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Experiences of meaning in life: A combined qualitative and quantitative approach

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The present study investigates the relation of aspects of meaning in life with indices of psychological well-being by means of a combined qualitative and quantitative design. Content analysis of subjects' answers to open questions about personal experiences with meaning in life showed findings that are in line with phenomena that are reported in the literature. Meaningfulness was found to be strongly associated with contact with self, others and the world, whereas meaninglessness was associated with a state of alienation from self, others and the world. The Life Regard Index (LRI), an instrument designed to measure the construct of positive life regard, was found to be strongly associated with the interpersonal dimension of well-being. The exchange of both positive and negative feelings was associated with positive life regard. As predicted, effective coping with stressful life events in the past was associated with a current sense of meaningfulness as measured with the LRI. The findings support the clinical significance of the construct of meaning in life and add to the validity of the LRI. The strength and weakness of a combined qualitative and quantitative research approach are discussed.

The issue of meaning in life has been widely ignored by empirically oriented social scientists until recently because of their preference for objective data rather than for feelings and subjective experiences. It has also been neglected because of the prevailing notion that the subject 'meaning in life' relates primarily to the puzzling, philosophical question 'What is the meaning *of* life?'. This 'eternal quest', as old as mankind, is indeed ipso facto out of reach of modern objectivistic scientific methodology. However, the existential and psychological significance of this most important of all questions is revealed when it is rephrased by any individual who asks 'What makes *my* life worth living?'. In a similar way, the subject of meaning *in* life becomes accessible to empirical investigation when the focus is shifted towards the questions 'What are the *components* of an individual's experience of her or his life as meaningful?', and 'What are the *conditions* under which an individual will experience her or his life as meaningful?'.

This research strategy was first proposed by Battista & Almond in 1973 who, to further the empirical study of meaning in life, designed the Life Regard Index (LRI). The LRI is an instrument designed to measure positive life regard, a construct which

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Battista & Almond use synonymously with the term 'meaningful life'. The LRI is a self-report questionnaire that is composed of two subscales. The Framework (LRI-FR) subscale is designed to assess the degree to which individuals can envision their lives within some meaningful perspective or have derived a set of life-goals or philosophy of life from these. The Fulfilment (LRI-FU) subscale measures the degree to which persons see themselves as having fulfilled or as being in the process of fulfilling their framework or life-goals. Several studies attest to the satisfactory psychometric properties of the LRI (Battista & Almond, 1973; Chamberlain & Zika, 1988*a*,*b*; Debats, 1990; Debats, van der Lubbe & Wezeman, 1993; Florian & Snowden, 1989; Greenblatt, 1976; Katz, 1988; Orbach, Illuz & Rosenheim, 1987; Prasinos & Tittler, 1984). We concluded that, given its psychometric properties, the LRI is a useful tool for the empirical study of the construct of meaning in life. Unfortunately, few social scientists have further tested or developed the LRI and the scarce empirical literature on meaning in life that does exist shows that very little is known about the components of the experience of one's life as meaningful. However, studies within the adjacent domains of subjective well-being (cf. Reker, Peacock & Wong, 1987; Ryff, 1989), spiritual well-being (e.g. Ledbetter, Smith & Vosler-Hunter, 1991; Paloutzian & Ellison, 1982) and life-span identity development (e.g. Erikson, 1982; Stephen, Fraser & Marcia, 1992) all attest to the importance of meaningful value orientations and of commitments to personal life satisfaction and psychological health.

The research approach of this study has been influenced by Koehler (cited in van Kaam, 1959, p. 66) who said: 'Never, I believe, shall we be able to solve any problems of ultimate principle until we go back to the source of our concepts – in other words, until we use the phenomenological method, the qualitative analysis of experience'. From this it was concluded that the investigation of the construct of meaning in life as well as of the construct validity of the LRI could be enhanced by a research design which combined both quantitative and qualitative approaches. Idiographic-essay and nomothetic-inventory techniques (cf. Allport, 1937) were used in order to broaden the knowledge of the conditions under which individuals have experienced meaningfulness (EMF). This investigation was extended to include experienced meaninglessness (EML) in order to contrast the phenomena associated with both experiences. The focus was on the analysis of the subjects' answers to two open questions which referred to past EMF and EML in their personal lives. Each subject's EMF and EML responses were then compared to his or her LRI score and degree of emotional and general well-being. The intention in asking the subjects to describe actual incidents from their own lives was to elicit real and experiential accounts of these experiences, rather than intellectualized responses, to insure the validity of the answers.

This investigation was based on two basic assumptions. First, that a sense of meaningfulness in life is associated with the following phenomena: relatedness (cf. Buehler, 1968), active engagement (cf. Sartre, 1943), well-being and general life satisfaction and happiness (cf. Debats, 1990; Zika & Chamberlain, 1987), high self-esteem and a generous attitude towards others (Frankl, 1966; Prasinos & Tittler, 1984), as well as a general positive attitude towards life in general (cf. Maslow, 1962). The second guiding assumption was that a sense of meaninglessness is manifested in

loss of social identity (cf. Florian & Snowden, 1989), alienation and social isolation (cf. Maddi, 1967), disengagement (cf. Frankl, 1966) and is furthermore associated with psychopathology in a roughly linear sense: the less the sense of meaning, the greater the severity of psychopathology (cf. Yalom, 1980). These associations were expected to be validated by the results from the content analysis of the texts on EMF and EML. We further aimed to validate the LRI by confirming its ability to discriminate subjects with a high or low sense of meaning in life. To this end associations between the LRI and the results of the content analysis were expected. Furthermore, the prediction was tested that subjects who showed in their EMF or EML text clear evidence that they had successfully overcome a personal crisis or effectively coped with highly stressful life-events in their past, and who have further derived from these experiences some clear sense of meaning, would also show significantly higher current levels of meaning in life, as measured by the LRI, than those who did not give evidence of such transformations. This prediction was based on reported findings about direct and interactive relationships between stressors and personality characteristics among meaning in life variables in their influence on subjective well-being (cf. Zika & Chamberlain, 1987).

Method

Subjects

The study involved 122 volunteers participating in a study on the reliability and validity of the Dutch version of the Life Regard Index. Forty males and 82 females out of 150 students in a university course in psychology volunteered (81 per cent of the original sample). The mean age was 23.3 years of age (SD = 5.1, range 18 to 46 years). Subjects did not receive any payment or class credits for participation in this study.

Measures

The following materials were completed anonymously in the classroom:

A short biographical questionnaire. This contained questions about age, sex, marital status, prior education and previous history of having received mental health services.

Mood. First the subjects' momentary mood was assessed in order to measure the influence of mood on their answers to the EMF and EML questionnaire. Mood was assessed by means of visual analogue scales that were modelled following the guidelines of Teasdale & Fogarty (1979). The scales consisted of lines 10 cm long, from 0 per cent to 100 per cent, with short opposing statements describing a mood at either end of the scale. Four moods were measured: (*a*) anxiety (e.g. 'I feel very tense' and 'I feel completely relaxed', (*b*) depression (e.g. 'I feel very sad' and 'I don't feel sad at all'), (*c*) hostility (e.g. 'I feel very angry' and 'I don't feel angry at all') and (*d*) elation (e.g. 'I feel very cheerful' and 'I don't feel very cheerful'). Each mood was represented by four scales, following Nunnally's (1978) recommendation that several scales be used to measure one sentiment. Subjects were requested to draw a small vertical line along the analogue scale corresponding to their mood at that moment. The scale was scored by measuring the length (in millimetres) from zero to this line and adding these lengths for each separate mood.

The LRI (Battista & Almond, 1973). The Dutch version (Debats, 1990) of this 28-item questionnaire was used. The LRI is composed of two subscales, Framework (LRI-FR) and Fulfilment (LRI-FU). Each

scale has 14 items, half phrased positively (e.g. 'I have a very clear idea of what I'd like to do with my life') and half negatively (e.g. 'I don't really value what I'm doing'). The subjects were asked to indicate, on a three-point Likert-scale ('I agree', 'I have no opinion', 'I disagree') which alternative best described their opinion. The format of the original five-point version was altered to a three-point format to avoid the possible effects of extreme response set (Wiggins, 1973).

General life satisfaction and happiness. These were rated on four-point scales ranging from (*a*) 'very satisfied with life or very happy', (*b*) 'satisfied or happy', (*c*) 'doubtful satisfied or happy', to (*d*) 'not that satisfied or happy'. We adopted these asymmetric scales because distributions tended to be negatively skewed in the Dutch population (Veenhoven, 1984).

The EMF and EML Questionnaire. Subjects were asked first to take time to consider and then write down their answers to two questions in an open and spontaneous way. In order to keep the answers within manageable limits, a standardized space 9.5 cm by 14 cm was left open below each question. The questions were phrased as follows: (*a*) 'If you care to, please describe below a situation or time in your life when you felt very strongly that your life had meaning. Please indicate, if you can, how that feeling came about?'. (*b*) 'Now, if you care to, please describe a situation or time in your life when you experienced a strong feeling that your life was meaningless. Please indicate, if you can, how that came about?'.

Method of text analysis

As it was our purpose to develop a category system, by means of which answers to both questions could be analysed, we examined the texts using the three subquestions within each question. These subquestions referred to: (*a*) presence/absence of EMF and/or EML, (*b*) details of the specific situation or time, and (*c*) components of the process or how it came about of the respective experiences. A further goal we had for the category system was that the results it yielded would allow comparison with other empirical findings. To this end we designed the system to code information with respect to dimensions that have been generally discriminated in both the theoretical and empirical literature as relevant to the construct 'meaning in life'. To ensure an objective, unbiased evaluation of the texts we first separated the texts from all other materials, had them typed and printed in a random order and kept ourselves uninformed of any information about the subjects. Discussion sessions were held in which the authors designed the category system by comparing the texts and considering its structure with reference to the reviewed literature (cf. Reason & Rowan, 1981).

From Table 1 it can be seen that the system consists of two basic categories: situation, to which the more objective aspects of the experiences are coded; and process, to which the more subjective, evaluative parts of the information were coded.

Within the category of situation, we differentiated between the period of occurrence, the people involved, activity type and well-being. Within the category 'well-being' we differentiated between self and other and between physical and mental health, because subjects frequently described problems they had had in these areas. Mental health problems were coded only if there was clear evidence that the description would probably fulfil the diagnostic criteria of mental disorder following the DSM-III-R (American Psychiatric Association, 1987), e.g. anorexia, depression, agoraphobia. Under 'life-events', we coded the subject's experiences as positive or negative (e.g. wedding, birth of a child vs. divorce, death of relative) respecting on the one hand the expressed affect within the text, but using on the other hand a standardized inventory of life-events as a guide (van de Willige, Schreurs, Tellegen, & Zwart, 1985).

Within the category of process, we created the main content categories of self, other and world. We did this because these are fundamental distinctions both in cognitive therapy (Beck, Rush, Shaw & Emery, 1979) and in phenomenological theory (Moss, 1992). We assessed the directionality of the appraisals of self, other and world using bipolar ratings of 'positive' and 'negative' to enable comparisons between EMF and EML texts. Because the observations relating to the category of other were so divergent, we clustered these data into three main categories of directionality: giving, receiving and sharing. Combining these with the bipolar ratings yielded six possible clusters: giving-positive

(e.g. helping, caring), giving-negative (e.g. hurting, failing), receiving-positive (e.g. being really understood, cared for), receiving-negative (e.g. being rejected, abandoned), sharing-positive (e.g. having good times together, solving joint problems), and sharing-negative (e.g. quarrelling, experiencing relationship problems). To the category 'non-specific' all general verbalizations (e.g. 'always', 'something') were coded. Each of the two junior authors, both trainee clinical psychologists, independently coded all of the texts by means of the category system, in order to inspect the inter-rater reliability of the system.

To test the prediction concerning the LRI, the three authors coded, again independently and ignorant of the individual LRI scores, the randomized EMF and EML texts according to a variable called 'meaning through coping with crisis' (MCC). We coded for MCC only if the subjects stated that their sense of meaningfulness was gained or deepened as a result of experiencing a severe crisis, or that they did not develop a sense of meaninglessness despite experiencing a real crisis. Excerpts from verbatim transcriptions of both cases appear in Table 3.

Statistical method. All qualitative information was coded to numerical data by means of the category system and was subjected to SPSSX procedures for analysis together with all other numerical data. The predictions were tested by means of chi-squares for nominal data, and by means of Student *t* for all other data.

Results

Reliability

First the inter-rater reliability of the category-system was evaluated. Reliability rates for all categories appear in Table 1 in parentheses after each category and are expressed in percentages of agreement between the two raters. From Table 1 it can be seen that within the category of situation the raters attained high inter-rater reliabilities at all three content levels, with agreement ranging from 71 to 100 per cent. Within the category of process the inter-rater reliabilities were also high for the structural and main content levels, ranging from 71 to 92 per cent, but average to low for the content levels, which ranged 29 to 100 per cent. As expected, agreement was high to perfect with categories that needed little interpretation, but lower in the case of the more vaguely defined categories (e.g. 'confusion'). All categories with 70 per cent agreement or lower were excluded from further statistical analyses. However, for the sake of the representativeness of the phenomena associated with EMF and EML these categories are included in Table 1. The presented frequencies of these less reliable categories, however, are not based, as in all other cases, on the independent codings, but on a joint decision of the raters.

Social and psychological correlates of subject response style. We first wanted to know whether our subjects, because of their young age (mean age 23.3 years), had had experiences with the meaning in life dimension at all. Subjects' responses which indicated that they had, in fact, had such experiences were classified as 'affirmative'. Responses in which subjects reported having had no such experience were classified as 'negative'; and those cases in which subjects did not respond to the question were placed under the heading 'blank'. At this stage of analysis we disregarded the content of the answers. As can be seen from Table 2, subjects answered both questions in a discriminating way, with a majority (64.8 per cent) indicating that they had both experiences of meaningfulness (EMF) and experiences of meaninglessness (EML). The exploratory analysis of the individual social and psychological differences

Table 1. Category system: Reliabilities[a] and frequencies[b] of the main content and content categories

	EMF+ EML	EMF	EML		EMF+ EML	EMF	EML
Situation (100)	77.0	69.5	61.5	Process (100)	84.4	79.5	69.7
Period (100)	17.2	6.6	12.3	Self (80)	73.8	51.6	57.4
youth	2.5	0.8	1.6	positive (74)	55.7	51.6	7.4
adolescence	12.3	5.7	9.0	feelings	20.5	18.9	2.5
adulthood	2.5	0.8	1.6	appreciation	7.4	7.4	0
military service	1.6	0	1.6	harmony	9.8	9.8	0
($M = 100$, SD = 0)				insight	22.1	19.7	3.3
				growth	18.9	18.9	0
People (100)	60.7	49.2	32.8	($M = 54$, SD = 20)			
family	22.1	9.0	15.6				
partner	29.5	18.0	14.8	negative (79)	54.9	9.0	52.5
friends	23.8	18.9	6.6	feelings	24.6	6.6	18.9
other	27.0	23.0	9.8	insufficiency	11.5	0	11.5
start of contact	9.0	9.0	0	disharmony	11.5	0	11.5
end of contact	10.7	1.6	9.8	confusion	9.8	0.8	9.0
being alone	8.2	2.5	6.6	stagnation	11.5	0.8	10.7
($M = 93$, SD = 7)				($M = 58$, SD = 17)			
Activity (100)	34.4	27.0	12.3	Other (87)	46.7	46.7	22.1
job	5.7	3.3	4.1	positive (92)	45.9	45.1	4.1
study	17.2	9.0	8.2	giving	23.0	22.1	2.5
daily activities	0.8	0.8	0	receiving	12.3	12.3	0.8
religious activity	4.1	4.1	0	sharing	18.9	18.0	0.8
leisure	16.4	15.6	1.6	($M = 87$, SD = 7)			
start of activities	9.0	8.2	0.8				
end of activities	4.9	4.1	0.8	negative (71)	21.3	1.6	20.5
($M = 92$, SD = 11)				giving	3.3	0	3.3
				receiving	12.3	0.8	11.5

Well-being (100)	36.1	11.5	28.7	sharing	10.7	1.6	9.8
Self (100)	24.6	7.4	19.7	($M = 76$, SD = 8)			
physical (illness)	8.2	1.6	7.4				
mental (illness)	18.0	2.5	16.4	World (82)	39.3	28.7	17.2
positive life-events	2.5	2.5	0	positive (71)	27.9	27.9	0.8
negative life-events	3.3	2.5	0.8	fortune	2.5	2.5	0.8
($M = 97$, SD = 4)				success	9.8	9.8	0.8
				control	6.6	6.6	0
Other (100)	12.3	4.1	9.0	intensity	13.1	13.1	0
physical (illness)	0	0	0	wishes	12.3	12.3	0
mental (illness)	0	0	0	religiosity	4.9	3.3	1.6
positive life-events	1.6	1.6	0	($M = 64$, SD = 9)			
negative life-events	11.5	2.5	9.0				
($M = 97$, SD = 4)				negative (71)	18.0	2.5	16.4
				misfortune	3.3	0	3.3
Not specified	21.3	16.4	7.4	failure	5.7	0.8	4.9
				missing control	6.6	0.8	7.4
				superficiality	3.4	0.8	3.3
				aimlessness	6.6	0	6.6
				religious doubt	4.1	0.8	3.3
				($M = 45$, SD = 27)			

[a] Percentages of agreement appear between parentheses. For the content categories, means of the percentage agreement and SDs are given.
[b] In reference to the total number ($N = 122$) of subjects. The % signs have been omitted.
Key. EMF = experienced meaningfulness; EML = experienced meaninglessness.

Table 2. Frequencies ($N = 122$) of nine response groups

	Answer to EML			
Answer to EMF	Blank (%)	Negative (%)	Affirmative (%)	Total (%)
Blank	8.2	0	2.4	10.7
Negative	0	5.7	0	5.7
Affirmative	4.9	13.9	64.8	83.6
Total	13.1	19.7	67.2	100

Key. EMF = experienced meaningfulness; EML = experienced meaninglessness.

between subjects with affirmative (83.6 per cent) and negative (5.7 per cent) EMF ratings was impaired due to the very unequal numbers in the samples. With respect to EML the following characteristics were found: subjects affirming EML were on the average older ($t(120) = 2.51$, $p < .01$), had more psychological counselling in the past ($\chi^2(1) = 5.23$, $p \leqslant .05$) and were less satisfied with their lives ($t(120) = 2.22$, $p \leqslant .05$) (all two-tailed) than those negating EML. Besides, subjects affirming and subjects negating EML did not differ in terms of momentary mood, showing evidence for the validity of their answers on EML. Finally, it was determined whether the quantity of information the subjects offered was associated with mood or with the construct under investigation, meaning in life. Question 1, which was related to EMF, was answered with an average of 31.17 words (SD = 25.50, range 0–151), and question 2 with 27.57 words (SD = 28.05, range 0–188). Analysis showed no correlations between the number of words and mood on both questions. The LRI, however, correlated with the number of words on question 1 ($r = .22$, $p \leqslant .05$): subjects from the upper quartile (LRI $\geqslant 76$) answered more extensively (mean of 40.03 words) than subjects from the lower quartile (LRI $\leqslant 62$, mean of 23.42 words, $t(56) = 2.88$, $p < .01$). From this exploratory analysis we concluded that the subjects, although young, had understood the quintessence of both questions adequately. Additionally, the styles of their answers were connected with the subject of this investigation, and not, as far as the results indicated, with their moods.

Phenomenal analysis. We next wanted to use the specially designed category system to produce a detailed impression of the relative significance of the phenomena associated with the experiences of meaningfulness and meaninglessness. The results from this analysis are summarized below in a descriptive way. The numerical data are presented in Table 1. With respect to period, the life-phase of adolescence was frequently mentioned, notably during EML, as a critical period of turmoil and of problems with finding a stable identity. This finding, of course, was to be expected considering the young age of our subjects. Within the people category, subjects referred more frequently to interactions with friends and strangers in their descriptions of EMF than they did in their EML responses (16 vs. 41 per cent respectively). Social interactions described in EML texts referred predominantly to contact with relatives and partners (30.4 per cent). In addition, the start of some form

of contact or relationship was mentioned in 9 per cent of the EMF texts, but not in any of the EML descriptions, which on the contrary had more references to the ending of relationships or states of loneliness. Within the category of activities, descriptions of EMF as compared to those of EML contained more references to leisure (15.6 vs. 1.6 per cent respectively), and the start of new activities (8.2 vs. 0.8 per cent respectively). Regarding the category well-being, a focus on one's own life-events was characteristic of EMF responses, equally negative and positive. But EML was characterized by a focus on (predominantly negative) life-events of other persons (9 per cent). With respect to process aspects, as expected, a general pattern of positive appraisals of self, other and world appeared for EMF, and of negative appraisals of self, other and world for EML. The self category contained clusters of various aspects of self-actualization for EMF, but phenomena associated with stagnation and aimlessness for EML. The category other showed that *giving* occurred rarely in a negative way (e.g. hating, hurting), but more frequently in a positive way (e.g. helping, caring). The same bipolar pattern was found with *receiving* and *sharing*. Finally, with regard to the world category, a pattern of living intensely with a sense of having control figured in the EMF responses, whereas superficiality and a sense of lacking control over one's life appeared in EML responses. Transcript excerpts from EMF and EML texts are provided in Table 3.

Validity

In order to add to the construct validity of the LRI two more analyses were carried out.

The LRI in relation to phenomenal aspects of EMF and EML. The purpose of this part of the study was to investigate the construct validity of the LRI by establishing significant associations between the LRI and specific phenomena from the content analysis. We expected that these would correspond with findings from empirical and theoretical studies on meaning in life, as summarized in the introduction. It was hypothesized that, as the construct positive life regard constitutes essentially a personality construct, the LRI would show associations with notably the process categories of self, other and world, because these contained the more cognitive and affective parts of information. Subjects with high levels of meaningfulness were expected to give evidence of strong commitment to life, high self-esteem and positive attitudes towards others.

In this analysis the subjects who had a rating on a particular category were assigned to Group 1, whereas subjects who had no rating on this particular category were assigned to Group 2. We then tested by means of a t test the differences of the LRI scores between these groups for each category. As a rule of thumb, a t test was carried out only if a category was rated by at least 15 persons ($\leqslant$ 12.3 per cent). We further applied the Bonferroni Inequality (see Stevens, 1986) to control for spurious results. Choosing an overall $\alpha < .1$, critical values of significance were computed for situation and process separately. With respect to the three separate levels of analysis and to the number of tests the chance levels were: for EMF + EML $p \leqslant .008$ and for EMF and EML $p \leqslant .01$. Results of this analysis are shown in Table 4. From

Table 3. Excerpts[a] from texts about experiences of meaning in life

Meangingfulness
1. 'If I notice that I can mean something to other people (friends) or if I have a nice (deep) contact with certain people (who are important to me).'
2. 'When I have the strong feeling that I am accepted not because of what I am doing but because of who I am.'
3. 'When the grandma of my friend died and I helped her by talking and walking hours with her. She became somewhat cheerful and stable again. I discovered that I really can cheer up someone, that I can help someone to get over trouble.'
4. 'When I am falling in love, because then I live very intensely, then there is really something that concerns me, something that speaks to me, then I see a meaning and a purpose.'
5. 'The moments I feel warmth and love for myself.'
6. 'Birth of my daughter: experience of depth of feelings, love.'
7. 'Life has meaning to me in those moments that I am close to my feelings and I don't cling to expectations and duties anymore. These moments are always there.'
8. 'During a walk I have had once a very warm feeling which I call Love. Everything around me signified something, the animals, plants, trees, the air. Everything was perfect....'
Meaninglessness
1. 'If you, despite lots of effort and struggle, still fall back into old habits.'
2. 'When my father died (end '86). That was the moment that I lost every metaphysical meaning of life; one will die and that's the end of everything. That was very hard for me then, and still is.'
3. 'Adolescence: about 16. The world was rotten, nobody cared about me (at least I had that feeling) and I disliked everything. I had the feeling that it didn't matter whether I was dead or alive. Cause?'
4. 'The suicide of a friend. I realized that some people do have an unreasonable lot to bear. I questioned what could be the meaning of life in general, when such injustices exist.'
5. 'When my parents divorced when I was about 15.'
6. 'When I was about 14. A totally disturbed contact with people. Even with people of my age, as much as with elderly and family members. Reason was a deep shyness and that it was mocked at.'
7. 'A period in which I felt quite anxious. I had the feeling of not having any ground under my feet and losing my control.'
8. 'Before and after my suicide-attempt; then I was very overstrained.'
9. 'If you're ill, the feeling that you can't do anything and you in fact don't want to do anything, and you just want to be left alone. The feeling that life passes by you.'
No meaninglessness
1. 'No, I don't look at my life in this way even when I am sinking in a deep depression. The idea that, however bad things may be, they have anyhow some sense is then your only certainty.'
2. 'Although I have been downhearted quite a few times and felt miserable I have never had the feeling of "life is meaninglessness".'
3. 'No, I never feel meaningless, rather scared or depressed but that springs normally from a sort of failure–anxiety and never from a sense of meaninglessness.'
Meaning through coping with crisis
1. 'I nearly died once and since then I am glad with everything I can go through (also negative experiences I experience as positive). The meaning of my life ever since is very strongly to intensely experience things and grow through them.'
2. 'In my adolescence I sometimes thought about suicide, but then I reflected on the continuation of my life and found that I could help many people and make them happy. And that succeeded.'
3. 'The period I recovered from anorexia nervosa. I experienced meaning because there were people that proved to care about me.'

[a] All excerpts are complete verbatim answers.

this it can be seen that the LRI and its subscales LRI-FR and LRI-FU could be substantially related notably to the process categories of self and other. Scores on the LRI and its subscales appeared to be associated by the subjects being involved during periods of meaninglessness in interactions with their partners as well as with others. Interestingly, in these interactions the exchange of both negative and positive

Table 4. Significant associations (Student *t*) for EMF + EML, EMF and EML between the LRI, LRI-FR and LRI-FU on the one hand and content categories (with frequencies $\leqslant 12.3$ per cent) on the other

	EMF + EML		EMF		EML	
	Category	*t* value	Category	*t* value	Category	*t* value
LRI	Situation	3.02**			Partner	5.60****
					Other	2.69**
					Positive + negative	
					Self	2.59*
					Negative feelings	
LRI-FR	Other	2.39**	Situation	2.71**	Partner	4.27****
	Positive + negative					
	Sharing	2.91**			Self	4.88***
	Positive + negative				Negative feelings	
LRI-FU					Partner	5.57****
					Self	4.71***
					Negative feelings	

$^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$; $^{****}p < .0001$.
Key. EMF + EML = both questions on experiences of meaningfulness and meaninglessness; EMF = experienced meaningfulness; EML = experienced meaninglessness; LRI = Life Regard Index; LRI-FR = subscale Framework; LRI-FU = subscale Fulfilment.

feelings appeared to be of crucial relevance to the subjects' current LRI scores. The same results were found for the analysis on both EMF and EML. As for EMF, the LRI was associated with only the main situation category. From this analysis we concluded that the construct positive life regard relates, as expected, fundamentally to the interpersonal dimension of life.

The LRI and meaning through coping with crisis (MCC). We finally tested the prediction that those subjects who scored on the variable MCC would have a higher LRI score than those who did not score on this variable. After assessing the inter-rater agreement, which was 82–89 per cent, it was found that out of $N = 122$, 26 (21.3 per cent) subjects met our criterion: 10.7 per cent based on their EMF and 11.5 per cent on their EML texts. The LRI scores of the upper quartile (LRI $\geqslant 76$) of the total sample were compared with the LRI scores of the lower quartile (LRI $\leqslant 62$). This revealed that 33.3 per cent of the subjects with high LRI met the MCC criterion, while only 7.1 per cent of the subjects with low LRI did. Further analysis showed that

subjects with MCC scored higher on all three criteria measures than those without MCC: LRI-FR ($t(119) = 1.96$, $p = .05$), on LRI-FU ($t(116) = 3.50$, $p = .001$) and as well on the LRI ($t(116) = 2.48$, $p < .01$). These results were interpreted in favour of the prediction that the subjects' successful coping with stressful life events in the past, and their deriving a sense of meaningfulness from this experience, were associated with their present degree of positive life regard.

Discussion

This study offers evidence that the information that was qualitatively gained from 122 subjects to two open questions about their experiences of meaningfulness and meaninglessness could be categorized and analysed in a reliable way by means of the category system we designed. From a positivistic point of view, the assessment of the reliability in this study might be criticized because of the fact that the categories were not designed in an *a priori* way, but were instead developed by repeatedly reading the original texts in order to do justice to the personal nature of the information gathered. This procedure may have indeed biased the objectivity of the assessment, given that the authors' familiarity with the answers may have influenced the degree of agreement between the raters to some extent. However, in answer to this argument we suggest that the categories were designed according to the guidelines suggested by Glaser & Strauss (1967) who have stressed that to meet the demand of reliability, the categories should above all *fit*. This means that the categories: '... must be readily (not forcibly) applicable to and indicated by the data under study' (p. 6); and should have relevance so that the main problems and themes of the investigation can be discussed by means of them. We agree with Magoon (1977, cited in Smaling, 1987) that in qualitative research '... the emphasis is on construct validity, the *meaning* of events or situations to participants ...' (p. 699).

The results from the analysis of the social and psychological aspects of the subjects' response styles show that, despite their young age, a majority of the subjects had experienced moments of both meaningfulness and meaninglessness. Subjects discriminated well between both meaning experiences and their responses could be connected to the subject under investigation and not to their momentary moods. From these findings we concluded that the qualitative data were relevant and valid. Analysis showed that subjects affirming EML were older and less happy with their lives, and that they had received more psychological help in the past than those negating EML. These findings are consistent with results from developmental life-span studies which show that the probability of major life crises increases with age, as does the risk of suicide with its concomitant psychological distress and existential need (e.g. Stillon & McDowell, 1991). Furthermore, the LRI was found to correlate with the number of words spent on describing EMF, and not so with the number of words spent on EML. This finding may result from the fact that the LRI measures *positive* life regard.

The results of the phenomenal analysis are generally consistent with findings reported in the literature (e.g. Klemke, 1981). EMF is associated with social interactions with a variety of people (family members as well as strangers and friends) in which positive interactions (helping, caring) prevail with enjoying life fully in leisure, with

making new plans and with well-being. These associations show a clear pattern within experiences of meaningfulness of active engagement and commitment, as well as of being received in the mainstream of life. From these results we concluded that meaningfulness is essentially connected with a state of being in *contact*. We perceive this contact on three levels: with self (integratedness), with other (relatedness) and with life or the world (being, transcendence). This view fits with Martin Buber's (1965) conception of a human being as ultimately a 'creature of the between'. On the other hand, we derived from the descriptions of EML a general picture of *alienation*. In our view this alienation occurs on three levels: from self (blocked potentials, disabilities), from others (separation, isolation) and from life or the world (living marginally, without purpose). In descriptions of meaninglessness, as expected (cf. Maddi, 1967), attitudes and interactions were predominantly negative and subjects presented, in our opinion, evidence of what Adler (1963) called 'a general lack of communality with the shared world'; EML was associated with comparatively little and restricted social intercourse (with family members or partners only) and with an occupation with the problematic aspects of life. Furthermore, results showed that, in agreement with earlier empirical findings (e.g. Thompson, 1985; Thompson & Janigian, 1988), incidents of being confronted with major traumatic life-events, such as divorce of one's parents or the death of a beloved person, are moments of dramatic changes in life regard (see Table 3). Yalom (1980) has suggested that confrontations with such 'boundary experiences' may bring people in contact with the ultimate concerns of life (such as one's own mortality and existential isolation), which may hereby elicit critical shifts (both positive and negative) in one's evaluation of the meaningfulness of one's life.

The associations between the LRI and phenomena from the content analysis underline the significance of the interpersonal dimension to meaning in life. With regard to EML, a strong association between the category partner and the LRI and its subscales was found, confirming the established significance of intimate relationships to positive life regard (cf. Debats, 1990; Debats *et al.*, 1993). Additionally, within the category of other the LRI and its subscales LRI-FR and LRI-FU were found to be strongly associated with sharing both positive and negative experiences with others. This finding is interesting as it suggests that, with respect to the development of positive life regard, it is important for individuals not only to establish intimate relationships but also to actualize and share with others their *daimonic* nature, that is to say, their tendency towards both the positive and the negative, evil as well as good (May, 1982). In correspondence with this interpretation is the finding that the acknowledgement of negative feelings within EML texts related positively to the LRI.

The prediction regarding the association between the LRI and a process of finding *meaning through coping with crisis* was confirmed by evidence of the LRI's ability to discriminate subjects with high meaning in life. This test was much inspired by Antonovsky's (1987) 'salutogenic' approach in his research on finding answers to the important question of how people manage stress and stay well. This finding is consistent with results from empirical studies which showed that subjects who had developed a sense of meaningfulness of their lives as a result of their effectively overcoming traumatic and highly stressful life-events were better adjusted to life and

psychologically healthier than subjects who had not come to terms with what had happened to them (cf. Bulman, 1979; Bulman & Wortman, 1977; Ebersole & Flores, 1989; Jaffe, 1985; Kobasa, 1979; Kobasa, Maddi & Kahn, 1982; Kobasa & Puccetti, 1983; Silver, Boon & Stones, 1983; Thompson, 1985; Thompson & Janigian, 1988). However, the important question, raised by other theorists as well (Frankl, 1966; Jaffe, 1985), whether subjects whose high levels of meaningfulness resulted from overcoming serious distress in the past will be more capable of maintaining these high levels during future periods of stress than those subjects who derived a strong sense of meaningfulness in the absence of effective coping with past crises, can only be answered adequately in a longitudinal, prospective study.

As to the generalization of the present findings some limitations exist. First, it should be kept in mind that the data were obtained from students in their early 20s. One may question whether subjects of this age have sufficient experience with the many facets of the complex phenomenon of meaning in life to give a complete portrait of it. Indeed, some subjects who had no EML rating apologized for this fact, stating that perhaps they were too young for such an experience. We would like to stress, however, that from the beginning of this investigation we were surprised by the openness, concreteness and intimate nature of the answers which clearly showed that our subjects, although young in age, understood very well what the questions about meaning in life were about. But, as there is according to Erikson's theory (1963, 1982) a gradual evolution of meanings throughout an individual's life-cycle, the phenomenal analysis would probably have shown different concerns for subjects of different age. Second, in interpreting the phenomenal findings one should keep in mind that these give but a limited impression, because all data were based on only the information the subjects reported and, of course, not on what they left out. If certain phenomenal aspects or personality characteristics were absent from the texts, we could not conclude that they did not, in fact, exist. Third, from the correlational nature of our findings we cannot definitively answer the question of whether commitment and engagement in personal relationships *cause* meaningfulness, and conversely their absence initiates meaninglessness, or that the relationship is the other way around: presence of meaning *leads* to more commitment and relatedness and absence of meaning to alienation. We hypothesize that these variables are interdependent and that they operate interactively in their influence on subjective well-being (cf. Harlow, Newcomb & Bentler, 1986; Reker, 1985).

The strength and weakness of a combined qualitative and quantitative research approach deserves some discussion. We noticed in reviewing the literature that contemporary researchers show a growing preference for using a methodology which integrates both quantitative and qualitative research approaches (Janssen, De Hart, & Den Draak, 1989; Patton, 1991; Silverstein, 1988; Smaling, 1992). We chose this combined approach because we wanted to avoid the one-sidedness of traditional positivists who have been 'too concerned with internal validity and conceptual certainty, coming to grief when their data lacked authenticity and *meaning* i.e. external reality' (Miles & Huberman, 1984, p. 19). We aimed to arrive at significant findings both inductively and in a hypothetico-deductive way. This strategy enabled us on the one hand to comprehend more of the inner world of our subjects and yet to analyse data in a numerical-mathematical way on the other hand. The major weakness of such

a combined approach relates to the fact that, as was the case in this study, some cells within the combined data matrix yielded insufficient observations to enable statistical testing. This methodological problem is insolubly tied to any research in which qualitative (unstandardized) and quantitative (standardized) data are matched.

From this investigation it can be concluded that the LRI, given its psychometric quality, is a useful instrument for the empirical study of meaning in life. The results point to the relevance of the scarcely investigated construct of meaning in life in its influence on general and psychological well-being. The employed combined qualitative–quantitative approach meets the growing recognition among researchers that there is a need to re-establish the qualitative grounding of empirical research in order to be truly scientific (Campbell, 1979; Henwood & Pidgeon, 1992). Finally, we evaluated the results of this study in favour of the idea that idiographic and nomothetic research methods need not be regarded as mutually exclusive but as complementary approaches that, if combined, may further the comprehension of the more complex and still mysterious dimensions of human motivation.

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