AN EXPERIMENTAL STUDY IN EXISTENTIALISM: THE PSYCHOMETRIC APPROACH TO FRANKL'S CONCEPT OF *NOOGENIC* NEUROSIS[1]

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PROBLEM

Frankl's[3, 4, 5, 6] method of psychotherapeusis, *logotherapy*, is an application of the principles of existential philosophy to clinical practice. His basic contention is that a new type of neurosis is increasingly seen in the clinics today in contrast to the hysterias and other classical patterns, and that this new syndrome—which he terms *noogenic* neurosis, and which supposedly constitutes about 55 per cent of the typical present-day case load[6] — arises largely as a response to a complete emptiness of purpose in life. The chief dynamic is "existential frustration" created by a vacuum of perceived meaning in personal existence, and manifested by the symptom of boredom. According to Frankl, the essence of human motivation is the "will to meaning" (*Der Wille zum Sinn*); when meaning is not found, the individual becomes "existentially frustrated." This may or may not lead to psychopathology, depending upon other dynamic factors, but he feels that the incidence of clinical cases thus rooted is of major significance.[2]

The fact that existentialism accepts intuitive as well as rational and empirical knowledge in arriving at values and meanings has been anathema to American behavioral scientists, who have tended to write it off as a conglomeration of widely divergent speculations with little thread of consistency or operational sense. If, however, one may, by approaching mental illness from this frame of reference, specify a symptomatic condition which is measurable by an instrument constructed from this orientation, but which is not identical with any condition measured from the usual orientations, then there is evidence that we are in truth dealing with a new and different syndrome. Frankl has specified such a condition, but has made only rather informal and loosely quantitative attempts to measure it (as will be shown later).

Kotchen[8] has published a quantitative attack upon the relation of mental illness to existential concepts. He analysed the literature for the traits pertinent to mental health as conceived by the existential writers, found seven characteristics of the kind of life meaning which is supposed to be present in good mental health (such as uniqueness, responsibility, etc.), and then constructed an attitude scale with items representing each of these seven categories. He predicted that the level of mental health operationally defined by the nature of each of five population samples of 30 cases each, from locked-ward patients in a mental hospital to Harvard summer school students, would agree with the scoring level on the questionnaire. The prediction was affirmed at a generally satisfactory level of statistical significance. His scale, however, had some open-end items which could be quantified only by a rating code, and three items applied only to hospital patients and had to be omitted from the scoring. Further, his samples were composed entirely of males, and this is an area in which there may well be sex differences, as will be seen later.

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[1]An abridged version of this paper was delivered before the Section on Methodology and Social Psychology of The Southern Society for Philosophy and Psychology, at the annual meeting in Miami, April 12, 1963. We are indebted to J. L. Chambers, Ph.D., Research Director of the Mix Memorial Fund of Americus, Georgia, for a critical reading of this paper and valuable pertinent comments.

[2]*Noogenic neurosis* should not be identified with *existential vacuum*. The former, according to Frankl, is an illness, while the latter is a human condition. In those cases which show pathology (by which Frankl means "symptoms"), the term *noogenic neurosis* applies, while cases lacking symptoms of pathology are victims of *existential vacuum* and/or frustration of the *will to meaning*. His insistence upon drawing a distinction here is due in large measure to his claim that treatment of neuroses (whether they be somatogenic, psychogenic or noogenic) should be limited to M.D.'s, while treatment of existential vacuum should be open to psychologists, social workers, educators and pastoral counselors as well. Apart from this policy, however, Frankl would certainly agree with the broader use of his concept of noogenic neurosis as implied in the present paper, which he has read and approved with the exception of the above point.

The purpose of the present study is to carry further the quantification of the existential concept of "purpose" or "meaning in life", in particular to measure the condition of existential frustration described by Frankl, with a view to determining whether his *noogenic* neurosis exists apart from the usual neuroses as dynamically conceived. We may rationally define the phrase, "purpose in life" as the ontological significance of life from the point of view of the experiencing individual. Operationally we may say that it is that which is measured by our instrument (2, p. 643), and this is the frame of reference adopted herein. The task then becomes one of showing that the instrument measures something which is (a) what Frankl is referring to by the phrase in question, (b) different from the usual pathology, and (c) identifiable as a distinguishing characteristic of pathological groups in contrast to "normal" populations.

Subjects

A total of 225 subjects comprised five subpopulations as follows: Group I, 30 "high purpose" nonpatients, composed of six Junior League females and 24 Harvard summer school graduate students (14 males and 16 females).[3] Group II, 75 undergraduate college students, nonpatients (44 males and 31 females).[4] Group III, outpatients of various cooperating psychiatrists in private practice in Georgia[5], a total of 49 (25 male and 24 female) cases of mixed diagnoses. Group IV, outpatients of the Bradley Center, Inc. (a privately endowed nonprofit outpatient psychiatric clinic), a total of 50 (22 male and 28 female) cases of mixed diagnoses. Group V, hospitalized patients, all alcoholics, a total of 21 (14 males and 7 females). Ages ranged from 17 to over 50, all groups except the undergraduate college students being pretty well mixed, but with averages near 30.

Materials

1. *The "Purpose in Life" Test (PIL).* An attitude scale was specially designed to evoke responses believed related to the degree to which the individual experienced "purpose in life". The *a priori* basis of the items was a background in the literature of existentialism, particularly in *logotherapy*, and a "guess" as to what type of material would discriminate patients from nonpatients. The structure of all items followed the pattern of a seven-point scale as follows:

1. I am usually:

1	2	3	4	5	6	7
completely bored			(neutral)			exuberant, enthusiastic

A pilot study was performed using 25 such items; on the basis of the results half were discarded and new items substituted. Twenty-two then stood up in item analysis, and these were utilized in the present study.[6]

The scale was designed on the unorthodox principle that, while theoretically a subject cannot accurately describe his real attitudes and these must be arrived at indirectly, in practice — and particularly in this attitude area — he can and will give a pretty reliable approximation of his true feelings from conscious consideration. This is also the theory upon which Kotchen (8) proceeded. If this assumption be wrong, it would show up both in low reliability and in low validity as measured against an operational criterion of either mental health or "life purpose".

[3]Our gratitude is due Dr. Viktor Frankl for permission to administer our scale to his Harvard seminar, summer 1961, as well as for his cooperation in administering our pilot version of the PIL to his Vienna classes, and for his great encouragement throughout this study.

[4]We are also grateful for the cooperation of Mr. Ed Shivers who arranged for the administration of the PIL, A-V-L and Frankl Questionnaire to students at MacAlester College.

[5]We wish to express appreciation to the following Georgia psychiatrists who kindly gathered data upon their own patients: Alfred Agren, M.D.; R. E. Felder, M.D.; Sidney Isenberg, M.D.; Harry R. Lipton, M.D.; Joseph Skobba, M.D.; Carl A. Whitaker, M.D.

[6]A duplicated copy of a more detailed version of this paper, giving full tables of results as well as copies of the Frankl Questionnaire and the Purpose in Life Test, will be sent upon request. Address the writers c/o The Bradley Center, Inc., 1327 Warren Williams Road, Columbus, Georgia.

The PIL was so designed that each item becomes a scale within the scale. This is similar to the Likert technique except that the quantitative extremes of each item were in the present case set by qualitative phrases which seemed *a priori* to be identified with quantitative extremes of attitude. It was felt that if these choices were wrong, low item validity would eliminate them, whereas if they were right, the scale would be less monotonous and would stimulate more meaningful responses. The score was simply the sum of individual ratings assigned to each of the items. The direction of magnitude was randomized for the items, in order that position preferences and the "halo" effect might be minimized.

2. *The Frankl Questionnaire.* To demonstrate his thesis, Frankl utilized a rather informal series of questions[6] which he evaluated clinically, apparently depending heavily upon Item 3 to determine the percentage of "existentially frustrated" individuals. For the present study Frankl translated his questionnaire into English and the present experimenters quantified it by assigning a value of "1" to item choices which seemed to represent the least degree of purpose or meaning in life, a value of "2" to intermediate responses, and "3" to responses which appeared to involve the greatest degree of purpose. For example, Item 3 ("Do you feel that your life is without purpose?") was scored as follows: 1 = frequently (*haufig*); 2 = seldom (*selten*); 3 = never (*niemals*). Six of the 13 items (Nos. 1, 3, 7, 8, 10, 11) could be similarly quantified, and a total score was obtained from the sum of these six.

3. *The Allport-Vernon-Lindzey Scale of Values (A-V-L).* This best-known measure of values was administered and scored according to the published instructions. Scores were then computed as deviations from the published sex norms, and the deviations were then coded for IBM processing.

4. *The Minnesota Multiphasic Personality Inventory.* Administered and scored according to published instructions. Only the "T" scores were recorded.

Procedure

The Purpose in Life Test was administered to all five groups of Ss. The Frankl Questionnaire and the Allport-Vernon-Lindzey Scale of Values were given only to Groups II, III and V, while the MMPI was administered only to Group IV (being part of the regular intake battery at the Bradley Center). Because of the extensive tests already required of the latter it was not possible to add the Frankl or A-V-L scales, and pressure of time also prevented their administration to Group I. All of these measures are virtually self-administering, and both patients and nonpatients experienced no difficulty in following the printed directions. Each Bradley Center patient (Group IV) was further evaluated by the therapist's ratings, after the first therapeutic session, of each PIL item as he thought the patient should have rated himself if he were accurate in judgment.

Results

The Purpose in Life Test. There is significant discrimination between patients and nonpatients, and a progressive decline in mean scores from Group I through Group V, both for the total scores and for most of the individual items (Table 1).[6] An item analysis (Pearson r's between the total score and the score on each item, N = 225) revealed a correlation range of from −.06 (Item 19) to .82 (Item 9), 17 items being above .50 and 20 above .40. The reliability of the PIL revised total score, determined by the odd-even method (Pearson r, N = 225) is .81, Spearman-Brown corrected to .90.

The most appropriate norms (means, rounded to the nearest whole number) for the PIL (based on the "revised" total score, N = 47 female nonpatients, 58 male nonpatients, 59 female patients, 61 male patients) are: Nonpatients, 119, patients 99, females, 111; males, 107. Patients are more variable than nonpatients. Being a patient drops the scores of males more than those of females: The norm for female nonpatients is 121, for female patients, 102; while that for male nonpatients is 118,

TABLE 1. RESULTS OF THE PURPOSE IN LIFE TEST (PIL). SCORES ARE SUM OF RATINGS FOR ALL 22 ITEMS.

Total Score	Nonpatients				Patients						Diff. in M between patients & nonpatients
	Group I		Group II		Group III		Group IV		Group V		
	M	SD	M	SD	M	SD	M	SD	M	SD	
Males	122.86	10.04	116.14	13.17	98.24	20.06	100.45	17.41	87.50	17.63	21.19**
Females	126.50	12.90	117.84	15.04	105.50	24.02	101.96	18.67	93.72	13.40	18.37**
Both	124.78	11.80	116.84	14.00	101.80	22.38	101.30	18.14	89.57	16.60	19.66**

**Difference significant at $p = .01$.

for male patients, 97. The sex difference, while not significant, is suggestive. Females are more variable than males (except in Group V, alcoholics), and the instrument proved to predict more efficiently for males.

The following cutting scores half way between patient and nonpatient norms for each sex were employed: For females, 111.5; for males, 107.5. At these cutting points the predictive power of the PIL revised total score was: For females, 65.4% correct classifications (of which 34.6% were patients and 30.8% were nonpatients); for males, 75.4% correct classifications (of which 35.6% were patients and 39.8% were nonpatients).

A partial "concurrent" validation of the PIL revised total score against one type of criterion, the ratings assigned by patients' therapists of each PIL item as the therapists thought the patients should have rated themselves in order to be accurate, yielded an r of .27 (Pearson product-moment, N = 39). The PIL scores were not related to the subject's age, but it should be noted that the extremes of age are not covered in the population samples. In particular, a significant relationship at the upper level may have been missed.

The Frankl Questionnaire. The total score norms are 15.7 for nonpatients and 13.7 for patients, with an over-all range of 8 to 19. The predictive power of the total score (using a cutting score of 14.5, half way between patient and nonpatient norms) was 66.9% correct classifications (of which 26.5% were patients and 40.4% nonpatients). This total score correlated .68 (Pearson product-moment, N = 136) with the total score of the PIL.

The A-V-L. Of the six value scales, none discriminated adequately between patients and nonpatients, although the social scale gave a difference at the 5% level of confidence. There was little relationship between any of the A-V-L scales and the PIL.

The MMPI. Since data were available only on Group IV, no comparison of patients and nonpatients could be made, but the published norms are well known. Of all the scales, only the K (Validity) and D (Depression) scores showed any substantial relationship to the PIL (respectively .39 and −.30, Pearson product-moment, N = 45). Since the K scale is a measure of defensiveness, the indication is that subjects who have a high degree of "purpose in life" tend to have adequate defenses; they also tend to be less depressed than others.

Discussion

The Purpose in Life Test distinguished significantly between patient and nonpatient populations (Table 1), and also showed — in most of its items individually as well as in the total score — a consistent progression of scoring from the nonpatient group that was considered most highly motivated (Group I) to the most seriously ill patient group (Group V). This is consistent with predictions from the orientation of *construct validity.* [1]

The much greater variability of patients (Table 1) suggests that some patients become such because of loss of "purpose in life" while others break down because of dynamic factors as conventionally conceived. Possession of a substantial degree of "purpose" seems to be one of the usual properties of normal function, but there may or may not be a lack of it in the abnormal personality. All of this is consistent with Frankl's belief that a new type of neurosis is present in the clinics alongside the conventional forms.

The study of *concurrent validity* in correlating the PIL scores with therapists' ratings of "purposefulness" in patients yielded only very modest success. This was at least partially due to making the ratings after the first therapy session, which proved too soon for the therapist to know the patient's dynamics well. To have made them after a number of sessions, however, would have confounded the effects of therapy (if any) with the increased knowledge of the patient. Further, the obtained relationship is probably somewhat lower than the true value because of restriction

of the range of variability through use of only patients in the sample, but it was not possible to secure such ratings upon the nonpatients.

The high relationship between the PIL and the Frankl Questionnaire indicates that the PIL gets at essentially the same functions which Frankl describes as "existential frustration" (since his questionnaire may be presumed to represent his effort to define operationally what he is talking about). This, he holds, is the basic ingredient of *noogenic* neurosis.

The low relationships between the PIL and the A-V-L scales suggest that "purpose or meaning in life" is not just another name for values in the usual sense. Frankl[4] insists that it represents a basic human motivating force best described as spiritual.

The low relationships between the PIL and the MMPI scales indicate that the PIL's significant discrimination between normal and pathological populations is not just another measure of the usual forms of pathology. Once again Frankl's hypothesis of a new type of neurosis is supported. Because of restriction of the range of variability by the use of only patients (Group IV) in the sample, the true relationships may be somewhat greater, but only for the K and D scales could they be large enough to indicate appreciably overlapping measures. And some overlap would be predicted, since Frankl postulates that *noogenic* factors may cause a breakdown of defenses and thus affect the patient's other dynamic mechanisms. The tendency of highly depressed patients to show a loss of life purpose and meaning is clearly observable in the clinic.

This raises the question of whether the PIL is an indirect measure of depression. The limited though significant correlation with the D scale suggests that the test is not primarily this, and it is probable that the causes of both depression and lack of life meaning and purpose are complex and variable. It is likely that lack of meaning can be both a cause and an effect of depression, and that both lack of purpose and depression can result from other causes. Depression, for example, could be due to an abundance of meaning but a deficiency in techniques of acquiring meaningful ends, while lack of meaning and purpose may be present in a rhathymic (far from depressed) personality who drifts aimlessly because of a lack of organization in life experience. From the orientation of psychopathology as behavior disorder, herein adopted, that which makes a trait a reflection of pathology is its incapacitating effect upon the individual's ability to adjust efficiently to life problems. Lack of purpose or meaning implies a failure to perceive an integrated pattern of goals and values in life, with a consequent dissipation of energies which can be only debilitating. Existence may become boring and not worth the struggle to overcome obstacles. Needs still operate within, and the individual may be highly frustrated, but he has no organized frame of reference from which to perceive meaning in the elements of experience, and consequently he can plan no active attack upon the causes of frustration. So he drifts along in constant search of new diversion to ease tensions he is often unaware of having. Depression, often interpreted dynamically as a hostile aggression against real or imagined causes of frustration, similarly represents an ineffectual means of dealing with the situation. Lack of purpose is probably a more generic term than depression, for the latter represents a relatively specific and inadequate technique of adjustment to conflict. Loss of meaning and purpose may follow failure of any adjustment technique.

Some variables which it was impossible to control in the available samples of patients and nonpatients require discussion. The question arises whether the differential in PIL scores between population samples is a reflection of educational levels rather than psychopathology, since the nonpatient samples were college students while the patients were of mixed educational level. Exact educational status was available only for our own patients (Group IV), but they seemed typical of *private* psychiatric outpatients: Two-thirds attended college; 18% held a Master's degree or higher; the mean is one year of college. Although this still leaves a little educational balance in favor of the nonpatient samples, the correlation between the PIL and educational level for Group IV is only .19 (Pearson product-moment, N = 49).

Further, Snavely[9] found that freshmen score significantly *higher* than seniors on the PIL. Thus it would seem unlikely that the patient-nonpatient differences could be attributed to education.

It may be suspected that such other variables as intelligence and socio-economic class correlate with the PIL scores and are significantly different from patient to nonpatient samples. There is, of course, some relationship between education, intelligence and socio-economic class; and it would seem probable that the latter two variables follow education fairly closely in the present samples. It seems very possible that the extremes of intelligence do correlate with the presence of purpose and meaning in life, since there is a known tendency for people of genius level to achieve much (and logically, therefore, to have found much meaning and purpose), while it is difficult to see how the mentally retarded can integrate their lives very well around purposeful goals. The present samples of both patients and nonpatients were, however, composed primarily of subjects of higher than average education with few at either extreme, and the known substantial relationship between education and intelligence suggests that the latter was not appreciably different, at least between Groups II (nonpatient college students) and III (private outpatients) where the PIL differences are greatest. Therefore it seems unlikely that the differences between patients and nonpatients are due primarily to these variables.

One might ask whether the PIL responses of Frankl's Harvard class were influenced by his teaching. These students were all professional people functioning at high level (ministers, teachers, social service workers and the like), and it is probable that they already had highly purposive orientations to life. His instruction likely did not change this much, because it was slanted entirely to the theoretical side and not toward helping lost students find themselves. Further it is improbable that such basic attitudes toward life would be changed by anything in the few weeks devoted to the course, though a response set could have been established toward "purposive" goals. But the Junior Leaguers who form part of Group I score similarly, and the group level probably reflects genuine purposiveness.

There is a question of the possible influence of social desirability upon the PIL answers. The moderate relationship between the K scale of the MMPI and the PIL scores could be interpreted as indicating the subject's defensive effort to make himself look purposive. As previously noted, it seems likely that individuals of genuinely high level of purpose would have strong defenses which would be reflected in the K scale. It also could be true, however, that highly defensive individuals exercise their defenses in responding to the PIL items. It is obvious that the instrument could not be used in a competitive situation, since, like other "self" tests, it could be either willfully or through unconscious motivation distorted in the direction of desirable or purposive responses. But the findings in relation to most such measures have been that there is relatively little willful distortion in most noncompetitive situations. Unconscious distortion would probably reflect the presence of at least some degree of emotional disturbance and should be present more often in patients than in nonpatients. This would partially account for the greater patient variability which has been found, and suggests that the patient-nonpatient differences have been somewhat affected by spuriously high or purposive scores among the patients. But this is on the side of "safety" in that instead of spurious differences between these populations being created by this effect, the obtained differences are reduced, which encourages the belief that the significances can be depended upon.

Summary

The question of the existence of Frankl's *noogenic* neurosis — breakdown due to "existential frustration" or a lack of perceived meaning or "purpose" in life — was attacked psychometrically, through an attitude scale designed to measure the degree of awareness of such meaning among different populations. The concept of "purpose in life" was operationally defined as what the instrument measures; thus the problem became the threefold one of showing that its scores represent (a) what

Frankl is describing, (b) something different from the usual neuroses, and (c) a characteristic of psychopathological as distinguished from "normal" groups.

The results of 225 subjects, comprising two nonpatient and three patient samples, consistently support the *noogenic* hypothesis: (a) The relationship between the scale and a questionnaire designed by Frankl to describe the factors involved in his concepts was high; (b) the relationship of the scale to an established measure of traditionally conceived psychopathology, the MMPI, was low; and (c) the scale significantly distinguished patient from nonpatient populations, showing a predicted progressive drop in scores to match the level of pathology assumed by the nature of the group.

Further study of *noogenic* neurosis by the Purpose in Life Test and other methods is needed in order to answer a number of questions which present data treat only partially, to define the dynamic properties which would make possible diagnostic isolation of this syndrome, and to determine the variables which affect it. The work reported herein is considered primarily heuristic and exploratory rather than definitive.

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ANALYSIS OF PEAK EXPERIENCES REPORTED BY COLLEGE STUDENTS

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Introduction

The term "peak experience" as yet has not found its way into philosophical and psychological dictionaries, nor is it a heading or sub-heading in *Psychological Abstracts.* Winn's[8] *Concise Dictionary of Existentialism* does not mention it. Yet every psychologist has encountered its central notion of exhiliaration. of the "ultimate" in sensory, affective, and /or cognitive experience, and of the epitome of feeling that transcends all else in theological, historical and philosophical readings[3].

Maslow[4] gave it wide dissemination as a derivation of James'[2] "mystic experience" with the added ingredient of attributing it to self-actualizing people. Maslow later assigned to the "peak experience" an important place in his "positive" or "ortho" psychology, ". . . in that it deals directly with fully functioning and healthy human beings . . ."[5, p. 69]. In the peak experience, according to Maslow, the individual perceives and is cognizant in a non-comparing, non-judgmental manner. There is no figure and ground, all is figure and the experience is all-encompassing and pervasive. Only later does evaluation enter into the person's reaction to this experience. At the moment of occurrence, the peak experience is an attentive one with all irrelevancies entirely out of the picture. The lover gazing on his beloved, the mother transfixed by her baby, exemplify such profound experiences. Maslow