relationship was not supported. Some possible mitigating methodological and conceptual deficiencies in the present design were noted along with suggestions for improvement. If future research supports these findings, this area of inquiry will be in need of theoretical revision.

Chapter V - Summary

The psychological literature on death and dying was reviewed, leading to a theoretical statement specifying a relationship between personal mortality and self-actualization, and a relationship between meaning in life and personal mortality. Test reviews of the Personal Orientation Inventory (POI) used to measure self-actualization and of the Purpose-in-Life (PIL) test used to measure meaning-in-life were presented along with an overview of fantasy approaches in psychotherapy and behavior modification.

Sixty undergraduates taking lower level psychology courses were administered the POI and PIL. They were divided into high, medium, and low self-actualizers on the basis of their POI scores. Half were randomly assigned to an age progression fantasy (APF) group and half to a neutral fantasy (NF) group. Approximately one week later the subjects participated in their respective fantasy tasks. One week following this, the PIL was readministered along with a post-experimental questionnaire, and the subjects were debriefed.

Twenty-four subjects were lost in the course of the experiment. The evidence for the hypothesized relationships between personal mortality and self-actualization and between meaning in life and personal mortality was negative. Further, an expected pre-post increase in PIL scores favoring subjects in the APF condition was not supported. Finally, an attempt to build a prediction equation for APF task success was not fruitful.

Possible mitigating factors such as an inappropriate criterion group, lack of vividness of the fantasy task, and demand characteristics

of the APF procedure, as well as suggestions for improvement were discussed.

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Appendix A

Experimenter's Manual for APF Groups

General Introduction

This manual for the APF groups and the attached manual for the NF groups are designed to be a guide and to supplement your training. While all of the four phases outlined below must be followed as presented, the examples of what you might say are presented only as a guide or model and are not intended as verbatim instructions for each subject. Further, while both the APF and NF procedures are broken down into four phases in these manuals, the procedures should be presented by you as an integrated whole. Finally, while you may allow wide latitude regarding the content of each subject's fantasies, if the subject elaborates extensively or if he produces material unrelated to the intent of the APF and NF tasks (see below), you should gently interrupt and return to the procedure.

Phase I

Bring the subject into the room and ask him to be seated in the recliner. Outline the procedure to the subject, taking care to reassure him that he may terminate the procedure at any time without loss of experimental credit. This may be accomplished by saying something like: "What I'm going to be asking you to do today is engage in something of a fantasy trip. The way we will do this is that I'll ask you to make yourself comfortable, lean back in the recliner and close your eyes. I'll dim the lights as this will likely make it easier for you to visualize. Then I'll give you some brief relaxation instructions. After that I'll ask you if you'll be willing

to visualize a number of images, including yourself. Any questions?"

At this point, answer all questions as fully as you can. Then ask the subject to make himself comfortable (take off shoes, loosen a belt, etc.) and recline in the chair while you dim the lights.

After the subject is settled begin relaxation instructions: "Basically we will be using a technique known as progressive relaxation. This consists of sequentially tightening and quickly releasing the tension in various muscle groups. We will be working with seven muscle groups; the muscles of the right arm and hand, the muscles of the left arm and hand, the facial muscles, the muscles of the neck and throat, the muscles of the chest, shoulders, upper back, and stomach, the muscles of the right thigh, calf, and foot, and the muscles of the left thigh, calf and foot."

"OK, I'll tell you to focus on a particular muscle group; say, 'Tense those muscles,' and you'll hold the tension for about 3-5 seconds. After that I'll say 'Release,' and you'll let all the tension go at once; don't let it dissipate slowly. After about 20-30 seconds we'll move to the next muscle group. Any questions?"

"OK, now focus your attention on the muscles of your right arm and hand. Make a fist, bend your arm at the elbow as if you were making a muscle, tense those muscles (allow 3-5 seconds of tension). "Release." (Allow about 20-30 seconds of relaxation while you say something like, "Just let those muscles go. Feel yourself becoming relaxed, more and more relaxed. Let the chair support your weight. Just let those muscles go, etc." (This is known as patter.)

Do the same for the left arm and hand. "OK, now focus your attention on the muscles of your face. I'd like you to squint your

eyes, wrinkle up your nose, bite down hard and pull the corners of your mouth back, tense those muscles." (Allow 3-5 seconds) "Release". (About 20-30 seconds of patter.)

"Fine, now focus on the muscles of your neck and throat; I want you to pull your chin toward your chest while at the same time preventing it from actually touching it; tense those muscles. (Allow 3-5 seconds). "Release". (20-30 seconds of patter.)

"Focusing your attention on your chest, shoulders, upper back, stomach; take a deep breath, hold it, pull your shoulder blades back and together while you make your stomach hard; tense those muscles." (3-5 seconds) "Release". (20-30 seconds of patter.)

"OK, now focusing your attention on your right thigh, calf, and foot; I want you to lift your leg slightly, point your toes, and turn your foot inward; tense those muscles." (3-5 seconds). "Release". (20-30 seconds of patter.)

Do the same for the left leg.

Phase II

The next step will be to elicit a fantasy meadow scene, a description of the subject's image of himself in the scene, and a description of how he looks, what he is doing, thinking, and feeling. Any meadow imaginable will do. If the subject experiences difficulty with this task, prompt him by suggesting such things as grass on the ground, flowers in the meadow, a stream, mountains in the distance, the sun, a blue sky, clouds, etc. If, after prompting, the subject reports he cannot imagine the scene, terminate the fantasy along the lines of Phase IV.

Your task is to be reasonably certain the subject has a vivid image, to note how quickly and easily he is able to produce an image, and in general allow him to practice the task.

You should say something like:

"OK, the first thing I'd like you to try to do is to visualize a meadow. It can be any meadow at all, one you've been in or one that is totally imaginary. Try to imagine the different sights in the meadow. Let me know how you are doing...You have an image? Fine, tell me what the meadow looks like, what is in it?....That's good. Now, I wonder if you can imagine yourself in the scene....OK, describe yourself, how do you look, what are you doing, thinking, and feeling?....."

Phase III

Your purpose here is to elicit an age progression fantasy and evidences of imaginal changes, if any, in the subject's image of himself. You should do this by first suggesting the movement in time by some reference to some aspect of the meadow fantasy. This may be something like a path or a stream. If there is nothing already in the scene, suggest something, for example: "I'd like you to try and visualize a stream running through the meadow. Can you do that? It can be a fast, bubbly one, a slow, lazy one, or any kind at all. When you can see it, let me know and describe it, OK?"

In either case, then suggest that movement is like the passage of time, for people the movement of time is aging. Then ask if he is willing to imagine himself one year older, mentioning what this age will be. If the subject is willing, ask him how he looks, what

he is doing, thinking and feeling. (The subject may change scenes, i.e., leave the meadow. However, do not pursue these images as it is the subject's image of himself that is relevant.) Next, ask if the subject is willing to be three years older. If so, repeat your inquiry. Then try a five year progression. Allow the subject to make larger or smaller progressions at any and all times, in any sequence (limit the progressions to 1 to 5 years). Try to get a feel for the subject's optimal rate of progression with the understanding that it may vary from age to age, i.e., if you suggest a 5 year progression and the subject refuses, try a 2 or 3 year progression and then a 1 year progression.

Your instructions should go something like this: "Streams often have suggested the flow of time. In us, the flow of time is marked by aging. I wonder if you'll be willing to imagine yourself one year older, age 27?"..."OK, how do you look? What are you doing, thinking, and feeling?"..."Would you now be willing to imagine yourself three years older, age 30?" "How do you look? What are you doing, thinking, and feeling?"..."Now would you be willing to be five years older, 35 years old?"...and so on.

You would continue this process until: 1) the subject indicates he wishes to stop; 2) you feel he will simply go on forever; 3) the subject reaches the totally unrealistic age of 120; or, 4) the subject produces a fantasy of death, dying, or the absence of life. Of course if the subject produces a fantasy of death or dying, you will not proceed with the usual inquiry, but immediately go to Phase IV.

It is particularly important in Phase III that you do not deviate

from instructions. Do not add extra material, do not comment on the subject's fantasy production, do not insist or suggest the subject continue if he wishes to stop, and do not at any time mention death, dying, or the absence of life.

Phase IV

After the completion of the required fantasy, or if the subject indicates he wishes to discontinue the task, ask him to again visualize the meadow scene. Then ask the subject to visualize himself relaxing in the meadow. Finally, ask him in reality to gradually wake up on the count of four. The instructions may go something like this:

"OK, now I'd like you to visualize the meadow again. Got the scene?....Fine, visualize yourself just lying there in the sun feeling nice and relaxed. Enjoy that feeling for a few seconds." (Wait about 30 seconds).

"OK, now that we're finished, I will count backwards from four to one and as I do you will feel yourself beginning to become more and more wide awake, more and more alert. Four, your feet and legs becoming more and more wide awake; three, your hands and arms becoming awake; two, your head and neck now becoming more and more wide awake; one, your eyes open wide awake."

Following this turn the lights back on and ask some openended question, like, "How was that?", or, "How do you feel?" Talk over any general questions or feelings they may have. End by stating that they did just fine and remind them they must take the follow-up tests next week.

Appendix B

Experimenter's Manual for NF group

Phase I

Exactly like Phase I in APF group.

Phase II

Exactly like Phase II in APF group.

Phase III

Your first job is to suggest movement out of the meadow by reference to something the subject has produced in his fantasy of the meadow. This may be something like a path or a stream. If there is nothing already in the fantasy, suggest something, for example: "I'd like you to try and visualize a stream running through the meadow. Can you do that? It can be a fast bubbly stream, a slow and lazy one, or any kind at all. When you can see it, let me know and describe it, OK?"

In either case, once the subject has the image, suggest that he begin to follow the path, stream, or whatever. Further, suggest that he will very quickly arrive at a place the subject would like to go to. It can be any place at all. Ask him if he can do this; if so, ask him to describe the place once he arrives. Then ask for his thoughts and feelings. Finally, ask him to describe himself in whatever he is doing.

Your instructions will go something like this: "Now what I'd like you to try to do is imagine yourself following the path out of the meadow. Are you willing to do that?...OK, now I'd like you to try and imagine yourself very quickly coming upon a place you'd like

to go to. It can be anyplace at all, near or far, a place you've been or one that you've never been to. Are you willing to do that?.. Fine, when you arrive describe the place to me, OK?... (Brief open-ended probing for details, such as, "Anything else?" should be conducted while the subject describes the scene)... "Could you tell me now what you are thinking, feeling, and doing?"...

It should be emphasized that especially in the foregoing "fantasy trip" you should make all your suggestions extremely tentative, e.g., "Can you do that?" or "Are you willing to do that?" The subject must feel he may quit at any time.

Phase IV

Same as Phase IV in APF group.

Appendix C

Instructions to Fantasy Production Judges

You are to listen to the fantasy reports of 60 subjects. Each report is to be rated as successful or unsuccessful on the basis of the criteria shown below:

NF Group:

The subject reports fantasy productions of:

- 1) Movement to another location.
- 2) A description of the location and himself in it.

If these two criteria are both met, the subject will be rated as successful. If either or both of the criteria are not met, the subject will be rated as unsuccessful.

APF Group:

The subject reports fantasy productions of:

- 1) Aging to the age of at least 65.
- 2) Was the cause of death, if explicit, internal, i.e., not due to accident, sickness, etc.
- 3) Was there an awareness of the approaching end of life at least one year prior to death? This may be demonstrated in ways similar to the following:
 - a) A stated awareness of the approach of death, e.g., "I'm dying" or "I'll be dying soon."
 - b) Fantasizing the loss of mental and/or physical faculties.
 - c) Fantasizing the physical appearance of the degenerative changes of old age.

- 4) Finishing the production with the experience of dying or having died. Demonstrations of this are to include the experience of dying or having died, e.g., not alive at the next age level, having died, or not being able to see self at next age level.

If all of the four criteria are met, the subject will be rated successful. If one or more of the criteria are not met, the subject will be rated as unsuccessful.

Please use the attached rating sheets to rate each subject.

Appendix D

Rating Sheet for NF Group Subject

	<u>Yes</u>	<u>No</u>
1) Movement?	_____	_____
2) Description?	_____	_____
Fantasy successful?	_____	_____

Subject number _____

Appendix E

Rating Sheet for APF Group Subjects

	<u>Yes</u>	<u>No</u>
1) Age to 65?	_____	_____
2) Internal cause of death? (If cause of death is not explicitly external, answer "Yes.")	_____	_____
3) Awareness of approaching death?	_____	_____
4) Experience of death?	_____	_____
Successful fantasy?	_____	_____

Subject number _____

Appendix F

Post-Experimental Questionnaire

NAME _____

What was your GPA in high school? _____

What is your current GPA at UM? _____

In the space provided below, please describe your reactions concerning the Fantasy experience.

What were your overall reactions to this study?

What do you think the study measured?

NAME _____

Put a check mark in front of each statement with which you agree.

1. My idea of God develops with experience
2. I am quite convinced of the reality of God.
3. Opposition to evolution is due simply to ignorance.
4. The idea of God gives me a sense of security.
5. The evidences of evolution are unquestionable.
6. I trust in God to support the right and condemn the wrong.
7. Birth control increases the happiness of married life.
8. There is much to be said on both sides of the evolution controversy.
9. The idea of God means much to me.
10. There is a far better way of explaining the working of the world than to assume any God.
11. We simply must have birth control.
12. I am beginning to think that the theory of evolution may be right.
13. I haven't yet reached any definite opinion about the idea of God.
14. The evolutionary theory sounds logical but I don't know if it's right.
15. Birth control is justifiable only in cases of poverty or poor health.
16. I am not quite ready to accept the doctrine of evolution.
17. My faith in God is complete for "though he slay me, yet will I trust Him."
18. Anti-evolution legislation is ridiculous in a civilized nation.
19. We must be cautious in accepting such a radical doctrine as evolution.
20. The practice of birth control evades man's duty to propagate the race
21. The ideas of God are so confusing that I do not know what to believe.
22. I fluctuate between believing and denying the reality of God.
23. The biological demonstrations of evolution are beyond dispute.
24. There should be no restriction whatever on the distribution of birth control information.
25. If the biblical accounts conflict with the findings of science, then the Bible must give way.
26. War is futile struggle in self-destruction.
27. All criminals are victims of circumstances and deserve to be helped.
28. Capital punishment is a very definite deterrent to major crimes.
29. One way to deter men from crime is to make them suffer.
30. War is hardly necessary in the modern world.
31. Society can deal with crime effectively without resorting to capital punishment.
32. Only humane treatment can cure criminals.
33. I don't believe in capital punishment but I'm not sure it isn't necessary.
34. There is no conceivable justification for war.
35. Correction is civilized; punishment is brutal.
36. Justice demands the punishment of criminals.

- ___ 37. Capital punishment may be wrong but it is the best preventive to crime.
- ___ 38. Correction is more effective than punishment in preventing crime.
- ___ 39. Under some conditions, war is necessary to maintain justice.
- ___ 40. Capital punishment should apply to other than murder cases.
- ___ 41. I think capital punishment is necessary but I wish it were not.
- ___ 42. There are some arguments in favor of war.
- ___ 43. Capital punishment is the only adequate punishment for murder.
- ___ 44. Capital punishment gives the criminal what he deserves.
- ___ 45. No thinking individual can believe in capital punishment as a method of preventing crime.
- ___ 46. On the whole, wars do the world some good.
- ___ 47. Until we find a more civilized way to prevent crime we must have capital punishment.
- ___ 48. It is hard to decide whether wars do more harm than good.
- ___ 49. Capital punishment is the most hideous practice of our time.
- ___ 50. Capital punishment has never been effective in preventing crime.
- ___ 51. I believe that the United States is just as selfish as any other nation.
- ___ 52. Censorship is a gross violation of our constitutional rights.
- ___ 53. We have too many laws.
- ___ 54. Censorship is needed because people are unable to judge for themselves.
- ___ 55. I'm for my country, right or wrong.
- ___ 56. The law is more than the enactments of Congress; it is a sacred institution.
- ___ 57. I have great respect for the American people.
- ___ 58. Censorship might be warranted if we could get some reasonable censors.
- ___ 59. I prefer to be a citizen of the world rather than of any country.
- ___ 60. Workers can hardly be blamed for advocating communism.
- ___ 61. The law is the true embodiment of eternal justice.
- ___ 62. Our national mortality is safeguarded by censorship.
- ___ 63. The American ideal of bigger, faster, and more doesn't appeal to me.
- ___ 64. The communists are on the right road.
- ___ 65. When I see so much corruption in the government of my country I can't support it wholeheartedly.
- ___ 66. We should have complete freedom of speech even for those who criticize the law.
- ___ 67. Nobody has any right to dictate to me what I shall read.
- ___ 68. This is in every way the greatest nation in the world.
- ___ 69. Censorship can never be justified in a free country.
- ___ 70. If Russia today is a sample of how communism works, we don't want it.
- ___ 71. Censorship is effective in raising moral and aesthetic standards.
- ___ 72. Plays and movies should be censored, but the press should be free.

- 73. We should not reject communism until it has been given a longer trial.
- 74. We had better keep our eyes on Russia for a while longer before making up our minds about communism.
- 75. The hatred of the United States by foreign countries is caused mostly by envy of our greatness.

Appendix G

Experimental Data Used to Analyze
the Three Experimental HypothesesAPF Group

	<u>POI</u>	<u>Pre-PIL</u>	<u>Post-PIL</u>	<u>Successful Fantasy Task</u>
High	117	126	114	No
	117	112	113	Yes
	116	117	124	Yes
	124	93	99	No
	124	101	101	Yes
	121	123	120	Yes
Medium	96	115	114	Yes
	98	117	120	Yes
	100	113	106	No
	101	124	120	Yes
	104	92	99	Yes
	106	113	103	No
Low	80	102	110	Yes
	78	90	101	No
	81	91	87	Yes
	82	122	128	Yes
	83	104	106	Yes
	87	106	117	Yes

NF Group

	<u>POI</u>	<u>Pre-PIL</u>	<u>Post-PIL</u>	<u>Successful Fantasy Task</u>
High	109	107	112	Yes
	113	121	125	Yes
	109	101	106	Yes
	111	105	109	Yes
	117	121	122	Yes
	118	111	123	Yes
	Medium	93	65	64
98		94	103	Yes
99		89	94	Yes
105		117	110	Yes
106		95	102	Yes
108		107	104	Yes
Low		78	90	97
	84	126	124	Yes
	86	122	134	Yes
	88	108	111	Yes
	89	125	127	No
	92	106	103	Yes

Appendix H
Demographic Data

<u>APF Group</u>			Years of Education Beyond High School	H.S. GPA	College GPA	<u>Religiosity</u>
<u>Age</u>	<u>Sex</u>	<u>Marital Status</u>				
25	F	Single	5	3.7	3.9	9
18	F	Single	1	3.7	3.7	10
19	F	Single	1	3.0	3.2	10
20	F	Single	3	3.0	3.3	7
20	M	Single	2	3.7	3.5	11
23	F	Married	3	4.0	3.0	9
21	M	Single	4	2.9	2.5	11
19	F	Married	1	3.3	2.0	4
20	F	Single	3	2.5	4.0	5
19	F	Single	1	3.4	2.3	8
20	M	Single	2	2.0	2.8	11
18	F	Single	1	3.5	3.1	11
23	F	Single	2	2.5	3.4	6
19	F	Single	2	3.0	2.5	12
18	F	Single	1	3.0	3.4	11
19	F	Single	1	3.7	3.4	14
21	F	Single	4	3.7	2.3	12
24	M	Married	3	2.8	3.5	11

NF Group

<u>Age</u>	<u>Sex</u>	<u>Marital Status</u>	<u>Years of Education Beyond High School</u>	<u>H.S. GPA</u>	<u>College GPA</u>	<u>Religiosity</u>
18	F	Single	1	3.5	3.7	9
19	F	Single	2	3.0	3.4	11
20	M	Single	3	2.9	2.0	12
18	M	Single	1	3.0	2.7	8
23	F	Married	2	3.0	3.0	6
19	F	Single	1	2.6	2.0	7
29	M	Single	3	1.9	2.0	9
23	F	Single	2	2.0	2.0	10
20	F	Single	1	3.0	2.5	8
18	M	Single	1	2.7	1.9	7
26	F	Divorced	1	3.0	2.6	9
27	M	Divorced	4	3.0	2.7	11
18	F	Single	1	---	3.1	12
20	M	Single	1	3.0	3.0	11
24	F	Single	1	3.2	3.5	10
21	M	Single	2	2.8	2.5	8
20	F	Single	3	3.5	2.8	11
18	F	Single	1	2.2	2.6	16