Jealousy, Trait Anxiety, and Self-Esteem as Discriminant Mediators of Couples’ Communicative Strategies

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Abstract

Researchers have developed groups for communicative responses, specifically focusing on negotiation, non-confrontation, direct fighting, and indirect fighting, as forms of categorizing behaviors. These categories incorporate several psychological characteristics, including self-esteem and jealousy, both of which have consistently been found to be strong predictors of communication strategy. The addition of trait anxiety arose from the direct relationship found between this construct, jealousy, and self-esteem. Due to this relationship, the current study investigated the influence of self-esteem, jealousy, and trait anxiety on communicative strategies used in face to face conflict situations within heterosexual, romantic relationships. One hundred twenty one participants answered a series of questions regarding their romantic relationships, and responses to conflict situations with their partners. A discriminant regression analysis model was not significant, but several correlations were found between predictor variables and communication style utilized.

*Keywords: communication styles, romantic relationships*
Jealousy, Trait Anxiety, and Self-Esteem as Discriminant Mediators of Couples Communicative Strategies

Communication is a vital aspect of human interaction, evident for survival even in our early ancestors (Guerrero et al., 1995; Knobloch & Solomon, 2003; & van de Vliert and Euwema, 1994). Not only does communication promote survival, but it plays a key role in establishing the quality of our relationships, including status and reproductive success (Andersen & Guerrero, 1997). Emotion is also a key factor in the evolutionary process, as appropriate emotion leads to the development of romantic relationships, ultimately resulting in increased reproductive fitness (Andersen & Guerrero, 1997). Several studies have been conducted investigating the interpretation of face to face communication between individuals in a romantic relationship, and the emotions that may result, substantiating the correlation between communication and emotion within relationships (Knobloch & Solomon, 2003; McLaren & Ryan Steuber, 2012; Oatley, 1992). Evidence has been found, however, that other factors may influence communication, leading to a further investigation into these factors (Bellavia & Murray, 2003; Bevan & Samter, 2004; Campbell et al., 2005; Simpson et al., 1996). It is well known that different emotions elicit a variety of communicative responses within the individual experiencing the emotion, depending on individual personality differences.

Appraisal theories of emotion investigate how individuals experience and elicit emotions based on their perceptions of the situation (Lazarus, 1991). An individual’s perceptions of the situation are frequently influenced by stimuli in the environment, such as the desires and goals of the individual, placing specific emphasis on their own welfare (Lazarus, 1991). Certain evaluative and appraisal methods have been found to lead to specific emotions (Oatley, 1992). Generally, positive emotions result from situations that facilitate the goals and overall wellbeing
of the individual, whereas negative emotions result from situations that do not promote the goals and overall wellbeing of the individual. These emotions then lead to certain actions, specifically in the form of communicative responses to the situation (McLauren & Ryan Steuber, 2012).

Researchers categorize behaviors into groups that help explain peoples’ communicative responses (Guerrero, et al., 1995; Knobloch & Solomon, 2003; Sillars, Canary, & Tafoya, 2004; van de Vliert & Euwema, 1994). Two main categories, approach strategies and withdrawal strategies, can be used to understand potential responses to arousing events. Approach strategies are used to seek direct information regarding the situation (Feeney, 2004). Withdrawal strategies are used to avoid the potentially uncomfortable or confrontational face to face interaction (Sillars, Canary, & Tafoya, 2004).

Approach strategies can be either positive and integrative or negative and distributive (Sillars, Canary, & Tafoya, 2004). Integrative strategies are generally constructive, including behaviors that allow the individual to express their concerns and emotions in a composed manner, make compromises, and discuss the situation without placing blame on their partner (Sillars, Canary, & Tafoya, 2004). Examples of such strategies would be speaking with “I” pronouns or addressing the situation in a non-confrontational manner. These behaviors are beneficial for the relationship, and related to relational certainty, which indicates higher confidence in the success of the relationship (Knobloch & Solomon, 2003). Distributive strategies are generally destructive, including behaviors that place blame and target the partner, such as yelling, cursing, and arguing without intent of resolving the conflict (Guerrero, et al., 1995). These behaviors are detrimental to the relationship, and related to relational uncertainty, which indicates lower confidence in the success of the relationship (Knobloch & Solomon, 2003).
Withdrawal strategies generally include avoidance behaviors and distancing behaviors. Avoidance behaviors are used when the individual does not want confrontation, but rather desires to forget about the situation and hide one’s feelings from their partner (Knobloch & Solomon, 2003). Distancing behaviors involve actively avoiding and pulling back from the partner within the relationship. This would include behaviors such as giving the silent treatment and withholding normal interactions, such as the sharing of personal information (Guerrero, et al., 1995). Each of these behaviors can be categorized by direct or indirect and cooperation or competition. Direct, cooperative behaviors are beneficial for the relationship because they promote solving the issue in a healthy manner, whereas indirect, competitive behaviors are detrimental to the relationship because they provide opportunities for pent up anger and negative cycles within the relationship to continue (van de Vliert & Euwema, 1994).

These communicative approaches are utilized when specific emotions are elicited in an individual during face to face communication within a romantic relationship. Individuals can use either approach strategies or withdrawal strategies. Approach strategies are used to specifically address the emotion with the partner, and can be either constructive (integrative) or destructive (distributive) to the relationship. Withdrawal strategies are used to avoid discussion of the emotion with the partner (avoidance) or to distance oneself from the partner (distancing). These strategies can be further categorized as direct or indirect and cooperative or competitive, with the direct, cooperative strategies being more beneficial to the relationship than the indirect, competitive strategies.

Similar to these categories, van de Vliert and Euwema (1994) established four general conflict management approaches; negotiation, non-confrontation, direct fighting, and indirect fighting. These strategies can apply to any face to face, social conflict situation, whether it be
within a romantic couple pairing or a friend group. These general approaches also employ the
categories (approach and withdrawal) previously mentioned. In the negotiation approach,
individuals use both cooperative and direct efforts to handle the situation (Sillars, Canary, &
Tafoya, 2004; van de Vliert and Euwema, 1994). Using negotiation would mean that the
individual would choose to confront the situation in a reasonable manner, that allows for the
mutual cooperation of both parties to reach an agreement or compromise. The non-confrontation
approach uses cooperative and indirect efforts to handle the situation (Sillars, Canary, & Tafoya,
2004; van de Vliert and Euwema, 1994). In this approach, an individual would choose to avoid
confrontation of the situation, rather internalizing the emotion to handle on their own. The direct
fighting approach uses competitive and direct efforts (Sillars, Canary, & Tafoya, 2004; van de
Vliert and Euwema, 1994). Direct fighting would employ a combative approach, in which the
person directly addresses the situation without intent of compromise. Finally, the indirect
fighting approach is competitive and indirect (Sillars, Canary, & Tafoya, 2004; van de Vliert and
Euwema, 1994). Individuals using this approach would passively combat the situation, avoiding
the option of resolving the situation through discussion. Thus, based on the research conducted
by van de Vliert and Euwema (1994), the negotiation and non-confrontation strategies would
lead to the most positive relational results, whereas the direct fighting and indirect fighting
strategies would lead to the most negative relational results.

Having established that individuals use different communicative strategies within the
relationship, it is important to be able to identify variables that may lead to the employment of
specific strategies. Self-esteem, jealousy, and trait anxiety may all contribute to the use of certain
communicative strategies within a relationship. Self-esteem and jealousy have been widely
researched when investigating communicative strategies in romantic relationships, but trait
anxiety has a much less abundant body of literature (Bevan & Samter, 2004; Guerrero & Afifi, 1999; Marigold, Holmes, & Ross, 2007; Murray, Bellavia, et al., 2003; Murray, Holmes, & Griffin, 2000). Since trait anxiety is linked to both self-esteem and jealousy, it is reasonable to assume that trait anxiety may also have an influence on which communicative strategies are employed (Bretherton, 1992; Campbell et al., 2005). Based on previous research, it is evident that these variables have a strong impact on the employment of certain communicative strategies.

**Self-esteem**

Self-esteem is defined as “An individual’s sense of his or her value or worth, or the extent to which a person values, approves of, appreciates, prizes, or likes him or herself” and influences our relation to our self, others, and the culture (Blascovich & Tomaka, 1991, p.115). Thus, low self-esteem would encompass an individual who derives value from what others think of them rather than from their own sense of worth, whereas high self-esteem would encompass an individual who derives value from their own sense of self, and who believes in their worth without approval from others (Blascovich & Tomaka, 1991). Researchers have also found a distinction amongst those with high self-esteem; stable high self-esteem and fragile high self-esteem (Kernis, 2005). Whereas those with stable high self-esteem display high self-esteem both internally and externally, those with fragile high self-esteem display high self-esteem externally, but internally demonstrate low self-esteem (Kernis, 2005). As the name suggests, those with stable high self-esteem consistently feel good about themselves, portray this to others, and do not need to be validated every day (Kernis, Lakey, & Heppner, 2008). Individuals with fragile high self-esteem however have fluctuating feelings of self worth, portray to others a positive view of themselves, hold a negative internal self view, and need constant validation from others (Kernis, Lakey, & Heppner, 2008).
Lower self-esteem has been found to negatively impact relationships (Bellavia & Murray, 2003; Murray, Griffin et al., 2003; Murray et al., 1998; Murray et al., 2001). One study found that individuals with low self-esteem tend to distance themselves from their partners and sabotage the relationship, through hostility and a lack of communication, when they perceive their partners as behaving badly (Murray, Bellavia, et al., 2003). Another study supported that those with low self-esteem tend to have more negative reactions to a partner’s negative mood, ultimately leading to increased hostility towards their partner (Bellavia & Murray, 2003).

Not only do individuals with low self-esteem tend to react negatively to a romantic partner’s bad behavior, but they also respond to compliments and positive partner behaviors in a more negative way than those with high self-esteem (Marigold, Holmes, & Ross, 2007; Murray, Holmes, & Griffin, 2000). Individuals with low self-esteem tend to underestimate the love they believe that their partner has for them, leading to a series of more negative, self-protective responses from the individual with low self-esteem (Murray, Holmes, & Griffin, 2000). In one study, researchers evaluated the perception of low self-esteem individuals’ own value to their romantic partners, compared to those with high self-esteem (Marigold, Holmes, & Ross, 2007). Researchers induced low self-esteem individuals to take partner compliments to heart by manipulation of the description of the compliment (Marigold, Holmes, & Ross, 2007). Results showed that, when taken to heart and encouraged to describe the meaning of the compliment, individuals with low self-esteem responded in a much more positive manner about their relationship in general, and felt an increased sense of value from their partners (Marigold, Holmes, & Ross, 2007). Thus, the way in which those with low self-esteem evaluate and respond to not only their partner’s bad behavior, but also to their partner’s compliments, will affect the communicative response employed by the individual.
Relating the described levels of self-esteem to communication strategies, low self-esteem lends itself to the employment of non-confrontation due to the tendency to employ indirect fighting strategies. As cited in previous experiments, those with lower self-esteem generally react by distancing themselves from the situation, or resorting to hostility to combat the perceived threat (Murray, Bellavia, et al., 2003). Thus, non-confrontation strategies would align with tendencies to distance oneself from the partner, while indirect fighting strategies would align with tendencies to exude hostility towards the partner. Stable high self-esteem may predict the use of more conducive communication strategies, such as direct cooperative approaches. In situations in which a threat is perceived, self-esteem would be a pivotal factor in determining which communicative strategies are utilized.

**Jealousy**

There are several reasons that jealousy may be aroused for an individual in a romantic relationship. The most typical type of jealousy in a relationship, romantic jealousy, is defined by White and Mullen (1989, p.2), as “…cognitions, emotions, and behaviors that follow a loss of or threat to self-esteem and/or existence or quality of a romantic relationship”, specifically fueled by “…the perception of a real or imagined romantic attraction between one’s partner and a (perhaps imaginary) rival (White and Mullen, 1989).” Although this may be the most common type of jealousy, other research has found that jealousy may be aroused from other situations. For example, intimacy jealousy is aroused when a partner is perceived to be sharing intimate and personal information with others, but not sharing this information with the partner (Pogrebin, 1987). Power jealousy is aroused when other relationships are perceived to be more influential to the partner than the romantic relationship (Pogrebin, 1987).
Romantic jealousy, intimacy jealousy, and power jealousy may all have significant influence on the choice of communicative strategies and responses chosen by the individual experiencing jealousy. A study by Bevan and Samter (2004), investigated the degree to which each type of jealousy was perceived to be serious, and evaluated the generally chosen response method for the participants dealing with each type of jealousy. In part one, researchers asked participants to respond if they had or had not felt these types of jealousy in their relationships. Based on the responses, intimacy jealousy and power jealousy are stronger, and perceived as the more intense types of jealousy (Bevan & Samter, 2004). In part two, researchers investigated the general responses to these types of jealousy. They found that those experiencing the more intense types of jealousy chose to employ negative affect, distributive communication, and integrative communication styles to communicate the jealousy with their friend (Bevan & Samter, 2004). Thus, individuals experiencing these types of jealousy chose avenues that allowed them to address the situation with their friend, but in a non-combative way (Bevan & Samter, 2004). Albeit, this study focused on cross-sex friendships rather than specifically investigating romantic relationships, so the tendency may be higher for those in romantic relationships to experience romantic jealousy than those in cross-sex friendships. Romantic jealousy would likely elicit the same strong responses in romantic relationships that intimacy jealousy elicited in cross-sex friendships, with tendencies to address the situation in a non-combative way, because of the intensity of the jealousy.

Romantic jealousy is generally thought of negatively, and can certainly bring about negative results in a relationship when expressed to the partner in a destructive manner (Guerrero & Afifi, 1999). Some researchers, however, suggest that romantic jealousy can lead to higher
levels of relational satisfaction when healthy and effective communication strategies are utilized by couples (Andersen et al., 1995).

Investigating the possible variables that may influence the choice of constructive or destructive communication strategies when experiencing jealousy, Guerrero and Afifi (1999) found that both the underlying goal of the jealousy and the intensity of the emotion have strong effects. When given scenarios to induce jealousy, participants identified an underlying goal when expressing the jealousy to their partner, as well as the intensity of the emotion (Guerrero & Afifi, 1999). Results indicated that those with goals to maintain and restore balance to the relationship choose more constructive, cooperative avenues of communication, while participants expressing goals of reestablishing equity in the relationship choose more destructive, competitive or distancing avenues of communication (Guerrero & Afifi, 1999). Additionally, experiencing a higher intensity of the emotion helped to predict the use of distributive communication strategies (Guerrero & Afifi, 1999). It seems the need for self-esteem maintenance may impact the intensity with which one experiences jealousy, as well as molding the underlying goal into a need for approval, leading to the use of more negative communication strategies. Since trait anxiety is a predictor of self-esteem, it is important to then investigate how self-esteem, jealousy, and trait anxiety may interact.

**Trait Anxiety**

Anxiety is an emotional reaction to situations of stress presented to the individual (Spelberger, 1966). Trait anxiety in a person represents a consistent tendency toward anxiety, regardless of the situation. In contrast, state anxiety represents a tendency toward anxiety only specific to the situation with which the individual is presented (Spelberger, 1966). Trait anxiety
can be linked to communicative responses, and may be implicated in a variety of relational situations (Campbell et al., 2005; Simpson et al., 1996).

Trait anxiety can be identified through the use of attachment theory, in the sense that those who have insecure anxious attachments have higher trait anxiety (Bretherton, 1992). In a study investigating the impact of trait anxiety on perceptions within the relationship, researchers classified those with insecure anxious attachments as having higher trait anxiety (Campbell et al., 2005). Participants were asked to fill out a diary for 14 days, during which they were to record their perceptions and experiences in their dating relationship (Campbell et al., 2005). After the 14 days, they returned to the lab, where they were videotaped discussing the most serious unresolved conflict that they had experienced over the last two weeks. The Adult Attachment Questionnaire was utilized in order to identify the type of attachment, and thus classify those with anxious tendencies (Campbell et al., 2005; Simpson et al., 1996). Analysis of the diary showed that those that were anxiously attached perceived more problems and conflict within their relationships, and demonstrated an inability to handle the situation effectively, evident in the escalation of severity of the conflict (Campbell et al., 2005). Upon analysis of the videotaped interview, those that were anxiously attached appeared more distressed to onlookers, reported that they felt more distressed, and escalated the severity of the conflict that they were discussing (Campbell et al., 2005). Thus, those with higher trait anxiety may create issues within the relationship, fueled by their perceptions of serious issues and lack of closeness between themselves and their partner. Those with higher trait anxiety may have a tendency to overreact to the situation, or avoid addressing the situation altogether, and thus utilize destructive communicative strategies to address the situation.
Other research has identified areas in which highly anxious individuals differ compared to their less anxious counterparts. Highly anxious individuals worry about being abandoned (Hazan & Shaver, 1987). The fear of being abandoned may interact with jealousy, activating these feelings more frequently in more anxious individuals. Additionally, highly anxious individuals crave closeness, reassurance from their romantic partners, and emotional support (Collins & Berlin, 1990). Overall, high trait anxiety may interact with jealousy and self-esteem by exacerbating negative communicative responses. For example, highly anxious individuals tend to monitor their partners’ behaviors closely, and interpret actions in a more negative manner by making attributions related to the quality of the relationship rather than the situation (Cassidy & Kobak, 1988).

**Current Study**

For the purposes of this study, the four general management approaches proposed by van de Vliert and Euwema (1994) will be used to categorize responses and investigate the impact of self-esteem, jealousy, and trait anxiety on communicative responses. Although there are several factors that have an influence on the choice of communication strategy that partners utilize in various situations, self-esteem and jealousy have consistently been found to be strong predictors of communication strategy. Trait anxiety is incorporated into the study due to the direct relationship found between this construct, jealousy, and self-esteem. As evidenced from the research on trait anxiety, higher trait anxiety may lead to more maladaptive communication styles, such as direct or indirect fighting.

Due to this relationship, the current study investigates the influence of self-esteem, jealousy, and trait anxiety on communicative strategies used in face to face conflict situations within heterosexual, romantic relationships (see Figure 1.1). I hypothesize that self-esteem will act as a
moderator for both trait anxiety and jealousy. I hypothesize that individuals with lower self-esteem will be significantly more likely to use non-confrontational and indirect fighting approaches when handling conflict with their romantic partner. Further, I hypothesize that those with high self-esteem will report using negotiation strategies when handling conflict with their romantic partner. I hypothesize that the model utilizing all three predictor variables will significantly predict the communication styles used. Finally, individuals experiencing high jealousy will report employing direct fighting approaches.

Figure 1.1

Method

Participants

One hundred twenty-one adults (47 male and 74 female, age range 18-70 years) were recruited to participate in the experiment via Amazon Mechanical Turk. Participants were incentivized by receiving 25 cents credited to their Amazon account for completing the study, which should take
approximately 20 minutes. Only individuals in a current, heterosexual relationship were asked to participate in this study.

**Materials**

**Informed Consent Form.** Participants read a brief description of the study, including potential risks and benefits. (See Appendix A)

**Demographic and Relationship Survey.** This survey was used to collect participant age, gender, current relationship status, number of serious relationships they have had in the past, current relational satisfaction, number of serious relationships in the past, financial dependency on partner, current living arrangement with partner, predicted length of current relationship, and relational distance (i.e. long distance or in close proximity). A question regarding sexuality was asked on the demographic survey, although there was a qualification presented via Amazon Mechanical Turk, asking only individuals currently in a heterosexual relationship to participate in this study. For the purposes of this study, only data collected from individuals in a current heterosexual relationship were used in analyses, as decided a priori. (See Appendix B)

**Emotional Jealousy Scale (EJS).** This 8-item questionnaire was administered to participants in order to evaluate the level of jealousy experienced in relationships (see Appendix D). Pfeiffer and Wong (1989) found the EJS to have an alpha of .85 for reliability.

**Rosenberg’s Self-esteem scale (RSS).** This 10-item, 1-7 Likert Scale measure was administered to participants (see Appendix E) in order to evaluate participant self-esteem. The scores were used in the discriminant analysis to investigate the relationship to communication strategies. Rosenberg (1979) found .88 test-retest reliability and .92 Guttman scale coefficient of reproducibility.
State-Trait Anxiety Inventory (STAI). This 40-item, self-evaluative inventory was administered to participants in order to evaluate their level of trait anxiety. For the purposes of this study, only the trait anxiety subscale was utilized, shortening the questionnaire to 20 items. Spielberger (1983) found .73 to .86 test-retest reliability, a reliability coefficient of .90, and a .73 to .85 concurrent validity for the trait anxiety portion of the inventory. (see Appendix F).

Debriefing Form. This form was shown to the participant after the experiment had been completed, on the last screen the participant sees, via Amazon Mechanical Turk. The form explained the purpose of the experiment. This form provided the researcher’s contact information, in case of any further questions or concerns. (See Appendix C)

Procedure

Amazon Mechanical Turk was used to administer the study. The study was linked to Amazon Mechanical Turk via Qualtrics. Participants chose this study via Amazon Mechanical Turk. In the qualifications and description on Amazon Mechanical Turk, participants were instructed to only participate if they were in a current heterosexual relationship. Participants then read an informed consent document. To agree to the informed consent, they selected the button that stated “continue.” Participants then took the eight-item Emotional Jealousy Scale, the Rosenberg’s Self-Esteem Scale, and the State-Trait Anxiety Inventory. The presentation of these three scales were counterbalanced via Qualtrics, in order to account for order effects.

Participants were then given a vignette (see Appendix G). This vignette described a common situation that may create conflict within the relationship. Instructions directed them to read the vignette as if their significant other is the person in the description. After reading the vignette, participants filled in a text box, describing how they would communicate their concern to their partner. They then chose from four options categorizing different communication styles,
indicating which communicative response is closest to the method they previously described. Finally, participants filled out a demographics survey. They then read a debriefing statement (See Appendix C), explaining the purpose of the study. Once participants finished the study, they were credited $0.25 to their Amazon account.

After all data was collected, the open-ended communication choice responses were categorized into the four distinct communication strategies used for data analysis, to act as an interrater reliability measure. The four communication strategies proposed by van de Vliert and Euwema (1994) were used to categorize all open-ended responses into one of the four categories.

Results

In order to analyze the data, assumptions for normality and homoscedasticity were checked for all scale variables. After reviewing the assumptions, the self-esteem variable met assumptions with the square root transformation and the age variable met assumptions with the logarithmic transformation. Transformations did not aid the emotional jealousy variable to meet assumptions, however, so the raw scores for emotional jealousy were utilized.

After all data was collected, the open-ended communication choice responses were categorized into the four distinct communication strategies used for data analysis. This process acted as a check for the multiple choice communication styles question, in order to check for internal reliability of the responses. The four communication strategies proposed by van de Vliert and Euwema (1994) were used to categorize all open-ended responses into one of the four categories.

A discriminant analysis was conducted to predict the type of communicative response utilized by an individual when dealing with a conflict in their heterosexual romantic relationship. Predictor variables were emotional jealousy, self-esteem, and trait anxiety (See Table 2). Three
canonical discriminant functions were generated (See Figure 3). Box’s M indicated that the assumption of equality of covariance matrices was met. The discriminant function revealed that there was not a significant association between response type and all predictors, accounting for 8.8% for the first function, 2.5% for the second function, and .01% for the third function of between group variability (See Table 2 for model means and standard deviations). However, closer analyses of the structure matrix indicated that emotional jealousy ($b=.65$) and trait anxiety ($b=.57$) were independently marginally significant predictors of choice of communicative response. The cross validated classification revealed that overall, 65.3% of the negotiation communicative style was correctly classified. (Figure 1)

Exploratory analyses of the data included testing individually all predictor variables for correlations. There was a significant relationship between emotional jealousy and personal response to partner during conflict $r (121) = .19, p = .04$, such that the higher the jealousy, the more likely the individual is to employ direct or indirect fighting tactics (Figure 2). Several other factors were correlated as well. There was a significant relationship between participant age and personal response to partner during conflict $r(121) = -.20, p = .03$, with older individuals more frequently utilizing positive communication styles. There was also a significant relationship between participant ethnicity and personal response to partner during conflict $r(121) = .22, p = .01$. Additionally, there was an interesting significant relationship between current living arrangement with significant partner and personal response to partner during conflict $r(121) = -.20, p = .03$.

**Discussion**

Based on the results elicited from data analyses, the discriminant regression model was not supported. The hypothesis that self-esteem will act as a moderator for both trait anxiety and
jealousy was not supported. Additionally, there were not significant results found in terms of predictive ability of self-esteem or trait anxiety on type of communication style utilized by participants. There was, however, support for the hypothesis that higher jealousy predicts greater use of the direct fighting communication style. Exploratory analyses also indicated that participant age, participant ethnicity, and current living arrangement were all correlated with choice of communicative style employed.

**Limitations**

The lack of support for the proposed model may be a result of multicollinearity within the predictor variables in the model. As evidenced via the exploratory analyses, emotional jealousy was correlated with communicative response employed, impacting the ability of the model to accurately predict the dependent variable. Additionally, emotional jealousy was unable to be transformed, despite not meeting assumptions, potentially impacting the predictive ability of the variable.

In the discriminant regression analysis, there was not a sufficiently large number of cases in each dependent variable level, in part due to some participants using Amazon Mechanical Turk not spending sufficient time answering all questions. In the future, it may be beneficial to place timers on each question, to ensure that individuals carefully read each question before answering. It may also be beneficial to utilize in-lab data collection, so as to monitor the amount of time and accuracy of answers. It would also be useful to have more equal ethnicity groups, in order to investigation the generalization of the results regarding ethnicity and personal response that were found.

In terms of exclusion criterion, there was not an option via Amazon Mechanical Turk to ensure that only participants in current, heterosexual romantic relationships participated in the
study. While it is not possible to ensure that individuals are truthfully disclosing current relationship status of sexual orientation, it may be beneficial to utilize a program that provides the option to exclude individuals outside of the desired population in order to protect the accuracy of the data. Another option to encourage honest disclosure of current relationship status and sexual orientation may be to provide no exclusion questions, but rather to collect data and then exclude participants not meeting the qualifications. Utilizing this method may encourage honesty when answering questions.

Future studies could focus on eliciting specific levels of emotional jealousy that are predictive of communication style employed, possibly utilizing a median split to achieve a specific range for scoring. Based on previous research (Bevan & Samter, 2004; Campbell et al., 2005; Kernis, Lakey, & Heppner, 2008; Murray, Bellavia, et al., 2003), it would be important to continue to investigate the relationship and interactions between emotional jealousy, trait anxiety, and self-esteem in predicting communication styles. It may be beneficial to incorporate fragile high self-esteem, secure high self-esteem, and low self-esteem, in order to elucidate differences in self-esteem reports (Kernis, 2003; Kernis, Lakey, & Heppner, 2008). It may also be beneficial to incorporate Dark Triad measures, as these personality traits have been found to impact interpersonal relationships (Paulhus & Williams, 2002; Rauthmann, 2012).

In conclusion, although the data analyses revealed that the discriminant regression analysis model was not supported, exploratory analyses revealed that emotional jealousy was correlated with choice communicative style. Ultimately, continued research is important to extend the body of knowledge in the fields of both communication and psychology.
References


Tables

Table 1. Descriptive Statistics ................................................................. 26

Table 2. Standardized Canonical Discriminant Function Coefficients ..................... 27

Table 3. Group Descriptive Statistics for Functions ..................................... 28
Table 1.

Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<tr>
<td>Self Esteem Score</td>
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<td>31</td>
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<td>STAI Score</td>
<td>20</td>
<td>67</td>
<td>43.15</td>
<td>12.048</td>
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<tr>
<td>Personal Response to Vignette</td>
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<td>1.020</td>
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<td>Participant Ethnicity</td>
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<td>Current relationship status in terms of living</td>
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<td>4</td>
<td>2.37</td>
<td>1.009</td>
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</table>

Note. This table displays descriptive statistics for all variables utilized in the discriminant regression analysis and the correlations performed on the data. N = 121 for all variables.
Table 2.

*Standardized Canonical Discriminant Function Coefficients*

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<td>SE_SQRT</td>
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<td>STAI Score</td>
<td>1.252</td>
<td>.756</td>
<td>-.769</td>
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*Note.* This table displays standardized function coefficients for the canonical discriminant regression analysis.
Table 3.

*Group Statistics*

<table>
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<th>Personal Response to Vignette</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<td>STAI Score</td>
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<td>12.41279</td>
</tr>
<tr>
<td>Emotional Jealousy Score</td>
<td>40.2500</td>
<td>10.12917</td>
</tr>
<tr>
<td>SE_SQRT</td>
<td>4.7106</td>
<td>.44424</td>
</tr>
<tr>
<td>STAI Score</td>
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<td>9.50943</td>
</tr>
<tr>
<td>Emotional Jealousy Score</td>
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<td>7.71767</td>
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<tr>
<td>SE_SQRT</td>
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<td>.44451</td>
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<td>STAI Score</td>
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<td>9.60208</td>
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<tr>
<td>Emotional Jealousy Score</td>
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<td>5.98027</td>
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<tr>
<td>SE_SQRT</td>
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<td>.60763</td>
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<tr>
<td>STAI Score</td>
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<td>14.27585</td>
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<tr>
<td>Emotional Jealousy Score</td>
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<td>10.14877</td>
</tr>
<tr>
<td>SE_SQRT</td>
<td>4.5686</td>
<td>.52776</td>
</tr>
<tr>
<td>STAI Score</td>
<td>43.1488</td>
<td>12.04759</td>
</tr>
</tbody>
</table>

*Note.* This table displays means and standard deviations for functions generated via the discriminant regression analysis.
Figures

Figure 1. Scatterplot of Canonical Discriminant Functions……………………………………………………30

Figure 2. Correlation between EJ and Communicative Response Employed…………………………31
Figure 1. The canonical discriminant factors are indicated via the colored dots on the plot. The group centroid demonstrates the mean for each level of the dependent variable, indicating closeness of scores to the mean.
Figure 2. There is a correlation between the emotional jealousy score and the communicative response employed. The higher the emotional jealousy score, the more likely a negative communicative response will be employed (direct or indirect fighting).
Appendix A.

Informed Consent

Project Title: Jealousy, Trait Anxiety, and Self-Esteem as Discriminant Mediators of Couples Communicative Strategies

Members of the Research Team: Micayla Hupp; Thesis Advisor: Mark Sibicky

What is the purpose of this research study?
This study will examine the predictive ability of a host of variables on communication strategies within heterosexual, romantic relationships. This study aims to investigate the communicative strategies utilized specifically in face to face, conflict situations.

How many people will take part in this study?
This research study is open to individuals via Amazon Mechanical Turk, meeting the criterion via exclusion questions. Per G power analysis, 119 participants will need to complete this study, all over the age of 18.

How long will your part in this study last?
The experiment should take approximately 20 minutes to complete. If you decide at any point that you do not wish to continue, you may discontinue without penalty.

What will happen if you take part in the study?
You will be asked to complete a series of questionnaires. You will also be asked to provide demographic information. Finally, you will be asked to provide information regarding your response to a vignette. Upon completion, you will receive $0.25 via your Amazon account.

What are the possible risks and/or benefits from being in this study?
The risks are minimal. Some people may experience mild distress from thinking about conflict within their romantic relationship. However, if at any point you do not wish to continue, you may end your participation at any time without penalty.

How will your privacy be protected?
The researcher will make every effort to protect your privacy. All of your responses to study questions will remain confidential. All of your responses will be attached to a randomly assigned ID number for data purposes. Additionally, the principal investigator and research team members will only examine data in aggregate form, and will not identify any participants who completed the study. All data will be stored in a protected folder on the Marietta College server, and will be destroyed after 3 years of collection.

Participant’s Agreement
By clicking “continue” to progress to the next screen, you agree that you have read the information provided above, and that you voluntarily agree to participate in this research study. You do so with the understanding that you may contact the investigator: Micayla Hupp (mbh004@marietta.edu) with questions about the study, Mark Sibicky (mark.sibicky@marietta.edu), Thesis Advisor, or Mary Barnas (mary.barnas@marietta.edu) Chair of the Human Subjects Committee, with questions about the study. This study has been approved by Marietta College Human Subjects Committee.
Appendix B.

Demographic and Relationship Survey
To help us provide an accurate description of the sample, please take a moment to answer the following questions. The information provided on this sheet will not be linked to your name or the experimental data in any way. All responses are confidential.

Sex: male  female  other
Age: ______
Ethnicity:
_____ Asian  _____ Hispanic
_____ White  _____ Black
_____ Other  _____ Native American

Current Relationship Satisfaction:
_____ Extremely Satisfied
_____ Moderately Satisfied
_____ Moderately Unsatisfied
_____ Extremely Unsatisfied

Relationship Status:
_____ Single
_____ In Current Relationship

Current Relationship Distance:
_____ Long Distance
_____ Close Proximity

Estimated Length of Current Relationship:
_____ Less Than A Year
_____ Approximately One Year
_____ More Than A Year
Current Living Arrangement:
- Married, Living Together
- Married, Living Apart
- Not Married, Living Together
- Not Married, Living Apart

Financial Dependency:
- Financially Dependent
- Financially Independent

Number of Serious Relationship In the Past:
Appendix C.

Debriefing Form

Thank you for your participation in this research study!

This study investigated the impact of jealousy, trait anxiety, and self-esteem on the communicative strategies one would use when faced with a conflict situation with their significant other.

Again, I thank you for your participation in this research study, and I ask that you keep the purpose of the study, your experience in the study, including the sentences you read and questions you answered, private. I thank you in advance for your discretion. You will receive $0.25 credited to your account via Amazon Mechanical Turk, upon completion of the study.

Additionally, should you have any questions or comments about your participation in this study, please don’t hesitate to contact the primary researcher, Micayla Hupp (mbh004@marietta.edu), thesis advisor, Mark Sibicky (mark.sibicky@marietta.edu) or Mary Barnas (mary.barnas@marietta.edu), Chair of the Human Subjects Committee, with questions about research participant rights.

Thank You.
Appendix D.

**Emotional:**

How would you emotionally react to the following situations?

<table>
<thead>
<tr>
<th>Rating Scale</th>
<th>Very Pleased</th>
<th>Very Upset</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. X comments to you on how great looking a particular member of the opposite sex is.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>2. X shows a great deal of interest or excitement in talking to someone of the opposite sex.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>3. X smiles in a very friendly manner to someone of the opposite sex.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>4. A member of the opposite sex is trying to get close to X all the time.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>5. X is flirting with someone of the opposite sex.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>6. Someone of the opposite sex is dating X.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>7. X hugs and kisses someone of the opposite sex.</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
<tr>
<td>8. X works very closely with a member of the opposite sex (in school or office).</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Appendix E.

Rosenberg Self-Esteem Scale (Rosenberg, 1965)

The scale is a ten item Likert scale with items answered on a four point scale - from strongly agree to strongly disagree. The original sample for which the scale was developed consisted of 5,024 High School Juniors and Seniors from 10 randomly selected schools in New York State.

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, circle SA. If you agree with the statement, circle A. If you disagree, circle D. If you strongly disagree, circle SD.

1. On the whole, I am satisfied with myself. SA A D SD
2.* At times, I think I am no good at all. SA A D SD
3. I feel that I have a number of good qualities. SA A D SD
4. I am able to do things as well as most other people. SA A D SD
5.* I feel I do not have much to be proud of. SA A D SD
6.* I certainly feel useless at times. SA A D SD
7. I feel that I’m a person of worth, at least on an equal plane with others. SA A D SD
8.* I wish I could have more respect for myself. SA A D SD
9.* All in all, I am inclined to feel that I am a failure. SA A D SD
10. I take a positive attitude toward myself. SA A D SD

Scoring: SA=3, A=2, D=1, SD=0. Items with an asterisk are reverse scored, that is, SA=0, A=1, D=2, SD=3. Sum the scores for the 10 items. The higher the score, the higher the self esteem.
Appendix F.

**SELF-EVALUATION QUESTIONNAIRE**  
STA I Form Y-2

Name __________________________ Date ____________

**DIRECTIONS**

A number of statements which people have used to describe themselves are given below. Read each statement and then circle the appropriate number to the right of the statement to indicate how you generally feel. 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 how you generally feel.

21. I feel pleasant .................................................................................................................. 1 2 3 4
22. I feel nervous and restless ............................................................................................... 1 2 3 4
23. I feel satisfied with myself ............................................................................................... 1 2 3 4
24. I wish I could be as happy as others seem to be ............................................................. 1 2 3 4
25. I feel like a failure ............................................................................................................ 1 2 3 4
26. I feel rested ....................................................................................................................... 1 2 3 4
27. I am "calm, cool, and collected" ...................................................................................... 1 2 3 4
28. I feel that difficulties are piling up so that I cannot overcome them ......................... 1 2 3 4
29. I worry too much over something that really doesn’t matter ......................................... 1 2 3 4
30. I am happy ....................................................................................................................... 1 2 3 4
31. I have disturbing thoughts .............................................................................................. 1 2 3 4
32. I lack self-confidence ..................................................................................................... 1 2 3 4
33. I feel secure ...................................................................................................................... 1 2 3 4
34. I make decisions easily .................................................................................................... 1 2 3 4
35. I feel inadequate ............................................................................................................. 1 2 3 4
36. I am content .................................................................................................................... 1 2 3 4
37. Some unimportant thought runs through my mind and bothers me ............................ 1 2 3 4
38. I take disappointments so keenly that I can’t put them out of my mind ..................... 1 2 3 4
39. I am a steady person ...................................................................................................... 1 2 3 4
40. I get in a state of tension or turmoil as I think over my recent concerns and interests .......................................................................................................................... 1 2 3 4
Appendix G.

Vignette

While reading this vignette, imagine that you are faced with this situation. Replace X with your significant other’s name.

You and your significant other are in a local store. While walking through the aisles, you hear an individual of the opposite sex, approximately your age, yell “X”. You turn in time to see this individual give X a hug, and proceed to talk to X as if you are not there. This individual obviously has a history with X. Both the individual and X are smiling and laughing as they discuss memories that you are unaware of. X mentions a time when they pretended to be dating, describing the situation. The individual gives X a lingering hug once again before leaving. After this exchange, you and X leave the store. You are now in the car with X.