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The Development of Meaning in Life†

John Battista and Richard Almond*

DESPITE a growing concern in modern society with the meaning and value of life, and repeated cries of the need for a psychology of human growth and potential (Allport; Maslow, 1953), the study of meaning in life has commonly been ignored by empirically oriented social scientists. Generally, this stems from a preference for behavioral, objective data rather than for feelings and subjective experience, from a pathology-oriented rather than a health-oriented tradition, and in particular from a perception that the study of meaning in life is primarily concerned with the philosophical question, "What is the meaning of life?"

Alternately, more theoretically and phenomenologically oriented social scientists have developed an extensive literature concerned not only with the question "What is the meaning of life?" but also with the questions "What is the nature of an individual's experience of his life as meaningful?" and "What are the conditions under which an individual will experience his life as meaningful?" The last two questions are directly approachable by empirical social scientific methodology.

This paper presents preliminary results of a method for the empirical study of meaning in life based on these two questions. In the first part, the meaning of the term "meaningful life" is phenomenologically analyzed and related to writings concerned with the nature of an individual's experience of his life as meaningful. The concept of positive life regard, an individual's belief that he is fulfilling his positively valued life-framework or life-goal, is introduced as an initial definition of meaning in life. The Life Regard Index, based on the concept of positive life regard, is put forward as providing a reliable and verifiable preliminary operational definition of a meaningful life. The second part of the paper presents and seeks to place within a theoretical context several old and new approaches to the study of the development of meaning in life. Philosophical, relativistic, psychogenic, transactional and phenomenological approaches are then investigated in an empirical study of Stanford University medical students, utilizing the Life Regard Index. The final part of the paper summarizes the results and limitations of the study and makes recommendations for future avenues of research.

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THE DEVELOPMENT OF AN OPERATIONAL DEFINITION OF A MEANINGFUL LIFE

Positive Life Regard: Toward an Understanding of the Term "Meaningful Life"

The empirical study of the development of meaning in life requires a definition of meaning in life that is independent of any particular theory, and can therefore be utilized to test such theories. This section attempts to develop such a preliminary definition of meaning in life based on phenomenological analysis of the individual's experience of his life as meaningful consistent with previous authors' conceptions of the nature of this experience. The following section, then, translates this preliminary definition into an initial operational definition of meaning in life.

Although the term "meaningful life" is commonly used, it has no clear definition. Many authors have described the experience of one's life as meaningful as being based on a feeling of *integration* and *relatedness* (Weisskopf-Joelson) or a feeling of *fulfillment* and *significance* (Maslow, 1964). Camus similarly says that a sense of meaninglessness is reflected in feelings of *alienation* and *nothingness*. These conceptions suggest that meaning in life depends on a *concept of life*, and a sense of *fulfillment* related to it.

First, stating that one has a meaning for life implies that one is committed to, values, or believes something. A number of authors (Fabry; MacLeish) have emphasized the necessity of faith, commitment, or belief in the experience of meaning in life. Second, stating that one has a meaning for life, like stating that one has a meaning for anything else, implies that one has an understanding of it. Some authors (e.g., Rudyhar) have emphasized that this understanding of life represents a framework, system, or relationship

within which the individual perceives himself as living his life (as in naturalism, humanism, and certain forms of religion). Alternately, others (e.g., Frankl) have emphasized that this understanding represents some goal, function, or purpose for life, which the individual sees himself as striving for—e.g., self-expression, materialism, or a religious or political calling.

Thus, when an individual states that his life is meaningful, he implies (1) that he is positively committed to some concept of the meaning of life; (2) that this concept of the meaning of life provides him with some framework or goal from which to view his life; (3) that he perceives his life as related to or fulfilling this concept of life; (4) that he experiences this fulfillment as a feeling of integration, relatedness, or significance. Similar conditions for a sense of life meaning emerge in a variety of autobiographical materials.¹ They are also consistent with analyses of the nature of meaning in life derived in a variety of ways, such as personal experience (Frankl), linguistics (Ogden and Richards), the study of individuals (Maslow, 1964), and application of Husserl's phenomenological technique of eidetic reduction (Battista, unpublished).

"Positive life regard" is defined as an individual's belief that he is fulfilling a life-framework or life-goal that provides him with a highly valued understanding of his life. "Positive life regard" is used in place of the term "meaningful life" here to avoid any confusion and conflicting definitions.

The Life Regard Index: Toward an Operational Definition of a Meaningful Life

There are currently two main tests that have been used as operational definitions of meaning in life—

¹ See Niehardt's *Black Elk Speaks* for an excellent introduction to this literature.

Shostrom's Personal Orientation Inventory and Crumbaugh and Maholick's Purpose in Life Test.

The Personal Orientation Inventory (POI) is based on Maslow's concept of "self-actualization." Maslow (1953) says that individuals who are "self-actualized" will experience "life-validation," a concept analogous to positive life regard. However, Shostrom's POI is based upon Maslow's theory that persons who are "self-actualized" hold to certain values which reflect their underlying "growth needs" and can therefore be identified by certain personality characteristics. Thus, Shostrom developed the POI to differentiate "self-actualized" from "non-self-actualized" individuals according to differences in their beliefs and value orientations, rather than on their experience of "life-validation." Therefore, although the POI, and in particular the Self-actualizing Value Scale, may be a valuable tool in evaluating Maslow's theory that "self-actualized" people experience a meaningful life ("life-validation"), it in no way represents an independent, nonbiased operational definition of the term.

Crumbaugh and Maholick's Purpose in Life Test (PIL), based on Frankl's concept of noögenic neuroses, represents a more satisfactory approach to the development of an operational definition of a meaningful life, but still contains some serious flaws. Of 20 items with a 7-point scale, 5 measure the individual's ability to see his life within some framework, 9 measure his satisfaction with his life, and one considers both simultaneously. Difficulties arise from the unequal distribution of these items, the straightforward manner in which they are presented, and the failure to control for the effects of social desirability or denial in answering the questionnaire. The value of the test is further lessened by the inclusion

of 5 items which reflect certain value orientations presumed to be present in persons with positive life regard, thus making the test biased in much the same fashion as the POI. For instance, the PIL implies that the more someone sees himself as responsible and the more he perceives his life to be under his own control, the greater his degree of positive life regard. Although these are interesting hypotheses to be tested, it is not clear *a priori* that the experience of one's life as meaningful is related to these beliefs. Thus, the Purpose in Life test is also a relatively inadequate operational definition of a meaningful life.

The Life Regard Index, based on the concept of positive life regard, was developed by Battista in an attempt to provide a simple, nonbiased measure of meaning in life. The test is composed of 28 items with a 5-point scale, and is divided into two subscales, Framework and Fulfillment (see Appendix). The Framework Scale (FR) measures the ability of an individual to see his life within some perspective or context, and to have derived a set of life-goals, purpose in life, or life-view from them. The Fulfillment Scale (FU) measures the degree to which an individual sees himself as having fulfilled or as being in the process of fulfilling his framework or life-goals. Each scale is composed of 14 items, half phrased positively, half negatively, to control for response set. The sum of these two scales comprises the Life Regard (LR) Scale and was included to evaluate its use as an overall indicator of positive life regard.

A Preliminary Evaluation of the Life Regard Index

In the initial series of studies with the Life Regard Index it was hoped to (1) obtain some basic preliminary population statistics on the Index; (2)

determine if the Index could be used to define and differentiate groups with particularly high or low life regard out of a population; (3) evaluate the role that social desirability may play in confounding the Index; (4) determine if the groups differentiated by the Index could be discriminated in terms of their level of positive life regard (meaning in life) by means of Index-Interview techniques and social indicators; (5) determine if the Index is reliable; (6) investigate the role that denial may play in positive life regard as measured by the Index; (7) investigate the relationship between the Index and the Purpose in Life Test and the Self-actualizing Value Scale of the Personal Orientation Inventory.

In order to meet the first three of these goals, the Life Regard Index and a Crowne-Marlowe Social Desirability Scale as modified by Rudy Moos² (0.87 correlation with the parent scale) was distributed to all 350 Stanford University medical students along with a confidentially coded identity key so that subjects could be contacted for further testing at a future date. Of the distributed questionnaires, 241 (69%) were returned and the first 229 of these were analyzed.

DATA FOR FRAMEWORK AND FULFILLMENT
SCALES AND FOR LIFE REGARD SCALE
(*N* = 229)

<i>Scales</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>
FR	19	70	49.8	10.5
FU	15	70	48.8	9.5
LR	36	137	98.6	18.8

The table presents the minimum, maximum, mean, and standard deviation for the Framework and Fulfillment scales and for their sum, the Life Regard Scale. First, each of the three scales of the Life Regard Index has a normal distribution, and can thus be used to differentiate groups according

to standard statistical methods. Second, the data show that the FR and FU scales are highly correlated with the LR scale (0.94, 0.93 respectively), implying that the LR scale can be utilized as a good indicator of overall level of life regard. The high correlation between FR and FU scales (0.76) suggests either that individuals find it very difficult to retain their beliefs in a life-framework that they are unable to fulfill, or that the development of a life-framework is the limiting factor in developing meaning in life. Although the first of these ideas seems more likely, a longitudinal study is necessary to differentiate between these two propositions. Finally, the data reveal social desirability to be mildly correlated with positive life regard, but to account for only 4% of the variation of the Index. Thus, the Life Regard Index can be utilized to differentiate positive and negative life regard groups without a significant confounding influence of social desirability.

In the second part of our evaluation of the Life Regard Index we first attempted to evaluate if the groups differentiated by the Index differed in their levels of meaningful life. We selected the 14 subjects with the highest total life regard scores, whose FR and FU scores were at least 1.5 standard deviations greater than the mean, and whose social desirability scores were less than 1.5 SD from the mean, as our positive life regard group. Similarly, we selected the 16 subjects with the lowest total life regard scores, whose FR and FU scores were at least 1.5 SD away from the mean, as our negative life regard group. Each of these 30 medical student subjects was then interviewed on his or her life-goals and satisfaction with life as a medical student, in an attempt to evaluate each one's level of meaning in life. The subjects did not know the reason they were interviewed

² Personal communication, 1971.

the interviewer did not know if they came from the positive or negative life regard groups. Utilizing this technique the interviewer was able to correctly identify 14/14 of the high meaningful life group and 14/16 of the low meaningful life group ($p < .001$).²

Data obtained from questionnaires administered after the interview were consistent with the Life Regard Index in terms of distinguishing individuals with meaningful and meaningless lives. For instance, the negative life regard group had visited psychiatrists in the past significantly more often ($p < .05$) and for longer periods of time ($p < .05$). Thus, the Life Regard Index clearly distinguishes medical students with high and low meaningful life and validates the concept of positive life regard.

To evaluate the reliability of the Life Regard Index, we readministered it to each of the 30 subjects selected for the second part of the study. The test-retest reliability of the Life Regard Index was extremely high: 0.94.

To evaluate the effect of denial and defensiveness in the Life Regard Index the interviewer rated the degree of openness or defensiveness for each subject on a 5-point scale. Utilizing this technique we found no significant differences between the groups ($p < .05$), thus indicating that defensiveness or openness were not significant factors in scoring highly on the Life Regard Index.

Fourth, to evaluate the relationships among the Life Regard Index, the Self-actualizing Value Scale of the Personal Orientation Inventory, and the Purpose in Life Test, the latter two tests were given to each of the 30 subjects selected

for the second part of the study. Both of these tests were able to statistically differentiate between the positive and negative life regard groups ($p < .01$). This suggests that all three tests measure closely related phenomena. As discussed previously, the Life Regard Index appears to be the clearest and least biased of the three tests on theoretical and structural grounds; however, a true comparative analysis of the relative merits of the three measures awaits further study.

In summary, the data presented in this section give preliminary evidence that the Life Regard Index, using the concept of positive life regard, provides a reliable and simple measure of meaning in life. The Life Regard Index is probably free of any significant confounding effect from social desirability or denial. In our population, the Life Regard Index, the Purpose in Life Test, and the Personal Orientation Inventory are apparently measuring the same thing, suggesting the validity of the underlying concept of a meaningful life, common to all these measures. Further study of the interrelationships of the three measures is needed.

APPROACHES TO THE DEVELOPMENT OF A MEANINGFUL LIFE

In this part of the paper we will present and evaluate five theoretical approaches to the conditions under which an individual will experience his life as meaningful. A meaningful life as defined in terms of positive life regard refers to an individual's belief that he is fulfilling his life as it is understood in terms of his highly valued life-framework or life-goals. This logically implies that the development of positive life regard is dependent upon:

- (1) Commitment to some valued personal understanding of life.

²The p values reported are for t -tests (two-tailed) when comparing means of two groups, and chi-square tests for distribution of samples in contingency tables.

(2) The generation of an internal "scale" from this understanding of life which the individual can use as a measure of the fulfillment of his life.

(3) A positive self-evaluation of one's life in terms of this "scale."

The first two perspectives on the development of positive life regard—the philosophical and relativistic—relate to the nature or development of an individual's commitment to some personal understanding of life; the other three perspectives—the psychological, transactional, and phenomenological—emphasize the conditions under which an individual will perceive his life as fulfilling the terms generated from his understanding of life. The preference of the relativistic over the philosophical approach is argued on logical principles, while examples of the psychological, transactional, and phenomenological approaches are evaluated empirically in conjunction with the study of persons with high and low life regard. In general these five perspectives are not presented as competitive with one another but as ways to explore the phenomena of life meaning.

Philosophical and Relativistic Approaches

Philosophical models postulate that positive life regard develops *only* from the commitment to and fulfillment of the *intrinsic* meaning of life. Although they variously identify this intrinsic meaning as stemming from God (religious models), from Being (existential models [Bugental]), from man (humanistic models [Fromm]), or from life (self-transcendent models [Frankl]), they all assume that there is only one true meaning of life.

The relativity model, on the other hand, states that commitment to *any* system of beliefs can serve as a life-framework for the development of positive life regard. Thus, this model shifts emphasis away from the *nature* of an

individual's belief system and emphasizes his *commitment* to it. Philosophical models propose that the *content* of belief is a determinant of positive life regard, while the relativistic model proposes only that the *process* of believing itself is a determinant of positive life regard.

Although most thinkers (Bugental) would probably deny that there is a single meaning of life if confronted directly on this issue, they nevertheless approach the problem of meaning by trying to explicate some single conceptual framework from which to understand the meaning of life. Alternately, although many, such as Maslow (1953) and Frankl, emphasize a relativistic approach to the study of meaning in life, they postulate philosophical theories of its development. For example, Frankl, who has championed the idea of the necessity of commitment in the development of meaning in life, also postulated that meaning only develops when the individual is committed to beliefs that transcend himself and are "founded" in the "objective" "ultimate meaning" of the world (Fabry). The result has been that most of the writings on the development of meaning in life have reflected a basically philosophical approach, whether intended or not.

We believe the relativity perspective to be clearly preferable to the philosophical as the basis for further study of the conditions under which people will develop positive life regard. First, the wide variety of belief systems under which individuals have developed meaning in life do not appear reducible to one fundamental system. For instance, the Zen philosophy of union through the dissolution of the ego (Suzuki) appears to be contradictory to the existentialist's belief in man's need to develop his own unique ego and act

in terms of it (Nietzsche), regardless of the level of analysis. Second, the plasticity model promotes tolerance toward all systems of belief and is thus inclusive of all of the philosophical models of the development of positive life regard. Each definition of the meaning of life which comprises one of the philosophical models is retained as one out of a number of possible definitions that may serve as a basis for the development of positive life regard. Third, it discourages the employment of vague and broad psychological needs for man, such as "growth" or "self-transcendence" needs, in an attempt to cover all of the different belief systems under which positive life regard has developed. Fourth, it is consistent with the empirical finding of Crumbaugh and Maholick and of Hartmann of no relationship between their measures of meaning in life and any of the belief systems of the Allport-Vernon-Lindzey Scale of Values. Fifth, it discourages abstract philosophical discussion over which system of beliefs is "ultimately" better, and emphasizes the responsibility of each individual to find his own beliefs. Finally, it encourages the study of how individuals develop belief systems, how these interact with social systems, and how they can be satisfied. Hopefully, future study of relatively large numbers of individuals with positive life regard from a broad diversity of backgrounds and beliefs will enable us to distinguish empirically between the relativistic and philosophical models.

The Psychological Perspective

Most contemporary psychological theories explain individual development as a function of the resolution of inherent needs or stages of development through the interaction of the individual with his social environment. The psychological perspective thus rep-

resents a potentially valuable method for explaining both the nature and development of an individual's commitment to some meaning of life, and the process through which this meaning may or may not be fulfilled.

First, a great number of authors⁴ have written on the development of beliefs and morals using Freudian, social, and existential psychological viewpoints. James's and Bühler's writings have specifically involved the development of world-views and meanings for life and thus seem especially valuable for the study of the development of positive life regard. A second set of psychological theories, generally based on clinical experience, has centered on the process by which individuals develop "mental health." The Jungian concept of individuation (Jacobi) and the existential concept of authenticity (Bugental) seem to be most directly related to the development of positive life regard. A third set of psychological theories has emphasized the resolution of stages of development in the etiology of psychological states. Maslow's (1953) description of an entire hierarchy of ordered needs that must be satisfied before an individual can accept "growth" needs and experience "life validation" and "peak experiences" through the development of "self-actualization" is obviously directly applicable to the study of the development of meaning in life.

Because the psychological perspective is so rich and varied, this paper limits itself to the study of the relationship between self-esteem and positive life regard as an example of how the stage models, and more generally the psychological models, might be utilized for the study of the development of meaning in life.

As mentioned above, psychogenic-stage theorists such as Erikson and

⁴ See Berkowitz for a terse review.

Maslow (1953) have argued that man must progress through life stages in order to develop certain attributes such as maturity or self-actualization. Similarly, it could be argued that man must progress through preliminary stages in the development of positive life regard.

Self-esteem, man's experience of his self as valuable, is a subjective belief similar in form to positive life regard. Voluminous research has indicated that young children and adolescents are concerned with self-esteem. Meaning in life appears to be a later development—caricatured as the perennial concern of college students, and emphasized by Jung and Frankl as an important issue of mid and later life. In any case it is clear that if positive life regard is of concern or develops at all it does so much later in life than self-esteem.

We decided to investigate the idea that an individual must successfully resolve the life stage concerned with self-concept by developing self-esteem before he can develop positive life regard. Self-esteem is seen as a necessary but insufficient prerequisite of positive life regard. These stages may be summarized as:

	<i>Problem</i>	<i>Positive Resolution</i>
Stage One	self-concept	positive self-regard (self-esteem)
Stage Two	life concept	positive life regard

Since this model proposes that self-esteem is a necessary prerequisite to the development of positive life regard, it logically follows that positive life regard should be correlated with self-esteem and the child-rearing habits that result in its development. Furthermore, since self-esteem is viewed as an insufficient prerequisite for the development of positive life regard, it also follows that there must be variables that are more highly correlated with

positive life regard than self-esteem and reflect the unique problem that an individual must resolve for its development.

Work on the development of self-esteem has generally emphasized that self-esteem develops through the introjection of a social evaluation of one's self, and that it is more prevalent in children of accepting and respecting parents who set consistent and clearly defined limits.⁵ On the other hand, positive life regard does not appear to be socially introjected, but is much more intimately involved with a person's own idiosyncratic evaluation of his life-goals. Thus, it is predicted that there should be a higher correlation between self-esteem and social phenomena, while positive life regard should be more highly correlated with career and life-goal oriented phenomena. However, it should be pointed out that many life-goals may be basically social and in these instances this will lessen the distinction between the two phenomena.

Thus, this formulation of the role of self-esteem in the development of positive life regard predicts that:

(1) Positive life regard should be highly correlated with self-esteem.

(2) Positive life regard should be highly correlated with parental child-rearing habits that lead to the development of self-esteem.

(3) Self-esteem is a necessary but insufficient prerequisite of positive life regard. Therefore, all individuals with positive life regard should have high self-esteem, while all individuals with high self-esteem would not necessarily have positive life regard.

(4) Self-esteem should be more highly correlated with social phenomena (finding a mate, marriage, comfort with people, sexual performance, etc.) than positive life regard.

(5) Positive life regard should be more highly correlated with life-goal oriented phenomena (satisfaction with career

⁵ See Mead; Coopersmith; Sears.

life, career performance, etc.) than self-esteem.

These propositions were tested using the Stanford University medical student population in conjunction with an evaluation of the Life Regard Index. All 229 respondents filled out the Life Regard Index, the Rosenberg Self-Esteem Scale, another measure of self-esteem, and a School Experience Check List which measured their satisfaction with their social relationships and career choice. Using these measures all of the propositions except the second could be tested.

In order to test the second proposition, the 14 positive life regard and the 14 negative life regard subjects (selected for the second part of the study on the basis of particularly high or low Life Regard Index scores) were compared on their family composition, adolescent history, and perception of their parents (utilizing a semantic differential technique based on the work of both Sears and Coopersmith). Also, in order to further investigate the relationship between self-esteem and positive life regard, the positive and negative life regard subjects were compared on their level of self-esteem using a second measure of self-esteem based on the real-self/ideal-self fit, and utilizing the semantic differential technique, with adjectives selected to be especially relevant to medical students' self-concept.

Thus, each of the propositions outlined above could be tested. First, a correlation of 0.62, highly significant statistically, was found between positive life regard, as measured by the Life Regard Index, and self-esteem, as measured by the Rosenberg Self-Esteem Scale. Furthermore, positive life regard subjects were found to have significantly higher self-esteem ($p < .05$) as measured by the semantic differential definition of self-esteem as

the fit between real and ideal selves. Thus, as predicted, there is a high correlation between self-esteem and positive life regard and a significant difference between positive and negative life regard subjects in their degree of self-esteem.

Second, the tests designed to evaluate the effects of child-rearing habits on the development of positive life regard showed no significant differences between the positive and negative life regard groups in terms of family size, sibling order, father vs. mother dominance, number of moves in adolescence, incompleteness of the household due to divorce or death, or adolescent history (number of leadership positions, number of organizations participated in, number of friends). However, there were significant differences between the groups in terms of their perceptions of their parents.

Utilizing the semantic differential technique, we found that the positive life regard subjects saw their fathers as being more trustful ($p < .05$) and more active, as opposed to passive ($p < .05$). Similarly, positive life regard subjects saw their mothers as being significantly more encouraging ($p < .05$), as having greater consistency ($p < .05$), and more warmth ($p < .05$), and as being more open ($p < .01$), more relaxed ($p < .01$), and more active ($p < .01$).

These results are in general agreement with Sears' and Coopersmith's reports of the parents of persons with high self-esteem as being warm, accepting, trusting, and consistent. The findings support the proposition that positive life regard correlates with the child-rearing habits that result in the development of self-esteem. However, the data failed to show that positive life regard subjects tend to be the eldest or youngest of smaller, mother-dominant families, as has been reported by Sears and by Coopersmith for

self-esteem. However, these discrepancies can be partially accounted for by the small number of subjects tested and the very high self-esteem of both the positive and negative life regard subjects.

The third proposition, that self-esteem is a necessary but *insufficient* requirement for the development of positive life regard was also supported. First, all 14 of the positive life regard subjects had a self-esteem rating of six, the highest possible on the Rosenberg Scale, consistent with the proposition that self-esteem is a necessary prerequisite to the development of positive life regard. Second, 90 other medical students, including one negative life regard subject, had self-esteem ratings of six, thus supporting the proposition that high self-esteem alone is not sufficient to guarantee the development of positive life regard.

The fourth and fifth predictions—that self-esteem is more highly correlated with social phenomena, while positive life regard is more highly correlated with career or life-goal phenomena—were also well supported by the data. Self-esteem was significantly more highly correlated than positive life regard with the social phenomenon of satisfaction with fellow students ($p < .05$),⁶ satisfaction with relationships outside of school ($p < .05$), marriage or living with a person of the opposite sex ($p < .01$), and satisfaction with sex ($p < .01$). Alternately, positive life regard correlated significantly higher than self-esteem with the life-goal phenomena of satisfaction with the decision to enter medical school ($p < .001$), objective appraisal of school performance ($p < .05$), and subjective appraisal of school work ($p < .05$). These data thus support the hypothesis that self-esteem is more related to social phenomena, while positive life re-

gard is more related to career and life-goal phenomena.

Therefore, the data in this section support the idea that psychogenic theories can be of great use in delineating the conditions under which an individual develops life regard. The data also suggest that the development of positive life regard is a two-stage process. First, the individual must develop a positive self-image during childhood and adolescence, a process which is a function of the introjection of how he is seen by others, and which tends to occur in children of trusting, warm, open and consistent parents. The second stage is concerned with developing some life-image and normally takes place during late adolescence or early adult life. The development of positive life regard, the successful resolution of this second stage, is dependent upon the development of self-esteem in the first stage and the commitment to fulfillment of life-goals.

A Transactional Model

Transactional theory, as developed from Cantril, is a form of systems theory and sees the individual in terms of a set of needs or goals that he attempts to fulfill through socially determined roles. A transactional model of life regard is thus ultimately founded on the concept of social roles.

A transactional model provides a mechanism for predicting the development of positive life regard by predicting the conditions under which an individual will perceive himself as fulfilling the criteria of his life-framework belief system through an analysis of the fit between an individual and his society. Thus, in terms of a transactional frame of analysis, an individual's ability to perceive himself as fulfilling the criteria of his life-framework belief system will depend upon:

⁶ Using Z test for differences between correlations.

1. The existence of a role, or the individual's ability to create a role that will satisfy goals and needs as defined by his life-framework.

2. The availability and access to that role.

3. The fit between the role demands and capacities of the individual.

4. The fit between the individual's values, goals, needs, and roles as defined relative to his life-framework and his other values, goals, needs, and roles.

5. The fit between the values, goals, needs, and roles of the individual and the values, goals, needs, and roles of the social culture within which he lives.

Numerous studies give support to the importance of the fit between an individual and his environment in the development of positive life regard. Pervin and Rubin, for example, in studies of dissatisfaction with college and college dropouts, found that discrepancies between the needs of an individual and the sources of reward in his college environment were significantly correlated with dissatisfaction. Similarly, Funkenstein has found that a lack of fit between the needs of a medical student and medical school attributes accounts for medical school dropouts. Finally, Ort, in an interview study of role conflicts in married couples, found role conflicts to be significantly negatively correlated with marital happiness. Thus these studies give excellent preliminary support for a transactional model of the development of positive life regard, and it was decided to further test this model with the positive and negative life regard subjects.

According to the five propositions presented above, the development of positive life regard should be related to the fit between the values, goals, needs, and roles of the individual and the values, goals, needs, and roles of the social structure within which he lives. We thus predicted that the positive life regard subjects should have a significantly greater fit with the values and

student-role definition of the Stanford Medical School than the negative life regard subjects.

Stanford University Medical School is well known for its academic, research orientation (Walsh) and thus strongly reinforces these values among its students. Furthermore, the unstructured, nongraded curriculum facilitates independent, individualistic, and self-motivated individuals. At the time of the study, tension existed between the school's research emphasis and the social medicine orientation of many of the students.

We attempted to determine if the positive life regard subjects fit with these values of the medical school better than the negative life regard subjects by having them describe their personalities, specific medical career goals, and satisfaction with current practices in the medical profession.

As we had anticipated from our understanding of the reinforcement pattern of the medical school, positive life regard subjects had a significantly greater interest in research ($p < .05$) and academic medicine ($p < .05$). In further support of the fit proposition, positive life regard subjects were more "thinking" than "feeling oriented" in comparison to the negative life regard subjects ($p < .05$), and were significantly less interested in interpersonal relationships ($p < .05$) and materialism ($p < .05$). Second, in line with the structure of the medical school, the positive life regard subjects were significantly more individualistic and independent ($p < .01$). Finally, the positive life regard subjects were more satisfied with the practices of the medical profession ($p < .01$). This picture of the positive life regard subject fits well with our impression of Stanford Medical School as reinforcing independence and individualism in medical students interested in research and academic

medicine, and supports the concept of a fit between the individual and his environment as an important determinant of positive life regard.

We also attempted to evaluate the proposition that the fit between the values of the individual and his social structure is an important determinant of positive life regard in accord with methodology developed by Pervin and Rubin. Utilizing a modified form of the semantic differential technique, students described their perception of the school, themselves, their fellow students, an ideal medical school, and ideal self in terms of a list of 14 polar adjectives especially relevant to medical students. We predicted that positive life regard subjects would have a higher fit between self and school, self and fellow students, and school and ideal school, than the negative life regard subjects. However, although the positive life regard subjects did have higher overall fit scores in each of these three categories, the differences were not statistically significant.

These negative findings were clarified somewhat by interviews with the positive and negative life regard subjects. Although it was generally true that the positive life regard subjects were interested in research and academic medicine as indicated previously, this was by no means unanimous within the group. A second set of positive life regard subjects was very critical of medical institutions and the delivery of health care services, and these students defined their life-goals around changing the institutions and the delivery mechanism, and thus perceived themselves as fitting well into the emerging values of modern medicine (Battista, 1971). Further, one positive life regard subject was involved in a very introverted, spiritual, intuitive, and creative life that placed him within the mainstream of the current Cali-

fornia subculture.

Although it was generally true that the negative life regard subjects questioned their interest in medicine altogether or were more interested in clinical practice of community-oriented medicine, a few members of that group were also interested in research. However, unlike the positive life regard group they did not affirm their life-definition in terms of research, but were unsure if this was what they really wished to do. This tended to obscure the greater fit between the positive life regard group and the medical center, and was reflected in a significant difference between the positive and negative life regard groups in terms of the fit between their self and ideal self ($p < .05$), but not in terms of the fit between self and school.

Thus, there is good evidence for the fit between the individual and his social environment being a determinant of the development of positive life regard. However, the study pointed to the fact that this fit may occur not only in terms of the immediate social institution within which an individual functions but also in terms of subcultures or broader social movements.

A Phenomenological Model

Phenomenology, the study of the nature and structure of consciousness, is a fifth perspective that can be utilized in predicting the development of positive life regard. The model developed here is concerned with the process by which an individual evaluates himself, and discusses the evaluative process as a function of the rate at which an individual perceives himself as progressing toward his goals. Thus, if the preceding models are conceptualized as elucidating the determinants of an individual's goals and rate of progress toward his goals, the phenomenological model may be viewed as a descrip-

and the structure by which this rate of progress is evaluated.

First, it is clear that the degree of positive life regard experienced by an individual will be a function of his current goal-position relative to his ultimate life-goal. This concept is central to the relative deprivation theory as developed by Runciman. For example, if a person's life-goal is to become a world-famous virtuoso violin player, his evaluation of his life will certainly be different if he is a third-chair player in the San Diego Symphony than if he is concertmaster of the New York Philharmonic. It is thus implied that the closer to his life-goal that an individual perceives himself as being, the greater the probability that he will experience positive life regard.

Second, the degree of positive life regard experienced by an individual will also be a function of the rate of progress that he is making toward his life-goal. For instance, if a scientist's life-goal is to understand the nature of osmium cells, he can be expected to feel very differently about his work if he has just developed a new theory than if he is inhibited in his work by not being able to develop a methodology to differentiate between two previously developed theories. The greater the rate of progress that an individual perceives in his attempts to attain his life-goal, the greater the probability that he will experience positive life regard.

Third, the degree of positive life regard experienced by an individual will also be a function of his comparison of his present goal-position and rate of change with his past goal-positions and rates of change. For instance, a person whose life-goal is to become a millionaire will evaluate his current savings of \$200,000 and income of \$50,000/year very differently depending on whether in the previous year he had a savings of \$150,000 and an income of

\$25,000/year or a savings of \$250,000 and an income of \$100,000/year. Thus, relative to the past, the closer an individual's goal-position is to his ultimate goal-position and the greater his rate of progress, the greater the probability he will experience positive life regard.

Fourth, the degree of positive life regard experienced by an individual will be a function of his comparison of his current goal-position and rate of change with his predicted current goal-position and rate of change from points in the past. For instance, if a person whose life-goal is to become president of his firm anticipated five years ago that he would currently be the vice-president of the company, his evaluation of his progress would be quite different were he still a division manager, or had he already attained the vice-presidency and was now the president. Thus, the more that an individual's current goal-position and rate of progress exceed his predictions about the present from previous times, the greater the probability that he will experience positive life regard.

Finally, much of the recent research (Zimbardo) developed from Festinger's theory of cognitive dissonance suggests that a person's perception of a situation and his evaluation of himself will tend to remain constant and consistent over time. This implies that a person's evaluation of himself in the past will partially determine his development of positive life regard in the present.

In summary, the phenomenological theory developed here describes the development of positive life regard to be a function of:

- (1) Current absolute goal-position relative to life-goal-position.
- (2) Current rate of progress toward life-goal.
- (3) Comparison of present goal-position and rate of progress with previous goal-positions and rates of progress.

(4) Goal-position at present relative to predicted goal-position for the present at past times.

(5) Anticipated goal-position and rates of change in the future.

(6) The direct effect of levels of positive life regard in the past.

The Life Orientation Index was developed by Battista in order to test these hypotheses. In the first part of the Index, the following six major life orientations are outlined in paragraph form.

Interpersonal orientation: emphasizes relationships, love, giving.

Service orientation: emphasizes aiding, taking care of some disadvantaged group.

Understanding orientation: emphasizes developing theories, abstract thinking.

Obtaining orientation: emphasizes obtaining possessions, respect, responsibility.

Expressive orientation: emphasizes self-expression through feelings, art, athletics.

Ethical orientation: emphasizes living in terms of political, religious, social belief.

The subject is requested to rank order the importance of these six life orientations to himself. Subjects are then asked to rate the relative importance of each of their first three life orientations on a 9-point scale. In a second part of the Life Orientation Index, the subject evaluates each of his first three life orientations in the following ways:

(1) The degree to which he has fulfilled his ultimate goals in each of the three areas at present.

(2) His current rate of change toward life-goals at the present time in each area.

(3) How he is currently doing compared to how he expected to be doing in each area.

(4) How he generally felt about his life in the past in each area.

(5) How he anticipates feeling about his life in each life area 10 to 20 years from now.

Utilizing this technique, we compared the 14 positive life regard subjects with the 16 negative life regard subjects. It was predicted that positive life regard subjects in relationship to

negative life regard subjects would have:

(1) Higher absolute goal-positions.

(2) Greater rates of progress toward their goals.

(3) Higher goal-positions in the present than in the past.

(4) Better goal-positions at present than they had anticipated.

(5) Higher anticipated life-positions in the future.

(6) Better perceptions of their lives in the past.

The data upheld all six of these hypotheses. Positive life regard subjects saw themselves as more fulfilled in their ultimate life-goals in their first two life orientations ($p < .01$). Similarly, positive life regard subjects saw their lives as making significantly greater rates of change for the better in their first two most important life-orientation areas ($p < .01$). Third, the positive life regard subjects had higher goal-positions than in their past relative to the negative life regard subjects ($p < .05$). Fourth, positive life regard subjects perceived themselves as doing better than they had expected to do on their two most important life-goals ($p < .05$). Fifth, high life regard subjects anticipated better futures in the areas of their top two life orientations ($p < .01$). Sixth, positive life regard subjects perceived themselves as doing better in the past on their most important life orientation ($p < .05$).

The validity of the tests of these hypotheses is indicated by the fact that there were significant differences between the high and low life regard groups on their most important or first two most important life-goals but not in terms of their third or lower ranked life-goals. This clearly shows that subjects were able to meaningfully distinguish between the life-goal options provided for them and indicates that their answers were not the result of a generalized halo effect of optimism,

or similar personality variables.

Thus, these data give excellent support for a phenomenological approach to the prediction of the development of positive life regard. Each of the six factors outlined above was able to distinguish positive and negative life regard subjects. Furthermore, when these six factors are combined, either additively or weighted in terms of the relative importance of the top three life orientations, they represent a reliable mechanism for indicating the development of positive life regard (additive, $p < .01$; weighted, $p < .001$).

DISCUSSION

This paper reveals that meaning in life is a legitimate psychological dimension that can be studied in an empirical social scientific manner. In order to accomplish this it is necessary to redefine the question being considered from the philosophical, "What is the meaning of life?," to the social scientific, "What are the conditions under which an individual will experience his life as meaningful?" The latter question can be considered through social scientific methods after an initial analysis of the question, "What is the nature of an individual's experience of his life as meaningful?," provides a descriptive and operational definition of the term "meaningful life."

Our analysis of the question, "What is the nature of an individual's experience of his life as meaningful?," was based on the assumption that there is no "true" or "ultimate" meaning of life, and emphasized the process of an individual's believing rather than the content of his beliefs. This analysis was found to be consistent with writings on the nature of the experience of meaning from a variety of perspectives. Meaning in life was defined in terms of positive life regard, an individual's be-

lief that he is fulfilling his life as conceptualized in terms of some life-framework or goal. The value of this definition lies in its use as the foundation for the development of the Life Regard Index, an operational definition of meaning in life. Studies on a medical school population, using other questionnaire techniques and interviewing approaches, led the authors to believe that the Life Regard Index based on the concept of positive life regard is a useful, simple, and reliable preliminary measure of meaning in life.

The preliminary nature of these descriptive and operational definitions of meaning in life is emphasized because we believe that these definitions represent tools rather than end points. Thus, we believe the main value of these definitions to lie in their use to test theories on the development of meaning in life, and most important, to serve as the basis for the in-depth study of individuals who believe their lives to be meaningful. These in turn may enable us to understand and define meaning in life further.

We have become aware of a number of potential difficulties in defining meaning in life in terms of positive life regard and the Life Regard Index that we believe should be considered in any future consideration and redefinition of these phenomena. First, the Life Regard Index, like all subjective self-report measures, inherently suffers from the possibility of subject denial. Although we found no differences in defensiveness between the positive and negative life regard subjects, our interviewer did rate 3 of the 14 positive subjects as defensive or very defensive. This raises the possibility that although individuals may honestly believe that their lives are meaningful, they may not objectively appear to other people to act in a manner that seems congruent with such a belief. The Life

Regard Index appears to be especially subject to influence by denial because of the straightforwardness of its questions, the import of the subject dealt with, and its use of words like "really" and "truly" in an attempt to gauge an individual's degree of framework and commitment. Only a large-scale study of positive and negative life regard subjects, which also included an analysis of other people's evaluations of the subjects, will allow us to differentiate between "defensive" and "open" positive life regard subjects. Hartmann's work on happiness is especially disconcerting in this light. He found that while there was a 0.68 correlation between ratings of friends about the happiness of the subject individual, there was only an 0.34 correlation between the subject's self-rating and that of his friends. Hartmann's work thus points to a difference between experienced and attributed positive states that certainly deserves consideration in any future investigation of meaning in life.

The problem of denial might be circumvented in part by taking advantage of the work of Goldings (1954) as reported by Fellows. Goldings' work revealed that very happy or unhappy persons tend to project their opposite state onto others, while moderately happy or unhappy individuals tend to project their same state onto others. Should this same relationship hold for the individual's level of meaning in life, this could provide a potentially valuable tool in investigating the relationship between denial and meaning in life.

The problem of denial might be further circumvented by having subjects attempt to describe their life-framework and level of commitment in a paragraph. However, such a measure would obviously be confounded by a person's ability to express himself, and leads to a second problem with our

definitions of meaning in life. The Life Regard Index implies that meaning in life is based on a rational and conscious life-framework. However, it may well be possible for people to have unconscious or nonconceptualized beliefs about their lives which may serve as the framework for their experiencing their lives as meaningful. If this is true, the Life Regard Index would tend to be prejudiced against these people.

Third, the Life Regard Index appears to imply that there must be some single encompassing system of beliefs in order to develop meaning in life. However, in our study of positive life regard subjects, utilizing the Life Orientation Index, it was clear that these people were often committed to two or more systems of belief. This suggests that at least in our complex secular society, where many religions, values, and life styles compete for legitimacy, it may be that meaning in life is derived from a combination of sources rather than some single encompassing source.

Fourth, although the Life Regard Index does not appear to be significantly confounded by social desirability as measured by the Crowne-Marlowe technique, recent work by Warehime and Foulds suggests that social desirability may play more of a role than previously anticipated. Their work shows that while the Self-actualizing Value scale of the POI shows a -0.14 correlation with the Crowne-Marlowe scale of social desirability in males, it shows a $+0.44$ correlation with the Edwards social desirability scale in the same group. This is especially interesting because the Crowne-Marlowe scale is designed to measure the tendency to create a favorable impression while the Edwards scale is designed to measure the tendency to endorse personality statements in a socially desirable fashion.

Finally, our analysis of the nature of

an individual's experience of his life as meaningful suffers because it does not make clear the relationship between the experience and other positively valued experiences such as mystical experiences, "peak" experiences, romantic love, and drug-induced "highs." Many accounts (e.g., Stace) of these other experiences sound strikingly similar to our descriptions of meaning in life.

The second part of the paper considered the question, "What are the conditions under which an individual will develop meaning in life?" and presented five different perspectives from which to approach this question. The relativistic perspective, which emphasizes that belief in any system can be the foundation of meaning in life, was argued to be superior to the philosophical perspective, which argues that there is a single meaning to life, as the basis for future research in this field. However, it was pointed out that the assumptions of these two different perspectives can and should be tested empirically in the future. In particular, the contention of philosophical theories that there is a "higher" or "ultimate" meaning to life is especially challenging to the relativistic position.

Attempts were made to provide examples of theories that might arise from the other three perspectives and to test these theories utilizing a study of Stanford medical students based on the Life Regard Index. A number of potentially valuable theoretical psychological approaches to the development of meaning in life were discussed. Then the relationship between self-esteem and meaning in life was studied as an example of a psychological approach to the development of meaning in life. Self-esteem was shown to be a necessary but insufficient prerequisite for the development of meaning in life. Also some evidence was presented to suggest that while self-esteem develops

in adolescence through the introjection of socially based phenomena, the development of meaning in life occurs later in life through the individual's unique subjective evaluation of his life-goals. The conclusiveness of the latter contention can be questioned because the group upon which it was tested is nonrepresentative of the general population in that the subjects tend to be highly goal-oriented and may give falsely positive results. Second, utilizing the transactional perspective, the fit between the individual's beliefs about the meaning of life and the values and roles of society was shown to be an important determinant of meaning in life. Third, utilizing the phenomenological perspective, evidence was given in support of a model to predict the conditions under which an individual will perceive himself as fulfilling the criteria of his life through a consideration of the goal-position and rate of progress that he is making toward his ultimate life-goals.

How these various determinants of meaning in life interrelate is a question that remains for further study. However, the phenomenological perspective may prove to be the most valuable because it most closely simulates how we actually develop values and beliefs about meaning, and can be used to encompass and integrate each of the other perspectives. For instance, the self-esteem and fit models can be seen as determining initial goal-positions and rate of progress toward goals, respectively. The phenomenological model is also of great value because it is dynamic and thus makes possible the longitudinal study of changes in meaning in life in response to goal fulfillment. In this regard Platt's theory that altered states of consciousness reflect rapid shifts in hierarchical restructuring and Graham and Balloun's study of the relationship between needs and sat-

isfaction are especially stimulating. The Life Regard Index provides a reliable tool for evaluating the kind of life conceptualization a person has and his rate of progress in fulfilling it, and

may thus prove to be a valuable tool in future investigations into the development of meaning in life.

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APPENDIX

THE LIFE REGARD INDEX

Framework Items (Positive)

1. I feel like I have found a really significant meaning for leading my life.
2. I have really come to terms with what's important for me in my life.
3. I have a system or framework that allows me to truly understand my being alive.
4. I have a very clear idea of what I'd like to do with my life.
5. There are things that I devote all my life's energy to.
6. I have a philosophy of life that really gives my living significance.
7. I have some aims and goals that would personally give me a great deal of satisfaction if I could accomplish them.

Framework Items (Negative)

1. I just don't know what I really want to do with my life.
2. I really don't have much of a purpose for living, even for myself.
3. I need to find something that I can really be committed to.
4. I get completely confused when I try to understand my life.
5. There honestly isn't anything that I totally want to do.
6. I really don't believe in anything about my life very deeply.
7. Other people seem to have a much better idea of what they want to do with their lives than I do.

Fulfillment Items (Positive)

1. I have real passion in my life.
2. I really feel good about my life.
3. Living is deeply fulfilling.
4. I feel that I am living fully.
5. I feel that I'm really going to attain what I want in life.
6. I get so excited by what I'm doing that I find new stores of energy I didn't know that I had.
7. When I look at my life I feel the satisfaction of really having worked to accomplish something.

Fulfillment Items (Negative)

1. I don't seem to be able to accomplish those things that are really important to me.
2. Other people seem to feel better about their lives than I do.
3. I have a lot of potential that I don't normally use.
4. I spend most of my time doing things that really aren't very important to me.
5. Something seems to stop me from doing what I really want to do.
6. Nothing very outstanding ever seems to happen to me.
7. I don't really value what I'm doing.