

CHRONIC AND SITUATIONAL LONELINESS
A COMPARISON OF TWO TYPES OF
LONELY PEOPLE AND A QUASI - EXPERIMENT

by

Rita Lynn Serbin

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Abstract

The purpose of this study was to identify the characteristics of nonlonely people, situationally lonely people and chronically lonely people; and to determine if the onset of loneliness is caused by environmental factors, rather than by internal factors within the people themselves. This thesis is divided into two parts, each was a separate study involving a separate set of subjects and separate data analyses.

The first study was primarily designed to determine in which ways situationally and chronically lonely people differ. Altogether three groups of subjects were compared: One group ($n = 30$) consisted of people who were not lonely, another ($n = 29$) of situationally lonely individuals, and a third group ($n = 30$) of chronically lonely people. The results indicated that most of the significant differences were found between those who were not lonely and those who were chronically lonely. The situationally lonely subjects and the chronically lonely subjects differed significantly from one

another on five of the variables measured. The chronically lonely subjects attributed their loneliness to unstable external causes significantly more than the situationally lonely did. The chronically lonely subjects reported that their fathers were significantly less satisfied with the number and the quality of their own (i.e., the fathers') friendships. The situationally lonely subjects had not lived in Winnipeg as long as the chronically lonely subjects had. The situationally lonely people spent most of their childhood in a town, whereas the chronically lonely subjects had spent most of their childhood in a city. In the past six months significantly more situationally lonely subjects had started a new job than chronically lonely subjects had. Both the situationally lonely and the chronically lonely subjects reported being less socially active than the nonlonely subjects. The situationally lonely people displayed evidence of dealing with their loneliness, by calling or visiting a friend and by going out, whereas the chronically lonely did not. It is believed that if the chronically lonely people tried to achieve higher levels of social contact they could overcome

some, if not all, of their lonely feelings.

The second part of this thesis was a quasi-experiment to determine if a precipitating event believed to cause loneliness did cause it and what related effects there were in self-esteem and depression. The crucial situation (or precipitating event) in this study was the loss of an athletic competition. Having subjects participate in a sporting event provided a suitable setting for an investigation of loneliness. Ninety-eight subjects were recruited from private racquet clubs to participate in this study. The subjects were divided into groups of male and female winners and losers. Subjects were required to complete three separate questionnaires; one prior to their match, a second one immediately after their match and a final questionnaire just before they went to bed that night. Prior to the match there were no differences between the winners and the losers. The findings supported the hypothesis that, after a match, losing subjects manifested greater loneliness, depression and lower self-esteem than did winning subjects and than they, themselves, did prior to their match.

This demonstrated that situational factors are crucial to the onset of loneliness rather than attributing the cause of the problem to the people themselves. This study provided the investigator with the opportunity to see if such events could be used as a quasi-experimental way of manipulating loneliness in future work.

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PART 1

A Comparison of Chronic and Situationally Lonely Students

Loneliness is a widespread social problem. Bradburn (1969) reported that 26% of the respondents in a national American survey felt lonely.

Peplau and Perlman (1979) define loneliness as a social deficiency, a discrepancy between one's desired and achieved level of social relations. Although many people who live alone report feeling lonely more often than those who live with others, being alone or socially isolated is not synonymous with being lonely.

Many different kinds of loneliness have been suggested. De Jong - Gierveld and Raadschelders (1982) have identified three bases for distinguishing types of loneliness. They are the evaluative dimension, an interpersonal dimension and a duration dimension. With the evaluative dimension, some discussions of loneliness focus solely on the aversive nature of the experience, others portray loneliness as including positive qualities such as useful self-

confrontation. Second, the interpersonal dimension has been classified in terms of the interpersonal deficiencies being experienced by the lonely person. For instance, Weiss (1973) distinguished between social and emotional loneliness, or loneliness due to a lack of intimate relationships. Third, forms of loneliness have been distinguished in terms of their duration. In some instances, loneliness is a relatively short lived experience; in others, it is a chronic, enduring condition.

The chronic versus short-term distinction intuitively seems important and promising to the present author. It is akin to the trait versus the state distinction that has proved useful in the anxiety literature. However, relatively little has been done about the duration dimension of loneliness.

Young (1982) has noted the importance of the chronicity dimension in his writing, claiming that chronic loneliness "involves long-term behavioral deficits in relating to other people". He wrote, "I would predict that the chronically lonely have fewer close friends and intimate relationships than the situationally lonely". He sees situational (or

short term) loneliness as caused by abrupt changes in one's social patterns. These changes are, in his view, often brought about by such major life events as moving, getting divorced, going away to college, and the like.

Gerson and Perlman (1979) examined communication skills among three groups. They found that situationally lonely subjects were more successful as communication senders than were chronically lonely or nonlonely subjects. They interpreted this finding as reflecting a heightened state of arousal created by the onset of loneliness.

The purpose of the present study was to investigate further the distinction between chronic and temporary (or situational) loneliness. Given the sparsity of previous work on this topic, a broad-based investigation seemed most appropriate.

One of the variables under study in this research project was friendship. Based on Young (1982) the chronically lonely subjects were expected to report having fewer friends and having less contact with these friends than the situationally lonely subjects. Young also claimed that the transient state of

loneliness (situational) is brought about by sudden changes in one's life, such as moving, going to college, getting married or divorced, etc.. These events are considered stressful experiences. The situationally lonely subjects were expected to have experienced one or more stressful events in the six months preceding the study which have contributed partially or entirely to their state of loneliness.

Weiner (1974, 1979) developed a model of causal attributions which has been used to determine what people attribute their loneliness to and how their attributions affect their future expectations of overcoming their loneliness. Peplau, Russell, and Heim (1979) contended that the "duration of loneliness was related to internality of attributions". According to Weiner's attributional theory, there are two primary dimensions, locus of causality (internal vs. external) and stability. A third more recent dimension of the theory is controllability. A study by Michela, Peplau, and Weeks (Note 1) examined Weiner's attribution model of the experience of loneliness. Their findings, although not taking into consideration the chronicity factor, strongly supported Weiner's model.

Peplau and Perlman (1979) speculated that situationally lonely people commonly attribute their feelings to unstable causes, while chronically lonely people attribute their feelings to internal, stable causes. Another goal of the present study was to test the Gerson and Perlman speculation. It has been reported that depression, hopelessness and pessimism are associated with internal stable attributions (Gerson & Perlman, 1979; Peplau, Russell, & Heim, 1979; Rubenstein & Shaver, 1980). If chronically lonely subjects make more stable attributions, then they might be expected to report feelings of depression, hopelessness and pessimism significantly more often than the situationally lonely subjects.

Rubenstein and Shaver (1980) measured 27 possible feelings associated with loneliness. The NYU Loneliness Scale, an 8-item scale, was used to determine how lonely their subjects were. They found that those who were severely lonely (chronically lonely) did not exhibit any type of behavior that would help them overcome their loneliness. Those who were suffering a temporary state of

loneliness (situationally lonely) displayed evidence of dealing with their loneliness by calling or visiting friends, or by going out. The present study anticipated similar results.

Based on previous research findings, those who are lonely, express some dissatisfaction with their family relations; are higher in self-consciousness, less assertive and lower in self-esteem than their nonlonely counterparts. These people also report greater shyness and score higher on social anxiety scales (Perlman & Peplau, 1979; Rubenstein & Shaver, 1980; Zimbardo, 1977; Berke, Note 2; Goswick, Note 3). The above mentioned variables were measured in the present study and the situationally lonely subjects were expected to show significantly fewer personality deficits (i.e., low self-esteem) than the chronically lonely subjects. Since situationally lonely people are experiencing a temporary state of loneliness, their character may change somewhat; but only after a prolonged period of loneliness, as with chronically lonely people, are personality deficits expected to develop. The latter will feel unable to change their situation and

consequently to blame themselves for their loneliness, leading to such personality deficits as low self-esteem, lack of assertiveness, self-consciousness, shyness and anxiety.

The present study also examined the relationship between social contacts and loneliness using the same scale Goldenberg and Perlman (Note 4) used in their research. The relationship between social contacts and loneliness has mixed support. This may be due to the differences in samples and the types of measures used (Hoover, Skuja, & Cooper, 1979; Perlman & Peplau, 1978; Rubenstein & Shaver, 1980; Goldenberg & Perlman, Note 4; Cutrona, Russell, & Peplau, Note 5). Significant differences were expected to be found between the number and the types of social contacts and loneliness. No relationship was expected between the number of previous moves and current loneliness (Packard, 1972; Rubenstein & Shaver, 1980).

Although the primary aim of this study was the identification of differences between the situationally lonely people and the chronically lonely people, the author could not disregard the significant differ-

ences that are expected between the nonlonely group and the two lonely groups. Since situational loneliness is due to temporary factors, or circumstances, or both, fewer differences were expected to be found between the nonlonely subjects and the situationally lonely subjects. Chronic loneliness is a prolonged condition or a permanent state, it is due to factors, or circumstances which maintain the state of loneliness. Therefore many significant differences were expected between this group and the nonlonely group.

Perlman and Peplau (1978) have written that lonely people are less happy, less satisfied, more depressed, more pessimistic, tense, restless, anxious, and higher in self-consciousness than nonlonely people. Lonely people lack assertiveness and are easily distracted from a task. In the present study the nonlonely group is expected to differentiate itself from the situationally and the chronically lonely groups on most of the variables.

The principal hypotheses were as follows:

- 1) The situationally lonely subjects would attribute their recent loneliness to unstable external factors, whereas the

- chronically lonely subjects would attribute their loneliness to stable internal factors;
- 2) the situationally lonely subjects would be more assertive, higher in self-esteem, more anxious, less self-conscious, and not as depressed as the chronically lonely subjects;
 - 3) the situationally lonely subjects would be more satisfied with their family relations than the chronically lonely subjects;
 - 4) the chronically lonely subjects would have fewer social contacts than the situationally lonely subjects;
 - 5) the situationally lonely would have experienced more sudden changes in the past six months than the chronically lonely had.

Method

Subjects

Subject selection involved a screening session to identify individuals that were not lonely, those that were situationally lonely and those that were chronically lonely. For the screening session, 625

male and female university students completed the UCLA Loneliness Scale (Appendix A) twice. The first time they indicated how they felt during the past week. The second time they answered with reference to how they had felt generally during the past several years. The highest possible score a subject could have was 64, the lowest possible score was 16. Higher scores indicated greater loneliness. In selecting subjects to participate, an effort was made to use only those individuals who most clearly manifest each type of loneliness. Thus, a high percentage of the individuals screened were not asked to take part in the main phase of the study. The subjects that were classified as not lonely had low scores (i.e., ≤ 25) on both the recent and the general part of the UCLA Loneliness Scale. Those that were considered situationally lonely had a high score (i.e., ≥ 37) on the recent scale and a low score (i.e., ≤ 29) on the general scale. The chronically lonely subjects had high scores on the recent scale and on the general scale. Cutoffs of ≥ 39 and ≥ 40 , respectively were used for selecting chronically lonely subjects.

There were 30 people in the nonlonely group, 15 males and 15 females. The situationally lonely group was made up of 29 subjects, 9 males and 20 females. It was especially difficult to find individuals, especially males, who fit this category. The chronically lonely group consisted of 30 people, 15 males and 15 females.

The loneliness scores of the foreign students attending University during the intersession were not used in this study.

Procedure

All subjects were administered the UCLA Loneliness Scale in their psychology class. The scale took approximately 15 minutes to complete. Subjects were selected based on their responses. They were contacted by telephone within two days from the time that they completed the UCLA Loneliness Scale, and were asked to participate in the "Social Relations Survey". These individuals were offered partial course credit or \$4.00 for their participation. There was a span of about four days from the time the subjects had filled out the UCLA Loneliness Scale and had completed the questionnaire.

The Social Relations Survey questionnaire was administered in a classroom setting, in groups of 3 to 7 subjects. Before beginning, the experimenter reviewed the questionnaire with the subjects. When they had completed the questionnaire, 61 subjects received partial course credit and 28 subjects were paid \$4.00 for their participation.

An informal debriefing took place immediately

after the subjects handed in their questionnaire.

UCLA Loneliness Scale

Loneliness was measured by 16 of the 20 items of the revised version of the UCLA Loneliness Scale (Appendix A). Four items were deleted so that the screening sessions could be completed more quickly. The deleted items were those with lower item to scale correlations. Below is an example of three of the items from the scale used in the questionnaire:

	NEVER	RARELY	SOMETIMES	OFTEN
I lack companionship	1	2	3	4
There are people I feel close to	1	2	3	4
No one really knows me well	1	2	3	4

The UCLA Loneliness Scale is a widely used scale to measure loneliness in the general population. The scale's psychometric properties have been carefully examined (Russell, Peplau & Cutrona, 1980), and have been found to be good. Indicative of high internal consistency among the items, the scale has a Cronbach alpha coefficient of .94. To assess con-

current and construct validity, scores on the UCLA scale have been correlated with various other measures (i.e., time per day respondents spend alone, various affective states presumed associated with loneliness, dating status, etc.). Correlations ranged as high as .62.

A special problem in dealing with loneliness is whether it is a concept unto itself or whether it is confounded with other variables such as depression, low self-esteem or anxiety. Thus, it's important to note that the discriminant validity of the UCLA Scale has been established via the novel use of factor analysis.

Social Relations Survey Questionnaire

This questionnaire (Appendix B) was administered to the 89 subjects participating in this study. Several variables were measured in the questionnaire to determine how the nonlonely, the situationally lonely and the chronically lonely subjects differed from one another.

The questionnaire begins by asking the subject about his/her friends, social activities and family

relations. The format for this part of the questionnaire was derived from Perlman et al. (1978). An example of some of the items from this section are presented below:

a) Compared to other people your age, do you think the number of good friends you have is:

- 1) much larger than average
- 2) larger than average
- 3) about average
- 4) smaller than average
- 5) much smaller than average

b) On the average weekend, how much of your waking time do you spend alone, by yourself?

- 1) very little 2) some 3) about half 4) quite a lot 5) almost all

c) Overall, how satisfied are you with your current family relationships?

Completely						Not at all
satisfied	1	2	3	4	5	satisfied

The CES-D depression scale was the next part of the questionnaire to be completed. This scale is a short, structured, self-report measure designed for

use in general population surveys. Radloff (1977) reports that "the scale has very high internal consistency and adequate test-retest repeatability". The subjects answered this scale in terms of how they felt during the past week (see page 13 of the questionnaire.)

Anxiety was measured with Spielberger's State Anxiety Measures, a self-evaluation questionnaire in which the subject must read each statement and indicate how he/she feels at that moment.

Comrey's Shyness Scale follows the Anxiety measure in the questionnaire. The Shyness scale is part of Andrew Comrey's Personality Inventory (Comrey, 1965), a highly reliable and valid measure of personality. Another variable measured in the questionnaire is self-consciousness. This scale was derived from Fenigstein, Scheier, and Buss (1975). Subjects were asked to indicate how characteristic each statement was of them (page 12, Appendix B). A reliable and valid measure of self-esteem developed by Helmrich and Stapp (1974) is found on page 16 of the questionnaire.

The questionnaire took approximately 1 hour to complete.

Results

The "independent" variable in this study was loneliness. Along this dimension, there was the non-lonely group, the situationally lonely group and the chronically lonely group. The dependent variables in the study were the number of friends and the frequency of contact, stressful events, family relations and background, demographic variables, anxiety, social satisfaction, depression, shyness, self-esteem and assertiveness. Analyses of variance were computed on all the dependent variables mentioned above. The technique for pairwise comparisons used in this study was the Tukey - HSD Method. It is the best method for pairwise comparisons because it is more powerful and more specific than other multiple comparison procedures. The reader should be aware, however, that a weakness in the error rate does exist when multiple F tests are performed. This increases the probability of obtaining some significant F values by chance alone.

Manipulation Check

To check on the success of the manipulation, the subjects were divided into the three loneliness groups, and then their loneliness scores were examined. The results are presented below in Table 1.

TABLE 1

Scores of the UCLA Loneliness Scale

	MEAN	MODE	MEDIAN	RANGE	STANDARD DEVIATION
NONLONELY SUBJECTS					
RECENT	20.57	25	21	16-25	2.89
GENERAL	20.80	25	22	16-25	3.01
SITUATIONALLY LONELY SUBJECTS					
RECENT	42.84	37	41	33-57	5.93
GENERAL	26.52	29	28	16-34	4.00
CHRONICALLY LONELY SUBJECTS					
RECENT	42.43	38	43	37-49	3.71
GENERAL	43.17	40	41	37-54	4.52

The mean loneliness scores indicate how the groups differed from one another. The higher the score the greater the loneliness. The highest possible score a subject could have was 64, the lowest possible score was 16. Subject selection

was made by the following criteria: the chronically lonely subjects scored high on both the recent and the general parts of the scale; the situationally lonely subjects scored high on the recent scale and fairly low on the general scale; the nonlonely subjects scored low on both the recent and the general parts of the scale. Based on the tabled results, the situationally lonely recent scores had the greatest variability.

Differences between Situational and Chronic Loneliness

The situationally lonely subjects and the chronically lonely subjects differed significantly from one another on five of the measures (see Table 2). The chronically lonely subjects reported that their fathers were less satisfied with the number and the quality of their (ie., the father's own) friendships.

Contrary to one of the hypotheses under investigation in this study, the chronically lonely subjects attributed their loneliness to unstable external causes significantly more than the situationally lonely subjects did.

TABLE 2

MEAN SCORES AND F-VALUES OF THE THREE LONELINESS
GROUPS ON SELECTED DEPENDENT VARIABLES

DEPENDENT VARIABLES	MEAN SCORES					F-VALUE	df
	RANGE OF SCORES		NONLONELY	SITUATIONAL	CHRONIC		
Started a new job	1 - yes						
	2 - no		1.8667	1.6897	1.9333	3.471	2,86 A
Father satisfied with his friends	1 - completely satisfied						
	5 - not at all satisfied		1.6000	1.8929	2.5000	7.116	2,85 A B
Number of years in Winnipeg	1 - less than 2 years						
	5 - More than 10 years		3.9333	2.7931	4.2333	6.875	2,86 A B
Place spent most of childhood	1 - large city						
	5 - farm or rural		1.6000	2.8276	1.8667	5.821	2,86 A B
External unstable attributions	3 - not at all important						
	15 - very import- ant		4.000	5.5517	6.9667	17.312	2,86 A B C

NOTE.

- A - situational and chronic groups differ significantly, $p < .05$
 B - nonlonely and situational groups differ significantly, $p < .05$
 C - nonlonely and chronic groups differ significantly, $p < .05$

Another significant difference between the situationally lonely subjects and the chronically lonely subjects was the length of time that they had lived in Winnipeg. The situationally lonely subjects had not lived in this city as long as the chronically lonely subjects had.

The fourth significant difference was that the situationally lonely people had spent most of their childhood in a town (population 10,000 - 24,999) whereas the chronically lonely subjects had spent most of their childhood in a city (population 100,000 +).

The final difference between these two groups was that, in the past six months, significantly more situationally lonely subjects had started a new job than chronically lonely subjects had.

There were no other significant differences between the situationally lonely subjects and the chronically lonely subjects. Differences that were in the predicted direction but did not reach statistical significance are presented below.

The chronically lonely group reported less satisfaction with their family relationships than the

situationally lonely group. In the past six months the situationally lonely subjects experienced more life changes (i.e., moved, started a new job, changed schools) than the chronically lonely subjects did.

Contrary to the hypotheses, the results for assertiveness, self-esteem, anxiety, self-consciousness, depression, internal stable, internal unstable, and external stable attributions yielded no significant differences between the situationally and the chronically lonely group. Expectations for differences between the two groups on these variables based on the results of previous studies and the author's conceptual analysis were not borne out.

Differences between Lonely and Nonlonely Students

Most of the significant differences in this study were found between those who were not lonely and those who were chronically lonely. Some significant differences were also found between the nonlonely group and the situationally lonely group. The significant differences between the three groups are presented in Table 3.

TABLE 3
Mean Scores and F - Values of the
Three Loneliness Groups on Dependent Variables

Dependent Variables	MEAN SCORES						df
	Range of Scores	Nonlonely	Situational	Chronic	F-Value		
Changed	1)Not at all	1.4000	2.4545	2.8182	8.727	2,24	A
interests/activities	3)A great deal						B
Number of	1)Much larger						
Good friends	than average	2.5517	3.4138	3.5667	15.649	2,85	A
	5)Much smaller						B
Contact with	1)Good friends	2.3333	3.2759	3.3667	8.634	2,86	A
others	5)Strangers						B
Weekend Time	1)very little	1.8000	2.3793	2.8000	6.349	2,86	
Spent alone	5)almost all						B
Not going out	1)0-2 times						
because alone	5)9 or more	1.0333	1.4483	1.4333	4.239	2,86	A
							B
How often go out	1)very frequent	2.1000	2.7931	3.0333	9.691	2,86	A
	5)never						B
Attend sports events	1)very frequent	2.4333	3.0000	3.4000	5.711	2,86	B
	5) never						
Attend classes	1)very frequent	1.0000	1.4138	1.4667	4.359	2,86	B
	5)never						
Mother satisfied	1)completely	1.7586	2.0345	2.5000	4.784	2,85	B
with friends	5)not at all						
How much relied	1)very much	1.4828	1.8214	2.2667	4.114	2,84	B
on mother	5)not at all						
How satisfied with	1)completely	1.7667	2.3103	2.5667	5.740	2,86	B
family relationships	5)not at all						
How often feel	1)often	4.0690	2.9655	2.7667	16.494	2,85	A
lonely	5)never						B
Intensity of	1)extremely	3.7619	3.0000	2.7000	5.181	2,77	B
loneliness	5)slightly						
Lack of intense	1)none	1.8000	2.6552	2.8000	4.810	2,86	A
relationships	5)very much						B
Being impersonal	1)not important	1.4667	2.7931	2.6000	12.461	2,86	A
with others	5)very important						B
Internal stable	3)not at all	4.8667	6.8966	7.2000	8.568	2,86	A
attributions	15)very important						B
Internal unstable	3) not at all	5.2667	8.3793	8.7000	13.691	2,86	A
attributions	15)very important						B
External stable	3)not at all	4.4000	6.7241	6.8333	12.400	2,86	A
attributions	15)very important						B
Depression	21)not D.	29.3448	40.0690	42.8621	14.461	2,84	A
	67)extremely D.						B
Anxiety	20)low	30.8000	40.3571	42.7241	11.092	2,84	A
	68)high						B
Self-Esteem	19)high	37.4000	45.3571	47.2667	8.621	2,85	A
	67)low						B

NOTE:

A - nonlonely and situational groups differ significantly, $p < .05$
B - nonlonely and chronic groups differ significantly, $p < .05$

The chronically lonely people and the situationally lonely people had changed interests and activities significantly more often than the nonlonely people had in the past six months. On the average weekend the chronically lonely person spends significantly more time alone than the nonlonely person. Consistent with the above, the chronically lonely individual went out to pubs, movies, restaurants, sporting or outdoor events and attended university classes significantly less often than the nonlonely individual.

The chronically lonely subjects differed significantly from the nonlonely subjects in the satisfaction with their current family relationships; the chronically lonely subjects were less satisfied.

The chronically lonely and the situationally lonely disclosed that they lacked an intense, enduring relationship, that provided affection and security significantly more often than the nonlonely subjects did.

The situationally lonely subjects and the chronically lonely subjects made significantly more

attributions for the loneliness they experienced than the nonlonely subjects did.

The nonlonely individuals reported that during the average day they were most often in contact with good friends, whereas the situationally lonely and the chronically lonely individuals reported that on a daily basis they dealt most often with acquaintances and strangers.

Both the situationally lonely and the chronically lonely people reported feeling more depressed, more anxious and lower in self-esteem than the nonlonely people. Most of these differences were anticipated since they replicated previous findings.

When the situationals felt lonely they would often call friends, visit someone, go places to meet new friends and tried to be friendlier to other people. The chronics dealt with their loneliness by exercising, studying, working or by doing leisure or hobby activities by themselves.

Discussion

The data from the present study tested five hypotheses. None of the hypotheses received complete support, yet there was at least some data that can be interpreted as consistent with three of the five. We will begin with these hypotheses, and then focus our attention to the two other predictions. Finally we will consider an unexpected finding and ask the question: Why weren't there more differences between the chronic and the situationally lonely subjects?

The hypothesis, that the situationally lonely subjects did experience more life changes in the past six months than the chronically lonely subjects did, received some support. A common experience of the situationally lonely subjects was that they had recently started a new job. Also, they had more recently moved to Winnipeg.

The third hypothesis, that the situationally lonely subjects will be more satisfied with their family relations than the chronically lonely subjects, did not receive support. Interestingly however, while the chronically lonely students had significantly poorer relations with their families than the nonlonely students, between the situationally lonely and the nonlonely students this difference was not significant.

The data were at least in the predicted

direction. Furthermore the chronically lonely subjects reported that they had fathers who were less satisfied with the number and the quality of their (ie. the fathers') friendships. When a parent expresses dissatisfaction, a child can learn to express similar dissatisfaction with the same things. In this case one of the reasons the chronically lonely subjects are lonely, may be due to the fact that they are modelling their parents' behavior. Also, lonely people are known for their pervasive pessimism. Perhaps the discontent fathers experience in their relationships (and the students' perceptions of these relations) is one more manifestation of this.

The fourth hypothesis that the chronically lonely subjects would have fewer social contacts than the situationally lonely subjects was supported. The chronically lonely subjects in this study reported that they spent more waking time alone on the weekend and did not go out very often. The situationally lonely people displayed nonsignificant tendencies to deal with their loneliness by calling or visiting a friend and by going out. It is possible that the

chronically lonely people could overcome some, if not all, of their lonely feelings if they were able achieve higher levels of social contact.

The data on internal vs. external and stable vs. unstable attributions yielded unexpected results. Contrary to what was hypothesized, the chronically lonely subjects attributed their loneliness to external unstable causes and the situationally lonely subjects did not. This raises an interesting question. Peplau and Perlman (1982) have generally assumed that persisting loneliness leads to an internal attribution. Yet, other research (Miller & Ross, 1975) suggests that we try to blame failure on external factors. To the extent that chronic loneliness reflects a failure experience, perhaps students do not want to attribute it to internal factors. Maybe temporarily lonely students are not as strongly threatened by their loneliness and don't have the same drive to absolve themselves of responsibility for their loneliness.

The hypothesis that the situationally lonely subjects would be more assertive, higher in self-esteem, more anxious, less self-conscious and not as

depressed as the chronically lonely subjects, was not supported. No significant differences or trends were noted between the situationally lonely and the chronically lonely subjects in terms of assertiveness, self-esteem, anxiety, self-consciousness, and depression. Since the situationally lonely people are experiencing a temporary state of loneliness, it was expected that they would show fewer personality deficits than the chronically lonely subjects. A possible explanation for this result is that some of the situationally lonely subjects possessed tendencies toward personality deficits prior to their present state of loneliness. With the onset of loneliness, these tendencies may have been further enhanced, thus leaving the situationally lonely similar to the chronics.

Many of the situationally lonely subjects in this study had recently started a new job or had moved; possibly, if they would have prepared themselves emotionally for these changes, they might not have been as lonely as they were. Realizing that their move or their job would take them away from many of their

friends and family, they could have adjusted their desired levels of friendship, which could have alleviated some of their loneliness.

One unexpected finding emerged from this study: situationally lonely subjects were more likely to have grown up in small towns than were chronically lonely subjects. While this finding was not predicted, it may be consistent with Young's view that situational loneliness is caused by sudden life changes. In Manitoba, it is likely that many of the people who grew up in small towns spent most of their lives in these towns and had only recently moved to Winnipeg to attend University.

Why weren't there more differences between the chronic and the situationally lonely individuals? Two basic answers can be given: 1) Because the hypotheses were not valid, or 2) Because the study was a poor test of the hypotheses. It is quite possible that many of the expected differences between the groups simply do not exist. Recall that very little research has been done on this topic, and that most of the predictions were offered tentatively as ideas to be explored. If these differences don't

exist, then one could either conclude that the chronic vs. situational distinction is not very important, or that there are other, as yet unidentified, differences between the groups. Given that the present study was an initial one, further research still seems warranted.

Was the present study adequate? In many ways, the answer appears to be "yes". Most of the measures used have been carefully constructed and have been shown to be satisfactory in other research projects. Also, the size of the sample was sufficient to reveal differences between groups. In retrospect, one aspect of the study that might be done differently is the division of subjects into chronic vs. situationally lonely people. Having subjects complete the same form twice may place a demand on subjects to answer the questions in a similar fashion both times. It might be that some other, less obvious way of selecting situationally lonely subjects would be more effective.

In any case, with continued research it is hoped that ways can be found to prevent the onset of loneliness from turning into a chronic condition. It is hoped that this distressing state can be prevented for many and overcome by those who experience it.

Part 2

A Quasi-Experimental Investigation of A Situational Antecedent of Loneliness

The second part of this thesis was a quasi-experiment to determine if a precipitating event believed to cause loneliness did, in fact, cause it. The study also examined the effects of this event on self-esteem and depression.

According to Peplau and Perlman's (1978) formulation, various precipitating events can lead to the onset. According to them, the precipitating factors may be the termination of a close relationship, physical separation from families, status changes or reduced satisfaction in current relationships, as well as changes in an individual's desired level of social contact. Other studies by Cutrona (1982), Greene (1980), and Jones (Note 6) have suggested that disruptions of interpersonal relations and situations involving failure are perceived as triggering loneliness. Having subjects participate in a sporting event seemed to be a

good setting for a quasi-experimental investigation of loneliness. In this study the failure experience was the loss of a racquetball, squash or tennis match.

Based on previous investigations of what people believe causes loneliness, the major hypothesis of this study was that loneliness would be enhanced by losing a match. This was tested by comparing the loneliness of the losers with the loneliness expressed by the winners. Since self-esteem and depression are closely associated with loneliness, it was reasonable to expect that they would also vary as a function of the result of the match. Morrison (1979) found that those experiencing failure (a loss) were low in state self-esteem, while those experiencing success (a win) showed an increase in state self-esteem. These studies have considered levels of self-esteem as a consequence of failure. Cutrona (1982) raised an additional issue with regard to self-esteem as an antecedent of failure-induced loneliness. She found that self-esteem was useful in predicting one's recovery from loneliness. This raised the possibility that high

self-esteem people may be protected from loneliness more than low self-esteem people after experiencing failure. In statistical terms this speculation would lead one to predict a self-esteem by outcome interaction effect for post-match (scale) loneliness scores.

As noted previously, Heider (1944, 1958) and Weiner (1974, 1979) stressed that people seek to assign causes to behavior. Heider wrote that people describe and explain behavior as being caused by the person, the environment, or both. Weiner (1974, 1979) developed a model of causal attributions with two primary dimensions - locus of causality (internal vs. external) and stability. The outcomes of studies and experiments have strongly supported Weiner's model (Cutrona, 1982; Frieze & Weiner, 1971; Lou & Russell, 1980; Peplau, Russell & Heim, 1979; Michela, Peplau & Weeks, Note 1). Miller and Ross (1975) argue that "people typically expect and intend to succeed; hence, success is attributed internally and unexpected and unintended failures are attributed externally. There is a great deal of research which documents this (Lau

& Russell, 1980; Kelley, 1973; Kelley, Note 7; Peterson, 1980; Shaver, Furman, Buhrmester & Willems, Note 8).

Although it is generally accepted that successes are attributed to internal stable factors, whereas failures are explained by external stable factors, this could also be the case for winning vs. losing a match. This study examined the explanations given by the participants to determine whether the winners or the losers attributed the result of their match to personal factors (internal attributions) or to situational factors (external attributions).

According to Peplau and Perlman's attributional model, causal explanations mediate between the recognition of social deficits and the intensity of the loneliness experience. In the present study, the experience leading to loneliness was not a social deficit per se. However, it was interesting to see if people who explained their losses internally experienced more loneliness than those who explained their losses externally.

One way for losers to cope with their dilemma

would be by seeking companionship. Perhaps losing creates anxiety, and anxiety is known to promote affiliation (Schachter, 1959). Thus social contact with others might help losers overcome their temporary lonely feelings and depression. Their friends or their family may have validated their sense of worth by making them feel meaningful regardless of the loss they suffered in their match (Perlman & Peplau, 1978; Rubenstein & Shaver, 1980). If this were the case, then such contact might serve a countervailing force, acting to minimize the loneliness that might otherwise be caused. It was important to collect information on this factor, so, if necessary, it could be used as a covariate. This analysis assumes that the post match interactions were pleasant. However, this might not be the case. If losing makes people depressed, perhaps their negative mood would have a detrimental effect on their interactions. To test this, questions about the quality of post game interactions were asked.

The major hypothesis of this study was that after a

match, losing subjects would indicate greater loneliness, depression and lower self-esteem than the winning subjects.

The other hypotheses in this study were:

High self-esteem subjects would experience less loneliness after a loss than low self-esteem subjects.

Winners were expected to attribute their success to internal factors, whereas losers would explain their loss by external factors.

Losers would experience greater anxiety after the match than the winners would.

Losers were expected to interact with more people after their match than winners would.

METHOD

Subjects

The 98 participants in this study were recruited from private racquet clubs. Of the sample, 14 were racquetball players (4 women, 10 men); 20 were squash players (8 women, 12 men), and 62 were tennis players (30 women, 32 men). There were equal numbers of male winners and losers and female winners and losers in each sport. The subjects ranged in age from 16 to 54 years. All subjects were playing a league or a tournament match at their racquet club when they participated in this study.

Procedure and Questionnaire

The subjects were required to complete 3 separate questionnaires, two at their racquet club and the third one at home or elsewhere (see Appendix C).

The first questionnaire was administered just prior to the person's match. It included a self-esteem scale, the short version of the UCLA loneliness scale, and the CES-D depression scale. This questionnaire asked the subject how often they engaged in

sporting events, how important the match was for them, and how confident they were of winning the match they were about to play. It took approximately 10 minutes to complete.

The second questionnaire was administered immediately after the match. It was brief. It included a mood-adjective rating list, assessed the results and the score of the subject's matches, and how the outcome of their match affected them. This questionnaire ended by asking which factors contributed to the subject's victory or defeat.

The third questionnaire was similar to the first questionnaire. It included the self-esteem scale, the loneliness scale, and the depression scale. This allowed the experimenter to see if loneliness was enhanced by winning or losing the match and its effect on self-esteem and depression. This questionnaire also measured the amount of social contact the subject had after their match. This questionnaire took approximately 15 minutes to complete.

Once the last questionnaire had been returned to the experimenter, each subject received feedback about the experiment and was given a headband and matching wristbands for their participation in the study.

The Measures

The self-esteem scale used in this study was developed and tested by Fiedler, Hutchins and Dodge (1959). It is high in internal consistency with a Cronbach alpha coefficient of .93. The scale consists of 20 pairs of adjectives and their antonyms on a 5-point continuum. Examples of a few of the items are presented below:

Friendly	1	2	3	4	5	Unfriendly
Gloomy	1	2	3	4	5	Cheerful
Confident	1	2	3	4	5	Unsure

The revised UCLA Loneliness Scale was used to measure loneliness. The excellent reliability and validity of this scale are discussed in the first half of this paper in the method's section. The UCLA scale consists of 10 positively worded items

and 10 negatively worded items. Russell, Peplau and Cutrona (1980) developed a 4-item survey version of the UCLA Loneliness scale. These four items were used in the questionnaire that was administered prior to the match and after the match. Of the 16 remaining items of the scale, 8 are used in the pre-match questionnaire and the other 8 are used in the post-match questionnaire. Of the 12 items included in each questionnaire, 6 are positively worded and 6 are negatively worded.

Depression was again measured with the CES-D depression scale. This scale is described in the first part of this thesis. Of the items used for the questionnaire there are an equal number of positively worded and negatively worded items. Four of the 12 items were used in both the pre-match questionnaire and the post-match questionnaire.

The second questionnaire required subjects to complete a mood-adjective rating list, composed of positive and negative dimensions. The mood-adjective rating list has been used successfully

by Orchard (Note 9) and Perlman, Gerson and Spinner (1978). An example of some of the items from this list are presented below.

I feel _ _ _ _

	Not At All	Some What	Moderately	Very	Extremely
1) angry	1	2	3	4	5
2) anxious	1	2	3	4	5
3) energetic	1	2	3	4	5

Subjects were also asked to rate how important factors, such as luck, ability, the refereeing or scorekeeping, etc., were in winning or los-

ing their match. These variables were selected from previous studies in which attributions were made for successes and failures in sporting events (Lau & Russell, 1980; Levine & Uleman, 1979; Peterson, 1980).

The measure of social contact in the third questionnaire was developed especially for this study but is patterned after techniques successfully used by Goldenberg and Perlman (Note 4). The subjects were asked to list the initials of all the people with whom they had interacted for 10 minutes or longer

since their match. The amount of social contact each subject had was determined by the number of people with whom he or she had interacted and the length of time they had spent talking or doing things with others. Based on their response to this item, a comparison was made between winners and losers.

RESULTS

The data permitted a 2 x 2 analysis of variance where prematch levels of chronic loneliness and outcome (win or loss) were the main independent variables. The main dependent variables were state measures of self-esteem, loneliness and depression.

Prior to the match there were no differences between the winners and the losers in the chronic scores on loneliness, depression and self-esteem.

Most of the significant main effects were due to the outcome of the match. As predicted, the outcome affected the subjects' loneliness, depression and

self-esteem after the match. The losing subjects manifested significantly greater loneliness and depression and lower self-esteem than the winning subjects did. These results are summarized in Table 4 and Table 5. There were no significant interaction effects. Another significant main effect was the loneliness reported by the participants before the match: It affected the loneliness experienced after

the match in a positive direction ($F(1,91)=20.054$, $p < .05$).

The winners of the match experienced significantly less anxiety after the match than the losers did ($F(1,92) = 35.812$, $p < .05$). The outcome of the participants' matches also significantly affected the subjects' social relations.

The losers however had significantly more disagreements with other people than the winners did after the match ($F(1,88) = 39.861$, $p < .05$). The losers also reported feeling irritated and frustrated significantly more after the match than the winners did ($F(1,88) = 37.726$, $p < .05$). The number of friends and relatives with whom the participants interacted after the match was also significantly affected by the outcome ($F(1,91) = 13.248$, $p < .05$); the losing subjects spent more time talking and doing things with others after their loss. The mean scores for these variables are presented in Table 6.

TABLE 4

Analysis of Variance Summary

Source	df	Loneliness		Depression		Self-Esteem	
		MS	F	MS	F	MS	F
Loneliness (A)	1	443.209	20.054*	63.427	2.093	49.194	1.110
Result (B)	1	1135.347	51.372*	3438.466	113.474*	1828.350*	41.244
A x B	1	29.428	1.332	21.740	0.717	34.924	0.788
Error	91	22.101		30.302		44.330	

* $p < .05$

TABLE 5

Mean Scores for Winners and Losers
on Main Dependent Variables

Dependent Variables	Range of Scores	Mean Scores	
		Winners	Losers
Loneliness	Not Lonely - 12	17.40	25.10
	Very lonely - 30		
Depression	Not depressed - 12	13.32	25.77
	Very depressed - 39		
Self-Esteem	Low self-esteem - 12	52.75	43.63
	High self-esteem - 60		

TABLE 6

Mean Scores for Winners and Losers on Selected
Dependent Variables

Dependent Variables	Range of Scores	Mean Scores	
		Winners	Losers
Disagreements after the match	1 - Never 5 - More than 6 times	1.29	2.11
Feeling irritated and frustrated	1 - Never 5 - More than 6 times	1.50	2.48
Number of People interacted with after match	1 - one friend 5 - five friends	4.00	4.87
Anxiety	1 - Not at all anxious 5 - extremely anxious	1.85	3.11

Multiple regression analyses were also used to analyze the data. The predictor variables entered into these analyses were outcome, gender, self-esteem prior to the match (time 1), loneliness at time 1, depression at time 1 and scores on the three attributional explanations given for the outcome. The overall set of variables produced a multiple R^2 of .71 ($F = 8.89$, $df = 9,80$). Only the outcome and the loneliness scores before the match contributed significantly to the equation. None of the other predictor variables were significant.

DISCUSSION

The findings supported the major hypothesis that, after a match, losing subjects manifested greater loneliness, depression and lower self-esteem than they did prior to their match and greater than in comparison with winning subjects.

The data also supported several other hypotheses. Losers experienced greater anxiety after the match than the winners did. The losers also interacted with more people after their match than the winners did. On the one hand, the social contact with others may have helped them overcome their temporary lonely feelings and validate their sense of self-worth. However, the loss of the athletic competition also resulted in an increase of irritability, frustration and disagreements with others after the match for the losing participants. This may be the way the losers expressed their disappointment in their performance. Thus, the losers' situation is somewhat paradoxical: Their attempt to cope with their temporary lonely

feelings has resulted in an increase in disagreements and frustration with the company they sought after their loss. The net result is that the contact doesn't alleviate their loneliness. It may have been better for the losers to deal with their agitated feelings before interacting with others.

The results also indicated that losing subjects attributed their loss to external variables and winning participants attributed their success to internal factors. This finding was consistent with results from previous studies (kelley, 1973; Lau & Russell, 1980; Miller, 1975; Peterson, 1980).

The results, although not statistically significant, were in the predicted direction for the hypothesis that high self-esteem subjects would be less lonely after losing than low self-esteem subjects. Since it was expected that a loss would lead to a greater self-esteem deficit, those who were low in self-esteem prior to losing their match would be especially vulnerable to loneliness. Over time, self-esteem may be an important factor in the development of loneliness. However in the short run, it appears that failure is a strong enough experience to make

virtually all subjects lonely.

The subjects who reported feeling lonely prior to their match experienced the greatest loneliness of all participants when they lost. It is most likely that the loss was the situational factor which increased the loneliness felt by those who were lonely prior to the match.

This quasi-experiment has demonstrated that situational factors are crucial to the onset of loneliness. There has been a tendency among psychologists to explain problems in people-centered terms rather than attributing the cause of the problem to environmental factors. The present results suggest that under certain conditions (i.e., failure) virtually everyone will become lonely.

It is useful to have some way of experimentally manipulating levels of loneliness. The present study suggests that failure experiences are one possible induction technique. It is hoped that having a way of manipulating loneliness will contribute to a better understanding of the phenomenon, and that this understanding can be used to help lonely people

overcome their distress. It is steps such as these that make research gratifying and worthwhile. What more need be said?

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Social Relations Survey

This questionnaire is being used to select students for participation in experiments being conducted by the University of Manitoba Psychology Department. Therefore please provide the following information:

(Please print)

Name _____ Sex M F
 Today's Date _____ Phone Number _____
 Intro. Psych: Slot _____ Room _____ Bldg. _____

DIRECTIONS: On this sheet you will find the same set of questions given twice - once on this side and once on the back of the page. Please fill out these pages in the following way:

- 1) The first time you answer the questions, indicate how you have felt during the recent past (how you have felt during the last week or so).
- 2) The second time you answer these questions, indicate how you have generally felt during your life, (how you have felt over the past several years).

Answer with reference to how you have felt during the past week.

DIRECTIONS: Indicate how often each of the following statements describes you. Circle one number for each.

	<u>NEVER</u>	<u>RARELY</u>	<u>SOMETIMES</u>	<u>OFTEN</u>
1. I feel in tune with the people around me	1	2	3	4
2. I lack companionship	1	2	3	4
3. There is no one I can turn to	1	2	3	4
4. I feel part of a group of friends . . .	1	2	3	4
5. I have a lot in common with the people around me	1	2	3	4
6. My interests and ideas are not shared by those around me	1	2	3	4
7. There are people I feel close to	1	2	3	4
8. I feel left out.	1	2	3	4
9. My social relationships are superficial	1	2	3	4
10. No one really knows me well	1	2	3	4
11. I feel isolated from others	1	2	3	4
12. I can find companionship when I want it	1	2	3	4
13. There are people who really understand me	1	2	3	4
14. People are around me but not with me . .	1	2	3	4
15. There are people I can talk to	1	2	3	4
16. There are people I can turn to	1	2	3	4

1

Based upon your answers to the social relations questionnaire you have been selected as a subject for this study. It is important that you answer all the questions and that you answer as candidly as possible. Your answers will be completely confidential. Do not put your name on the questionnaire or on the IBM answer sheets.

Please turn to the next page and begin.

Number: _____

[illegible]

For the rest of the questionnaire, please record all your answers on the IBM answer sheet. Please make sure that your code number is recorded in the upper right hand corner of your IBM answer sheet. DO NOT WRITE ON THIS PART OF THE QUESTIONNAIRE. Record your answers on the IBM sheet by marking the appropriate response space (1, 2, 3, 4, 5) for each question.

1. During the past six months, has the frequency of your contacts with friends increased, remained about the same, or decreased?

- 1) Increased (Skip questions 2-8; go on to Question 9)
- 2) Remained about the same (Skip questions 2-8; go on to Question 9)
- 3) Decreased

If your contact with friends has decreased in the last six months, please indicate how much each of the following factors has contributed to this decrease by marking the appropriate response under (1,2,3) on your IBM sheet.

	Not at all	Some what	A great deal
2. I moved	1	2	3
3. I changed schools	1	2	3
4. I changed interest or activities	1	2	3
5. I had disagreements or arguments with old friends	1	2	3
6. My friends moved or changed schools	1	2	3
7. My friends lost interest in me	1	2	3
8. Other	1	2	3

9. Compared to other people your age, do you think the number of good friends you have is:

- 1) Much larger than average
- 2) Larger than average
- 3) About average
- 4) Smaller than average
- 5) Much smaller than average

10. During the average day, how much contact do you have with good friends as opposed to contact with acquaintances and strangers?

- 1) Almost all my contacts are with good friends
- 2) Most of my contacts are with good friends
- 3) My contacts are about equally divided
- 4) Most of my contacts are with acquaintances and strangers
- 5) Almost all my contacts are with acquaintances and strangers

11. On the average weekend, how much of your waking time do you spend alone, by yourself?

- 1) Very little
- 2) Some
- 3) About half
- 4) Quite a lot
- 5) Almost all

In the last 2 weeks how often have you been in the following situations.

12. Eating dinner alone (by yourself or in a room with others without talking to anyone)
 - 1) 0-2 times
 - 2) 3-4 times
 - 3) 5-6 times
 - 4) 7-8 times
 - 5) 9 or more times
13. Going to a party alone
 - 1) 0-2 times
 - 2) 3-4 times
 - 3) 5-6 times
 - 4) 7-8 times
 - 5) 9 or more times
14. Going to a movie alone
 - 1) 0-2 times
 - 2) 3-4 times
 - 3) 5-6 times
 - 4) 7-8 times
 - 5) 9 or more times
15. Not going somewhere you wanted to go because you couldn't find anyone to go with you.
 - 1) 0-2 times
 - 2) 3-4 times
 - 3) 5-6 times
 - 4) 7-8 times
 - 5) 9 or more times
16. Spending Friday or Saturday evening alone
 - 1) **Never**
 - 2) **Once**
 - 3) **Twice**
 - 4) **Threetimes**
 - 5) **Four times**
17. Now I'd like to know about what you do in your free time. How often do you engage in community activities or volunteer service? Do you engage in these activities
 - 1) Very frequently
 - 2) Often
 - 3) Sometimes
 - 4) Rarely or
 - 5) Never
18. How often do you go to movies, pubs, restaurants or other forms of public entertainment?
 - 1) Very frequently
 - 2) Often
 - 3) Sometimes
 - 4) Rarely or
 - 5) Never

5.

19. How often do you go to a sporting or outdoor event?

- 1) Very frequently
- 2) Often
- 3) Sometimes
- 4) Rarely
- 5) Never

20. How often do you go to cultural activities?

- 1) Very frequently
- 2) Often
- 3) Sometimes
- 4) Rarely
- 5) Never

21. How often do you attend University or other types of classes?

- 1) Very frequently
- 2) Often
- 3) Sometimes
- 4) Rarely
- 5) Never

What other activities do you engage in? _____

22. How often do you engage in these other activities? (Specify _____)

- 1) Very frequently
- 2) Often
- 3) Sometimes
- 4) Rarely
- 5) Never

Now I would like to ask you about a series of specific events. Some things have happened to most people at one time or another; other things have happened to only a few people. In the past six months

	Yes	No
23. Did you become engaged?	1	2
24. Did you get married?	1	2
25. Have you had a child?	1	2
26. Have the number of arguments you had with your spouse or dating partner increased?	1	2
27. Did you break up with a boyfriend or girlfriend?	1	2
28. Did you become separated or divorced?	1	2
29. Have you experienced the death of a close relative or loved one?	1	2
30. Have you changed your residence?	1	2
31. Have you started a new job?	1	2

	Yes	No
32. Did you transfer to the University of Manitoba from another school?	1	2
33. Have you had academic problems?	1	2
34. Have you been rejected by a sorority or fraternity?	1	2
35. Has your contact with a close friend decreased?	1	2

Of the above questions (#23-#35) select the one that has been most stressful for you recently and answer the questions below.

36. How upsetting was the event for you?

1	2	3	4	5
Not at all upsetting				Extremely upsetting

37. How much control over the occurrence of this event did you have?

1	2	3	4	5
Had no control at all				Had complete control

38. Did this event occur primarily because of something about you (such as personality, ability, effort) -- or was it due primarily to something about the situation or another person or persons?

1	2	3	4	5
Something about <u>me</u>				Something about situation or person

39. Did this event occur because of something that changes readily (such as mood, effort, luck, or fate) -- or because of something relatively unchanging (e.g., ability, unchanging qualities of a situation or person)?

1	2	3	4	5
Something that changes				Something unchanging

40. To what extent do the causes of this event affect other areas of your life?

1	2	3	4	5
Caused this event only				Caused many other events

41. How likely do you feel that a similar event will occur in your life in the next three years?

1	2	3	4	5
Not at all likely to happen to me again				Certain to happen to me again

Part B

Family Relations and Background

Now I would like to get some information about your relationship with your family.

42. How many children including yourself are in your family?

- 1) One
- 2) Two
- 3) Three
- 4) Four
- 5) Five or more

43. In terms of birth order, what is your position?

- 1) Only child
- 2) First born
- 3) Middle born
- 4) Last born
- 5) Other

Please note that for the following questions, the terms "parents", "mother" and "father" refer to the individuals who performed these roles in your life and not necessarily to your biological parents.

44. If your parents were divorced and separated, how old were you when this happened? Leave blank if not applicable.

- 1) 0-3 years old
- 2) 4-6 years old
- 3) 7-9 years old
- 4) 10-12 years old
- 5) 13 + years old

If for any reason, you lived in a single parent household during childhood and/or adolescence, please answer the next two questions. If you have never lived in a single parent household, skip questions 45 and 46 and go on to question 47. Leave answers 45 and 46 blank on your IBM sheet.

45. How old were you when you first started living in a single parent household?

- 1) 0-3 years old
- 2) 4-6 years old
- 3) 7-9 years old
- 4) 10-12 years old
- 5) 13 + years old

46. How long did you live in a single parent household?

- 1) Less than a year
- 2) 1-2 years
- 3) 3-5 years
- 4) 6-10 years
- 5) more than 10 years

47. How far did your father go in school?

- 1) Elementary school (Grades 1-8)
- 2) Some high school
- 3) Graduated from high school
- 4) Graduated from high school plus some education after high school
(i.e., technical school or some college)
- 5) Graduate from college

48. While you were growing up, how satisfied would you say your father was with the number and quality of his friendships?

Completely	1	2	3	4	5	Not at all
Satisfied						Satisfied

49. How satisfied was your mother with her friendships?

Completely	1	2	3	4	5	Not at all
Satisfied						Satisfied

50. Which of the following describes your mother and her relationship with you? Please mark the appropriate response on your IBM answer sheet.

- 1) Warm loving relationship; very close
- 2) Good relationship; fairly close
- 3) Almost no relationship; not very close
- 4) Very conflicted relationship; argue often
- 5) I didn't live with my mother

51. How much could you rely on your mother for help when you had any kind of problem? Leave blank if not applicable.

- 1) Very much
- 2) A fair amount
- 3) Some
- 4) Not very much
- 5) Not at all

52. Which of the following describes your father and his relationship with you?

- 1) Warm, loving relationship; very close
- 2) Good relationship; fairly close
- 3) Almost no relationship; not very close
- 4) Very conflicted relationship; argue often
- 5) I didn't live with my father

53. How much would you rely on your father for help when you had any kind of problem? Leave blank if not applicable.

- 1) Very much
- 2) A fair amount
- 3) Some
- 4) Not very much
- 5) Not at all

Please indicate how strongly you agree or disagree with each of the following statements by recording the appropriate number on your IBM answer sheet.

- | | Strongly
Agree | Agree | Disagree | Strongly
Disagree |
|---|-------------------|-------|----------|----------------------|
| 54. I have a good relationship with most members of my immediate family. | 1 | 2 | 3 | 4 |
| 55. I don't get along very well with my family. | 1 | 2 | 3 | 4 |
| 56. People in my family generally help each other out. | 1 | 2 | 3 | 4 |
| 57. Members of my family give me the kind of support I need. | 1 | 2 | 3 | 4 |
| 58. I seem to have very little to say to members of my family. | 1 | 2 | 3 | 4 |
| 59. Overall, how satisfied are you with your current <u>family</u> relationships? | | | | |
| Completely Satisfied | 1 | 2 | 3 | 4 |
| Not at all Satisfied | 5 | | | |
| 60. What is your sex? | | | | |
| 1) Male | | | | |
| 2) Female | | | | |
| 61. How old are you? | | | | |
| 1) 18 or less | | | | |
| 2) 19-20 | | | | |
| 3) 21-22 | | | | |
| 4) 23-24 | | | | |
| 5) 25 or more | | | | |
| 62. What year are you in at university? | | | | |
| 1) first | | | | |
| 2) second | | | | |
| 3) third | | | | |
| 4) fourth | | | | |
| 5) other | | | | |
| 63. How long have you lived in Winnipeg? | | | | |
| 1) Less than a year | | | | |
| 2) One to two years | | | | |
| 3) 3-5 years | | | | |
| 4) 6-10 years | | | | |
| 5) More than 10 years | | | | |
| 64. How many times have you changed neighbourhoods (or communities) in your life? | | | | |
| 1) Never | | | | |
| 2) Once | | | | |
| 3) Two or three times | | | | |
| 4) Four or five times | | | | |
| 5) More than five times | | | | |

65. How would you describe the place where you spent most of your childhood?
- 1) Large city of 100,000+
 - 2) Smaller city (25,000-99,999 population)
 - 3) Town (10,000-24,999 population)
 - 4) Small town (under 10,000)
 - 5) Farm or rural

Part C

Loneliness

66. Loneliness is a common experience. Loneliness can range from feelings of extreme social isolation to an occasional wish to have someone around you to do something with. Considering your current situation, how often do you feel lonely?
- 1) Almost all of the time
 - 2) Much of the time
 - 3) Some of the time
 - 4) Occasionally
 - 5) Never (If you have never felt lonely, skip the next question, No. 67)
67. When you feel lonely, how intense is the feeling? Do you usually feel
- 1) Extremely lonely
 - 2) Very lonely
 - 3) Fairly lonely
 - 4) Somewhat lonely
 - 5) Slightly lonely
68. A possible type of loneliness is the lack of an intense, relatively enduring relationship with one other person. While this relationship is often romantic, it can be any one-to-one relationship that provides feelings of affection and security.

To what extent are you currently experiencing this type of loneliness? (Circle one)

1	2	3	4	5
Not at				Very
all				Much

Think about your recent experiences of loneliness. How much has each of the following factors contributed to your being lonely?

	<u>Not at all</u> <u>Important</u>		<u>Moderately</u> <u>Important</u>		<u>Very</u> <u>Important</u>
70. Not enough opportunities to meet people.	1	2	3	4	5
71. My being too shy.	1	2	3	4	5
72. My belief that there's little chance of finding someone.	1	2	3	4	5
73. My personality.	1	2	3	4	5
74. My lack of luck in meeting people.	1	2	3	4	5

- | | <u>Not at all</u>
<u>Important</u> | | <u>Moderately</u>
<u>Important</u> | | <u>Very</u>
<u>Important</u> |
|---|---------------------------------------|---|---------------------------------------|---|---------------------------------|
| 75. My fear of rejection. | 1 | 2 | 3 | 4 | 5 |
| 76. My always being in impersonal situations with too many people. | 1 | 2 | 3 | 4 | 5 |
| 77. Other people don't try to make friends. | 1 | 2 | 3 | 4 | 5 |
| 78. My not knowing what to do to start a relationship. | 1 | 2 | 3 | 4 | 5 |
| 79. My not trying hard enough to start a relationship. | 1 | 2 | 3 | 4 | 5 |
| 80. My physical appearance. | 1 | 2 | 3 | 4 | 5 |
| 81. Other people are afraid to make friends. | 1 | 2 | 3 | 4 | 5 |
| 82. Other people have their own groups and aren't interested in meeting me. | 1 | 2 | 3 | 4 | 5 |
| 83. Have your recent loneliness experiences been primarily due to something about you - or are they due to something about the social situation you are in? (Mark the appropriate number on the IBM sheet). | | | | | |

Something about me	1	2	3	4	5	Something about situation
--------------------	---	---	---	---	---	---------------------------

84. Have your recent loneliness experiences been caused by things that change readily or by things that are relatively unchanging?

Things that change	1	2	3	4	5	Things that are unchanging
--------------------	---	---	---	---	---	----------------------------

When you feel lonely, how often do you do each of the following?

- | | Never | Rarely | Sometimes | Often |
|--|-------|--------|-----------|-------|
| 85. Do nothing. | 1 | 2 | 3 | 4 |
| 86. Watch TV or listen to music. | 1 | 2 | 3 | 4 |
| 87. Spend money, go shopping. | 1 | 2 | 3 | 4 |
| 88. Call a friend, visit someone. | 1 | 2 | 3 | 4 |
| 89. Sleep. | 1 | 2 | 3 | 4 |
| 90. Go places to meet new friends. | 1 | 2 | 3 | 4 |
| 91. Overeat. | 1 | 2 | 3 | 4 |
| 92. Exercise. | 1 | 2 | 3 | 4 |
| 93. Study or work. | 1 | 2 | 3 | 4 |
| 94. Sit and think. | 1 | 2 | 3 | 4 |
| 95. Do leisure or hobby activities by myself. | 1 | 2 | 3 | 4 |
| 96. Try harder to be friendly to other people. | 1 | 2 | 3 | 4 |

For the next 12 statements, indicate how characteristic each statement is for you. Please record the number (1,2,3,4) which is the best answer for you.

	Extremely Uncharacteristic	Uncharact- eristic	Character- istic	Extremely Characteristic
97. I'm always trying to figure myself out.	1	2	3	4
98. I'm concerned about the way I present myself.	1	2	3	4
99. It takes me time to overcome my shyness in new situations.	1	2	3	4
100. I get embarrassed very easily.	1	2	3	4
101. I reflect a lot about myself.	1	2	3	4
102. I usually worry about making a good impression.	1	2	3	4
103. I'm generally attentive to my inner feelings.	1	2	3	4
104. I don't find it hard to talk to strangers.	1	2	3	4
105. I'm self-conscious about the way I look.	1	2	3	4
106. I'm constantly examining my motives.	1	2	3	4
107. I'm concerned about what people think of me.	1	2	3	4
108. Large groups make me nervous.	1	2	3	4

Part D

Below is a list of the ways you might have felt or behaved. Answer these statements in terms of how often you have felt this way during the past week.

- 1 - Rarely or none of the time (less than 1 day)
- 2 - Some or a little of the time (1-2 days)
- 3 - Occasionally or a moderate amount of time (3-4 days)
- 4 - Most or all of the time (5-7 days)

<u>During the past week:</u>		Never or Rarely	Some or a little of the time	Occasionally	Most or all of the time
109.	I was bothered by things that usually don't bother me.	1	2	3	4
110.	I did not feel like eating; my appetite was poor.	1	2	3	4
111.	I felt that I could not shake off the blues even with help from my family or friends.	1	2	3	4
112.	I felt that I was just as good as other people.	1	2	3	4
113.	I had trouble keeping my mind on what I was doing.	1	2	3	4
114.	I felt depressed.	1	2	3	4
115.	I felt that everything I did was an effort.	1	2	3	4
116.	I felt hopeful about the future.	1	2	3	4
117.	I thought my life had been a failure.	1	2	3	4
118.	I felt fearful.	1	2	3	4
119.	My sleep was restless.	1	2	3	4
120.	I was happy.	1	2	3	4
121.	I talked less than usual.	1	2	3	4
122.	I felt lonely.	1	2	3	4
123.	People were unfriendly.	1	2	3	4
124.	I enjoyed life.	1	2	3	4
125.	I had crying spells.	1	2	3	4
126.	I felt sad.	1	2	3	4
127.	I felt that people dislike me.	1	2	3	4
128.	I could not get "going".	1	2	3	4

Part E

Self Evaluation Questionnaire

DIRECTIONS: Below are given a number of statements which people have used to describe themselves. Read each statement. Record on your IBM sheet the appropriate number to indicate how you feel right now, that is, at this moment. Do not spend too much time on any one statement, but give the answer which seems to describe your present feelings best.

	Not at <u>all</u>	Somewhat <u>so</u>	Moderately <u>so</u>	Very <u>much so</u>
129. I feel calm	1	2	3	4
130. I feel secure	1	2	3	4
131. I am tense	1	2	3	4
132. I am regretful	1	2	3	4
133. I feel at ease	1	2	3	4
134. I feel upset	1	2	3	4
135. I am presently worrying over possible misfortunes	1	2	3	4
136. I feel rested	1	2	3	4
137. I feel anxious	1	2	3	4
138. I feel comfortable	1	2	3	4
139. I feel self-confident	1	2	3	4
140. I feel nervous	1	2	3	4
141. I am jittery.	1	2	3	4
142. I feel "high strung"	1	2	3	4
143. I am relaxed	1	2	3	4
144. I feel content	1	2	3	4
145. I am worried	1	2	3	4
146. I feel over-excited and "rattled" .	1	2	3	4
147. I feel joyful	1	2	3	4
148. I feel pleasant	1	2	3	4

Part F

For each of the items below record the number which is most appropriate on your IBM sheet.

	Never	Rarely	Occasionally	Frequently	Always
149. I find it difficult to talk with a person I have just met	1	2	3	4	5
150. I find it easy to start a conversation with a stranger	1	2	3	4	5
151. At party, I find it hard to mix with people I don't know	1	2	3	4	5
152. I feel comfortable with people I have never seen before	1	2	3	4	5
153. I feel shy	1	2	3	4	5

Part G

Social Behavior Inventory

BEGIN THIS QUESTIONNAIRE WITH A NEW IBM SHEET

For each of the items below, consider how characteristic each statement is of you. Please be sure to answer every item.

		Not at all characteristic of me				Very much characteristic of me
B-1	I am not likely to speak to people until they speak to me	1	2	3	4	5
B-2	I would describe myself as self-confident	1	2	3	4	5
B-3	I feel confident of my appearance	1	2	3	4	5
B-4	I am a good mixer	1	2	3	4	5
B-5	When in a group of people, I have trouble thinking of the right things to say	1	2	3	4	5
B-6	When in a group of people, I usually do what the others want rather than make suggestions	1	2	3	4	5
B-7	When I am in disagreement with other people, my opinion usually prevails	1	2	3	4	5
B-8	I would describe myself as one who attempts to master situations	1	2	3	4	5
B-9	Other people look up to me	1	2	3	4	5
B-10	I enjoy social gatherings just to be with people	1	2	3	4	5
B-11	I make a point of looking other people in the eye	1	2	3	4	5
B-12	I cannot seem to get others to notice me	1	2	3	4	5
B-13	I would rather not have very much responsibility for other people	1	2	3	4	5
B-14	I feel comfortable being approached by someone in a position of authority	1	2	3	4	5
B-15	I would describe myself as indecisive	1	2	3	4	5
B-16	I have no doubt about my social competence	1	2	3	4	5

Part H

Behavior Review Scale

DIRECTIONS: Record on your IBM sheet how characteristic or descriptive each of the following statements is of you.

- B-17 I have hesitated to accept dates because of shyness. (Circle one)
- | | | | | |
|--------------------------------|---|---|---|------------------------------|
| 1 | 2 | 3 | 4 | 5 |
| Very uncharacteristic
of me | | | | Very characteristic
of me |
- B-18 I am careful to avoid hurting other people's feelings, even when I feel that I have been injured. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
- B-19 When I am asked to do something, I insist upon knowing why. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
- B-20 I strive to get ahead as well as most people in my position. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
- B-21 I enjoy starting conversations with new acquaintances and strangers. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
- B-22 I will hesitate to make phone calls to business establishments and institutions. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
- B-23 I find it embarrassing to return merchandise. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
- B-24 I have avoided asking questions for fear of sounding stupid. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
- B-25 If a famed and respected lecturer makes a statement which I think is incorrect, I will have the audience hear my point of view as well. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
- B-26 When I have done something important or worthwhile, I manage to let others know about it. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
- B-27 If someone has been spreading false and bad stories about me, I see him/her as soon as possible to "have a talk" about it. (Circle one)
- | | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|

B-28 I complain about poor service in a restaurant and elsewhere. (Circle one)

1	2	3	4	5
Very uncharacteristic of me			Very characteristic of me	

B-29 When I am given a compliment, I sometimes just don't know what to say.
(Circle one)

1	2	3	4	5
---	---	---	---	---

B-30 Anyone attempting to push ahead of me in line is in for a good battle.
(Circle one)

1	2	3	4	5
---	---	---	---	---

B-31 There are times when I just can't say anything. (Circle one)

1	2	3	4	5
---	---	---	---	---

Thank you for your cooperation.

Appendix C
Sports Study Questionnaire
Pre-Match Questionnaire

80

It is important that you answer all the questions and that you answer as candidly as possible. Your answers will be completely confidential. Please do not put your name on the questionnaire or on the IBM sheet. Record all your answers on the IBM answer sheet by marking the appropriate response space (1, 2, 3, 4, 5) for each question.

PLEASE DO NOT WRITE ON THE QUESTIONNAIRE.

Player's Code _____

1. What is your sex?

- 1) male
- 2) female

2. How old are you?

- 1) 18 or less
- 2) 19 - 25
- 3) 26 - 34
- 4) 35 - 44
- 5) 45 or more

People differ in the ways they think about themselves. Please describe yourself as you ordinarily think about yourself. Below are 12 pairs of words which are opposite in meaning. Indicate which adjective best describes you by recording the number on the IBM sheet.

	Very	Quite	Middle of the road	Quite	Very	
3. IMPATIENT	1	2	3	4	5	PATIENT
4. CONFIDENT	1	2	3	4	5	UNSURE
5. EASYGOING	1	2	3	4	5	QUICK-TEMPERED
6. RESPONSIBLE	1	2	3	4	5	UNDEPENDABLE
7. IMMATURE	1	2	3	4	5	MATURE
8. INTELLIGENT	1	2	3	4	5	UNINTELLIGENT
9. GLOOMY	1	2	3	4	5	CHEERFUL
10. QUILTS EASILY	1	2	3	4	5	KEEPS TRYING
11. COOPERATIVE	1	2	3	4	5	UNCOOPERATIVE
12. PRACTICAL	1	2	3	4	5	IMPRACTICAL
13. UNGRATEFUL	1	2	3	4	5	GRATEFUL
14. CARELESS	1	2	3	4	5	CAREFUL

2.

Below is a list of the ways you might feel. Indicate how often each of the following statements describes you.

	NEVER	RARELY	SOMETIMES	OFTEN
15. I feel in tune with the people around me	1	2	3	4
16. I lack companionship	1	2	3	4
17. I am an outgoing person	1	2	3	4
18. My social relationships are superficial	1	2	3	4
19. No one really knows me well	1	2	3	4
20. I do not feel alone	1	2	3	4
21. People are around me but not with me	1	2	3	4
22. I feel part of a group of friends	1	2	3	4
23. I can find companionship when I want it	1	2	3	4
24. I am unhappy being so withdrawn	1	2	3	4
25. There are people I can turn to	1	2	3	4
26. I am no longer close to anyone	1	2	3	4

Answer these statements in terms of how you have felt during the past week.

	Never or Rarely	Some or a little of the time	Occas- ionally	Most or all of the time
27. I was bothered by things that usually don't bother me	1	2	3	4
28. I felt that I was just as good as other people	1	2	3	4
29. I felt depressed	1	2	3	4
30. My sleep was restless	1	2	3	4
31. I felt hopeful about the future	1	2	3	4
32. I felt that everything I did was an effort	1	2	3	4

3.

	Never or Rarely	Some or a little of the time	Occas- ionally	Most or all of the time
33. People were unfriendly	1	2	3	4
34. I could not get "going"	1	2	3	4
35. I was happy	1	2	3	4
36. I talked less than usual	1	2	3	4
37. I did not feel like eating; my appetite was poor.	1	2	3	4
38. I felt sad	1	2	3	4

39. How often do you participate in sporting events?

- 1) very frequently (2 or more times a week)
- 2) often (at least once a week)
- 3) sometimes (about twice a month)
- 4) rarely (once or less than once a month)

40. How often do you engage in this particular sport?

- 1) very frequently (2 or more times a week)
- 2) often (at least once a week)
- 3) sometimes (about twice a month)
- 4) rarely (once or less than once a month)

41. How important is this match to you?

- 1) extremely important
- 2) very important
- 3) fairly important
- 4) somewhat important
- 5) slightly important

42. How confident are you of winning this match?

- 1) very confident
- 2) quite confident
- 3) somewhat confident
- 4) not confident at all

Second Questionnaire
Completed Immediately Following Match

83

Player's Code _____

Please rate how you feel right now by recording on your IBM sheet the appropriate number that best describes your mood.

I feel ...	Not at all	Some What	Moderately	Very	Extremely
1. angry	1	2	3	4	5
2. anxious	1	2	3	4	5
3. content	1	2	3	4	5
4. energetic	1	2	3	4	5
5. lonely	1	2	3	4	5
6. satisfied	1	2	3	4	5
7. unhappy	1	2	3	4	5
8. worried	1	2	3	4	5

9. What were your results of the match?

- 1) I won
- 2) I tied
- 3) I lost

10. What were the scores of your match?

	YOUR SCORE	YOUR OPPONENT'S SCORE
First Game	_____	_____
Second Game	_____	_____
Third Game	_____	_____
Fourth Game	_____	_____
Fifth Game	_____	_____

11. Regardless of the score, how good a match was it?

- 1) Very good
- 2) Pretty good
- 3) Not too good

12. How upsetting was the outcome for you?

1	2	3	4	5
Not at all				Extremely
Upsetting				Upsetting

2.

13. How much control over the win or loss of this match did you have?

1	2	3	4	5
Had no				Had
Control				Complete
At all				Control

How much has each of the following factors contributed to your win or loss? Indicate the importance of each of these factors by recording the appropriate number on the IBM sheet.

	Not at all Important			Moderately Important			Very Important
14. Luck	1	2		3	4		5
15. My ability	1	2		3	4		5
16. My opponent's cheating	1	2		3	4		5
17. I feel tired	1	2		3	4		5
18. The effort my opponent put into the game	1	2		3	4		5
19. The mood I was in	1	2		3	4		5
20. My opponent's ability	1	2		3	4		5
21. The game strategy I used	1	2		3	4		5
22. The equipment or facilities (i.e., my racquet, the conditions of the court, etc.)	1	2		3	4		5
23. The effort I put into this game	1	2		3	4		5
24. The referring or score-keeping (if applicable)	1	2		3	4		5
25. Other, please write in _____	1	2		3	4		5
26. At what time was your match completed? _____ .M.							

Thank you for your cooperation.

Player's Code _____

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

.M.

Record your answers to the following questions on your IBM sheet:

2.

1. What is your sex?

- 1 = Male
- 2 = Female

2. Since your match how many friends did you call on the phone?

- 1) none
- 2) 1 or 2
- 3) 3 or 4
- 4) 5 or 6
- 5) 7 or more

3. How many times since your match did you actively seek out the companionship of friends, relatives or co-workers?

- 1) did not seek any companionship
- 2) once or twice
- 3) three to five times
- 4) six to nine times
- 5) ten or more times

People differ in the ways they think about themselves. Please describe yourself as you have thought about yourself in the time since your match.

There are 12 pairs of words which are opposite in meaning. Indicate which adjective best describes you by recording the number on your IBM sheet.

	Very	Quite	Middle of the Road	Quite	Very	
4. IMMATURE	1	2	3	4	5	MATURE
5. EFFICIENT	1	2	3	4	5	INEFFICIENT
6. GLOOMY	1	2	3	4	5	CHEERFUL
7. FRANK	1	2	3	4	5	SECRETIVE
8. BOASTFUL	1	2	3	4	5	MODEST
9. CONFIDENT	1	2	3	4	5	UNSURE
10. FRIENDLY	1	2	3	4	5	UNFRIENDLY
11. INTELLIGENT	1	2	3	4	5	UNINTELLIGENT
12. CALM	1	2	3	4	5	UPSET
13. ENERGETIC	1	2	3	4	5	TIRED
14. THOUGHTLESS	1	2	3	4	5	THOUGHTFUL
15. BOLD	1	2	3	4	5	TIMID

3.

Below is a list of the ways you might feel. Indicate how often each of the following statements describes how you have felt in the time since your match.

	None of the time	A little of the time	A lot of the time	Most or all of the time
16. There are people I can talk to	1	2	3	4
17. People are around me but not with me	1	2	3	4
18. There are people who really understand me	1	2	3	4
19. I feel isolated from others	1	2	3	4
20. I can find companionship when I want it	1	2	3	4
21. There is no one I can turn to	1	2	3	4
22. I feel left out	1	2	3	4
23. There are people I feel close to	1	2	3	4
24. My interests and ideas are not shared by those around me	1	2	3	4
25. No one really knows me well	1	2	3	4
26. I feel in tune with the people around me	1	2	3	4
27. I have a lot in common with the people around me	1	2	3	4

Answer these statements in terms of how you have felt since your match.

	Never or Rarely	Some or a little of the time	Occasionally	Most or all of the time
28. I felt depressed	1	2	3	4
29. I felt that people dislike me	1	2	3	4
30. I had trouble keeping my mind on what I was doing	1	2	3	4
31. I felt that I could not shake off the blues even with help from my family or friends	1	2	3	4
32. I felt sad	1	2	3	4
33. I felt that I was just as good as other people	1	2	3	4

4.

	Never or Rarely	Some or a little of the time	Occasionally	Most or all of the time
34. I had crying spells	1	2	3	5
35. I felt fearful	1	2	3	4
36. I thought my life had been a failure	1	2	3	4
37. I felt lonely	1	2	3	4
38. I felt hopeful about the future	1	2	3	4
39. I enjoyed life	1	2	3	4
40. How many times since your match, in your relations with other people, did you have disagreements?				
	1) never			
	2) once or twice			
	3) three or four times			
	4) five or six times			
	5) more than six times			
41. How many times since your match, in your relations with other people, did you feel irritated or frustrated?				
	1) never			
	2) once or twice			
	3) three or four times			
	4) five or six times			
	5) more than six times			

Thank-you for your participation and cooperation.