An Experimental Study on the Existential Aspect of Life : Part I. -The Cross-cultural Approach to Purpose in Life-

AN EXPERIMENTAL STUDY ON THE EXISTENTIAL ASPECT OF LIFE : PART I

——THE CROSS-CULTURAL APPROACH TO PURPOSE IN LIFE——

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The Purpose-in-Life Test (PIL), which was devised by Crumbaugh was administered to the subjects in Japan and the data were compared with Crumbaugh's. And the PIL scores were factor-analyzed to see the factorial structure of the PIL. The subjects in Japan showed remarkably lower scores on the PIL than Crumbaugh's, and with our subjects the "normal" groups and the patient groups could not be distinguished. However, it was found that the scores of the lower age tend to be lower than those of the higher age. Further, as the results of the factor analyses of the PIL scores, it was found that the PIL is composed of a main factor of "exciting and meaningful life" with two secondary ones. And the variation of the scores by the high, mean and low scored groups would be explained by the factorial structure of the PIL.

INTRODUCTION

We have made an experimental study on the existential aspect of life since 1965. As a part of our study, the Purpose in Life Test (PIL), which was devised by Crumbaugh, *et al.* to measure "Existential Vacuum" which was suggested by Frankl, has been used with the subjects in Japan. Existential vacuum seems to be seen widely among Japanese people of today, especially among young generation. It was thought, however, that in this kind of questionaire the subjects' responses are affected by the socio-cultural differences, and a cross-cultural study has been felt to be needed. From this view point, in this paper, a comparative study on the PIL is made. In using the PIL some other questions have been raised; first, do some variables, like age and so forth, which are not regarded as important variables by Crumbaugh (Crumbaugh & Maholic, 1964), influence upon the PIL scores? Second, the PIL items are based on Frankl's concepts of logotherapy, and Crumbaugh has insisted on the consistency of the 20 items in terms of construct validity. But can a

few components, for example, the items concerning with mood or feelings, the items concerning with goals, aims or meanings and so forth be distinguished in the questionaire? And further, can some response patterns characteristic to a certain sample group be found in relation with the structure of the questionaire?

Thus in Study 1, the PIL data with our subjects in Japan are compared with those with Crumbaugh's. In Study 2, first the variance of the PIL scores by age is examined, and second, the item scores are factor-analyzed in order to see the underlying factor-structure of the PIL and response patterns characteristic to the age groups and scored groups.

Study 1

Introduction

Crumbaugh, who devised the PIL, an attitude scale designed to measure the degree to which the people experience a sense of meaning and purpose in life, reported that the PIL was found to discriminate between "normal" and psychiatric groups with high significance, that it also discriminated between the 4 "normal" groups, ranging from highly successful to indigent persons, and that among the 6 psychiatric patient groups, the schizophrenics scored unexpectedly high, but the otherwise the scores approximated closely the predicted descending order, ranging from neurotics through alcoholics to the other psychosis (Crumbaugh, 1968). We have been interested in knowing whether the same results are obtained if the PIL is given to the people in Japan. Then the PIL was translated into Japanese and administered to the groups of the subjects corresponding to Crumbaugh's. He seemed to get sample groups based on rather intutive judgement, from the orientation of logotherapy, who are highly successful and motivated people and who are not. It seemed to us, however, difficult to find a criterion on which such judgement is made with "normal" people beforehand. On the other hand, considering the stands and roles in the social and family lives of adults and college or undergraduate students, could it be taken that adults in general would be more purposeful and motivated than the students? If so, the difference in the degree adults and students in general experience a sense of meaning and purpose in life should be learned from the viewpoint of development and age before examining individual existential attitude. In this context, the age of high school is important because in this period people begin to search and have meaning, purpose and goals in life. Therefore, in our study adults are dealt in one group and compared with the samples of undergraduate and college students, and senior high school students.

METHOD

Subject: The PIL was administered to 625 subjects of 3 "normal" and 3 psychiatric patient groups as described in Table 1. All subjects were Japanese.

Table 1. Groups of subjects.

Designation	Description	Male	Female	Total
"Normal"				
N_1	Adults†	78	85	163
N_2	College, undergraduates	172	112	284
N_3	High-school students	44	31	75
Psychiatric				
P_1	Outpatients, mixed diagnosis	8	15	23
P_2	Schizophrenics, hospitalized	26	28	54
P_3	Alcoholics, hospitalized	26	—	26
	Total	354	271	625

† Includes 9 groups in occupation or status: 22 male social educators, 11 members of a community women's association, 20 male and 23 female members of an Electric Power Company, 11 male and 2 female medical doctors at a Univ.'s Hospital, 7 male doctors, public nurses and office workers at a Health Center, 6 male and 8 female office workers at a Foundation, 3 male and 11 female nurses, 6 male and 11 female members of a Protestant Church, 3 male and 5 female members of a Youth Association, and 6 female psychologists at a Univ..

Age ranged from 15 to over 60. Average age of all *S*s. except undergraduates and high-school students was about 35.

Material: The revised from of the PIL (consisted of 20 items) were translated into Japanese and used*. The 20 items of the PIL are shown in Appendix of this paper.

Predictions: The order of the mean PIL scores for the total as well as individual items with our groups will be as they are listed in Table 1: 1) for the "normal" groups, from adults down to high school students; 2) for the psychiatric groups, from outpatient neurotics down to hospitalized alcoholics. 3) "Normal" subjects will score significantly higher than psychiatric groups.

RESULTS

Table 2-(1) shows the results of the PIL in sum of ratings for 20 items by diagnostic groups. As there were no significant defferences between males and females, both sexes were dealt together.

*We had used the old revised form with 25 items until 1968, when Crumbaugh published the new revision with 20 items. In this paper only the data with new rivision of 20 items are dealt. But when comparison is needed, following Crumbaugh, revised scores are used with the old data.

Table 2-(1). Results of the PIL by diagnostic groups in Japan.

	N_1		N_2		N_3		P_1		P_2		P_3	
	N=163		N=284		N=76		N=23		N=54		N=26	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
1	5.35	1.33	4.65	1.40	4.36	1.36	4.26	1.73	4.13	1.84	5.62	1.62
2	5.20	1.29	4.73	1.22	4.71	1.27	4.00	1.50	4.76	1.65	5.46	1.57
3	5.39	1.53	5.10	1.46	4.97	1.42	4.58	1.91	5.06	1.78	6.15	1.23
4	5.46	1.56	4.86	1.49	4.62	1.61	4.83	1.34	4.54	2.03	6.12	1.25
5	4.59	1.79	3.83	1.71	3.23	1.74	2.83	1.69	3.62	2.05	4.50	2.24
6	5.46	1.33	4.55	1.64	4.54	1.70	4.87	1.87	4.30	1.96	4.62	2.08
7	5.64	1.98	5.43	2.02	5.42	2.21	5.44	1.86	5.09	2.14	5.85	2.11
8	4.81	1.62	4.70	1.67	4.50	1.67	4.26	1.94	4.24	2.14	5.23	2.04
9	5.02	1.14	4.49	1.26	4.43	1.33	3.70	1.76	4.26	1.64	4.69	1.61
10	4.70	1.63	3.81	1.77	3.71	2.03	4.78	1.89	3.95	2.08	3.27	1.91
11	4.86	1.82	3.53	1.88	3.52	1.79	3.87	1.85	4.61	2.12	5.04	2.07
12	4.06	1.68	3.54	1.42	3.44	1.62	3.48	1.69	4.19	1.83	4.12	1.58
13	5.49	1.54	5.08	1.61	4.33	1.89	4.83	2.32	5.17	2.03	6.31	1.46
14	4.39	1.75	4.16	1.87	3.79	1.91	3.35	2.06	3.91	1.96	5.42	1.86
15	3.33	1.91	3.54	1.93	3.45	2.12	3.35	2.06	3.12	2.08	3.89	1.99
16	5.39	2.16	4.52	2.29	4.15	2.29	4.35	2.46	4.53	2.35	5.58	2.22
17	4.55	1.68	4.30	1.60	4.25	1.60	4.50	1.70	4.20	2.02	4.96	1.56
18	3.81	1.67	4.00	1.59	3.74	1.78	3.65	1.90	3.43	1.97	3.50	1.60
19	4.86	1.50	4.17	1.42	3.87	1.53	4.57	1.77	4.37	1.62	5.35	1.54
20	5.19	1.46	4.90	1.33	4.71	1.42	4.78	1.89	4.49	2.08	5.31	1.83
Total	97.22	18.20	87.63	16.30	83.03	17.81	85.26	22.37	85.46	18.03	101.08	18.33

For the 3 "normal" groups the means of the total scores decrease in order of N_1, N_2, and N_3 with significant difference between N_1 and N_2 ($p<0.001$), and this descending order perfectly corresponds to the prediction. With the scores for individual items, 18 items except 2 of Nos. 15 and 18, decrease in means in the same order with significant differences between N_1 and N_2, on 14 items, Nos. 1, 2, 4, 5, 6, 9, 10, 11, 12, 16, 19 ($p<0.001$), 13 ($p<0.01$), 3 and 20 ($p<0.05$) and significant differences between N_2 and N_3 on 2 items, Nos. 13 ($p<0.001$) and 5 ($p<0.01$). With Item 15 and 18, contrarily to the other items, the scores decrease in order of N_3, N_2 and N_1. Thus the prediction is not fully supported in terms of individual scores.

Among the 3 psychiatric groups alcoholics scored unexpectedly high, and contrarily to our prediction, the total scores decrease in order of P_3, P_2 and P_1. With the scores for individual items, 10 items, Nos. 2, 3, 4, 5, 9, 11, 12, 13, 14, and 16 decrease in the same order with the total scores, P_3, P_2 and P_1, 9 items, Nos. 1, 6, 7, 8, 15, 17, 18, 19 and 20 decrease in order of P_3, P_1 and P_2, and Item 10 decreases reversely, P_1, P_2 and P_3. Thus for the psychiatric groups the results do not correspond to the prediction in both total and individual scores.

Table 2-(2). Results of the PIL in sum of ratings for 20 items, by diagnostic groups, including comparisons between groups.

	"Normal" subjects			Psychiatric patients		
	N_1	N_2	N_3	P_1	P_2	P_3
N	163	284	76	23	54	26
M	97.22	87.63	83.75	85.26	85.46	101.08
SD	18.20	16.23	17.81	22.37	18.03	18.33
*t diff. M*s	5.72**	1.81	2.85*	0.04	3.56**	
N	523			103		
M	90.06			89.36		
SD	17.15			20.33		
*t diff. M*s	0.366					
N	447			77		
M	91.13			85.40		
SD	17.03			19.43		
*t diff. M*s	2.66*					

* $p<0.01$
** $p<0.001$

Between the "normal" groups and psychiatric groups there was only 0.7 of difference in means without significant difference(Table 2-(2)). The order of the means of the total scores for the 6 groups is P_3 (101.08), N_1 (97. 22), N_2 (87. 63), P_2 (85. 46), P_1 (85. 26) and N_3 (83. 03). Thus P_3, alcoholics scored higher than any "normal" groups and N_3, high-school students scored lower than any psychiatric groups. Consequently, the prediction is not supported here, either. However, excluding N_3 from the "normal" groups and P_3 from the psychiatric groups and comparing the means of N_1 and N_2 with the means of P_1 and P_2, significant difference is seen between them (Table 2-(2)).

In our study the predictions are made guided by Crumbaugh's findings. But our results differ from Crumbaugh's in some points.

In comparing the PIL scores of our subjects with those of Crumbaugh's, as Table 3 shows, for both of combined "normal" groups and combined psychiatric groups, as

Table 3. Results of PIL in sum of ratings for 20 Items by diagnostic groups compared with the U.S..

		"Normal"						Psychiatric							
		N_1	N_2	N_3	N_4	Total		P_1	P_2	P_3	P_4	P_5	P_6	Total	G. Total
	N	230	142	417	16	805		225	13	38	11	41	18	346	1.151
U.S.	*M*	118.90	114.27	108.45	106.40	112.42		93.31	95.31	85.37	108.00	96.66	80.50	92.60	106.47
1968	*SD*	11.31	15.28	13.98	14.49	14.07		21.67	18.36	19.41	17.71	16.12	17.50	21.34	18.94
		N_1		N_2		Total	N_3	P_1		P_3	P_2			Total	G. Total†
	N	163		284		447	75	23		26	54			103	550
Jap.	*M*	97.22		87.63		91.13	83.03	85.26		101.08	85.46			89.36	90.80
1972 ~3	*SD*	18.20		16.30		17.03	17.81	22.37		18.33	18.03			20.33	17.80
	t	14.16		18.10*		23.74		1.69		3.20*	5.36*			1.36	

† N_3 is excepted from the grand total.
* $p<0.001$

well as each corresponding group except alcoholics, Crumbaugh's subjects show higher scores than ours.

Summary and Discussion

In Crumbaugh's study, the PIL scores discriminated the patient groups from non-patient groups. But with our subjects there was no significant difference between the "normal" groups and the patient groups. The main reason for this is that the alcoholics, P_3 in our subjects sohwed unexpectedly high scores. If P_3 is excluded from the patient groups, the mean scores for the total subjects of the "normal" groups (N_1 and N_2) are significantly higher than those of the patient groups (P_1 and P_2). The sample of the alcoholics was obtained from the impatients of the alcoholic ward in a private psychiatric hospital in Niigata-city in Japan. There might be some traits or attributes characteristic to this sample. Therefore further examination must be needed with this sample.

With our subjects, the variance of the scores for individual items did not always parallel to the variance of the total scores, and some item scores were relatively constant regardless of the variance of the total scores and some item scores re-

versed the order of the means for the total scores. And such items differed depending on the sample groups. This seems to be suggesting that there would be different response patterns to the PIL by different sample groups.

As the results of comparison of the data gathered in the U.S. and in Japan, our subjects showed lower scores than Crumbaugh's in all of corresponding groups except the alcoholics. This result can not be explained fully only with the data of the PIL-A. However, from the finding that the group of the high school students, N_3 in Japan, which was the lowest in age, showed the lowest in the scores among the all groups including patient groups, it is suggested that the lower the age is, the lower the PIL scores are. Low scores of the high-school students would be interpreted that the high school age, in which, as mentioned in the Introduction of Study 1, the people begin to search and have a meaning and goal in life, has been traditionally said to be the period of doubt and skepticism. If this is true with the high school students of the present time, they would score low in the PIL. Besides, if in these days the existential vacuum is spread among the young people in Japan, too, this descending tendency in the PIL scores would be strengthened.

And this interpretation would be expanded to the relatively low scores of the undergraduates compared with the adults. Seeing in this context, of our "normal" adult groups (N_1 and N_2), 63.5% were the undergraduates and college students, and this ratio seems to surpass the ratio of the undergraduates in Crumbaugh's, If the age is a variable which influences the PIL scores largely, then the higher percentage of the student samples in ours would explain the lower scores in the PIL with our subjects. But this will be discussed in detail later after Study 2.

Study 2

Introduction

The results of Study 1 suggest that the variance in the PIL scores among samples are affected by the age of the subjects, although Crumbaugh did not regard the age as an important variable in his study. In Study 1 the variable of age was not controlled fully, although the decrease of age in the direction of N_1, N_2 and N_3 was implied. In Study 2 the variance of PIL scores by age is examined first.

However, there was another finding in Study 1 that the variance of the item scores was not always parallel to that of the total scores. This is suggesting that the variance of the item scores in a group reflects the varied response patterns characteristic to the sample.

The PIL items were gathered based on Frankl's concept of logotherapy as stated in Study 1. It is our impression that the PIL items are composed of two somewhat different components; one is concerning with goals, aims, purposes and meanings,

and the other is concerning with accompaning mood and feelings, although Crumbaugh did not mention about it. If the underlying factorial structure of the PIL which is not influenced by the variables of age and so forth would be found, and the variances of the item scores by the variabls of age and so forth in relation of the underlying factorial structure would be known, the PIL would be more effective for clinical use.

Moreover, in terms of the clinical use, it is expected that there would be those with high scores and those with low scores in each age group. Therefore if the patterns of the responses characteristic to the scored groups would be found through analyses of the item scores, it would be more helpful.

In Study 2, then, the structure of the PIL is examined by means of factor analysis.

METHOD

Subjects: 442 normal subjects of N_1 and N_2 in Stndy I excluding 4 without indication of the age.

Procedures: (1) The subjects were divided into 5 age groups and the PIL scores were compared by the age groups. The range of the age and the number of the subjects in each group are shown in Table 4. (2)The subjects were also grouped accord-

Table 4. Number of subjects in age group.

Designation / Range of age / Sample	A	B	C	D	E	Total
	15–24	25–34	35–44	45–54	55–64	
Adults	35	43	46	25	9	158
Undergraduates	277	7	—	—	—	284
Total	312	50	46	25	9	442

ing to the total scores. The percentile ranks of the subjects were calculated and those who were ranked above 71 percentile were grouped as the high scored, those who ranked under 30 percentile were grouped as the low scored, and those who were ranked in between were grouped as the mean scored. Then the ratio of the high scored, mean scored and low scored in 5 age groups were compared by scored group. (3) The variation of the item scores were examined. (4) The item scores of the total subjects were factor-analyzed with the principal factor method. (5) The item scores of the age groups were factor-analyzed with the same method. Because of the small number of the subjects group C and D were dealt in one group and group E was omitted. (6) The item scores of the scored groups were factor-analyzed with

the same method. The results of the factor analyses in (4), (5) and (6) were crossed and the structure of the PIL is discussed.

RESULTS

(1) The PIL scores by age groups are shown in Table 5. The scores are increas-

Table 5. Results of the PIL in sum of ratings for 20 items by age groups.

Group / Sample	A		B		C		D		E	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Adults	89.69	13.97	92.05	14.05	101.02	17.18	106.20	14.64	107.67	17.69
Undergraduates	87.67	15.88	83.29	20.22	—	—	—	—	—	—
Total	87.89	15.67	90.82	15.52	101.02	17.18	106.20	14.64	107.67	17.69

ing as the age is rising. Statistically there were significant differences between B and C ($p<0.05$), and no significant differences between other two age groups adjacent each other. There were however, significant differences between A and C, and B

Table 6. Ratio of the high scored, mean scored and low scored by age groups.

	Sample / Scored groups	Adults	Undergraduates	Total
A	High	22.86	24.91	24.68
	Mean	48.57	42.24	42.95
	Low	28.57	32.85	32.37
B	High	34.88	42.86	36.00
	Mean	41.86	14.28	38.00
	Low	23.26	42.86	26.00
C	High	50.00	—	50.00
	Mean	36.96	—	36.96
	Low	13.04	—	13.04
D	High	68.00	—	68.00
	Mean	28.00	—	28.00
	Low	4.00	—	4.00
E	High	55.56	—	55.56
	Mean	22.22	—	22.22
	Low	22.22	—	22.22

† Range of total scores for each group is as follows:
High scored: from 101 to 138
Mean scored: from 82 to 100
Low scored: from 23 to 81

and D and A and D ($p<.01$). Within the age group the scores of the student sample tended to be lowered than those of the working people.

(2) Table 6 shows the ratio of the high scored, mean scored and low scored. As the age is rising, the percentage of the high scored is increasing and contrarily that of the low scored is decreasing.

(3) Table 7 shows the item scores by the scored groups. Significant differences ($p<.001$) were seen in the total scores and most items with a few exceptions; Item 16 without significant difference between the high scored and mean scored, and Item 14 without significant difference between the mean and low scored. And Item 15 is

Table 7. Results of the PIL in sum and 20 items by scored groups.

Scored groups / N	High		Mean		Low		*t*	
	144		179		124		High	Mean
Items	*M*	*SD*	*M*	*SD*	*M*	*SD*	vs. mean	vs. Low
1	5.89	0.78	4.88	1.15	3.81	1.46	8.979**	7.094**
2	5.76	0.86	4.94	0.94	3.87	1.30	8.076**	8.293**
3	6.17	0.87	5.15	1.13	4.11	1.69	8.872**	6.399**
4	6.28	0.79	5.03	1.12	3.74	1.53	11.276**	8.425**
5	5.37	1.29	4.06	1.52	2.68	1.44	8.199**	7.901**
6	5.94	1.11	4.23	1.30	3.72	1.55	12.520**	3.096 *
7	6.50	1.22	5.36	1.96	4.57	2.23	6.092**	3.255 *
8	5.85	1.03	4.73	1.28	3.55	1.77	8.486**	6.717**
9	5.53	0.86	4.67	0.89	3.66	1.19	8.250**	8.026**
10	5.18	1.44	4.15	1.44	2.86	1.70	6.374**	7.086**
11	5.66	1.19	3.83	1.58	2.41	1.46	11.499**	7.921**
12	4.59	1.41	3.69	1.37	2.83	1.31	5.779**	5.461**
13	6.07	1.21	5.33	1.67	4.22	1.88	5.456**	5.386**
14	4.95	1.54	4.10	1.74	3.68	1.96	4.573**	1.953
15	3.96	1.98	3.22	1.71	3.31	2.02	3.594**	0.417
16	5.14	2.21	5.00	2.14	4.23	2.26	0.575	3.004 *
17	5.39	1.27	4.45	1.26	3.16	1.63	6.620**	7.720**
18	4.70	1.50	3.97	1.44	3.04	1.45	4.439**	5.506**
19	5.54	1.02	4.51	1.23	3.30	1.48	8.505**	8.054**
20	5.94	0.97	5.03	1.02	3.88	1.38	8.141**	8.303**
Total	110.36	7.67	90.46	5.25	69.80	10.78	27.528**	22.072**

** $p<0.001$
* $p<0.01$

also an exception with which the score of the low scored group is higher than that of the mean scored group. On the other hand Nos. 4, 5, and 11 show especially striking decrease of the scores in order of the high, mean and low scored group, and these items appear to be sensitive to the variance of the total scores.

In the low scored group the variability in both the item scores and total score are larger than in the other two groups.

(4) The correlation of the mean scores of the 20 items with all 442 subjects is shown in Table 8-(1) and the results of the factor analysis of the item scores are shown in Table 8-(2).

Table 8—(1). Correlations of 20 items.

Variables	1	2	3	4	5	6	7	8	9	10
1	1.000									
2	.465	1.000								
3	.374	.426	1.000							
4	.472	.421	.613	1.000						
5	.520	.430	.315	.468	1.000					
6	.356	.478	.308	.448	.434	1.000				
7	.259	.235	.247	.255	.183	.164	1.000			
8	.318	.269	.480	.471	.382	.313	.240	1.000		
9	.540	.556	.432	.515	.485	.474	.219	.389	1.000	
10	.365	.342	.399	.400	.333	.318	.208	.393	.352	1.000
11	.452	.471	.431	.577	.419	.458	.155	.362	.484	.417
12	.326	.404	.183	.268	.358	.372	.150	.285	.402	.271
13	.328	.213	.366	.408	.301	.245	.210	.345	.304	.318
14	.146	.229	.078	.104	.130	.121	.033	.027	.122	.074
15	.041	.075	.133	.012	.040	−.099	.050	.069	.018	.080
16	.035	.101	−.076	.053	−.005	.239	−.068	−.052	.085	.027
17	.309	.369	.410	.456	.337	.241	.258	.426	.330	.365
18	.193	.328	.196	.245	.247	.235	.087	.199	.202	.125
19	.489	.442	.396	.414	.469	.411	.194	.393	.408	.349
20	.408	.344	.600	.562	.389	.270	.201	.457	.423	.358

Variables	11	12	13	14	15	16	17	18	19	20
11	1.000									
12	.346	1.000								
13	.326	.224	1.000							
14	.105	.122	.063	1.000						
15	.045	−.024	.055	.038	1.000					
16	.208	.154	.014	.046	−.189	1.000				
17	.353	.217	.390	.111	.182	−.078	1.000			
18	.203	.274	.149	.215	−.012	.058	.251	1.000		
19	.440	.352	.315	.157	.079	.018	.397	.271	1.000	
20	.450	.250	.413	.023	.077	−.020	.519	.167	.430	1.000

Table 8-(2). Results of the factoranalysis of the PIL item scores with all subjects.

Variables	Factor loadings			
	Ⅰ	Ⅱ	Ⅲ	Ⅳ
1	.685	.081	.043	−.316
2	.685	.246	.237	−.143
3	.686	−.323	−.095	.175
4	.766	−.093	−.187	.150
5	.672	.104	.079	−.251
6	.617	.406	−.132	−.071
7	.366	−.206	.048	−.362
8	.630	−.255	−.127	.096
9	.720	.161	−.044	−.240
10	.593	−.111	−.112	−.025
11	.708	.150	−.177	.068
12	.522	.360	.093	−.154
13	.542	−.219	−.148	.234
14	.200	.268	.625	.294
15	.090	−.461	.459	−.129
16	.077	.637	−.327	.291
17	.621	−.334	.131	.236
18	.384	.236	.439	.378
19	.681	.038	.140	−.068
20	.691	−.306	−.181	.206
Contributions	6.826	1.653	1.191	.957
Cummulative contributions (%)	34.13	42.40	47.36	52.14

Table 8-(3). Items with high factor loadings (above 4.) in each factor with total subjects.

Group / Factors	Total subjects
Factor Ⅰ	1. 2. 3. 4. 5. 6. 8. 9. 10. 11. 12. 13. 17. 19. 20
Factor Ⅱ	6. 16. 15(−)
Factor Ⅲ	7. 14. 15. 18

In terms of contributions Factor I might be a main factor in the PIL and second and third factors might be interpreted only as secondary ones. As Table 8-(3) shows, in Factor I, 15 items except Nos. 7, 14, 15, 16 and 18 have high factor loadings (above.4) and this factor would be named a factor of "exciting and meaningful life". In Factor Ⅱ Nos. 6 and 16 have high factor loadings and 15 is negatively loaded. Thus this factor is a bipolor and would be named a factor of "liking this life". In Factor Ⅲ Nos. 7, 14, 15 and 18 show high loadings and this factor would be named a factor of "freedom to make one's own choice".

(5) As seen in Table 9-(1)～(3), the results of the factor analyses with the age groups are almost equivalent to those with the total subjects. Table 9-(4) shows the items which have high factor loadings in each of 3 factors by age groups.

Table 9-(1). Results of the factor analysis with the age group A.

Variables	Factor loadings			
	Ⅰ	Ⅱ	Ⅲ	Ⅳ
1	.613	.091	.056	−.437
2	.649	.349	.124	.023
3	.685	−.319	−.065	.157
4	.740	−.119	−.202	.097
5	.622	.150	.097	−.329
6	.564	.391	−.168	−.068
7	.293	−.068	.124	−.373
8	.634	−.303	−.154	−.041
9	.703	.176	−.115	−.204
10	.539	−.228	−.005	.048
11	.685	.106	−.169	.106
12	.419	.451	.118	−.055
13	.507	−.342	−.037	.238
14	.213	.343	.495	.348
15	−.019	−.306	.651	.125
16	−.066	.496	−.461	.412
17	.611	−.301	.093	.255
18	.482	.396	.298	.308
19	.614	.014	.233	−.115
20	.709	−.323	−.175	.172
Contributions	6.227	1.742	1.262	1.103
Cummulative contributions (%)	31.14	39.85	46.16	51.68

Table 9-(2). Results of the factor analysis with the age group B.

Variables	Factor loadings			
	Ⅰ	Ⅱ	Ⅲ	Ⅳ
1	.776	−.092	.374	−.169
2	.706	.128	.218	.415
3	.711	−.231	.028	−.417
4	.772	−.008	.101	−.387
5	.688	−.208	−.104	.353
6	.550	.601	−.062	−.039
7	.468	−.343	−.437	−.286
8	.683	−.158	−.318	.280
9	.679	.408	−.086	.303
10	.460	.182	−.161	.080
11	.492	.200	.181	−.345
12	.374	.556	−.322	.124
13	.430	−.241	−.534	.079
14	.123	−.019	.692	.261
15	.355	−.453	.294	.352
16	.364	.745	.001	−.097
17	.676	−.389	−.121	−.008
18	.515	−.142	−.071	.197
19	.648	.035	.341	−.150
20	.807	−.156	.107	−.146
Contributions	6.968	2.188	1.673	1.333
Cummulative contributions (%)	34.84	45.78	54.15	60.82

Table 9-(3). Results of the factor analysis with the age group C & D.

Variables	Factor loadings			
	Ⅰ	Ⅱ	Ⅲ	Ⅳ
1	.689	.208	−.085	.366
2	.642	−.019	.226	.361
3	.685	−.235	−.108	−.415
4	.776	−.018	−.347	−.227
5	.684	.362	.235	−.143
6	.558	.209	.389	−.412
7	.536	−.247	−.292	.138
8	.519	−.320	.357	−.138
9	.692	−.183	.221	.064
10	.639	−.017	.156	.168
11	.674	.258	−.370	−.202
12	.663	.139	.298	.149
13	.592	.342	−.226	−.244
14	.145	−.184	.627	−.118
15	.256	−.710	−.234	−.016
16	−.124	.593	−.039	.134
17	.606	−.423	−.010	.374
18	.254	.237	−.071	.524
19	.797	.201	.035	.035
20	.693	−.051	−.371	−.027
Contributions	7.075	1.841	1.552	1.319
Cummulative contributions (%)	35.38	44.58	52.34	58.93

Table 9-(4). Items with high factor loadings (above .4) in each factor by age groups.

Factors \ Age groups	A	B	C & D
Factor Ⅰ	1. 2. 3. 4. 5. 6. 8. 9. 10. 11. 12. 13. 17. 18. 19. 20	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 13. 18. 19. 20.	1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 17. 19. 20.
Factor Ⅱ	12. 16. 18.	6. 9. 12. 16. 15(−)	16. 7(−). 15(−)
Factor Ⅲ	14. 15. 16(−)	14. 7(−). 13(−)	14

In Factor Ⅰ, 14 items, Nos. 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 13, 17, 19 and 20 are included in common to the total subjects and 3 age groups. Nos. 14, 15 and 16 are excluded in common to all groups. Nos. 7, 12 and 18 are in and out depending on the group. Factor Ⅰ can be named a factor of "exciting and meaningful life".

In Factor Ⅱ Item 16 is seen in common to all groups. In group A Item 6 is not seen. because on Table 9-(4) the items with factor loadings above .4 are shown, but the factor loading of Item 6 is .39. Thus Nos. 6 and 12 can be said to be common to the total subjects and A and B. Item 15 is negatively loaded in the total subjects, B and C & D. In A Item 15 shows also minus loading though below .4 (-.31). Throughout all gronps the reverse correlation between Nos. 16 and 15 is seen and there would be two possible directions of interpretation, namely, whether those who have thought of sucide seriously as a way out, are prepared and unafraid with regard to death, or those who have never given sucide a second thought, are unprepared and frightened with regard to death. And considering that in the groups of the younger people (A and B), Nos. 6 and 12 are added to this factor, the formers tend to prefer never to have been born, and feel the world completely confuses them, while the latters would like more lives just like the lives they live, feel the world fits meaningfully with their lives, and their Lives are running over with exciting good things. Nos 9, 18, and 17 (−) are in and out depending on the group, and this would be interpreted that accompanying feeling and mood are different by the age groups. This factor would be named "liking this life".

In Factor Ⅲ Item 14 has high loadings common to all groups, and Factor Ⅲ would be named a factor of "freedom to make one's own choice". Here, however, minus factor loading with Item 16 in A and Item 7 and 13 in B are seen.

As seen in the above, the results of the factor analyses of the PIL scores with the total subjects and 3 age groups do not differ substantially and 3 factors are extracted in common with subtle variation in each group.

(6) The resuts of the factoranalyses with scored groups are seen on the Table 10-(1)~-(3). The contributions of the Factor Ⅰ of these groups are relatively low comparing with those of the age groups, and the contributions of the following factors also decrease very gradually, therefore it is difficult to decide to which factor interpretation is possible. For the sake of the comparison of the age groups, first 3 factors will be interpreted first. Table 10-(4) shows the items with high factor loadings in 3 factors by scored groups.

With the high scored group, 11 items are seen in Factor Ⅰ, which is corresponding to Factor Ⅰ of the total subjects and age groups. Factor Ⅱ also can be thought to be corresponding to Factor Ⅱ of the age groups though having minus loadings of Nos. 20 and 3. Factor Ⅲ is also a bipolar factor composed of Nos. 11, 16 and 18(−), and has no correspondence in the age groups. There are two directions

Table 10-(1). Results of the factor analysis with high scored group.

Variables	Factor loadings			
	Ⅰ	Ⅱ	Ⅲ	Ⅳ
1	.563	.306	−.365	−.332
2	.479	.228	−.288	−.219
3	.484	−.440	.241	−.248
4	.420	−.349	.387	−.053
5	.446	.285	−.098	−.176
6	.309	.448	.349	.174
7	.083	−.311	−.023	−.274
8	.419	−.277	.001	.436
9	.614	.183	−.069	−.234
10	.355	.351	.165	.085
11	.441	−.033	.525	−.013
12	.382	.350	−.007	.130
13	.251	.151	−.153	.402
14	−.062	.088	−.117	−.586
15	.214	−.476	−.182	−.035
16	−.106	.472	.548	.110
17	.462	−.353	−.305	.386
18	−.185	.128	−.473	.272
19	.579	.162	−.211	.197
20	.413	−.459	.146	.021
Contributions	3.155	2.054	1.616	1.409
Cummurative contributions (%)	15.78	26.05	34.13	41.18

Table 10-(2). Results of the factor analysis with mean scored group.

Variables	Factor loadings			
	Ⅰ	Ⅱ	Ⅲ	Ⅳ
1	.226	.240	.381	−.400
2	.435	.034	.233	.610
3	−.288	.493	.093	.477
4	.198	.612	−.039	−.003
5	.368	.255	.307	−.409
6	.484	.149	−.135	.156
7	−.354	−.085	.097	−.083
8	−.319	.362	.148	−.117
9	.509	.284	.416	.044
10	−.344	.275	.092	.100
11	.456	.457	−.297	.201
12	.415	−.184	.047	−.114
13	−.264	.191	−.375	−.442
14	.054	−.540	.211	.138
15	−.392	−.096	.400	.349
16	.461	−.356	−.528	.056
17	−.473	−.022	−.085	.198
18	.129	−.198	−.085	.125
19	−.034	−.174	.414	−.233
20	−.256	.377	−.359	.016
Contributions	2.463	1.978	1.564	1.486
Cummulative contributions (%)	12.32	22.21	30.03	37.46

Table 10-(3). Results of the factor analysis with low scored group.

Variables	Factor loadings			
	Ⅰ	Ⅱ	Ⅲ	Ⅳ
1	.443	.225	−.199	−.336
2	.321	.599	.118	−.050
3	.692	−.265	−.188	.159
4	.669	−.157	−.340	.190
5	.298	.185	.553	−.192
6	.209	.664	−.160	−.063
7	.101	−.035	.082	−.679
8	.460	−.216	.120	.088
9	.574	.323	.008	−.213
10	.370	−.144	−.182	−.255
11	.276	.161	−.454	.149
12	.153	.567	.459	.007
13	.469	−.262	−.011	.073
14	−.220	.230	−.242	.362
15	−.232	−.303	.378	.206
16	−.067	.330	−.550	.013
17	.512	−.254	.231	.220
18	.006	.458	.243	.509
19	.371	.294	.045	.324
20	.723	−.298	.175	.082
Contributions	3.394	2.272	1.657	1.417
Cummulative contributions (%)	16.87	28.23	36.52	43.61

Table 10-(4). Items with high factor loadings (above .4) in each factor by scored groups.

Factors \ Scored groups	High	Mean	Low
Factor Ⅰ	1. 2. 3. 4. 5. 8. 9. 11. 17. 19. 20.	2. 6. 9. 11. 12. 16. 17(−)	1. 3. 4. 8. 9. 13. 17. 20
Factor Ⅱ	6. 16. 3(−). 15(−) 20(−)	4. 3. 11. 14(−)	2. 6. 12. 18
Factor Ⅲ	11. 16. 18(−)	9. 15. 19. 16(−)	5. 12. 11(−). 16(−)

of possible interpretation, whether those who often wonder why they exist, and have thought of sucide seriously as a way out, feel their lives are in their hands and they are in control of it, or those who always see a reason for their being here, and have never given sucide a second thought feel their lives are out of their hands and controlled by external factors. This factor would be named a factor of "reason for one's being".

With the mean scored group, Factor Ⅰ is composed of item 2, 6, 9, 11, 12, 16 and 17(−). This Factor is quite similar with Factor Ⅱ, factor of "liking this world", for group B in age groups, though Nos. 2, 11, and 17(−) are added. In Factor Ⅱ Nos. 3, 4, 11 and 14(−) are seen. Nos. 3, 4, and 11 are the items concerning with meanings, goals and reason for one's being. Further, if Nos. 8 and 20, whieh have. 38 of factor loadings, are taken into consideration, this factor would be named a factor of "goals and meanings". Factor Ⅲ is composed of Nos. 9, 15, 19 and 16(−). In terms of reverse correlation between Nos. 15 and 16, this factor is similar with Factor Ⅱ of the age groups and the high scored group, however, here the items asking mood and feelings are combined (Nos. 9 and 19). This factor would be named a factor of "emptiness and sucide".

With the low sored group, Factor Ⅰ is consisted of Nos. 1, 3, 4, 8, 9, 13, 14 and 20. These items, except Nos. 1 and 9 which concerns with mood and feelings, are the items concerning with goal, aim and meaning. Thus the main components of this factor are the items concerning with aims, goals and meanings and in this respect this factor is similar with Factor Ⅱ in the mean scored group, while considering 2 items concerning with mood and feelings are added, this factor can be thought to be similar with Factor Ⅰ in the high scored group. Factor Ⅱ is composed of Nos. 2, 6, 12 and 18, which is quite similar with the factor of "liking this life" in the other groups. Factor Ⅲ is a bipolar, with NOs. 5, 12, 11(−) and 16(−). Considering that Factor Ⅲ in the high scored group is composed of Nos. 11 and 16, it would not be improper to make Nos. 11 and 16 main components of this factor. It is somewhat difficult to interpret the reverse correlation of 11 and 16 versus 5 and 12.

In viewing the results of the factoranalyses of the PIL scores with 3 scored groups, the cummulative contributions of the first 3 factors to the total variance are 30~37% and 5 items in the high scored, 8 in the mean scored, and 7 in the low scored group are not included in any of 3 factors. Therefore the variance of the 20 items can not be fully interpreted from above mentioned 3 factors, but it can be said moderately that Factor Ⅰ in the high scored group is almost equivalent to Factor Ⅰ in the age groups. And Factor Ⅰ in the low scored group also can be seen to be corresponding to Factor Ⅰ in the age groups, though a few items of feelings are disappeared. Seeing in this context, Factor Ⅱ in the mean scored group is cor-

responding to Factor Ⅰ in the other groups, and it is thought that in this group the items concerning with the aim, goal and meaning are remained without the items concerning with the feeling.

Factor Ⅰ in the mean scored group is equivalent to Factor Ⅱ in the high and low scored groups, which are corresponding to Factor Ⅱ in the age groups, although in the mean and low groups a few items concerning with mood and feelings are added to this factor. In Factor Ⅲ item 16 is seen in common to 3 scored groups. In the high and low scored groups, Item 11, which asks the reason for being here, is combined, while in the mean scored group the items concerning with mood and feelings are reversely correlated. This factor, which would be named a factor of "reason for being here and sucide", has no equivalent in the age groups.

Summary and Discussion

442 subjects are dividedinto 5 age groups and the PIL scores are compared. The results indicate that as the age rises the PIL scores increase. And this is confirmed by the findings of the increasing ratio of the high scored in the higher age groups with the decreasing ratio of the low scored. It is not clear, however, whether the PIL scores increase gradually with increasing of age, or there are any critical points of the distinguished change of the the scores.

As the results of the factor analyses of the PIL scores with the total subjects, 3 factors extracted. Factor Ⅰ, which is named a factor of "exciting and meaningful life", can be thought as a main factor of the PIL. Factor Ⅱ, which is named a factor of "liking this life" and Factor Ⅲ, which is named a factor of "freedom to make one's own choice", are secondary ones.

On the assumption that there would be response patterns characteristic to the groups, the PIL scores are factor-analyzed by age groups and scored groups. In common to the age groups 3 factors almost equivalent to those of the total subjects are found with slight variance.

As the results of the factor analyses of the scores with the scored groups, the contributions of the factors are scattered as mentioned before, and it is difficult to interpret all variance of the PIL item scores with small numbers of factors. Nevertheless, the results suggest some interesting direction of interpretation.

With the high scored group the first 2 factors are almost equivalent to those of the total subjects and the age groups. With the mean and low scored groups, however, the items concerning with aims and meanings, and those concerning with mood and feelings, two of which are togethered in Factor Ⅰ with the other groups, are separated, and the formers constitute an independent factor and some of the latters are joined with it and some are joined with the other factors.

From these findings with the factorial structure of the PIL, it can be said that the main factor of the PIL, Factor Ⅰ is composed of the items concerning with aims, goals and meanings, and those concerning with mood and feelings, that the formers are the nuclear of it and the latters are unstable, some of which are joined with the other factors depending on the groups. In groups there might be some preference for the particular items of mood and feeling, though it is not clear in the present study.

Factor Ⅱ, which we have named a factor of "liking this life", is found in common to all age groups and scored groups. This factor is composed of Nos. 6, 12, 16 and 15(−), added by a few items of the mood and feelings in some groups. No. 16, item concerning with sucide, which is an important component of this factor, also constitutes Factor Ⅲ conbined by Item 11 in the scored groups.

In Factor Ⅲ which is common to the total subjects and age groups and which we have named a factor of "freedom to make one's own choice", only No. 14 is common and this factor is not seen in the scored groups. Therefore, it is a question whether it can be called a factor. It might be better to say that Item 14 is relatively independent from the other items of the PIL.

On the other hand comparison of the mean item scores by the scored group indicates that such items as Nos. 4, 5 and 11 show marked decrease in scores in the direction of the high, mean and low scored groups. They can be said as a sensible items with the variance of the total scores, while such scores as Nos. 14, 15 and 16 are relatively free from the variance of the total scores resulting in showing no significant differences between the scored groups.

Combining this findings with the results of the factor ana lyses, the latter items, Nos. 7, 14, 15 and 16 are not included in Factor Ⅰ, main factor of the PIL, some of which constitute Factor Ⅱ, some of which are joined with the other factors, some of which are joined with the other factors and some of which vary independently. Thus it would be doubtful whether these items are effective for clinical use of the PIL. However, as suggested in the section of the result, there is a suspicion that Japanese subjects might take the direction of magnitude for these items contrariwise the American subjects do. And this appears to present us an interesting and important crosscultural theme of study.

As mentioned above, the total scores decrease with the decrease of the age, but among age groups substantial difference in response patterns are not found, although some slight variance with each age group. Concerneng with the scored groups contrarily to our expectation, the strong factors with high contributions are not found. This is especially with the mean scored group.

If the substantial aspects of the subjects' response are taken into consideration, adding to the formal aspects of findings with factor analyses just discussed above, following would be said: the high scored people would have clear aims, goals, pur-

poses and meanings in their lives, and feel their lives exciting, new and exuberant. On the contrast to them, the low scored people would feel their lives same, routine, empty without clear aims or goals or meanings, and they would feel bored, and sometimes despaired. These are rather typical cases and there would be those who feel new and excited without clear aims and goals; those who have clear aims and goals but feel empty and bored; those who have some aims and goals but are not clearly aware of them and feel sometimes new and excited, sometimes bored and empty. Thus, as the results of the factor analyses are suggesting, the clear and high aims, goals and purposes in life are not always accompanied with feeling excited and new, and the other way is also possible. Either case, however, may result in the mean scores in the PIL. Thus the mean scored group is inferred to be composed of these various cases. This might reflect on the results of the factor analysis. If these types are distinguished from the row data, it would be helpful for clinical use.

Discussion

In Study 1 it was seen that the PIL scores of our sample were markedly lower than Crumbaugh's. If all variables that would possibly affect the PIL scores were controlled, and still Japanese subjects showed lower PIL scores, then it would be concluded that Japanese people have lower purpose in life and experience more existential vacuum than the people in the U. S.. There are, however, still some variables which are not fully controlled between Crumbaugh's and ours.

First of all, the variable of age should be taken. Although Crumbaugh has not regarded it as an important variable, it is suggested, from the results of Study 1 that the age would affec the PIL scores. And this was confirmed by the results of Study 2. Then, if the distribution of the age of Crumbaugh's subjects and ours differ largely, that is, the ratio of the young people is higher in our subjects than in Crumbaugh's, the lower scores of ours can be explained. However, in Crumbaugh's study the distribution of the subjects' age is not clearly indicated, so that the strict comparison can not be made. On the other hand, even with the sample group of the undergraduates, in which the range of the age is thought to be almost same, Japanese subjects' scores are lower*. Thus the difference in the PIL scores of Crumbaugh's and ours is not explained fully only by the variable of age.

Secondly, there would be the variables of education and socio-economic back-

* Concerning with the PIL data of the college students and undergraduates in Japan, it was found that such variables as the difference of the school, for example, national or private, the difference of major, for example, education, medicine or mechanics, etc. affect the scores. Therfore, when compared the PIL scores of students such variables should be taken into consideration.

ground of the subjects. Crumbaugh's subjects, in general, seem to have rather high socio-economic background and education compared with ours (Crumbaugh & Maholic, 1964). However, on this variable a strict comparison is imppssible at the present.

Thirdly, the variable of time is taken into consideration. Frankl mentioned that recently the existential vacuum has been rapidly spread among the people, especially among the young (Frankl, 1972). In this paper, only the PIL data gathered in 1972 and 1973 were dealt. But our study on the PIL started in 1966. Table 11 shows the comparison of the PIL scores of the high school and college students in 1966 and in 1973. For the sake of the strict comparison the data are limited to the subjects of the same schools. With 3 groups the scores in 1973 tend to lower, and especially

Table 11. Comparison of the PIL scores in 1966 and 1973.

	1966			1973			t
	N	M	SD	N	M	SD	
Senior high school students	183	84.93	17.34	75	83.03	16.75	0.81
College students	110	90.76	16.29	155	88.37	15.45	1.21
Part-time college students	77	99.85	15.54	129	86.73	17.03	5.49*

* $p<0.001$

with the part-time college students there is highly significant difference ($p<0.001$). In Crumbaugh's study, the date of administration is not indicated but arround early years of 1960's could be supposed. If so, there would be at least 10 years' interval between Crumbaugh's data and ours. If Frankl's words are true, and our data comfirm his words, the time would explain the lower scores of our subjects to some extent.

Forthly, the cultural background of both subjects should be considered. We used the Japanese translation of the PIL. The problem is that, even if the items were translated correctly into Japanese in terms of the grammar, etc., it does not insure that Japanese subjects comprehended and responded to the questions as Crumbaugh,s subjects did. There are some items which are suspected to have been taken differently by Japanese subjects from the way Crumbaugh meant. For example, as suggested in the results of Study 2, with Item 15 and 16, the direction of magnitued 1 to 7 appear to have been taken reversely by some of our subjects.

However, this kind of problems can not be solved by dealing the scores statistically, and the other methods would be needed. In terms of the clincial use of the PIL, the items which do not discriminate the diagnostic groups should be discarded from the test items. However, the difference in response of American and Japanese

subjects to such items will bring an important and valuable theme of the cross-cultural study. Studying the descriptions in the Clinical Portion of the PIL and Frankl's questionaire would be helpful for this purpose, although Crumbaugh has not dealt them in relation with the PIL-A scores.

Appendix

THE PURPOSE IN LIFE TEST

1. I am usually:

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

2. Life to me seems:

7	6	5	4	3	2	1
always exciting			(neutral)			completely routine

3. In life I have:

1	2	3	4	5	6	7
no goals or aims at all			(neutral)			very clear goals and aims

4. My personal existence is:

1	2	3	4	5	6	7
utterly meaningless without purpose			(neutral)			very purposeful and meaningful

5. Every day is:

7	6	5	4	3	2	1
constantly new and different			(neutral)			exactly the same

6. If I could choose, I would:

1	2	3	4	5	6	7
prefer never to have been born			(neutral)			like nine more lives just like this one

7. After retiring, I would:

7	6	5	4	3	2	1
do some of the exciting things I have always wanted to			(neutral)			loaf completely the rest of my life

8. In achieving life goals I have:

1	2	3	4	5	6	7
made no progress whatever			(neutral)			progressed to complete fulfillment

9. My life is:

1	2	3	4	5	6	7
empty, filled only with despair			(neutral)			running over with exciting good things

10. If I should die today, I would feel that my life hes been:

7	6	5	4	3	2	1
very worthwhile			(neutral)			completely worthless

11. In thinking of my life, I:

1	2	3	4	5	6	7
often wonder why I exist			(neutral)			always see a reason for my being here

12. As I view the world in relation to my life, the world:

1	2	3	4	5	6	7
completely confuses me			(neutral)			fits meaningfully with my life

13. I am a:

1	2	3	4	5	6	7
very irresponsible person			(neutral)			very responsible person

14. Concerning man's freedom to make his own choices, I believe man is:

7	6	5	4	3	2	1
absolutely free to make all life choices			(neutral)			completely bound by limitations of heridity and environment

15. With regard to death, I am:

7	6	5	4	3	2	1
prepared and unafraid			(neutral)			unprepared and frightened

16. With regard to suicide, I have:

1	2	3	4	5	6	7
thought of it seriously as a way out			(neutral)			never given it a second thought

17. I regard my ability to find a meaning, purpose, or mission in life as:

7	6	5	4	3	2	1
very great			(neutral)			practically none

18. My life is:

7	6	5	4	3	2	1
in my hands and I am in control of it			(neutral)			out of my hands and controlled by external factors

19. Facing my daily tasks is:

7	6	5	4	3	2	1
a source of pleasure and satisfaction			(neutral)			a painful and boring experience

20. I have discovered:

1	2	3	4	5	6	7
no mission or purpose in life			(neutral)			clear-cut goals and a satisfying life purpose

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