ATTRIBUTIONAL STYLES OF LONELY COLLEGE STUDENTS

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BY

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Abstract

Men are sometimes more self-serving than women when making causal attributions for success and failure. It may be that lonely men differ from lonely women in the amount of self-serving bias they show when making causal attributions for interpersonal success and failure. A self-serving bias scale was constructed. Along with the UCLA Loneliness Scale, it was administered to 74 male and 136 female undergraduates. Loneliness was related to amount of self-serving bias. Lonely respondents tended to be less self-serving than non-lonely respondents, replicating previous research. Neither gender nor other demographic information was related to self-serving bias. Insensitivity of the self-serving bias scale and true lack of gender differences in the situation studied are both discussed as possible reasons for failure to find gender difference.

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Introduction

This paper concerns a possible link between the results of research into self-attributions for success or failure and the results of research into loneliness. Causal attributions are usually made by people deciding why events happen and why others act as they do. Causal attributions are also made to explain personal success and failure in many different situations. Depending on the situation, men and women differ somewhat in the factors chosen to explain personal success and failure. The lonely also seem to identify the causes of their loneliness as if they were explaining a personal failure, and seem to choose different factors than the non-lonely to explain social success and failure. If the lonely are making such causal attributions for personal failure, it is possible that the gender differences in causal attributions will also be found in attributions made by the lonely for their loneliness.

In this paper I will first review research on gender differences in self-serving biases in causal attributions. I will then discuss what is known about cognitions associated with loneliness and what the lonely person perceives to be the cause of his or her loneliness. I will then show how these perceptions are similar to self-deprecating causal attributions, and how some evidence exists for a gender difference in

attributions made by lonely people.

Self-serving biases in attributions

People make attributions of the causes of events and other people's behavior in a consistent fashion. These attributions can be classified as internal or external and temporary or stable (Weiner, Heckhausen and Meyer, 1972). For example, an internal temporary cause for weakness might be a case of the flu. One might also make attributions to external temporary, external stable, and internal stable causes of success or failure or other behavior. As a result of the way social information is processed, systematic biases occur in the factors to which people attribute cause. One of the more consistent biases is the self-serving bias, in which one ascribes personal success to internal stable factors such as personal ability or worth and personal failure to external or temporary factors. In other words, one takes credit for success and shifts the blame for failure to others (Zuckerman, 1979). Thus, a high score on a test might be attributed to intelligence and skill, while a low score might be attributed to an unfair test (an external factor) or ill health (a temporary factor). These attributions, which may or may not be entirely realistic, serve to maintain one's self-esteem and to allow continued effort in the face of failure. If

failure is due to a temporary factor or an external one which can be avoided in future, then one can hope for future success (Zuckerman, 1979).

An exception to the self-serving bias occurs when taking the credit or shifting the blame would be inconsistent with a poor self-image. There appears to be a tendency among people with a low self-esteem to exhibit a "self-deprecating bias" in which success is attributed to external or temporary factors while failure is blamed on internal stable factors (Zuckerman, 1979). A person with low self-esteem who gets a high score on a test might attribute it to an overgenerous scorer or to a particular burst of effort. For instance, he or she might say, "I studied very hard for this particular test." He or she cannot anticipate future success as present successes are based on such unstable foundations.

Gender differences in self-serving bias

Another exception to the pervasiveness of the self-serving bias is found when one examines biases in attributions made by males and by females. A tendency exists for men to make more self-serving attributions than women and for women to make more self-deprecating attributions than men (Nicholls, 1975, Deaux, 1976).

These differences may be partially due to attempts to conform to gender-appropriate roles. Since subjects

in a study of causal attribution must inform the experimenter of the attributions which they are making, it is possible they may alter their responses in order to present what they believe are the gender-appropriate ones. This self-presentation effect might account for the gender differences in reported causal attributions (Gould and Slone, 1982). Although the actual attributions being made may be the same for both genders, females may be more likely to avoid taking credit for success on masculine tasks to comply with appropriate norms. Gould and Slone (1982) suggest that men do not care what others think of them and therefore feel free to take credit for success. However, taking credit for success seems gender-appropriate for males; like females, they may be altering their responses to present the appropriate ones. Thus, self-presentation might be altering the responses of both genders. Zuckerman (1979), who interprets the self-serving bias as resulting from a motive to maintain one's self-esteem, posits that male self-serving bias may be due to higher male self-esteem in general. He thinks that there is a real difference in attributions because males have higher self-esteem than females and try to maintain this self-esteem through a greater self-serving bias than females.

The tendency for men to have a greater self-serving bias seems to depend on the situation. The gender difference in attributions was first noted

on analytical tasks (Deaux, 1984), which sex stereotypes portray as something at which men are innately superior. Investigation into this effect has found that the difference in the self-serving bias is related to an interaction of gender and situation, rather than either situation or gender alone. Indeed, there may not be anything peculiar to any given situation, it may be just the label which is applied to a situation which is critical. When sex-neutral tasks were labelled as sex-typed, males were more self-serving than females on "masculine" labelled tasks, while there was no gender difference in self-serving bias on "feminine" labelled tasks (Deaux and Farris, 1977). A similar outcome was found when using questions about real-world outcomes in stereotypically masculine areas (i.e., academic success) and stereotypically feminine areas (i.e., social competence and sensitivity). Self-serving biases were more evident for males on masculine questions and for females on feminine questions (Mirels, 1980). Thus, if male and female attributions for success and failure are compared on a task which happens to be masculine, males are likely to look more self-serving than females (Rosenfeld and Stephan, 1978). On the other hand, a stereotypically female task may show females as more self-serving than males (Rosenfeld and Stephan, 1978), or may show no difference between genders (Deaux and Farris, 1977).

In contrast to Zuckerman's motivational explanation for the self-serving bias, an alternative explanation for differences in self-serving biases is situation-specific (Deaux, 1984). Males may expect to do better than females expect to do on many tasks. If a male succeeds, success is consistent with expectations and is ascribed to internal stable factors. Failure, being inconsistent with expectations, leads to a search for the external factor which caused it or to an attempt to ascribe it to something temporary. If, as previous research indicates, a woman expects to do poorly, failure is consistent with expectations and is ascribed to internal stable factors, while success is inconsistent with expectations and must be caused by some external or temporary factor. This would suggest that one can change attributions by using tasks on which males expect to do poorly, and on which females expect to do well. Rosenfeld and Stephan (1978) did just that. They presented a geometric rearrangement task to males and females. Half were told that this was an analytic task, related to intelligence and engineering skills, and that males were better at such a task than females. The other half were told that this was a sensitivity task, related to the ability to pick up subtle cues in social settings and that females were better at such a task. In the masculine-task condition, the researchers found that males expected to do better than females did

and had a stronger self-serving bias when explaining their successes or failures on that task. In the female-task condition, the opposite occurred. Females expected to do better than males and exhibited a stronger self-serving bias. This is in contrast to the Deaux and Farris (1977) study described above, which found no difference in self-serving bias on feminine tasks.

In summary, most of the research indicates that in most situations studied, males will be more self-serving than females. However, research has also shown that in some situations females may be more self-serving than males, or may be no different from males in self-serving attributions.

I will now turn to a review of loneliness research with a view to linking some of it's findings to the attribution research described above.

Loneliness

Loneliness is an aversive experience, a disturbing or persistent sense of separateness (Rook, 1984). For some, loneliness may arise from repeated disappointment of having to forego activities which depend on another person, while others may identify themselves as lonely because they have fewer friends than they desire (Peplau and Perlman, 1982). No researcher doubts that

the lonely person is aware of being lonely. Detection is straightforward. Weiss (1973) suggests simply asking, "Are you lonely?" Several paper-and-pencil instruments exist for its detection and measurement (see for example, Loucks, 1980, Russell, 1982, or Asher, Hymel and Renshaw, 1984). A widely used scale is the UCLA Loneliness Scale (Russell, Peplau and Cutrona, 1980).

It is possible to distinguish between state and trait loneliness. State loneliness is situation-dependent and may characterize the newly relocated or the newly divorced. It is temporary and ends with the resumption of adequate social relationships. Trait loneliness, on the other hand, characterizes the person who is lonely all of the time, even though he or she may not differ from the rest of the population in terms of number of social interactions per day or other objective measures of social isolation. The remainder of this paper will concern itself primarily with the trait lonely.

Loneliness is associated with depression, sadness, anxiety, boredom and even anger (Rook, 1984). Researchers often find chronic or state loneliness associated with low self-esteem and a poor self-image (Jones, 1982, Anderson, Horowitz and French, 1983, Moore and Schultz, 1983, Schultz and Moore, 1984). The very lonely tend to see themselves as unattractive, boring, lacking in social skills and even unlovable.

This may, in part, be realistic. The very lonely seem to have poorer social skills than the non-lonely (Jones, 1982). However, this harsh view of the self goes far beyond what an observer would think of the lonely person (Jones, 1982).

Trait loneliness seems to overlap with the definition of clinical depression. Horowitz, French and Anderson (1982), after noting that people describe a lonely person in the same way that they describe a depressed person, subsume loneliness entirely under depression. However, Horowitz et al. did not determine the traits which the lonely and the depressed actually have and thus have shown only that in the popular imagination loneliness is a subset of depression. On the other hand, Bragg (1979) distinguishes between the depressed lonely and the non-depressed lonely. He has found the depressed lonely to be dissatisfied with both social and non-social aspects of their lives and more anxious than the non-depressed lonely. The non-depressed lonely are characterized by social motivation and arousal (also noted by Peplau and Perlman, 1982). Social motivation is the motive to engage in social interaction and end one's social isolation. In addition, the non-depressed lonely are dissatisfied with their social lives, but not the non-social aspects of their lives. The UCLA Loneliness Scale does not distinguish between the depressed and non-depressed lonely. Samples selected

using this scale may contain both depressed and non-depressed lonely people.

It has been found that the lonely rate other people more negatively than the non-lonely do (Hanley-Dunn, Maxwell and Santos, 1985). Using a sample of lonely and non-lonely females, Hanley-Dunn et al. (1985) presented subjects with a hypothetical story written with the subject as the central character. A questionnaire about the story asked the subjects to choose possible reasons for the words spoken by each character in the story. The researchers found that lonely females gave more negative interpretations of these interpersonal interactions than did non-lonely females. For example, lonely females were more likely to endorse such statements as, "The neighbour thinks she is 'too good' for Mrs. Jones." Unfortunately, the researchers did not examine males, so no statements of gender differences could be made. Others have found that lonely males but not lonely females have a slight tendency to rate other people negatively (Jones, 1982). These studies seem to contradict each other, as Hanley-Dunn et al. did find lonely females rating others more negatively than non-lonely females did.

Attributions made by the lonely

Peplau, Miceli and Morash (1982) note that those

who identify themselves as lonely can point to factors which cause or maintain their loneliness. Research has found that some lonely people see themselves as socially awkward, poor company, or unlikeable (Jones, 1982). These attributions for loneliness and social isolation are often internal and stable factors and occur so often that Horowitz et al. (1982) make such attributions part of their definition of loneliness. Self-perceptions of social awkwardness may help the lonely to explain their perceived deficiency in social relationships and thus may function as causal attributions for personal failure.

One consequence of the attribution of one's loneliness to internal stable causes, such as personal traits or abilities, is that the loneliness is likely to continue. The lonely, seeing themselves as unlikeable, avoid others to avoid anticipated rejection. This maintains their social isolation which maintains their loneliness. A self-perpetuating cycle of avoidance, continued social isolation, continued loneliness and continued poor self-image occurs. Because the lonely person avoids social contact for fear of rejection, his or her poor self-image may be sufficient to maintain the deficiency of social relations.

In reality, the lonely do interact with others (Rook, 1984) and others do not judge the lonely more harshly than the non-lonely (Jones, 1982). Some social

success (for example, positive feedback in the form of smiling, attentiveness, and so on) must occur and the person should eventually receive information which contradicts his or her low self-image. However, many people stay lonely for long periods of time, as mentioned above in the discussion of trait and state loneliness. It may be that these lonely people interpret social information to be consistent with their self-image. That is, interpersonal successes are attributed to external or temporary factors, such as luck or pity, while interpersonal failures are attributed to internal factors.

In response to written hypothetical interpersonal successes and failures, Horowitz et al. (1982) found this pattern of interpretation of interpersonal successes and failures in the lonely but not the non-lonely. An example of a hypothetical failure is, "You have just gone to a party for new students and failed to make any new friends." Subjects could respond by picking one of six alternative attributions (for example, "I did not try very hard to meet new people" or "I do not have the personality traits necessary for meeting new people"). Although he found that the lonely were more likely to attribute interpersonal success to external or temporary factors and failure to internal stable reasons, the pattern changed with different types of problem. In a set of hypothetical non-interpersonal problems (i.e., "You have just

misplaced your watch."), he found that the lonely and the non-lonely did not differ in their responses. It would seem that this bias is not a global response to the world (as it would have been for the clinically depressed), but applies only to interpersonal situations.

These attributions resemble the self-deprecatory bias discussed earlier. Because the self-deprecatory bias seems to be a special case of the self-serving bias, one might expect to find some gender differences when comparing attributions made by lonely males with those made by lonely females.

Gender differences in loneliness

Gender differences in loneliness are seldom mentioned in research reports. One study (Horowitz et al., 1982) does not even report how many males and females make up its sample, just the total number of subjects. The UCLA Loneliness Scale does not differentiate between types of loneliness which can be identified, such as depressed and non-depressed loneliness (Bragg, 1979). Similarly, it may be that the scale does not distinguish between males and females, who may differ in loneliness, as Schultz and Moore (1986) suggest. Its designers admit that one of their samples showed males to have higher scores on the UCLA scale but ascribe this to a sampling problem.

Males returning to university in the fall were more likely to be lonely than males sampled at a different time of year (Russell, Peplau, and Cutrona, 1980). A recent study (Schultz and Moore, 1986) which found males to be lonelier than females does not report the time of year that measures were taken. However, researchers generally find that loneliness, as measured by the UCLA loneliness scale is the same for both sexes, although women may be more willing to explicitly label themselves as lonely when asked (Borys and Perlman, 1985).

Gender differences in attributions made by the lonely are also seldom reported. Part of the definition used by Horowitz et al.(1982) states that the lonely are characterized by a cluster of problems in socializing, that the lonely person's interpersonal problems reflect a real lack of interpersonal competence, and that the lonely person is aware of this lack. This definition has the consequence, they suggest, that the lonely person will attribute interpersonal failure to a lack of ability and not to an external or temporary cause. This definition suggests that a lonely person, whether male or female, cannot be self-serving. It is not surprising that Horowitz et al. do not report a gender difference in self-serving attributions.

Some studies have found suggestions of gender differences. As noted above, lonely males but not

lonely females had a tendency to rate others negatively (Jones, 1982). If this was to take the form of an attribution for interpersonal failure to an external source (e.g., "people are basically rotten") it could be regarded as a self-serving attribution.

In another study, socially anxious males, given the opportunity, used shyness as an excuse for poor performance when making a presentation before a group (Snyder, Smith, Augelli and Ingram, 1985). A gender difference was observed, in that socially anxious females were more likely to attribute the cause of poor performance to a lack of ability than to shyness. The authors interpret the male attribution to shyness as a self-serving attribution because the alternative attribution (to a lack of ability or lack of worth) would be to a more stable and internal factor. This is not a self-serving bias as defined above, but seems similarly defensive, in that it seems designed to allow hope for success in the future. Although loneliness was not studied, the socially anxious probably share characteristic self-perceptions with the lonely and may, indeed, be socially isolated.

Bearing in mind the gender differences found in other attribution research, the characteristic attributions made by the lonely, and the suggestive evidence for gender differences in the lonely, it is possible that a gender difference in attributional styles exists in the lonely. The direction of the

gender difference cannot be predicted, as social interaction may be one domain where females expect to do better than males (due to early socialization to be sensitive to others). A gender difference may help to explain some of the variability in lonely people's social cognition.

Method

A survey instrument, consisting of demographic questions, a set of analytical problems, the UCLA Loneliness Scale, and a specially constructed self-serving scale, was administered to 210 university students (74 male, 136 female) at various places on a university campus, during the period 21 February to 21 March 1986.

Construction of the Self-Serving Scale

The objective was to arrive at a "self-serving bias scale" which consisted of descriptions of ten social situations, each of which had a number of plausible possible reasons why the situation took place.

Undergraduates (8 male, 11 female) in a second-year psychology course for majors were asked to generate a number of specific social situations, both successful ones and unsuccessful ones, which might happen to undergraduate students. All of the generated situations were collated and returned to the class. The students were told about attributions and the wide range that attributions can take, but not about systematic biases in attributions. They were then instructed to select, "A good range of situations which students will identify with most readily." These

instructions did not ask for particular types of situations or reasons in order not to restrict responses. They were asked to give reasons they or other students might use to explain how each situation occurred. Eight of the nineteen students completed this second phase. From this sample, the twelve most popular situations were selected for the remainder of the scale construction.

A method of scoring the scale was then developed. The twelve situations, along with all of the reasons given for each one, were given to another group of eight undergraduates (5 male, 3 female) on an individual basis. Each was given a brief description of self-serving reasons and what it meant to be self-serving, and instructed to rate each reason on a 7-point scale for how self-serving that reason for that situation would be. Obviously, self-serving reasons for personal success were to be different from self-serving reasons for personal failure. Reasons which had the widest variance in ratings were eliminated. Four reasons were selected for each situation, two of which had consistently high self-serving ratings, and two of which had consistently low self-serving ratings.

In order to eliminate the awkward constructions of "him or her","a guy/girl, etc.," which had been used for the development of the scale, a male version and a female version were constructed, substituting the

gender-appropriate pronouns and nouns, but otherwise keeping identical wording. One situation which was too gender-typed to be translated into equivalent male and female forms was eliminated. One situation which could not easily be classed as a success or failure was also eliminated, leaving the scale with ten descriptions of situations, five successes and five failures (see Appendix A).

Each self-serving answer was scored as 1, each non-self-serving answer was scored as 0. Thus, a person could obtain a score ranging from 0 to 10, with higher scores indicating a higher tendency to select self-serving alternatives as reasons for success and failure.

Construction of the remainder of the instrument

A cover sheet asking age, year at university, gender, program of study, and type-of living accomodations (e.g., residence, apartment, boarding house) was constructed. The UCLA Loneliness Scale was included to obtain a reliable and valid measure of loneliness. Because it was possible that filling out something labelled "UCLA Loneliness Scale" might influence a respondent's thinking about social situations, the order of presentation of the UCLA Loneliness Scale and the self-serving bias scale was counterbalanced.

If expected differences in attributions for interpersonal success and failure were found, a comparison set of attributions for non-interpersonal success and failure would be necessary. Therefore, to allow a comparison with previous studies of attributions for success and failure on non-interpersonal tasks if needed, a set of analytical tasks were added (for example, "Unscramble the letters A D R I O to form a word."). These had been pilot tested (n=10) to ensure that they could be done quickly and relatively easily. After completing the survey, respondents were asked the most likely reason why they had obtained the score they did on these tasks.

The complete instrument (see Appendix A) consisted of a demographics cover sheet, a page of analytical problems, and the UCLA Loneliness Scale and the self-serving bias scale (each of which alternated as the third and fourth parts of the survey).

Data collection

The survey was administered to students (20 male, 23 female) approached on a haphazard basis as they entered the Student Union cafeteria. Each was told that a survey of student life was being conducted which was completely anonymous. Each was given an opportunity to refuse to participate (46 of the 50 students approached agreed to take part).

After 46 surveys had been done, it was noted that respondents seemed reluctant to take time to give a verbal answer to the question about why they obtained the score they did on the analytical tasks. Some were simply leaving after completing the survey and others seemed to be giving a few stock answers, usually variations on, "I don't know." The procedure was changed so that two written questions aimed at attributions for success or failure on the analytical problems were inserted in the survey immediately after the analytical problems page. The first question asked respondents why they had obtained as many (or as few) problems right as they did, and the second asked the respondents to estimate their score on the analytical problems. Piloting of this form of the survey (3 male, 3 female) showed a wider range of responses and good understanding of the intent of the questions, without adding much to completion time (see Appendix A for the final version of the survey instrument).

It was also noticed that students entering the Student Union cafeteria were not representative of the student population. Preliminary analysis indicated a significant gender difference in loneliness (see RESULTS section). As the standardization information available shows no gender differences in loneliness scores (Russell, Peplau and Cutrona, 1980), this seemed to indicate that self-selection may have been occurring. To avoid this, students in an introductory

psychology class (31 male, .63 female), and students in a second-year psychology class (23 male, 50 female) were asked to fill out the questionnaire, for a total sample of 74 male and 136 female undergraduates.

Results

Characteristics of the respondents in each location can be seen in Table 1. As can be seen from the table, the first-year class was made up of younger students and the second-year class, of older students, with the cafeteria sample falling in between. The two classes had about twice as many females as males.

Insert Table 1 about here

Two forms of the survey were administered in order to counterbalance the order of presentation of the UCLA Loneliness Scale and the self-serving bias scale. As can be seen from Table 2, neither loneliness ($t(208) = 0.825$, $p > .05$) nor self-serving bias ($t(208) = 0.268$, $p > .05$) differed significantly between forms. The reliability of the self-serving bias scale was found to be .418 (alpha).

Insert Table 2 about here

The mean loneliness score of the entire sample was 36.4, with a standard deviation of 8.9. As a

comparison, the standardization group reported in Russell, Peplau and Cutrona (1980) had a mean of 35.1 with a standard deviation of 10.3, and a population of students drawn six years ago from the same university as the present sample (Ross, 1979) had a mean of 35.8. The mean self-serving bias score of the sample was 8.6, with a standard deviation of 1.3. This indicates a negatively skewed distribution with most scores clustered at the high end of the scale. As the three locations were not matched groups, UCLA loneliness scores and self-serving bias scores will be reported by location (Table 3).

Insert Table 3 about here

An analysis of variance using gender and location as predictors of loneliness and self-serving bias was conducted. A significant interaction of gender by location was found ($F(2,204) = 3.746$, $p < .05$), although neither gender nor location predicted loneliness as a main effect. Duncan's Multiple Range Test indicated that male respondents from the cafeteria, first-year males and first-year females were significantly lonelier than second-year males (see Table 3). In addition, it indicated that males from the cafeteria and first-year males were significantly lonelier than

females from the cafeteria ($p < .05$). In terms of self-serving bias scores, the means are quite close together. Neither location, gender, nor an interaction was related significantly to self-serving bias scores. Thus, there were differences in loneliness but no differences in self-serving bias scores depending on where and from whom the data came.

The groups differed in place of residence (see Table 4). People sampled in the cafeteria were more likely than the other two groups to live at home, second-year students were more likely to live in apartments (either alone or with roommates) than the other groups, and first-year students were more likely to live in residences than the other groups.

Insert Table 4 about here

Principal analysis

Multiple regression analysis showed a relationship between loneliness scores and self-serving bias scores. Rather than arbitrarily choosing a point on the UCLA scale to distinguish lonely from non-lonely, loneliness was preserved as a continuous variable, and the principal analysis completed on the entire sample. A stepwise multiple regression was performed, using

loneliness, age, gender, place of residence, year and all two-way interactions of these to predict the self-serving bias score. The gender by loneliness interaction term would have provided support for the hypothesis, but was not found to be significant. As the expectations of a gender difference were not confirmed, responses to the non-interpersonal problems were not analyzed. A relationship of loneliness and self-serving bias was found ($R = -.2146$, $F(1,208) = 10.04$, $p < .001$). The correlation was negative, meaning that high loneliness scores were associated with low self-serving bias scores. No other predictor was related to loneliness or self-serving bias scores.

Although the correlation between self-serving bias scores and loneliness scores is negative overall, correlations vary depending on the source. As can be seen in Table 5, the correlations are negative when broken down by location and by gender, except for male respondents in the first-year class, where the correlation is positive ($r(30) = .35$, $p < .05$). In first-year males, high loneliness scores were associated with high self-serving bias scores.

Insert Table 5 about here

Tables

Table 1

Demographics of the samples

	First-year class	Second-year class	Cafeteria sample	Total
Gender (n)	94	73	43	210
Male	31	23	20	74
Female	63	50	23	136
Year (%)				
First	97%	1%	47%	53%
Second	3%	39%	35%	22%
Third		14%	10%	7%
Fourth		28%	5%	10%
Other		18%	3%	8%
Age				
Mean	18.7	22.2	19.3	20.1
S.D.	1.1	4.5	1.4	3.7

Table 2

Loneliness and self-serving bias scales by test form

	Loneliness	Self-serving bias
Form 1 (n=102)		
Mean	36.9	8.6
S.D.	8.1	1.4
Form 2 (n=108)		
Mean	35.9	8.7
S.D.	9.5	1.3

Table 3

Loneliness and self-serving bias by source

	First-year sample		Second-year sample		Cafeteria sample	
	M	F	M	F	M	F
Loneliness						
Mean	39.2	37.3	32.7	35.8	39.0	32.9
S.D.	8.9	9.4	6.8	9.0	9.5	6.2
Self-serving bias						
Mean	8.6	8.4	8.7	8.8	8.7	8.9
S.D.	1.4	1.3	1.7	1.2	1.3	1.2

Table 4

Place of residence of the respondents by sample

	First-year sample		Second-year sample		Cafeteria sample	
	M	F	M	F	M	F
Home	58%	43%	48%	22%	75%	65%
Apartment	20%	21%	22%	50%	20%	9%
University residence	13%	14%	9%	12%	0%	9%
Boarding house	6%	8%	4%	2%	5%	13%
Other	3%	14%	17%	14%	0%	4%

Table 5

Relationship of self-serving bias and loneliness

(Pearson correlation)

	First-year sample	Second-year sample	Cafeteria sample
Male	+.35	-.25	-.43
(n=)	(31)	(23)	(20)
Female	-.21	-.48	-.24
(n=)	(63)	(50)	(23)

Discussion

The results of the present research do not support the expectation of a gender difference. The regression equation constructed used gender and loneliness, as well as place of residence and year, to attempt to predict self-serving bias. It was found that only loneliness was significantly related to self-serving bias. A significant negative correlation between loneliness (as measured by the UCLA scale) and self-serving scores was found in the principal analysis. The more lonely a person was, the more likely he or she was to have a low self-serving bias score. This relationship replicates research discussed earlier, although with a different instrument. Thus, this is an effective conceptual replication of previous research.

This tendency of the lonely to make more self-deprecating attributions for interpersonal success and failure, which has been noted by Horowitz et al. (1982) among others, has important implications. The lonely person's attributions for success to external or temporary causes (such as "I am being pitied.") and failure to internal stable causes (such as "I am unlikeable") perpetuates his or her poor self-image. This poor self-image, in turn, may lead the lonely to expect rejection, which they avoid by avoiding social interaction. The resulting isolation would maintain

the loneliness, and a self-perpetuating cycle is set up. Barring external intervention, the prognosis for the lonely person is bleak.

Although related to loneliness, self-serving bias scores were not related to gender or to an interaction of gender and loneliness, which would have been significant if lonely males differed from lonely females. Also, males did not differ from females in self-serving bias scores overall. This failure to find a gender difference among the lonely does not support the original expectation.

Possible reasons for failing to find a gender effect

The failure to find a significant effect for gender may be explicable in two ways. Either the hypothesized effect was very small and could not be observed because of lack of sensitivity of the self-serving bias scale or there is no gender difference for this type of task. The former seems more likely, as other researchers have found gender differences in very similar tasks (Deaux, 1984), but both possibilities should be considered.

Previous research has frequently found that gender doesn't account for much variance (often less than 5%), either as a main effect or in interaction with the situation (Zuckerman, 1979). Possible sources of error which might have hidden a small gender effect include:

a) the low variability and/or the negatively skewed distribution of self-serving bias scores on the survey (possibly due to a social-desirability or other self-report effect); b) the possibility of different items eliciting different types of responses; and c) problems in comparing respondents from different samples in the analysis of the data.

Low variance in the self-serving bias scores means that the scale may not have had much discriminant validity. Thus, the hypothesized minor gender difference, if it existed, might not be detected. This low variance could have arisen because the scale items lent themselves to socially desirable responses. As stated in the Method section, the four alternatives for each situation in the self-serving bias scale were chosen for their self-serving bias rating, not their social desirability. There may be some confounding of social desirability and self-serving bias, in that self-serving answers may be particularly socially acceptable or unacceptable. For example, it may be socially unacceptable to punish oneself by refusing to take the credit for a personal success. In addition, respondents may have responded to opportunities to favourably present themselves. The construction of the scale was such that highly desirable answers were sometimes paired with highly undesirable answers. One example occurs in situation seven (see Appendix A), where the responses "You're good company" and "He/she

likes you" are presented as alternatives to "He/she feels sorry for you". No respondent chose the latter answer as his or her attribution. Such juxtaposition of answers, coupled with the possibility mentioned above that giving self-serving reasons may be socially desirable, might have led to a self-presentation bias in responses.

The low reliability of the scale (alpha=.418) suggests that people were responding to some items differently than others in the scale. Some items may have elicited the self-presentation effect discussed previously, while others elicited self-serving attributions or denigration of others (i.e., "That person is inconsiderate"). That different people respond to different things in the scale is suggested by the relationship of loneliness scores to self-serving bias scores, in the various samples. Although an overall negative correlation exists for most subsets of the total sample, a significant positive correlation is found in first-year male psychology students. In this group, the lonelier the respondent, the more self-serving he is found to be. As self-serving bias is associated with high self-esteem and loneliness with low self-esteem, there appears to be a contradiction here. This may be explainable as a response to a very different demand by this group, e.g., for self-serving attributions vs. denigation of others.

Differences in responses on the self-serving bias scale may have occurred because of differences in the sample. The samples may not be comparable for various reasons. Data were collected from three different locations and in two different ways (haphazard approaches and in-class recruiting). Location was confounded with other variables which may be related to loneliness or self-serving bias. For example, entry into a cafeteria is more likely to be influenced by loneliness than is selection of a course. Latane and Bidwell (1977) found that females tended to go to a university cafeteria for companionship more than males, who simply went there to eat, and that females seemed to avoid being in the cafeteria by themselves. In our sample, males in the cafeteria were significantly lonelier than were females, which suggests that lonely females may avoid the cafeteria. If females are avoiding the cafeteria for reasons related to their loneliness, the sample taken in the cafeteria is not comparable to the other samples. In addition, the other two samples differ from each other on a number of dimensions. The first-year class is younger and tends to live at home or in residence more than the second-year class. The cafeteria sample falls in between the two classes in age, and very few live in residence (because residence students eat in a different cafeteria). Both age and residence have been

linked to loneliness (Ross, 1979, Hanley-Dunn et al., 1985), and may be related to experience with social success and failure. Older students have had more experience with success and failure, and residence students may have had more interpersonal contacts than students who live off campus. Although age and residence did not predict self-serving bias directly, they may have had an effect on the pattern of responses obtained from the respondents. Unfortunately, the number of lonely people within each sample is too small to detect significant differences due to gender, given the other types of error variance discussed above.

The possibility remains, however, that failure of gender to be significantly related to self-serving attributions with relation to the lonely may reflect a true lack of any gender difference. Lonely males and lonely females may differ in the amount of self-serving bias they have when making causal attributions for other types of success and failure. Gender differences in self-serving bias seem to vary by type of situation and may disappear altogether in some domains (Deaux et al., 1977). Attributions for the causes of specific social successes and failures may be one such domain and the reason why no difference was found in this study is because none exists in the situations sampled.

This is explicable in terms of existing models of the self-serving bias in attributions. Although males may expect to do better than females on many tasks,

females may have as much or more social competence (suggested by Deaux et al., 1977). This high competence might be related to increased self-confidence in social situations. In terms of an expectancy model (Deaux, 1984), this may have equated expectancies of males and females for success and failure in social situations and thus equated self-serving biases in causal attributions for success and failure.

Suggestions for further research

There is enough reason to expect a gender difference in causal attributions made by the lonely and enough identifiable measurement problems in this study to warrant continued research in this area. The conceptual replication of previous research linking loneliness and self-serving bias suggests that the method and instrument used in this study could be used further, with some refinements to eliminate problems identified during the course of the study.

Another self-serving bias scale could be constructed in the same way that the instrument used in this study was, with the additional step of equating responses in terms of social desirability. Using a sample from the target population, more situations and responses could be generated and rated in terms of social desirability and self-serving bias. Using more

raters might allow the derivation of a more precise self-serving rating for each answer, rather than the 0 or 1 used in this study. This, in addition to an increased number of situations, might produce a scale with more discriminant validity. Reliability data, especially test-retest reliability, should also be collected in the refining of the instrument. The goal of the refinement would be a reliable instrument sensitive to variation in self-serving bias. Such an instrument would still be useful in the investigation of self-serving bias, even if no gender difference exists.

The original expectations of a gender difference in the lonely were not confirmed. However, the study, using a different method and very different instrument than previous studies, obtained results providing a strong conceptual replication of the link between loneliness and self-deprecating attributions.

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Footnote

1. At the suggestion of a reviewer, subsets of items were dropped from the self-serving scale in an attempt to raise its reliability. Marginal increases in scale alpha, from .418 to .520 were found when items 8, 10 and 1 were dropped in stepwise fashion. No set of six items could be found with an alpha more than .525, so the seven-item scale of items 2, 3, 4, 5 ,6, 7 and 9 was retained. The principal analysis was rerun with the seven-item scale with no change in the direction of significant results, although a weaker correlation was found between loneliness and self-servingness (R = -.1481, $F(1,208)$= 4.66, $p < .05$). No other main effect or interaction predicted self-servingness on this scale, just as when the full ten-item scale was used.

   It was noted that the first two items which were dropped (situations 8 and 10) described unpleasant situations (see Appendix A for wording of the items). To see if the type of situation (pleasant or unpleasant) was eliciting different responses and thus lowering the reliability of the overall scales, two alphas were obtained, one for the pleasant situations, and one for the unpleasant. These did not improve upon the original ten-item scale (pleasant items alpha=.407, negative items alpha=.244).

   The low reliability of the self-servingness scale as originally constructed thus cannot be substantially improved by post hoc analysis of subsets of items.

Appendix A

Survey instrument used in this study.

Survey number__

Undergraduate Student Life Survey

This survey is a study of student life here at Memorial. The aspects we are most interested in are the intellectual life and the social life of students. Therefore, there are two sections to this survey, an intellectual and a social.

We need some additional information to help us interpret the results of the survey. On this page, there are a few questions about you (please DON'T put your name or number on this questionnaire!). This information will be pooled with all of the data collected for this survey, and there will be no way that anyone could identify your particular responses.

Background:

1. Year at MUN: First Second Third Fourth Fifth
2. Gender: Male Female
3. Age : _____
4. What degree are you working towards? _____
5. Where are you now living?
   a) residence alone
   b) residence with roommate(s)
   c) at home with parents
   d) apartment alone
   e) apartment with roommate(s)
   f) with relatives
   g) boarding house alone
   h) boarding house with roommate(s)
   i) McAuley Hall alone
   j) McAuley Hall with roommate
   k) with husband/wife
   l) other _____

Problems

The first part of this questionnaire is a set of problems for you to solve. There may be more than one way to answer some of them, but a single right answer is sufficient.

1) Unscramble the letters A D I R O to form a word.

2) Unscramble the letters R E V D I to form a word.

3) What is the next number in the series 4 9 16 25...?
a) 26 b) 36 c) 40 d) 50

4) What is the next number in the series 2 4 8 16...?
a) 18 b) 21 c) 24 d) 32

5) Choose the phrase which means the same as 'germane'
a) of or from Germany
b) closely related
c) bitter-tasting

6) Choose the phrase which means the same as 'chicanery'
a) poultry farming
b) beauty
c) petty trickery

7) Rich Mann, an eccentric millionaire, offered a prize of a million dollars to the racing car driver whose car came in LAST in a race. Ten drivers entered the contest, but were puzzled by the conditions. How can the race be run and finished, without each one going slower and slower until they all stop?

8) Why are 1985 dollar bills worth more than 1984 dollar bills?

9) An old man keeps some pets for company. All of them are dogs except two, all are cats except two, and all are parrots except two. How many pets does he own?

10) While an ocean liner was anchored, Mrs. Smith felt too ill to leave her cabin. At noon, the open porthole by her bed was exactly seven meters above the water line. The tide was rising at a rate of one meter per hour. Assuming this rate doubles every hour, how long will it take the water line to reach her porthole?

Result of the "Problems" test

Here are two questions about the problems you did on the previous page. Please answer only one part of Question 1, then do Question 2 and continue.

1. Do part "a" if you think you did well answering the problems. If you don't think you did well, do part "b" instead.

   a) (If you did well) What is the most likely reason why you answered that many correctly?

   b) (If you didn't do well) What is the most likely reason why you didn't answer that many correctly?

2. There were ten problems on the previous page. Estimate how many you answered correctly.

_____/10

UCLA LONELINESS SCALE

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

	NEVER	RARELY	SOMETIMES	OFTEN
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 do not feel alone	1	2	3	4
5. I feel part of a group of friends	1	2	3	4
6. I have a lot in common with the people around me	1	2	3	4
7. I am no longer close to anyone	1	2	3	4
8. My interests and ideas are not shared by those around me	1	2	3	4
9. I am an outgoing person	1	2	3	4
10. There are people I feel close to	1	2	3	4
11. I feel left out	1	2	3	4
12. My social relationships are superficial ...	1	2	3	4
13. No one really knows me well	1	2	3	4
14. I feel isolated from others	1	2	3	4
15. I can find companionship when I want it ...	1	2	3	4
16. There are people who really understand me .	1	2	3	4
17. I am unhappy being so withdrawn	1	2	3	4
18. People are around me but not with me	1	2	3	4
19. There are people I can talk to	1	2	3	4
20. There are people I can turn to	1	2	3	4

Situations

Here are short descriptions of ten possible situations. For each one, try to imagine that the situation is happening to YOU. Try to picture it in your mind as if you were actually there. Take a moment, put yourself in that situation (perhaps something similar has happened to you in the past) and check the most likely reason for why the situation would happen to you.

(the 'Female' form of the survey uses the terms listed in brackets, below.)

1. You have just gotten home when the phone rings. It's a friend who says "I've been trying to reach you all week."

(a) He's(She's) been thinking of you all week.
(b) You haven't been calling him(her) enough.
(c) He(She) is eager to talk to you and wants to make plans for the weekend.
(d) He's(She's) only calling to borrow something, again.

2. You walk into a crowded cafeteria where there are no empty tables. You ask someone if you can share their table and he says "no".

(a) That person is not very sociable.
(b) He(She) doesn't like the way you look.
(c) He(She) is waiting for someone.
(d) You asked in a rude tone.

3. You pass a girl(guy) whose attention you would like to get, and she(he) says hello to you.

(a) She(He) has mistaken you for someone else.
(b) You look good that day.
(c) She(He) probably likes you.
(d) She(He) wants something from you.

4. You are walking somewhere in the rain, and your friend whizzes past you in his(her) car, without stopping to give you a ride.

(a) He(She) didn't see you.
(b) He(She) is inconsiderate.
(c) He(She) doesn't want you with them.
(d) He(She) doesn't want to be friends anymore.

5. You ask someone you'd like to be more than just friends with, into the Breezeway and she(he) says "yes".

(a) She(He) wants something from you.
(b) She(He) would like to date you also.
(c) She(He) just wants to go into the Breezeway.
(d) She(He) likes being with you.

6. A person who was supposed to show up to talk with you about what to do for a term paper fails to show up.

(a) Something unexpected came up.
(b) He(She) doesn't consider your opinion important enough to show up for.
(c) That person is undependable.
(d) He(She) doesn't really want to be your partner for that paper.

7. An acquaintance asks if he can have lunch with you in the TSC.

(a) You're good company.
(b) He(She) feels sorry for you.
(c) You have some information he(she) needs.
(d) He(She) likes you.

8. You walk into a crowded bar and only recognize one person, who happens to be looking in your direction. As you start towards the person, he(she) turns away.

(a) He(She) doesn't want to talk to anyone tonight.
(b) You aren't any fun.
(c) He(She) was momentarily distracted.
(d) He(She) doesn't like you.

9. You are introduced to a member of the opposite sex. She(He) immediately asks you for a date.

(a) She(He) took pity on you.
(b) You're looking very attractive today.
(c) She(He) likes your appearance and genuinely wants to get to know you better.
(d) She(He) is desperate for a date for that night.

10. You are standing at a counter waiting to be served and the salesperson completely ignores you but continues serving others who came after you. (This situation had the same wording in both forms.)

(a) Because you're a student, she serves the 'adults' first.
(b) She hasn't noticed you yet.
(c) She doesn't like the way you look.
(d) She is rude.