NOTICE:
The copyright law of the United States (Title 17, United States Code) governs the making of reproductions of copyrighted material. One specified condition is that the reproduction is not to be "used for any purpose other than private study, scholarship, or research." If a user makes a request for, or later uses a reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

RESTRICTIONS:
This student work may be read, quoted from, cited, for purposes of research. It may not be published in full except by permission of the author. Per request from author do not reproduce this work in print.
The Effects of Gender and Ego-Involvement
On the Use of Excuses

Ronnetta Rider

Lycoming College

Running Head: Excuses
Abstract

The hypothesis that both gender and ego-involvement affect the number and the type of excuses people use was tested in this study. It was hypothesized that more excuses would be given in a high ego-involvement situation than in a low-involvement one and that more of these excuses would be external excuses than internal excuses. The hypothesized effect of gender was that men would give more excuses and have a greater percentage of external excuses than women. Subjects were 40 male and 40 female college students. Half of each group was randomly assigned to a high-involvement group, and half to a low-involvement group. Both groups were given a test and the opportunity to make excuses for it. The only part of the hypothesis that was supported was that women did make more internal excuses than men did. Several explanations were offered to explain the study's findings.
There is only one excuse for this study, and that is excuses. Everyone has heard or used excuses at sometime. It should not come as any surprise that they are used, but why and how we use them seems to need further exploration. Snyder, Higgins, and Stucky (1983) define an excuse as anything that lessens the negative implications of a person's performance to others and to self, and therefore, maintains a positive image. An excuse can be a verbal statement or an action that makes people seem less responsible for the negative outcomes of their behavior. The definition given by Snyder et al. (1983) was used as the operational definition in this study.

This study examined one type of excuse in particular. This is the use extenuating circumstances. When using an extenuating circumstance excuse, users admit that they performed the action they want to excuse, but they list other circumstances that affected their behavior and made it turn out the way it did. The purpose of this excuse is to reduce the user's culpability for the outcome of his or her behavior. In the case of this excuse, the circumstances given could be either internal or external. An internal excuse is one in which the circumstance given comes from within the user. An example could be: "I could not be friendly at the party, because I was depressed." This excuses the person, because it is seen as being better to be depressed than to be an unfriendly person. An external
excuse is one that uses something in the environment as the extenuating circumstance. An example of this type of excuse may be: "I did not get an A on the test, because there were too many typing mistakes in the questions." The person using this excuse is trying to avoid a negative image of his or her ability.

These excuses or even just the word "excuse" can bring to mind the idea of a useless action that people should not have to use. They are not useless, however. Excuses often serve useful purposes. They help people take chances (Snyder, 1984). If people could never excuse their failures, they would be less likely to push limits by trying new things, because they would be afraid of failure. Snyder (1984) also said that excuses relieve the burden of blame from people. If people had to accept full responsibility for every negative action they ever did, they would be overwhelmed by having to carry around so many negative attributions of themselves. Excuses help us function normally in society.

It seems obvious that excuses are used in all types of situations. Upon personal reflection anyone could think of many different settings in which excuses have been made. Despite the variety of excuse-making settings, there are some conditions that previous research has found to accompany excuse-making behavior in most circumstances.
First we must perform some action which we believe has negative implications that could be attributed to us (Snyder et al., 1983). Bradley (1978) and Snyder et al. (1983) also believed that we must believe this action is observed by others. The final thing related to the use of excuses is a high level of ego involvement or concern for self-esteem (Bradley, 1987; Snyder, Stephan, and Rosenfield, 1976). As the definition implies, it is often our concern for our public image that drives us to use excuses in the first place.

Although there has not been much research done using the explicit word "excuses", there has been much support for the concept in attribution research. Differences in attributions given for success and failure suggest an excuse-making paradigm. The most basic support is in the general conclusion that many times people internalize responsibility for success while externalizing responsibility for failure. This externalization of responsibility is very similar to an external extenuating-circumstance excuse. Adler (1956) said that this attribution scheme is often used as an ego-defense and in that case excuses people from blame.

The attribution research supporting the use of excuses is highly varied. In his review of previous research Zuckerman (1979) found that the majority support the idea
that people use more internal attributions when describing their successes, and they use more external attributions when describing their failures. To save repetition, this general attribution pattern will be referred to as the internal/external attribution pattern throughout the rest of this paper.

One study showing both the excusing use of attributions, and its dependence on the level of ego-involvement was that of Miller (1976). He gave subjects either success or failure feedback on a social perceptiveness test. To vary the amount of ego-involvement for the subjects, half were told that it was a well-established test (high-involvement condition), and half were told that the test was new and unproven (low-involvement condition). The subjects were then asked how much task difficulty, social perceptiveness, effort, and luck each affected their outcomes. In success both high and low-involvement subjects said their results were due mainly to social perceptiveness and effort. In the high-involvement condition, subjects who were told they failed said their outcome was due mainly to task difficulty and luck. This is just what excuse theory would expect. The subjects in the low-involvement failure condition did not use an excuse strategy in their attributions. They gave effort as being most related to their outcome, with luck being rated least important. This supports the idea that
exuses are only given when there is a high degree of ego-involvement.

It may be interesting to note that the level of ego-involvement affected attributions for negative outcomes but not for positive ones. Arkin, Cleason, and Johnston (1976) found that other informational factors affected attributions for negative outcomes and did not affect attributions for positive outcomes. They varied the expected outcome, the observed outcome, and the perceived degree of choice. Subjects took credit for failure when they expected success and had a high degree of choice.

The fact that failure attributions are affected by informational factors supports the idea that excuse making can be a conscious process. If external attributions are made only in certain circumstances, it would seem that they are being used as excuses in instances when they might lessen the negative image of the user. They are not used when they would not, as in the case where everyone expected success in the Arkin et al. (1976) study, or in instances when they are not needed, as in the low-involvement situation in the Miller (1976) study.

Another cognitive factor that effects attributions is the expectation of continued performance at a task. This may also support an excuse strategy. While Wortman, Costanzo, and Witt (1973) found support for the internal/
external attribution pattern, they also found that people are less willing to give internal attributions for success when they think they will be continuing to perform the task.

One explanation for this reluctance to make self-enhancing internal attributions may be that if on a continuing trial the person fails, then the person would have to take responsibility for the failure as well as the previous success. Making internal attributions for a failure on a later trial would lessen the positive image created by the attributions for success. Therefore, people may avoid giving too many internal attributions for a successful trial when they are unsure of their success on later trials. This would mean that their attempt to excuse possible failure even affects the interpretation they gave for success. This would support the idea that people use excuse strategies.

More support for the excuse strategy was found in competitive situations. Snyder, Stephan, and Rosenfield (1976) did a study in which subjects believed they were playing a competitive matrix game against another subject. The subjects were actually playing against a computer which randomly assigned them to either a win or lose category. Subjects were then asked about what role they thought skill, effort, task difficulty, and luck had in determining their outcome. Subjects in the win category said skill and effort...
contributed most. In the lose category, subjects put luck as being overwhelmingly more important. This suggests as excuse, because a person cannot be responsible for bad luck.

Support for the use of excuses has also been found in school settings. It has been found that students want to be seen as having both ability and motivation (Covington and Omelich, 1979b), but ability is associated more with self-worth, so people may reduce effort to avoid attributing failure to ability (Covington and Omelich, 1979a). In their study Covington and Omelich (1979a) asked subjects what reasons might there be if they failed a test. Subjects had a choice of giving low effort, the test material was different from what studied, both excuses, or neither excuse. Subjects were then asked to rate the ability of someone who had supposedly failed a test with one of the four explanations given for that failure. Subjects said the person who gave both excuses was most intelligent. The persons who gave low effort as their only excuse were seen as more intelligent than those who gave the other excuse. Those who gave no excuse were seen as least intelligent. The fact that excuses reduced the person's responsibility for the failure in the eyes of another person seems to show that they work. The fact that low effort reduced responsibility more than another excuse may be directly related to why it is used so often. Teachers punish low effort more than poor ability, but maybe it is more important to maintain a
positive self-image than to avoid this punishment (Covington and Omelich, 1979a).

A demonstration of the use of effort as an excuse may have been found by Karabenick and Youssef (1968). They tested subjects on a word paired-associates test that was labeled as being easy, intermediately difficult, or difficult. They found that subjects who were high in motivation to avoid failure did worse than other subjects when the task was labeled as being intermediate. There was no difference when the task was labeled either easy or difficult. This may be the result of the subjects with high motivation to avoid failure needing to have an excuse for a possible failure. When the task was easy they would be confident of success. When the task was labeled difficult they could blame failure on the task itself. It is only in the middle group that the subject must devise his or her own excuse. The other subjects may have been more willing to accept the possibility of failure and deal with it as it arose, because their egos were less threatened. The high motivation to avoid failure subjects, on the other hand, may have felt it necessary to reduce the effort they made on the task, so they would have an excuse for a possible failure. The fact that they did worse when the task was labeled as being intermediate may have been the result of their excuse-making strategy.
Some people have suggested that excuse making is not the result of a strategy at all. They feel that people give more internal attributions for success and external attributions for failure as the result of perceptual biases without having any conscious awareness that that is what they are doing (Bem, 1967; Miller and Ross, 1975). A study was run that shows that this belief is not entirely true (Riess, Rosenfeld, Melburg, and Tedeschi, 1981). In this study subjects were given a social intelligence test and then told that they either got 80% correct or 20% correct. They were then put in one of three groups and asked to rate the importance of ability, effort, task difficulty, and luck for their results. One group was first attached to a lie detector. The second was attached to the lie detector but told that it was sometimes inaccurate. The third group was a control group and just answered the question. The results supported the internal/external attribution pattern in all three groups, but more importantly they also showed that failure was attributed more externally when the subject thought the lie detector was inaccurate than when they thought it was accurate. If externalizing failure was an unconscious process there should have been no difference. The results show that there may be some perceptual bias in our attributions of failures, but it cannot be said to be the cause of all our externalized attributions. Some of our attributions are consciously devised to protect our public
While most studies support the excuse strategy idea of an internal/external attribution pattern, Luginbuhl, Crowe, and Kahan (1975) conducted a study that does not seem to give it much support. They used a slide recognition task, comparing it to the job of a radar operator recognizing objects on a radar screen. Their results showed that while subjects did make more internal attributions for success, they gave an equal amount of internal and external attributions for failure. This does not support an excuse making strategy. It does not disprove it, however, because the experimenters themselves offer a possible explanation for why they did not find support. When subjects were introduced to the task, they were told that it required skill. By telling subjects this the experimenters may have inadvertently made it seem improper to give external attributions for failure. This would make the validity of their results questionable.

Excuses like the ones that have been discussed can be useful even when they do not convince anyone of their validity except the user. It has been found that this type of excuse behavior can be a way of reducing stress (Barish and Houston, 1979). Barish and Houston (1979) measured stress levels after external attributions for failure or without attributions in high and low-stress situations.
Subjects were told that they were taking an "Advanced College Achievement Test". Half the subjects were told that it was an important test and their score was 55% of what they expected it to be. The other half were not told anything about the test and were given no feedback on their results. Some subjects in each of the groups were then given the opportunity to attribute the cause of their behavior to something outside themselves. The stress level for subjects who had the opportunity was reduced after they made external attributions more than the level for subjects who did not make external attributions in both levels of initial stress. This gives another reason why excuse strategies are so popular. They not only help us present a better image of ourselves to others, but they also reduce our own levels of stress.

In further research of the internal/external attribution pattern, what seems to be some contradictory evidence has been found. In a study using subjects in a teaching situation, Ross, Bierbrauer, and Polly (1974) found that subjects took the blame if they thought the person they were supposed to be teaching failed and gave credit to the person if they thought the person had succeeded. This is the exact opposite of what the other studies supporting the internal/external attribution pattern have found. This study may not be as contradictory as the results seem to be, however, if it is examined more closely.
First Ross et al. (1974) told subjects that they would be observed and evaluated by the observer. This in itself may have caused subjects to be less willing to make self-enhancing or self-protecting attributions that might be discredited by the observer.

A second explanation was given by Bradley (1979). He said that self-serving attributions or excuses are used to maximize public esteem. He said that it may be necessary to take responsibility for negative outcomes. Bradley thought that this was true in the case of Ross et al. (1974) subjects. Teachers may be seen as better and more caring teachers if they take responsibility for any student of theirs that fails. This would mean that even their seemingly contradictory attributions are the result of a self-presentation or excuse strategy. In that case the evidence against the use of excuses does not seem as strong as the evidence supporting it.

So far the use of excuses as they relate to impression management by people who are considered to be psychologically "normal" has been discussed. It has often been assumed that mental patients are too out of touch with reality to know how to manage the impression they make on other people. This is not the case, however, because research has found that they use their mental illness itself to vary the impression they give to other people.
Braginsky, Grosse, and Ring (1966) showed that mental patients report symptoms in a way that will benefit them. They used mental patients with various disorders who had been hospitalized for less than three months, short timers, or more than three months, old timers. It had previously been found that old timers prefer to stay in the hospital, while short timers are more motivated to be released. They gave all subjects 30 true and false questions taken from the MMPI. Half the subjects were told that it was a "Mental Illness Test", and half were told that it was a "Self-Insight Test". Then all subjects except a control group of old-timers were told that the more true answers given the more mental illness or self-insight the respective test would show. It was found that when the test was labeled as a mental illness test, old timers gave more true answers than short timers. The opposite was true when it was labeled as a self-insight test. The control answered true for about half the questions on either test. When we compare the two groups to the control, we see that the subjects did give answers that reflected the way they wanted to be seen by others.

Braginsky and Braginsky (1967) have also done a study showing that mental patients can use impression management in verbal interactions as well. They interviewed schizophrenic patients who were currently living on an open ward of a mental hospital. The patients were told that they
were being interviewed for one of three reasons. The reasons were a discharge evaluation, an evaluation for open ward status, or a mental status evaluation. The first and third reasons were very similar. The patient's mental health based on the interview was then evaluated by a psychiatrist who was blind to which group the patient had been assigned to. All subjects sounded normal in the interviews, but based on the symptoms they reported having, subjects in the open ward group were seen as most healthy, with no real difference between the other two groups. This showed that when they wanted to be able to stay on the open ward, patients could present themselves as being more healthy, and when they wanted to make sure they could remain in the hospital, they could present themselves as being more sick.

Braginsky and Braginsky (1967) examined the criticism that the open ward group may have been seen as more healthy, because they were less nervous and, therefore, did not display as many symptoms. The other groups would have been more nervous, because they had more at stake in the interview. This was not the case, however, because none of the subjects displayed their symptoms. Their evaluations had to be based on the symptoms the patients told about. This seems to show that the patients did use impression management. It also means that the idea of an excuse-making strategy should not be limited in application to just
"normal" people, but that everyone may have some type of excuse strategy.

It has already been said that excuses can be useful for many things, even getting what we want as in the case of the mental patients. There are times, however, when excuse making can get out of hand and even become detrimental. This occurs when a person sets up blockades to his or her own performance so these blockades can be used as excuses if the person fails. These blockades can be a specific action that the person takes to impair his or her performance or a choice of performance setting that in itself may impair performance. These are called self-handicapping strategies (Berglas and Jones, 1978).

Studies have found that people use a variety of things as self-handicapping strategies. Smith, Snyder, and Handelsman (1982) have found that people who have high test anxiety may be using it as a self-handicap. In a second study Smith, Snyder, and Perkins (1983) also found that hypochondriacal complaints can be used as a self-handicap. The lack of effort shown in the previously mentioned Karabenick and Youssef (1968) study is also an example of self-handicapping.

The most explicit support for the use of self-handicapping has been found in studies where the self-handicap was provided within the experiment itself.
Studies done by Berglas and Jones (1978) and Tucker, Vuchinich, and Sobell (1981) gave subjects an opportunity to self-handicap during the experiment. Both studies found that subjects chose to self-handicap when they were unsure of their ability to continue to succeed on a task. In the Tucker et al. (1981) study subjects who were unsure chose to drink before they took a retest. They were unsure, because they had been told they had done well on the first test, which consisted of impossible problems. In the Berglas and Jones (1978) study, subjects self-handicapped when they were unsure by saying that they would rather take a performance inhibiting drug than a performance enhancing drug.

These studies support the concept that people do sometimes use self-handicapping strategies. These strategies may be detrimental to our performances, but that does not mean that all excuses are bad. Excuses and self-handicaps are not exactly the same thing. An excuse attributes failure to something that is already present in the performance situation, and a self-handicap creates something that can be used as an excuse for failure. While excuses themselves may sometimes be useful, when it becomes necessary to self-handicap to have an excuse, it may mean that the use of excuses has become obsessive and is no longer useful.
For most of the discussion so far has been written under the assumption that the only explanation for the internal/external attribution pattern is an excuse strategy. There are two other explanations that have been proposed and which are worth mentioning. The first is that the internal/external attribution pattern is the result of a perceptual bias and is an unconscious process (Bem, 1967; Miller and Ross, 1975). This was already disputed by the Niess et al. (1981) study discussed previously. The study used a bogus lie detector and found that more excuses were used when subjects thought the lie detector was inaccurate than when they thought it was accurate. This seems to show that a perceptual bias cannot account for all excuse making, though it does not rule out that a perceptual bias may contribute some to the overall pattern.

A second explanation is that people may give external attributions as a result of learned helplessness. When a person has learned helplessness, he or she feels that it is impossible to control outcomes, therefore, failures would automatically be attributed to external causes. If the person is really suffering from learned helplessness, they will do worse on a task that they think is very difficult that on one they think is moderately difficult, because they feel they have less control.

Two studies have shown that lowering subjects control
does not worsen performance, but it enhances performance. Frankel and Snyder (1978) found that subjects who had previously been given unsolvable problems did better on a task labeled very difficult than on a task labeled moderately difficult. This is the direct opposite of what would be predicted by learned helplessness theory.

In a second study, Snyder, Smaller, Strenta, and Frankel (1981) gave subjects unsolvable problems and then gave them solvable anagrams with or without music that they were told was a distraction. Learned helplessness theory would suggest that subjects would do worse with music than without it. The results were the opposite. Both studies support an excuse theory, because making the task harder would provide an excuse for possible failure. This would free subjects to put all their effort into the task without the fear of having to accept blame if they failed. It does seem then that the obvious is true, and people do use excuses when their ego is threatened. The first part of this study was an attempt to add support to this by showing that people use more excuses when their ego-involvement is high than when it is low.

The second aspect of this study dealt with sex differences in the use of excuses. Many previous studies that compared males and females have found differences, although some of these differences are conflicting. The
majority of studies, but not all, have found that women give fewer excuses than men. In terms of the research done with attributions, this means women give fewer external attributions for failure than men do.

One study done with children (Nicholls, 1975) found that girls attributed failure more to poor ability than they attributed success to good ability. Subjects were given an achievement test and told they had either done well or failed. Boys excused their failures by attributing them to luck more than girls did.

In a more relevant study done with college students, Newburg (1983) also found that women attribute failures less externally than men do. The study showed that in a low stress situation women rated ability and extenuating circumstances equally in terms of their importance for performance. In a high stress situation, however, they rated ability as being more important than extenuating circumstances. If they had been using an excuse-making strategy, it would have been predicted that they would do just the opposite. Men did use an excuse-making strategy, because while they rated ability as being more important than extenuating circumstances in a low stress situation, they rated the two as being equal in a high stress situation. By rating them as equal the men made it more difficult to assess their real ability in the high stress
situation.

Several research reviews on the subject have supported the idea that women use fewer excuses than men. Travis and Maie (1984) concluded that men think their success is due to their ability and their failures are due to something outside themselves. Women see success as being due to something outside themselves, and failure as being due to their ability. Zuckerman (1979) concluded that women make fewer self-serving attributions than men, but the difference is greater for masculine tasks.

Hanson and O'Leary (1983) may have found a possible explanation for women internalizing and men externalizing failure. They found that when people explain other's behavior, they rely more on internal factors to explain women's behavior and rely more on external factors to explain men's behavior. It may be that men use more external attributions, because they are believed more than women are when they do. Women may find people less accepting of them when they use external attributions, therefore, that method of excuse making may not be successful for them. This would explain why they would use them less than men.

Not all evidence supports this hypothesis. In their review of previous research, Mednick, Tangri, and Hoffman (1975) found that while some research shows women as being
more internal in their attributions, others have shown them to be more external in their attributions for both success and failure. Bar-Tal (1978) also said that women were more external, using more luck attributions, than men.

Often studies showing women to be external have used traditionally masculine tasks (Mednick et al., 1975). One such study (Feather, 1969) used an anagram test. This test would be related to achievement, which is traditionally more important for males. The study found that women had more external attributions for success and failure than men did.

There have been studies that took the sex-appropriateness of the task into consideration. Rosenfield and Stephen (1978) found results that were particularly relevant to the present discussion. They found that when they ran their experiment using a masculine task, men used the internal/external attribution pattern more than women did. When the experiment used a feminine task, the opposite results were found. This makes it unclear as to whether previously found sex differences were really differences, or if they were just the result of the sex-appropriateness of the task being used.

It may be that tasks associated with the opposite sex do not arouse as much ego-involvement, and this could be responsible for some of the previously found sex differences. Very few studies in the past have examined how
the sex-appropriateness of their task may have affected how much the task threatened the person's ego. In the present study an attempt to avoid this problem was made by running a pretest to determine a test to use that was equally important to both men and women.

In this study an attempt to measure both internal and external excuses was made, because it was thought that this would give a more accurate rating of excuse-making behavior than just inferring the use of excuses from external attributions. Attribution research ignores an important area of excuse making by not allowing for internal excuses.

It was hypothesized that the number of excuses given would be greater in a high ego-involvement situation than in a low-involvement situation. It was felt that in an ambiguous evaluative situation when there is a high ego-involvement level, both men and women would use more excuses than when in a non-evaluative, low-involvement situation. It was hypothesized that in the evaluative situation more external excuses would be used than internal excuses. In the non-evaluative situation, while the total number of excuses should decrease, the number of internal excuses given should increase as compared to the number of excuses overall.

Sex differences in terms of both the total number of excuses given and the type of excuses given were also
Examined. It was hypothesized that men would give more excuses than women, and that they would give more external excuses than women do. It was predicted that both would have had a lower total number of excuses in the non-evaluative situation, but the ratio of internal to external should increase and do so more for men than for women.

Method

Pretest

To find a sex equivalent task an "Interest survey" was given to 96 introductory statistics students. The survey asked them to rate how important 18 different possible test subjects were to them. (See Appendix F.) The sample contained 47 males and 49 females. T-tests were done on all the questions to find those rated equally important by both men and women. A test of future life satisfaction was chosen, because of its high rating of importance by both (m=3, on a 9 point scale), and because it was rated equally by men and women (t(94)=.49, p=.6).

Subjects

The subjects for the actual experiment were 80 students arbitrarily selected from the student body of Lycoming. (1) They were 40 males and 40 females. They were divided into 4 groups of 20, a male high-involvement group, a female high-involvement group, and a male and a female
low-involvement group.

Materials

The "Life Satisfaction Prediction Scale" consisted of a 28 item incomplete sentence form. Two versions of the form were made. For the high ego-involvement condition, it was given the title previously mentioned and printed on high quality ivory paper. (See Appendix D for title page.) In the low ego-involvement condition it was not given a title and simply dittoed onto plain paper. (See Appendix E for actual questions.) The excuses were measured using a scaled questionnaire prepared by the experimenter. (See Appendix A.) (2) The self-esteem involvement manipulation was checked using two correlating halves of Spielberger's State-Trait Anxiety Inventory (Spielberger, Gorsuch, and Lushene, 1970; see Appendixes B and C). (3)

Procedure

Upon entering the experimental situation, all participants were asked to complete one of the shortened versions of Spielberger's State-Trait Anxiety Inventory (Spielberger et al., 1970; see Appendix B). This was given to obtain a baseline anxiety level so the stress level manipulation could be checked. The inventory was introduced to the participants as a "feelings inventory".

The participants were randomly placed into either the
high or low ego-involvement condition using a flip of a coin before the start of the experiment. After completing the "feelings inventory", they were then asked to complete the sentence completion form. It was introduced using the following instructions in the high-involvement situation.

Now I would like you to complete the life satisfaction prediction scale. This test will predict how satisfied with your life you will be in the future. They have done longitudinal research on it, in which they gave it to college students and then checked back with them 10, 20, and 30 years later and found it made accurate predictions about how satisfied they were with their lives. I will give you feedback at the end of the session as to what it predicts for you.

You should know that there is a typographical error in number 24, and it should read "In high school". You have 9 minutes to complete the test. Please be as complete and accurate as you can, because it is a very sensitive test.

In the low-involvement condition the following instructions were given to put the participants at ease.

Now I have a sentence completion form I would like you to do. I am just interested in finding out which ones are easiest to answer. There are no right or wrong answers. Just put down whatever
you can think of.

In the high-involvement condition a loudly ticking timer was placed in front of the subject to make them aware of how much time they had left to complete the "life satisfaction scale". The low-involvement group was not told anything about a time limit. If they had not completed the form within 9 minutes, they were told they could stop at that time, because "the form was a little long". This was done to insure that the low-involvement group did not have longer to complete the questionnaire than the high-involvement group.

After the participants completed the form or time had run out, both groups were again given a shortened version of the State-Trait Anxiety Inventory (Spielberger et al., 1970; see Appendix C). It was introduced as another "feelings inventory". This was compared to the first inventory to check the effectiveness of the involvement manipulation.

Next all the participants were given the excuse questionnaire. It was explained that the form would be used to see if anything might have affected their answers on the life satisfaction scale (or sentence completion form) to make them less reflective of the subjects' true feelings.(4)

After the questionnaire was completed, each participant was debriefed. The true hypothesis of the experiment was
given, and the need for the use of deception was explained. All the participants' questions about the study were answered at this time.

Results

The results of the anxiety inventory comparison showed that the stress manipulation between the high and low involvement groups was successful. A two-way analysis of variance was run on both the before and after questionnaires. Before the stress manipulation began there was no significant difference between the two groups ($F(1,76)=.17$, $p=.6$). The analysis of the anxiety inventory given after the involvement manipulation showed there was a significant difference between the groups ($F(1,76)=4.25$, $p<.05$), with the high involvement group showing an increase in anxiety. An analysis of covariance with the post-inventory scores as the dependent variable and the pre-test scores as the covariant was also performed. The results of the stress manipulation were supported ($F(1,75)=8.15$, $p<.01$). None of these analyses showed any significant sex differences in anxiety level (see Tables I and II).

A two-way analysis of variance was performed on the total number of excuses given. There was no significant difference in the total number of excuses given for the two ego-involvement groups ($F(1,76)=.19$, $p=.66$). There were also
no significant sex differences \( F(1,76)=.30, p=.58 \). The interaction between sex and involvement level was also insignificant \( F(1,76)=2.37, p=.13 \). (See Table III).

An examination of the means for the excuses suggested the possibility of an interaction, but the analysis of variance showed it to be insignificant. The means showed that men did follow the predicted pattern of giving more excuses in the high-involvement situation than in the low-involvement situation with means including all 11 questions of 23.4 and 21.9 respectively, but the difference was not significant \( t(38)=1.7, p=.10 \). Females, however, gave significantly more excuses \( m=25.15 \) in the low-involvement situation than in the high-involvement situation \( m=22.95 \) \( t(38)=2.34, p<.05 \). (See Tables IV and V for means for internal versus external excuses.)

Another two-way analysis of variance was performed on the number of internal excuses. There was no significant difference in the number of internal excuses given between the two involvement groups \( F(1,76)=.50, p=.48 \). There was a significant sex difference \( F(1,76)=5.33, p<.05 \). Women gave more internal excuses than men did. There was no interaction between the involvement level and sex variables \( F(1,76)=2.09, p=.15 \). (See Table VI.)

A final analysis of variance was performed on the number of external excuses. No significant difference was
found for involvement level ($F(1,76)=.00$, $p=.1$) or sex ($F(1,75)=1.60$, $p=.21$). There was also no significant interaction between the two ($F(1,76)=.87$, $p=.35$). (See Table VII.)

Discussion

Many of the results contradicted the hypotheses. The most surprising contradiction was that there was no significant decrease in the number of excuses given by the low ego-involvement group. Almost all previous research has supported the idea that excuses are related to ego-involvement level in that the higher the ego-involvement level, the more an excuse-making strategy occurs.

This study seemed to show that the men's actions offered some support for this. Men in the high ego-involvement group did give more excuses than men in the low-involvement group. The women did the opposite, however, so the overall effect was to cancel the changes in both groups making it appear that there were no differences between the two levels of ego-involvement.

There was only one previous study that found comparable results. Neuburg (1983) found women rated ability and extenuating circumstances equally in a low stress situation, which could be considered an excuse-making strategy. It suggests an excuse-making strategy, because a failure
occurring in this situation would most likely be attributed ambiguously since ability could not be related to it any more than outside circumstances. Women rated ability as being more important in a high stress situation, which does not reflect an excuse-making strategy. Men did the opposite. This would seem to show that women use an excuse-making strategy more in a situation involving a low ego-involvement level, while men use it more in high ego-involvement situations.

If this was actually the case then it would suggest a sex difference that has not previously been shown in the attribution research that has been related to the field of excuse making. Ego-involvement would have to affect male and female excuse making oppositely. Some basis for this opposite response must be found before any previous research can be discounted.

The most obvious hypothesis to test was to make sure the test used was actually equally involving for both men and women. If the women in the low-involvement group had had a higher stress level than the men in that group, then that would account for their higher level of excuse-making behavior. This hypothesis was rejected, however, because as was related in the results section the anxiety inventory used to check the involvement manipulation showed that the high-involvement group did have a higher anxiety level than
the low-involvement group, and there were no significant sex differences.

A question may be raised about the validity of using an anxiety inventory to check ego-involvement level, but this same inventory is used in almost all research of this type. To pose this question would probably not be useful, because whether or not the test is valid, other studies based their conclusions on the same test. The comparison of the studies should have been valid, because their manipulations were based on the same thing.

Another, perhaps more feasible, hypothesis concerning the women's increase in excuses in a low-involvement situation may be that women use them when they are accepted most readily. If Hansen and O'Leary (1983) are correct in their conclusion that people attribute women's actions to them, women may be pressured into using less excuses than they would like to in high-involvement situations. In low-involvement situations they may feel less pressure to take responsibility, so they use more excuses.

This would agree with the findings of Mednick et al. (1979). They suggested that women use more external attributions when referring to a traditionally male task. A male oriented task would presumably be less ego-involving for a woman. Women would feel less pressured to take responsibility in a low-involving situation and, therefore,
make more external attributions or excuses.

If it is the lack of pressure to accept responsibility that allows women to give more excuses in the low-involvement condition, perhaps this pressure itself determines when women excuse their behavior more than the ego-involvement level. If society interprets women's behaviors more on the basis of women being responsible for that behavior, then there may be certain types of tasks that may be sanctioned as proper territory for women to make excuses in. Women may have learned through society's reinforcement that it is acceptable to make excuses about masculine tasks or unimportant tasks, but it is not acceptable to make excuses about things that should be important. If Hanson and O'Leary (1982) are correct in that people attribute men's actions to outside factors, then men can choose more freely when they want to excuse their behavior. It would explain why they are more affected by their ego-involvement level in the excuse-making situation.

One possible explanation for the lack of support for this hypothesis in attribution research is related to the high number of internal excuses women used. Attribution research could only hypothesize excuse-making behavior from attributing failures to external factors. This eliminated the chance to examine the possibility of internal excuses. In the present study the number of external excuses stayed
approximately the same in the high and low-involvement conditions, while the number of internal excuses went up in the low-involvement condition. This increase would not be shown in attribution research, because internal attributions were not considered excuses. It does appear that internal excuses do in fact exist, however.

Another factor that may have affected the relationship between the level of ego-involvement and the number of excuses is the fact that the task involved an ambiguous situation, in which subjects were unsure of their success or failure on the task they were making excuses for. Both this study and the Newburg (1983) study, which had similar results, placed subjects in an ambiguous situation. The Miller (1976) study, which showed the direct relationship between ego-involvement level and excuse making, did not use an ambiguous situation. That study, as well as several others supporting that relationship, assigned subjects to either a success or failure category. It may be that excuse-making behavior is different for people who think that they actually failed than for those who are simply unsure of their outcome. It would seem reasonable to assume that a subject who was told that he or she definitely failed a test would feel a greater need to excuse his or her behavior than a subject who was still waiting the results of his or her behavior. If this is true, then perhaps if subjects in the present study were given failure feedback,
they would have responded more in the predicted manner.

Subjects did respond more in the predicted manner along the internal versus external dimension. Although it was not predicted that any group would give more internal excuses than external excuses, the difference was very slight, and for all statistical purposes women could have been said to give an equal number of internal and external excuses. The important finding was that women do use significantly more internal excuses than men do.

This supports the studies of Travis and Wade (1984) and Zuckerman (1979) that said that women make more internal attributions than men. In their research, giving more internal attributions was seen as giving fewer excuses. The present results showed, however, that there may be no difference in the number of excuses given by men and women only by the type of excuse given. This may explain some previously found sex differences in attribution research. Attribution studies showing that men give more excuses than women do not take internal excuses into account.

The prevalence of internal excuses in female excuse behavior may also be related to the way people explain behavior as discussed by Hansen and O'Leary (1983). Perhaps women use internal excuses, because it is a socially acceptable way to relieve responsibility. Women may have had to develop internal excuse patterns to relieve some of
the responsibility of their actions without breaking the societal taboo against attributing women's actions to factors outside themselves.

This result conflicts with Bar-Tal's (1978) findings which said that women were more external than men. One explanation for this conflict concerns the first finding of this study. If women actually do give more excuses in low-involvement conditions and Mednick et al. (1975) are right about women giving more external attributions for masculine tasks, then the external attributions in studies in Bar-Tal's (1978) may be the result of the women's greater desire to or greater freedom to make excuses. They would give more external attributions simply because that was the only opportunity for excuse making offered in that situation.

Overall the majority of research seems to support this studies findings that women are more internal in their attributions than men. The results of this study have taken it a step further by showing that women's excuse making itself is more internal than men's.

There was one problem with the present study that may have affected the results or at least their generalizability. Subjects were originally picked randomly from the student body, but it was impossible to get even a majority of those students selected to participate. The
majority of those students who participated were arbitrarily picked by the experimenter. Although the experimenter attempted not to bias the subject population, there may have been some bias in the population inherent to the areas of the campus from which they were arbitrarily chosen.

Through the present study an attempt was made to find real sex differences in excuse-making behavior. It was found that although there was no significant difference in the number of excuses given by men and women, there was a significant difference in the type of excuse given. Women gave more internal excuses than men.

Further study is required to explain the fact that ego-involvement level did not significantly affect the number of excuses given. One study that could be done in this area is to repeat the study using both an ambiguous method for generating excuses and a success/failure assignment method. This way the two could be compared to see if that does have an effect on excuse-making behavior, especially in women.

A second factor that needs further exploration is the acceptance by others of excuses made by women. It needs to be known if people really do accept more excuses from women when the women are referring to a lower ego-involving situation than when they refer to a high-involvement situation. If this does occur, then whether or not women
take this acceptance into consideration when they make excuses must be determined to gain a fuller understanding of why women might give more excuses in a less threatening situation.
References


Endnotes

1 A random selection was attempted, but due to difficulty in getting in contact with those selected and refusals to participate (only 35 of 100 contacted participated), a majority of subjects were found in the lounge of the Academic Center and by knocking on doors in a nearby dorm.

2 The first ten questions were used to find the number of internal and external excuses. They will consist of five internal excuses and five external excuses. Question 11 will be used only in calculating the total number of excuses.

3 The first state anxiety questionnaire was the odd-numbered items from the State-Trait Anxiety Inventory. The second was the even-numbered items from the State-Trait Anxiety Inventory. Comparisons of these two halves have shown them to be reliable.

4 It should be noted that the experimenter sat in the room with the participant while the participant completed the questionnaires. The experimenter was to the right and slightly behind the participant, so she was not in direct view of the participant while they were completing the questionnaires.
Appendix A: Excuses Questionnaire

Please rate how much, if at all, each of the following may have affected your performance.

1. I am too anxious about other school tests right now to do this one right.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td></td>
<td></td>
<td></td>
<td>Moderately</td>
<td></td>
<td></td>
<td>Very much</td>
</tr>
</tbody>
</table>

2. It takes longer to complete the questions than was given.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

3. I am having trouble getting along with other people at school.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

4. The questions were too vague.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

5. The typographical error distracted my attention.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

6. I am so happy that I can't concentrate on anything.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

7. The test giver was too distracting to allow anyone to concentrate.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

8. I was too worried about the results to concentrate.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

9. I am depressed today more than usual.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

10. The test giver did not explain what he or she wanted clearly.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

11. Other extenuating circumstances.

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

*Designates an internal excuse.
Appendix B  Pre-Anxiety Inventory

Directions: A number of statements which people have used to describe themselves are given below. Read each statement and circle the appropriate number to the right of the statement to indicate how you feel right now, that is, at this moment.

1 - not at all
2 - somewhat
3 - moderately so
4 - very much so

There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer which seems to describe your present feelings best.

1. I feel calm
2. I am tense
3. I feel at ease
4. I am at present worrying over possible misfortunes
5. I feel anxious
6. I feel self-confident
7. I am jittery
8. I am relaxed
9. I am worried
10. I feel joyful

1 2 3 4
Appendix C  Post-Anxiety Inventory

Directions: A number of statements which people have used to describe themselves are given below. Read each statement and circle the appropriate number to the right of the statement to indicate how you feel right now, that is, at this moment.

1 - not at all
2 - somewhat
3 - moderately so
4 - very much so

There are no right or wrong answers. Do not spend too much time on any one statement, but give the answer which seems to describe your present feelings best.

1. I feel secure . . . . . . . . . . . . . . . . . . . . . . 1 2 3 4
2. I feel regretful . . . . . . . . . . . . . . . . . . . . . 1 2 3 4
3. I feel upset . . . . . . . . . . . . . . . . . . . . . . . 1 2 3 4
4. I feel rested . . . . . . . . . . . . . . . . . . . . . . . 1 2 3 4
5. I feel comfortable . . . . . . . . . . . . . . . . . . . . 1 2 3 4
6. I feel nervous . . . . . . . . . . . . . . . . . . . . . . 1 2 3 4
7. I feel "high-strung" . . . . . . . . . . . . . . . . . . . . 1 2 3 4
8. I feel content . . . . . . . . . . . . . . . . . . . . . . . 1 2 3 4
9. I feel over-excited and "rattled" . . . . . . . . . . . . . 1 2 3 4
10. I feel pleasant . . . . . . . . . . . . . . . . . . . . . . 1 2 3 4
Appendix D
Questionnaire Title Page

Life Satisfaction Prediction Scale
College Form

Identification number ________
Appendix E
Sentence Completion Form

Instructions: Complete these sentences to express your real feelings. Try to do every one. Be sure to make a complete sentence.

1. The happiest time__________________________________________

2. I regret_________________________________________________

3. The best_________________________________________________

4. What annoys me__________________________________________

5. People___________________________________________________

6. I feel___________________________________________________

7. My greatest fear_________________________________________

8. I can't___________________________________________________

9. When I was a child_______________________________________

10. My nerves_______________________________________________

11. I suffer________________________________________________

12. I failed________________________________________________

13. My mind________________________________________________

14. The future______________________________________________
15. I need

16. I am best when

17. What pains me

18. I am very

19. I wish

20. I secretly

21. I

22. My greatest worry is

23. I like

24. I high school

25. When I work

26. Pets

27. This school

28. I hope
Excuses Appendix P Pretest

Interest Survey

Circle One: Male Female

Instructions: Read each question carefully, and circle the number that most nearly represents how important it is to you to have the ability mentioned in the question.

1. How important is it to you to display psychological adjustment?

1 2 3 4 5 6 7 8 9
not at all moderately extremely
important important

2. How important is it to you to display assertiveness?

1 2 3 4 5 6 7 8 9
not important moderately extremely
important important

3. How important is it to you to have satisfaction with your future job?

1 2 3 4 5 6 7 8 9

4. How important is it to you to have sensitivity?

1 2 3 4 5 6 7 8 9

5. How important is it to you to have satisfaction with your future family?

1 2 3 4 5 6 7 8 9

6. How important is it to you to have organizational skills?

1 2 3 4 5 6 7 8 9

7. How important is it to you to display empathy?

1 2 3 4 5 6 7 8 9

8. How important is it to you to have spatial ability?

1 2 3 4 5 6 7 8 9

9. How important is it to you to have satisfaction with your life in the future?

1 2 3 4 5 6 7 8 9
10. How important is it to you to display creativity?

1 2 3 4 5 6 7 8 9
not at all important
moderately important
extremely important

11. How important is it to you to have social competence?

1 2 3 4 5 6 7 8 9

12. How important is it to you to have good judgment?

1 2 3 4 5 6 7 8 9

13. How important is it to you to be independent?

1 2 3 4 5 6 7 8 9

14. How important is it to you to have academic ability?

1 2 3 4 5 6 7 8 9

15. How important is it to you to have college achievement?

1 2 3 4 5 6 7 8 9

16. How important is it to you to have imagination?

1 2 3 4 5 6 7 8 9

17. How important is it to you to have a complete personality?

1 2 3 4 5 6 7 8 9

18. How important is it to you to have satisfaction with your future social position?

1 2 3 4 5 6 7 8 9
### Table I

**Analysis of Variance for Stress Before**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>Tail Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>26718.05</td>
<td>1</td>
<td>26718.05</td>
<td>910.69</td>
<td>0.000</td>
</tr>
<tr>
<td>Ego-group</td>
<td>5.00</td>
<td>1</td>
<td>5.00</td>
<td>0.17</td>
<td>0.681</td>
</tr>
<tr>
<td>Sex</td>
<td>80.00</td>
<td>1</td>
<td>80.00</td>
<td>2.73</td>
<td>0.102</td>
</tr>
<tr>
<td>Interaction</td>
<td>31.25</td>
<td>1</td>
<td>31.25</td>
<td>1.07</td>
<td>0.305</td>
</tr>
<tr>
<td>Error</td>
<td>2229.70</td>
<td>76</td>
<td>29.34</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Analysis of Variance for Stress After**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>Tail Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>30420.00</td>
<td>1</td>
<td>30420.00</td>
<td>959.50</td>
<td>0.000</td>
</tr>
<tr>
<td>Ego-group</td>
<td>135.20</td>
<td>1</td>
<td>135.20</td>
<td>4.26</td>
<td>0.042</td>
</tr>
<tr>
<td>Sex</td>
<td>61.25</td>
<td>1</td>
<td>61.25</td>
<td>1.93</td>
<td>0.169</td>
</tr>
<tr>
<td>Interaction</td>
<td>48.05</td>
<td>1</td>
<td>48.05</td>
<td>1.52</td>
<td>0.222</td>
</tr>
<tr>
<td>Error</td>
<td>2499.50</td>
<td>76</td>
<td>31.70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table II

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>Tail Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ego-group</td>
<td>168.98</td>
<td>1</td>
<td>168.98</td>
<td>8.16</td>
<td>0.005</td>
</tr>
<tr>
<td>Sex</td>
<td>5.02</td>
<td>1</td>
<td>5.02</td>
<td>0.24</td>
<td>0.624</td>
</tr>
<tr>
<td>Interaction</td>
<td>11.85</td>
<td>1</td>
<td>11.85</td>
<td>0.57</td>
<td>0.452</td>
</tr>
<tr>
<td>1-st Covar.</td>
<td>856.89</td>
<td>1</td>
<td>856.89</td>
<td>41.39</td>
<td>0.000</td>
</tr>
<tr>
<td>Error</td>
<td>1552.61</td>
<td>75</td>
<td>20.70</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Regression coefficient = 0.6199
# Table III

### Analysis of Variance For Total Number of Excuses

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>Tail Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>34403.51</td>
<td>1</td>
<td>34403.51</td>
<td>994.79</td>
<td>0.000</td>
</tr>
<tr>
<td>Ego-group</td>
<td>6.61</td>
<td>1</td>
<td>6.61</td>
<td>0.19</td>
<td>0.663</td>
</tr>
<tr>
<td>Sex</td>
<td>10.51</td>
<td>1</td>
<td>10.51</td>
<td>0.30</td>
<td>0.583</td>
</tr>
<tr>
<td>Interaction</td>
<td>82.01</td>
<td>1</td>
<td>82.01</td>
<td>2.37</td>
<td>0.127</td>
</tr>
<tr>
<td>Error</td>
<td>2628.35</td>
<td>76</td>
<td>34.58</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table IV

Female Means From Scaled Excuse Questionnaire
(Excluding question 11)

<table>
<thead>
<tr>
<th>Excuse Type</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>9.75</td>
<td>11.5</td>
</tr>
<tr>
<td>External</td>
<td>10.05</td>
<td>10.9</td>
</tr>
</tbody>
</table>

Ego-involvement Level

Table V

Male Means From Scaled Excuse Questionnaire
(Excluding question 11)

<table>
<thead>
<tr>
<th>Excuse Type</th>
<th>High</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal</td>
<td>9.05</td>
<td>8.45</td>
</tr>
<tr>
<td>External</td>
<td>12.05</td>
<td>11.2</td>
</tr>
</tbody>
</table>

Ego-involvement Level
### Table VI

**Analysis of Variance for Internal Excuses**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>Tail Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7507.81</td>
<td>1</td>
<td>7507.81</td>
<td>569.09</td>
<td>0.000</td>
</tr>
<tr>
<td>Ego-group</td>
<td>6.61</td>
<td>1</td>
<td>6.61</td>
<td>0.50</td>
<td>0.481</td>
</tr>
<tr>
<td>Sex</td>
<td>70.31</td>
<td>1</td>
<td>70.31</td>
<td>5.33</td>
<td>0.024</td>
</tr>
<tr>
<td>Interaction</td>
<td>27.61</td>
<td>1</td>
<td>27.61</td>
<td>2.09</td>
<td>0.152</td>
</tr>
<tr>
<td>Error</td>
<td>1002.65</td>
<td>76</td>
<td>13.19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table VII

**Analysis of Variance for External Excuses**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Degrees of Freedom</th>
<th>Mean Square</th>
<th>F</th>
<th>Tail Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>9768.20</td>
<td>1</td>
<td>9768.20</td>
<td>589.71</td>
<td>0.000</td>
</tr>
<tr>
<td>Ego-group</td>
<td>0.00</td>
<td>1</td>
<td>0.00</td>
<td>0.00</td>
<td>1.000</td>
</tr>
<tr>
<td>Sex</td>
<td>26.45</td>
<td>1</td>
<td>26.45</td>
<td>1.60</td>
<td>0.210</td>
</tr>
<tr>
<td>Interaction</td>
<td>14.45</td>
<td>1</td>
<td>14.45</td>
<td>0.87</td>
<td>0.353</td>
</tr>
<tr>
<td>Error</td>
<td>1258.90</td>
<td>76</td>
<td>16.56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>