

## Reasons for Living Inventory

Stevan Nielsen

*PsycTESTS Dataset*

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## Reasons for Staying Alive When You Are Thinking of Killing Yourself: The Reasons for Living Inventory

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The studies presented here describe the development of an instrument to measure a range of beliefs potentially important as reasons for not committing suicide. Sixty-five individuals generated 72 distinct reasons; these were reduced to 48 by factor analyses performed on two additional samples, and the items were arranged into the Reasons for Living Inventory (RFL), which requires a rating of how important each reason would be for living if suicide was contemplated. In addition, factor analyses indicated six primary reasons for living: Survival and Coping Beliefs, Responsibility to Family, Child-Related Concerns, Fear of Suicide, Fear of Social Disapproval, and Moral Objections. The RFL was then given to two additional samples, 197 Seattle shoppers and 175 psychiatric inpatients. Both samples were divided into several suicidal (ideators and parasuicides) and non-suicidal groups. Separate multivariate analyses of variance indicated that the RFL differentiated suicidal from nonsuicidal individuals in both samples. In the shopping-center sample, the Fear of Suicide scale further differentiated between previous ideators and previous parasuicides. In the clinical sample, the Child-Related Concerns scales differentiated between current suicide ideators and current parasuicides. In both samples, the Survival and Coping, the Responsibility to Family, and the Child-Related Concerns scales were most useful in differentiating the groups. Results were maintained when the effect of recent stress was held constant.

The frequency of suicidal behavior suggests that it is a phenomenon that cannot be ignored. Over 25,000 individuals a year kill themselves in the United States (U.S. Vital Statistics, 1973, 1975), and it is estimated that two to eight times this number, or from 50,000 to 200,000 persons a year parasuicide (i.e., intentionally self-injure, behavior usually labeled in the U.S. as attempted suicide; Berman, 1975). Linehan and colleagues (Linehan & Laffaw, in press; Linehan & Nielsen, 1981; Linehan, Note 1) found that from 10% to 16% of an adult, general population in Seattle report attempting suicide at some

point in their lifetime; between 53% and 67% report seriously considering it.

The majority of research in the field of suicidology, to date, has been directed at identifying characteristics of suicidal persons to enhance prediction of suicidal behavior (Beck, Resnick, & Lettieri, 1974; Kreitman, 1977; Neuringer, 1974). With few exceptions (e.g., Goodstein, 1982) almost all of this work has focused on identifying maladaptive attributes of suicidal persons. Little attention has been given the question of whether suicidal persons lack important adaptive characteristics present among nonsuicidal individuals, and, if so, what these characteristics might be.

Focusing on adaptive, life-maintaining characteristics of nonsuicidal people is similar to the approach proposed by Frankl (1959) and others (e.g., Des Pres, 1976) who have asked: How did the survivors of the Nazi

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This research was supported by National Institute Grant MH34486.

The authors would like to thank Kirk Strosahl for his helpful comments on an earlier draft of this article.

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concentration camps maintain their will to live? Investigators and survivor testimonials have pointed to beliefs about life and expectations for the future as instrumental in keeping many alive through extremes of painful life stress. For example, Frankl suggests that prisoners' beliefs that they have something meaningful to do in life were critical for many. Others have identified the simple belief that life, no matter what its form, is worth living and savoring (Beaver, 1972).

This emphasis on beliefs and expectations of the survivors is compatible with cognitive (Beck, 1963; Neuringer, 1961, 1964, 1974) and cognitive-behavioral (Clum, Patsiokas, & Luscomb, 1979; Linehan, 1981) theoretical approaches to suicidal behavior. In these perspectives, the role of cognitive patterns, be they beliefs, expectations, styles, or capabilities are emphasized as important mediators of suicidal behaviors. Thus, for example, Beck and his associates (Beck, 1963; Beck, Weissman, Lester, & Trexler, 1974; Bedrosian & Beck, 1979) have suggested that a person's beliefs and hopeless expectancies are related to whether one eventually kills oneself, engages in parasuicidal behavior, or considers suicide as an option. Neuringer (1964) suggests that a rigid cognitive style is characteristic of individuals who parasuicide.

The research reported here was based on a cognitive-behavioral view of suicidal behavior, which posits that one of the factors differentiating suicidal from nonsuicidal persons is the content of their belief systems. The aim of this study was to test the theory and investigate whether individuals who are nonsuicidal, that is, those who do *not* engage in suicidal behaviors, hold a set of adaptive beliefs and expectancies not shared by those who either consider suicide or actually follow through on such thoughts with overt suicidal behavior. There are many potential life-oriented beliefs and expectations that might mitigate against committing suicide. The studies presented here describe the development of an instrument to measure a range of beliefs potentially important as reasons for not committing suicide. The hypothesis that suicidal individuals would ascribe less importance to such beliefs was tested in two studies, one with a general population and one with a clinical population. Both included

individuals who have either considered suicide or actually parasuicided.

## Development of Inventory of Reasons for Living

### *Item Generation*

A pool of reasons for living was empirically generated by a diverse but accessible population of 65 students at Catholic University of America, senior citizens in Miami Beach, factory workers in Philadelphia, middle-aged adults in Scranton, Pennsylvania, and workers in a U.S. Senate office. Approximately equal numbers of male and female respondents participated at each location, and adult ages were broadly represented. Subjects were asked to list (a) their reasons for not killing themselves at the point in their lives when they had most seriously considered killing themselves; (b) reasons why they would not now kill themselves; and (c) the reasons they believed kept other people from killing themselves. Sampling was continued until new items were redundant with old.

A total of 343 reasons for living (when one is considering suicide) were generated. Identical responses were eliminated, and content analysis was carried out to reduce the list to a smaller yet representative sample. Reasons expressing the same idea were combined, retaining original phrasing where possible. Each unique reason was expressed in its own statement. In this manner, the 343 reasons were reduced to 72 statements.

### *Factor Analysis*

The items generated were diverse; however, they seemed to fall within several categories of reasons. Thus, to check the factor structure and to determine whether or not the reasons could be appropriately summarized by summing responses across sets of items, the items were arranged into an inventory, given to two separate populations, and separate factor analyses were carried out. The trial inventory asked subjects to rate each item in terms of its importance, both currently and in past difficult times, on 6-point Likert type scales. The first population consisted of 218 Washington, D.C., adult volunteers (96 male, 112 female) from a U.S. congressional office, lines

at the King Tutankhamen exhibit, graduate classes in psychology, a factory, and the train station waiting rooms. In the second sample, 213 Seattle, Washington subjects (124 males, 89 females) were recruited at area shopping centers with offers of free coffee, babysitting, and raffle tickets for \$25.00 prizes, ( $n = 106$ ) or in University of Washington classes with offers of course credit ( $n = 107$ ). Adult ages were broadly represented, as were different educational and ethnic backgrounds, religious preferences, and marital statuses.

Principal-component factor analyses with orthogonal varimax rotation was applied to ratings in each sample, including separate analyses of ratings of current and past importance. Thus, a total of four factor analyses were conducted. The analyses yielded very similar factor structures and item loadings. The following six distinct clusters of reasons for living emerged: (a) Survival and Coping Beliefs (e.g., "I believe I can find other solutions to my problems" and "I have the courage to face life"); (b) Responsibility to Family (e.g., "My family depends on me and needs me"); (c) Child-Related Concerns (e.g., "The effect on my children would be harmful"); (d) Fear of Suicide (e.g., "I am afraid of the 'act' of killing myself [the pain, the blood and violence]"); (e) Fear of Social Disapproval (e.g., "Other people would think I am weak and selfish"); (f) Moral Objections related to suicide (e.g., "My religious beliefs forbid it").

Based on these analyses, a revised Reasons for Living inventory (RFL) was constructed. Twenty-four of the original 72 items were dropped due to ambiguous factor loadings; items loading on a single factor at .50 or higher in at least two of the four analyses were kept. Items are presented in Table 1. The revised inventory listed the items in random order and directed respondents to rate each for its importance as a current reason for not committing suicide.<sup>1</sup> Six scale scores representing the six categories of beliefs can be obtained by calculating the mean ratings for each set of items. Estimates of internal consistency were computed for each scale separately using the Cronbach Alpha statistic. Results indicated the scales have moderately high internal reliability, with scores from .72 to .89.

## Study 1

### Method

*Subjects.* Subjects were 197 Seattle shoppers (94 males and 103 females) recruited in the same manner as previous shopper samples. Mean age was 36 years.

*Procedure.* Subjects were asked to fill out the RFL, a Demographic Data Schedule (Linehan, Note 2), and a Suicidal Behaviors Questionnaire (Linehan, Note 3). The latter questionnaire included such questions as whether suicide had ever been considered and, if so, how seriously, with alternatives ranging from "it was just a passing thought" to "I attempted to kill myself and think I really hoped to die" (Suicidal History). Subjects were also asked to estimate how frequently they had considered suicide during the past year (Ideation Frequency: 0 = never; 5 = very often) and to estimate the future likelihood of suicide (Suicide Likelihood: 0 = never; 7 = very likely). In order to check the inventory for social desirability response bias, the Edwards Social Desirability Scale (Edwards, 1970) was also administered.

### Results

On the basis of responses to questions posed in the Suicidal Behaviors Questionnaire, subjects were classified in one of four groups: Subjects who reported never considering suicide in any way ( $n = 82$ ); subjects who had considered suicide only briefly or nonseriously ( $n = 65$ ); subjects who reported seriously considering suicide, including in some cases the formulation of a plan for attempting suicide ( $n = 32$ ); and subjects who reported having attempted suicide at some time in the past ( $n = 18$ ). Analysis of variance (ANOVA) applied to mean ages within these four groups revealed no significant differences.

Multivariate analysis of variance (MANOVA) was applied to subjects' beliefs scores for the four groups described above on the six scales of the RFL. In addition to the overall multivariate test for significant differences between the four groups sampled, planned univariate comparisons were conducted. Those with a history of serious suicidal behavior or serious ideation were compared with those having a nonserious history (i.e., those never considering suicide and those considering it only briefly). Those who had seriously considered suicide but never acted

<sup>1</sup> Since the average correlation between current and past ratings was .75, little could be gained by continuing both past and current reasons.

on their ideation were compared with those who had in the past attempted. Those who had never considered suicide were compared with all others who had ever considered suicide, however seriously, or who had in the past attempted suicide. The results of univariate ANOVAs and planned comparisons are presented in tabular form in Table 2.

The MANOVA for the main effect yielded a Wilks's  $\Lambda$  (lambda) of .71, which, when

Table 1  
*Reasons for Living Inventory Items by Subscale*

Survival and Coping Beliefs
1. I care enough about myself to live.
2. I believe I can find other solutions to my problems.
3. I still have many things left to do.
4. I have hope that things will improve and the future will be happier.
5. I have the courage to face life.
6. I want to experience all that life has to offer and there are many experiences I haven't had yet which I want to have.
7. I believe everything has a way of working out for the best.
8. I believe I can find a purpose in life, a reason to live.
9. I have a love of life.
10. No matter how badly I feel, I know that it will not last.
11. Life is too beautiful and precious to end it.
12. I am happy and content with my life.
13. I am curious about what will happen in the future.
14. I see no reason to hurry death along.
15. I believe I can learn to adjust or cope with my problems.
16. I believe killing myself would not really accomplish or solve anything.
17. I have a desire to live.
18. I am too stable to kill myself.
19. I have future plans I am looking forward to carrying out.
20. I do not believe that things get miserable or hopeless enough that I would rather be dead.
22. I do not want to die.
23. Life is all we have and is better than nothing.
24. I believe I have control over my life and destiny.
Responsibility to Family
25. It would hurt my family too much and I would not want them to suffer.
26. I would not want my family to feel guilty afterwards.
27. I would not want my family to think I was selfish or a coward.
28. My family depends upon me and needs me.
29. I love and enjoy my family too much and could not leave them.
30. My family might believe I did not love them.
31. I have a responsibility and commitment to my family.

Table 1 (continued)

Child-Related Concerns
32. The effect on my children could be harmful.
33. It would not be fair to leave the children for others to take care of.
34. I want to watch my children as they grow.
Fear of Suicide
35. I am afraid of the actual "act" of killing myself (the pain, blood, violence).
36. I am a coward and do not have the guts to do it.
37. I am so inept that my method would not work.
38. I am afraid that my method of killing myself would fail.
39. I am afraid of the unknown.
40. I am afraid of death.
41. I could not decide where, when and how to do it.
Fear of Social Disapproval
42. Other people would think I am weak and selfish.
43. I would not want people to think I did not have control over my life.
44. I am concerned about what others would think of me.
Moral Objections
45. My religious beliefs forbid it.
46. I believe only God has the right to end a life.
47. I consider it morally wrong.
48. I am afraid of going to hell.

Note. Factor loadings and between-scale correlations can be obtained by writing the first author.

evaluated using the *F*-test approximation yielded  $F(18, 532.2) = 3.76, p < .00001$ . Box's *M* was significantly large,  $M = 136.42, F(63, 14929) = 1.98, p < .001$ . Because of this, the MANOVA should be interpreted with caution. The significant multivariate *F* test does provide some assurance that reliable univariate differences for the subscale values are not the result of Type I errors, however.

As can be seen in Table 2, univariate analyses of variance (ANOVAs) applied to the six scale scores yielded significant *F* scores for the Survival and Coping Beliefs and the Fear of Suicide subscales. One-way ANOVAs for the Child-Related Concerns and Responsibility to Family scales both approached conventional levels of significance. Among the planned comparisons conducted at the univariate level, significant effects were found for four of the six subscales of the RFL: Survival and Coping Beliefs, Responsibility to Family

Table 2  
*ANOVAs, Planned Comparisons, and Means for the Reasons for Living Inventory  
 in a General Population*

Scale	Group <i>M</i>				<i>F</i> (3, 193)	<i>p</i>	Planned comparisons (two-tailed)		
	NVS	HBSI	HSSI	HP			Contrast	<i>t</i>	<i>p</i>
Survival and Coping Beliefs	4.94	4.75	4.15	4.30	13.29	.000	(NVS + HBSI) > (HSSI + HP)	-5.56	.000
							NVS > (HBSI + HSSI + HP)	-5.30	.000
Responsibility to Family	4.17	3.80	3.92	3.57	1.92	.13	NVS > (HBSI + HSSI + HP)	-2.23	.03
Child-Related Concerns	4.02	3.99	3.35	3.26	1.93	.13	(NVS + HBSI) > (HSSI + HP)	-2.36	.02
							NVS > (HBSI + HSSI + HP)	-1.80	.07
Fear of Suicide	2.13	2.24	2.92	2.21	4.97	.002	(NVS + HBSI) < (HSSI + HP)	2.26	.03
							HSSI > HP	-2.39	.02
							NVS < (HBSI + HSSI + HP)	2.10	.04
Fear of Social Disapproval	2.44	2.37	2.31	1.83	1.20	—			
Moral Objections	3.22	3.09	2.67	3.11	.93	—			

*Note.* ANOVA = analysis of variance; NVS = never suicidal; HBSI = history of brief suicidal ideation; HSSI = history of serious suicidal ideation; HP = history of parasuicide.

and Child-Related Concerns, and Fear of Suicide. For the Survival and Coping Beliefs scale, those with serious levels of past suicidal ideation or behavior were found to have lower Survival and Coping Beliefs than those with nonserious ideation or no ideation at all. Those who reported never having considered suicide in any way had higher Survival and Coping Beliefs than did the other three groups combined. There were no significant differences between past serious ideators and past parasuicides. For the Responsibility to Family subscale, only the comparison between those who reported never having experienced suicidal ideation and all others was significant, with the group that reported never being suicidal having higher reported levels of family concern. For the Child-Related Concerns subscale, the groups reporting either serious ideation or past parasuicide had lower scores than did nonserious and never ideating individuals. All those who reported ever having any suicidal ideation tended to score lower compared to those never having such ideation. (This comparison is almost certainly due to low scores in the serious ideation and past parasuicide groups, however, since the mean scores in the two nonserious groups are nearly identical.)

For the Fear of Suicide scale, all three con-

trasts were significant. The nonserious group had *lower* scores than the serious groups, as did the never-ideating groups when compared with the other three groups. A more interesting result is the finding that the group of subjects reporting past serious ideation, but no parasuicide, had higher scores on this scale than did past parasuicides. Examination of mean scores for the Fear of Suicide subscale reveals that only among past serious ideators does this score seem to differ much—it is higher—from Fear of Suicide scores in the other groups.

The relationship of the RFL scales to self-reports of suicide ideation during the past year and suicide likelihood in the future was examined by correlation analyses (see Table 3). Results indicate that recent suicide ideation is related to low Survival and Coping scores and high Fear of Suicide scores. Self-reported likelihood of future suicide is negatively correlated with both Survival and Coping and Responsibility to Family scales. Endorsement of Survival and Coping items is moderately, and positively, correlated with an individual's tendency to respond in a socially desirable fashion. This relationship is reversed, however, for the Moral Objections scale and for the Fear of Suicide and Fear of Social Disapproval scales; individuals high on

Table 3  
Correlations of the Reasons for Living Inventory With Related Variables

Variable	RFL scale					
	S & C	RF	CC	FS	FSD	MO
General population						
Suicidal Behaviors						
Ideation	-.30***	-.11	-.13	.30***	.10	-.07
Likelihood	-.29***	-.24***	-.13	.11	-.08	-.13
Social Desirability	.26***	.05	-.02	-.44***	-.16*	-.18**
Clinical population						
Suicidal Behaviors						
Ideation	-.53***	-.21*	-.25**	.11	.05	-.13
Likelihood	-.67***	-.27**	-.27**	-.12	-.14	-.28**
Threats	-.52***	-.36**	-.09	.06	-.58***	-.40**
Solution	-.68***	-.40***	-.30**	-.31**	-.22*	-.33**
Social Desirability	.29**	.27**	-.12	-.10	-.04	.11

Note. S & C = Survival and Coping Beliefs; RF = Responsibility to Family; CC = Child-Related Concerns; FS = Fear of Suicide; FSD = Fear of Social Disapproval; MO = Moral Objections.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

these scales tend to have low scores on the Social Desirability scale.

Sex differences were analyzed by MANOVA and univariate ANOVA for the six RFL scales. Results indicated a significant multivariate effect, yielding a Wilks's  $\Lambda$  of .90, and an approximate  $F(6, 189) = 3.56, p < .002$ . Scale-by-scale tests for homogeneity of variance revealed significant differences in variance between the two groups for the Fear of Suicide scale, Cochran's  $C(97, 2) = .60, p < .03$ . Thus, results for this scale should be viewed with caution. Univariate ANOVA indicated sex differences on only two scales, Fear of Suicide  $F(1, 194) = 7.28, p < .01$ , and Moral Objections,  $F(1, 194) = 9.02, p < .003$ . On both, women ( $M_s = 2.49, 3.40$ , for Fear of Suicide and Moral Objections, respectively) attached greater importance than men ( $M_s = 2.10, 2.74$ , for Fear of Suicide and Moral Objections, respectively).

## Study 2

### Method

**Subjects.** In this study, subjects were 63 males and 112 females admitted to inpatient, psychiatric units at the University Hospital and at Harborview Medical Center, teaching hospitals affiliated with the University of Washington. Mean age was 31 years. With few exceptions, all patients were tested within 48 hours of admis-

sion to the psychiatric unit and were selected within the context of a larger study to represent individuals admitted because of an immediately prior parasuicide, suicide ideation, or other serious, non-suicide-related problems.

**Procedure.** As in the previous experiment, all subjects were given the RFL, the Demographic Data Sheet (Note 2), and the Suicidal Behaviors Questionnaire (Note 3). To further examine the relationship of RFL beliefs to suicidal behavior, a subsample of 92 patients were given an updated, revised form of the Suicidal Behaviors Questionnaire. Included here were questions asking whether they had told anyone during the previous year that they were considering suicide (Threats: 0 = no, 1 = yes) and whether they believed any of their problems would be solved if they committed suicide (Solution 0 = definitely not, 4 = yes, definitely). A further subsample of 58 were given the Edward's Social Desirability Scale. As part of their overall clinical evaluation, most patients were given the Minnesota Multiphasic Personality Inventory (MMPI). Results were included in this study as a check to see whether the RFL does more than simply measure psychopathology. Additionally, the Life Events Survey (Johnson & Sarason, 1978) was administered. This instrument yields a score for negative events (LES-NEG), which was used as a measure of recent life stress. We included it here to rule out the possibility that between-group differences might be due to differing life stress rather than to differing suicidal behavior.

### Results

On the basis of their responses to the Suicidal Behaviors Questionnaire, their responses during research interview sessions, and

information obtained during initial admission interviews, psychiatric inpatients were classified along two descriptive categories: past suicidal behavior, or parasuicide history, (yes = 89; no = 74) and current suicidal behavior (admission with parasuicide = 51; admissions with suicidal ideation = 58; admission for psychiatric reasons without suicidal ideation or parasuicide = 54).

A two-way MANOVA with LES-NEG as the covariate was applied to patients' six RFL-scale scores for the six cells resulting from the two factors of parasuicide history and current suicidal behavior. In addition, planned comparisons were performed between current suicide ideators versus current parasuicides and between currently nonsuicidal versus currently suicidal ideators and parasuicides. The results of univariate ANCOVAs for each of the six RFL scales, results for the planned comparisons, and mean scores are presented in Table 4. Results were significant for both main effects,  $\Lambda = .84$ , yielding an approxi-

mate  $F(6, 151) = 4.83, p < .001$ , for history of parasuicide, and  $\Lambda = .80$ , yielding an approximate  $F(12, 302) = 3.00, p < .001$ , for current suicidal behavior. No interaction effect was present. The within-cells regression effect for LES-NEG was significant,  $\Lambda = .81$ , yielding an approximate  $F(6, 151) = 2.23, p < .05$ . The significant main effects for both history and current behavior with LES-NEG covaried, however, suggest that results cannot be explained as due to recent life stress.

As can be seen in Table 4, those with a history of parasuicide had lower scores on the Survival and Coping Beliefs, the Responsibility to Family, the Child-Related Concerns and the Moral Objections scales. It can also be seen that for the Survival and Coping Scale, the Responsibility to Family and Child-Related Concerns scales, currently suicidal individuals score lower than other currently nonsuicidal psychiatric patients. Current suicide ideators attach less importance to Child-Related Concerns than do current parasui-

Table 4  
ANOVAs and Means for the Reasons for Living Inventory in a Clinical Population

Variable	Effect	$F^a$	$p$	History of parasuicide		$M$ scores: Current suicidal behavior			Planned comparisons (two-tailed)		
				No	Yes	CNS	CSI	CP	Contrast	$t^b$	$p$
Survival and Coping	H	25.51	.000	4.45	3.46						
	C	13.38	.000			4.82	3.43	3.49	CNS > (CP + CSI)	-7.35	.000
	H × C	.4	—								
Responsibility to Family	H	15.96	.000	4.30	3.50						
	C	8.45	.000			4.61	3.68	3.27	CNS > (CP + CSI)	-5.08	.000
	H × C	.18	—								
Child-Related Concerns	H	5.50	.02	3.51	2.91						
	C	3.35	.05			3.71	3.22	2.57	CNS > (CP + CSI)	-3.03	.003
	H × C	.08	—						CSI > CP	-1.95	.05
Fear of Suicide	H	1.87	—	3.08	2.84						
	C	.18	—			3.07	2.87	2.92			
	H × C	.50	—								
Fear of Social Disapproval	H	2.52	—	3.07	2.66						
	C	.93	—			3.18	2.71	2.63	CNS > (CP + CSI)	-1.96	.05
	H × C	.12	—								
Moral Objections	H	4.16	.05	3.32	2.85						
	C	1.22	—			3.42	2.98	2.78	CNS > (CP + CSI)	-2.23	.03
	H × C	.37	—								

Note. H = History; C = Current Behavior; CP = Current Parasuicide; CSI = Current Suicide Ideator; CNS = Currently Nonsuicidal.

<sup>a</sup>  $df = (1, 156), (2, 156), (2, 156)$  for H, C, and H × C, respectively, for each scale.

<sup>b</sup>  $df = 172$  for each contrast.

cides. Child-Related Concerns was the only scale to differentiate between current suicide ideators and current parasuicides. To check whether this finding might be due to differences in the number of children individuals had in each group, a planned comparison was conducted. Results indicated that the average number of children in the current parasuicide group was lower than that in the current ideator group,  $t(103) = -3.06, p < .003$ ;  $M_s = .49$  and  $1.2$  for parasuicides and ideators, respectively. We repeated our  $2 \times 3$  (Parasuicide History  $\times$  Current Suicidal Behavior) ANOVA, this time using number of children as a covariate. The main effect for history was lost; the significance level of the effect for current suicidal behavior was changed from a  $p$  value of  $.05$  to  $p < .07, F(1, 151) = 2.78$ .

Correlations between RFL scale scores and self-reports of suicide ideation, likelihood of suicide in the future, and past suicide threats, ratings of suicide as a problem solution, and social-desirability scores were computed. Examination of Table 3 suggests a pattern of results similar to those found within the general population. Four of the scales, Survival and Coping, Responsibility to Family, Child-Related Concerns, and Moral Objections, are negatively related to recent suicidal behavior and individually projected future behavior. As we might have predicted, individuals endorsing Fear of Social Disapproval items are also less likely to report threatening suicide. As with the first study, results indicate a moderate positive correlation between the Survival and Coping scale and social desirability.

A separate correlation matrix was constructed examining the relationships of the 10 MMPI  $T$  scores with the six RFL scores. Results revealed that of the 60 correlation coefficients, 3 were significant. The Survival and Coping scale correlated negatively with the Depression and Social Introversion scores ( $-.41, p < .001$ , and  $-.20, p < .05$ , respectively), and the RFL Responsibility to Family score correlated negatively with the Depression score ( $-.20, p < .05$ ). (All correlations were evaluated at two-tailed probability levels.) With the exception of the correlation between the Survival and Coping and Depression scales, this pattern cannot be distinguished from randomly occurring correlations of similar magnitude because of the

number conducted. The RFL does not seem to measure general psychiatric status or pathology alone.

## Discussion

The data presented here strongly suggest that suicidal individuals differ from nonsuicidal individuals in the degree to which they will endorse and attach importance to a set of life-oriented beliefs and expectancies. In both general and clinical populations, we found that individuals reporting prior suicidal behavior also report fewer important reasons for living if considering suicide than do individuals with no such history. In both samples, expectation for future suicide was negatively related to the degree of importance attached to nonsuicidal beliefs. Of particular interest, in this regard, is our finding that whereas the importance attached to various reasons for living when faced with the option of suicide is related to suicidal behavior, endorsement of such beliefs is *not* widely related to psychopathology in general. Nor could between-groups differences be attributed to differences in recent life stress.

The pattern of results obtained across the diverse populations used in this study also suggest that it is useful to distinguish between different kinds of reasons for living and that endorsement of different types of beliefs (i.e., the RFL subscales) will show unique patterns of relationships with specific suicidal behavior patterns. Based on our sampling and factor analysis, the following six sets of reasons for living emerged: (a) Survival and Coping, (b) Responsibility to Family, (c) Child-Related Concerns, (d) Fear of Suicide, (e) Fear of Social Disapproval, and (e) Moral Objections.

### *Survival and Coping Beliefs*

Survival and Coping reasons for living combine a number of beliefs about life and living. Included are reasons having to do with positive expectations about the future (e.g., "I believe everything has a way of working out for the best") as well as a number of beliefs about one's ability to cope with whatever life has to offer (e.g., "I believe I can learn

to adjust or cope with my problems"). The former set of beliefs seem to be converse versions of some of Beck's Hopelessness Scale beliefs; the latter seem to tap general self-efficacy. A third set of beliefs included in this scale have to do with imbuing life and living with specific value (e.g., "Life is all we have and is better than nothing"). The dimension tapped here is similar to that measured by Neuringer (1968, 1979), who used a semantic-differential scale to obtain ratings of the value of life and death.

Positive beliefs about Survival and Coping appear strongly related to both prior and current suicidal behavior. In a general population, individuals reporting a history of serious suicidal behavior had weaker survival and coping beliefs than did individuals reporting minimal or no history of suicidal behavior. In a clinical population, individuals hospitalized with either an immediately preceding parasuicide or current suicide ideation attach lesser importance to these reasons than do nonsuicidal psychiatric patients. Additionally, patients who have parasuicided one or more times before the current hospitalization, even if nonsuicidal during this psychiatric episode, score lower on this scale. In both a clinical and a general population, individuals reporting more suicide ideation in the past year and predicting a greater likelihood of future suicide are less likely to subscribe to these beliefs. Finally, psychiatric patients who report telling other people about their suicidal ideation in the past year and who view committing suicide as a solution to their problems in life are less likely to hold Survival and Coping beliefs. It seems warranted to conclude that suicidal individuals, when compared to both psychologically disturbed, nonsuicidal individuals, and nondisturbed, nonsuicidal persons, lack positive beliefs related to surviving and coping with life, beliefs shared by a large portion of the population.

Survival and Coping beliefs do not distinguish individuals hospitalized for current parasuicide from those admitted with current ideation. This might be due to the timing of our assessment; it occurred *after* the parasuicide episode among inpatients. It seems possible to us, and fits the frequently heard clinical "wisdom," that for many individuals

an important consequence of parasuicidal behavior may be a resurgence of at least some hopeful beliefs. It is also possible that even though our testing was conducted within 48 hours of admission to the psychiatric unit, interactions with treatment staff may have already begun to have a beneficial effect.

Alternatively, our results may simply be an accurate reflection of high similarity between these two groups. It must be kept in mind that among inpatients the designation of an individual as a suicide ideator requires a communication of the suicidal intent to another person; admission is often a direct result of making suicide threats. Thus, a more accurate description of this group might be suicide threateners. Individuals entering hospitals due to threats may not hold more positive survival and coping beliefs than those coming in due to parasuicidal behavior. An important issue here would be the seriousness, or lethality, of the parasuicide. Perhaps if we can separate out those individuals who engage in near-fatal parasuicidal behavior from those who either only threaten or who reveal ideation only after questioning, we will find significant differences in reasons for living. Some support for this hypothesis is found in the results reported by Neuringer (1979). He found that when compared with moderate and low suicide-intent callers to a suicide prevention center, only the seriously suicidal individuals rate life in a negative manner and death as attractive. We are currently following up this idea in our research with parasuicides.

Our results indicate a low, but significant, positive relationship between endorsement of survival and coping beliefs and socially desirable items on the Edwards Social Desirability (SD) scale. In the clinical sample, Responsibility to Family was also positively related to SD at a moderate level. At most these measures share about 9% variance with SD, representing only a mild contamination with response set. Fear of Suicide, Fear of Social Disapproval, and Moral Objections are negatively correlated with SD in the general population sample—Fear of Suicide strongly so. These relationships, however, are not apparent in the clinical sample and may be less than more obviously clinical scales. In previous research (Linehan & Nielsen, 1981), a

high negative correlation ( $-.64$ ) between endorsement of hopeless expectations and social-desirability scores in a general population sample was found. In that study, we demonstrated that the high negative relationship between hopelessness scores and social desirability might be a serious confound when trying to discriminate among suicidal groups. Similar results were found in a clinical sample (Linehan & Nielsen, in press). The comparatively low relationship, although still significant, between self-reports of survival and coping beliefs and social desirability found in comparable samples here, suggests that there may be some merit in examining beliefs framed in a positive manner (survival and coping) as opposed to those presented in a negative manner (hopeless).

#### *Responsibility to Family and Child-Related Concerns*

Both the importance of beliefs about one's responsibility to a family as well as concerns about children are significantly related to whether one reports prior suicidal behavior or currently engages in suicidal behavior. In the general population, individuals reporting never considering suicidal behavior also tend to attach more importance to both family and child concerns. In the psychiatric population, individuals currently nonsuicidal and those with no history of prior parasuicide, regardless of current behavior, show a similar pattern. Furthermore, higher importance attached to Child-Related Concerns differentiates current suicide ideators from current parasuicides. It is not surprising that analyses of average number of children per group as well as analyses using number of children as a covariate indicate, that differences in the importance of Child-Related Concerns are related to differences in actual number of children. The psychological variable of importance mirrors the biological reality of number of children. In addition, importance of family and children is negatively related to reported suicide ideation for the past year, prediction of the likelihood of future suicide, and ratings of suicide as a solution to life's problems. Whether one communicates this suicide ideation, however, appears related to the importance of family but

not to the importance of child-related concerns.

#### *Fear of Suicide, Fear of Social Disapproval, and Moral Objections*

The Fear of Suicide scale is the only scale that distinguishes between individuals who report actual parasuicidal behavior in the past and individuals who report having thought about it seriously at some point but not engaging in any overt suicidal behavior. In the general population, people with a history of parasuicide report *less* fearful expectancies than do individuals with a history of serious ideation in the absence of actually carrying out those ideas. Of course, it is not clear from these data whether the act of parasuicide (or its consequences) serves to decrease one's fearful beliefs after the fact, or whether, instead, those with more fear are less prone to engage in the behavior in the first place. The high negative correlation between the Fear of Suicide scale and social desirability in the general population suggests that this finding should be viewed with considerable caution; reports of prior suicidal activity are also related to social desirability (Linehan & Nielsen, 1981, in press).

Beliefs relating to the Fear of Social Disapproval as well as Moral Objections are relatively less successful in distinguishing between suicidal groups. No significant differences were found in the general population. In the clinical sample, however, individuals who endorse few moral concerns about suicide are more likely to have a history of prior parasuicide. Currently nonsuicidal individuals attach more importance to both moral objections and fears of social disapproval than do current suicide ideators and parasuicides, taken as a group. Psychiatric patients who attach high importance to expectancies for social disapproval following suicidal behavior are also less likely to report communicating suicide ideation to other people. We can speculate that endorsement of these beliefs (high Fear of Social Disapproval scores) might be useful as an early warning sign, indicating to a clinician that a particular client is unlikely to divulge suicidal ideation spontaneously. Further research would be needed to test this idea.

### Conclusion

It is encouraging to find that people can generate a large and diverse number of reasons for staying alive when considering suicide. The importance of family and children, religious values, our beliefs in our own capabilities and the value of living, in general, as well as fears we may have about what others would think and about the actual pain involved in a suicidal act may be important considerations for many of us if we were contemplating suicide. Our finding that suicidal and nonsuicidal individuals, both in a general population and within a psychiatric patient sample, differ in the degree of importance attached to these beliefs suggests that treatments aimed at reducing the incidence of suicidal behavior might be enhanced if the suicidal person can be taught to believe and attach importance to beliefs contained in the Reasons for Living inventory. At a minimum, it might be useful for the clinician to assess the presence of such beliefs and focus some therapy time on persuasively discussing the evidence for those beliefs not endorsed as important by the client. Whether this therapeutic strategy would indeed be a fruitful avenue needs to be verified by therapy-outcome research.

### Reference Notes

1. Linehan, M. M. Unpublished data, University of Washington, 1982.
2. Linehan, M. M. *Demographic Data Schedule*. Unpublished inventory, University of Washington, Seattle, Washington, 1981.
3. Linehan, M. M. *Suicidal Behaviors Questionnaire*. Unpublished inventory, University of Washington, Seattle, Washington, 1981.

### References

- Beaver, C. W. Hope and suicide in the concentration camp. In E. S. Shneidman (Ed.), *Death and the college student*. New York: Behavioral Publications, 1972.
- Beck, A. T. Thinking and depression: Idiosyncratic content and cognitive distortions. *Archives of General Psychiatry*, 1963, 9, 324-333.
- Beck, A. T., Resnik, H. L. P., & Lettieri, D. J. (Eds.). *The prediction of suicide*. Bowie, Md.: Charles Press, 1974.
- Beck, A. T., Weissman, A., Lester, D., & Trexler, L. Measurement of pessimism, the Beck Hopelessness Scale. *Journal of Consulting and Clinical Psychology*, 1974, 42, 861-865.
- Bedrosiand, R. C., & Beck, A. T. Cognitive aspects of suicidal behavior. *Suicide and Life Threatening Behavior*, 1979, 9, 87-96.

- Berman, A. L. Self-destructive behavior and suicide: Epidemiology and toxonomy. In A. R. Roberts (Ed.), *Self-destructive behavior*. Springfield, Ill.: Charles Thomas, 1975.
- Clum, G. A., Patsiokas, A. T., & Luscomb, R. L. Empirically based comprehensive treatment program for parasuicide. *Journal of Consulting and Clinical Psychology*, 1979, 47, 937-945.
- Des Pres, T. *The survivor: An anatomy of life in the death camps*. New York: Oxford University Press, 1976.
- Edwards, A. L. *The measurement of personality traits by scales and inventories*. New York: Holt, Rinehart & Winston, 1970.
- Frankl, V. E. *From death-camp to existentialism*. Boston: Beacon, 1959.
- Goodstein, J. *Cognitive characteristics of suicide attempters*. Unpublished doctoral dissertation, Catholic University of America, 1982.
- Johnson, J. H., & Sarason, I. G. Life stress, depression and anxiety: Internal-external control as a moderator variable. *Journal of Psychosomatic Research*, 1978, 22, 205-208.
- Kreitman, N. *Parasuicide*. London: Wiley, 1977.
- Linehan, M. M. A social-behavioral analysis of suicide and parasuicide: Implications for clinical assessment and treatment. In J. Clarkin & H. Glazer (Eds.), *Depression: Behavioral and directive intervention strategies*. New York: Garland STPM Press, 1981.
- Linehan, M. M., & Laffaw, J. A. Suicidal behaviors among clients at an outpatient psychology clinic vs. the general population. *Suicide and Life-Threatening Behavior*, in press.
- Linehan, M. M., & Nielsen, S. L. Assessment of suicide ideation and parasuicide: Hopelessness and social desirability. *Journal of Consulting and Clinical Psychology*, 1981, 49, 773-775.
- Linehan, M. M., & Nielsen, L. L. Social desirability: Its relevance to the measurement of hopelessness and suicidal behavior. *Journal of Consulting and Clinical Psychology*, in press.
- Neuringer, C. Dichotomous evaluations in suicidal individuals. *Journal of Consulting Psychology*, 1961, 25, 445-449.
- Neuringer, C. Rigid thinking in suicidal individuals. *Journal of Consulting and Clinical Psychology*, 1964, 28, 54-58.
- Neuringer, C. Divergencies between attitudes towards life and death among suicidal, psychosomatic, and normal hospitalized patients. *Journal of Consulting Psychology*, 1968, 32, 59-63.
- Neuringer, C. (Ed.) *Psychological assessment of suicidal risk*. Springfield, Ill: Charles C. Thomas, 1974.
- Neuringer, C. Relationship between life and death among individuals of varying levels of suicidality. *Journal of Consulting and Clinical Psychology*, 1979, 47, 407-408.
- Vital statistics of the United States* (Vol. 2, Part A, 1973; U.S. Department of Health, Education, and Welfare). Hyattsville, Md.: National Center for Health Statistics, 1977.
- Vital statistics of the United States* (Vol. 2, Part B, 1975; U.S. Department of Health, Education, and Welfare). Hyattsville, Md.: National Center for Health Statistics, 1977.