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PERCEPTIONS OF A DATING COUPLE CONFLICT RESOLUTION
INTERACTION AND RELATIONSHIP QUALITY
AS PREDICTORS OF DEPRESSIVE SYMPTOMS
IN A COLLEGE STUDENT SAMPLE

by

Annie M. Ledoux

A Thesis Submitted in Partial Fulfillment
of the Requirements for a Degree with Honors
(Psychology and Communication)

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ABSTRACT

This study examines how perceptions of a conflict resolution interaction are related to measures of relationship quality and adjustment in a college student sample. Participants included 152 college students involved in a romantic relationship. All participants completed questionnaires to assess features of their romantic relationship and to measure depression. Couples participated in a recorded conflict resolution discussion, and used a video-recall procedure to assess their subjective perceptions of the interaction. Analyses revealed that depressive symptoms were significantly correlated with both low levels of positivity and high levels of negativity during the interaction and in the relationship generally. A stepwise multiple regression analysis revealed an association between perception of the interaction and depression in males, and an association between interaction in the relationship generally and depression in females. Results indicate the importance of socially supportive interaction and conflict resolution skills in college-aged couples to establish high-quality relationships and prevent the onset of depressive symptoms.

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Until recently, much of our knowledge regarding couples' interactions has been restricted to married partners, resulting in a relative void of knowledge concerning intimate relationships amongst adolescents. The lack of focus on adolescent couples is concerning when considering the rise in importance of peer relationships, in general, and dating relationships, in particular, during this developmental period. In their research on adolescents, Furman and Buhrmester identified changes in relationships of significance and perceived social support throughout development (1985; 1992). College-aged males identified romantic relationships as their most supportive relationship, while college-aged females reported that romantic relationships were among their most supportive relationships, in addition to those with mothers and same-sex best friends (Furman & Burhmester, 1992). Systematic study of college student romantic relationships is needed because members of this age group are more likely to be in serious, long-term relationships in which an attachment bond develops (Brown, Feiring, & Furman, 1999). These early romantic relationships often serve as a model for future relationships and it is particularly important to examine their implications for young people (Connolly, Furman, & Konarski, 2000). A growing body of evidence suggests that there is an association between relational distress and adjustment evident in dating couples (Segrin, Powell, Givertz, & Brackin, 2003). Although romantic relationships have been linked to many positive outcomes, negative psychological adjustment outcomes may result from poor quality relationships.

Relationship Quality

Relationship quality is the degree to which partners perceive positive experiences of intimacy, affection, and nurturance, compared to negative and potentially detrimental experiences (Collins, Welsh, & Furman, 2009). Many view relationship quality as being a continuum in which one end of the spectrum is positive (high) and the other negative (low; Galliher, Welsh, Rostosky, & Kawaguchi, 2004). Furman and Buhrmester (1985) offer a more comprehensive approach that is two dimensional (i.e., both positive and negative). For instance, a couple may be high in conflict (negative), but also be high intimacy (positive). The proposed study will employ a two-dimensional approach to assessing relationship as suggested by the Furman and Buhrmester (1985).

Previous research indicates an association between high quality relationships and measures of functioning and well-being (Collins, Welsh, & Furman, 2009). By contrast, poor relationship quality can result in relational distress and maladjustment. In dating college students, researchers have discovered a link across poor relationship quality, symptoms of depression, and feelings of loneliness (Segrin, Powell, Givertz, & Brackin, 2003). For their study, Segrin and colleagues asked college-aged romantic partners to engage in a recorded oral history interview to gather perceptions of relationship quality. Participants were also asked to complete questionnaires assessing depression and loneliness. Analyses revealed that for both males and females, negative relationship quality was associated with depression, which was in turn associated with feelings of loneliness.

Conflict Resolution and Social Support in Adolescence

High and low relationship quality may be evident in how a couple manages conflict and how the interaction is perceived by both partners. As discussed above, a highly conflictual relationship may not necessarily be ‘negative’ and low in quality. Unlike relationships with peers, romantic partners engage in distinct patterns of interaction that may be higher in conflict than in other relationships (Collins, Welsh, & Furman, 2009). Researchers have demonstrated that negative interactions reported in both peer and early romantic relationships predict negative interactions in later romantic relationships (La Greca & Harrison, 2005). One such study examined the peer networks of adolescents aged 14 to 19, and the effects of peer networks on adolescence (La Greca & Harrison, 2005). The investigators found that stress in friendships was associated with stress in romantic relationships. Since romantic relationships take on prominence during adolescence and into adulthood, researchers have recently begun to investigate the relationship between interaction, support, and adjustment in young couples.

Conflict Resolution and Social Support in Marriage

Most existing research examining interaction and adjustment outcomes has involved observation of married couples. However, given that interaction styles tend to be consistent across relationships, signs of relational distress are often evident pre-maritally (Segrin, Powell, Givertz, & Brackin, 2003). Therefore, findings from marital studies likely have some “reverse” predictive power in the nature of young adult relationships. Systematic study of interactions in married couples has shown that the maintenance or dissolution of relationships is related to interaction behaviors and support.

In a two-year longitudinal study, researchers investigated social support, conflict, and development of marital dysfunction in newlywed couples (Pasch & Bradbury, 1998). Participating couples were asked to discuss issues in their relationship, and their conversations were coded by observers for affect and supportive behaviors. Supportive behaviors predicted marriage survival, while those relationships lacking support were more likely to dissolve after two years (Pasch & Bradbury, 1998). From these results it may be inferred that support and positive behaviors during conflict resolution predict relationship longevity.

Links among interaction style, support, and relationship maintenance have been found in other longitudinal studies that are even longer in duration. For example, researchers found a strong connection between interaction styles and marital success during a ten-year longitudinal study of 172 couples (Sullivan, Pasch, Johnson, & Bradbury, 2010). Similar to the process described above, couples engaged in recorded conflict resolution conversations, which were later coded for affect, positivity, and negativity. Couples that demonstrated lower levels of support were less happy and more likely to divorce within ten years. Those displaying strong support skills were less negative during the problem-solving task, and low levels of positive affect and high levels of negative affect predicted relationship dissolution within a ten-year period. These findings indicate a strong relationship between partner support and perceived quality of interaction in predicting relational success. This evidence suggests that traces of negativity in conflict resolution between partners can lead to impressions of poor partner support, and eventually distressed relationships. Drawing from knowledge acquired

through marital research, it is plausible that similar results can be found in college-aged dating partners.

Gathering Perceptions of Interaction and Conflict Resolution

In recent years, researchers have begun to rely less heavily on the observations by those outside the relationship, and more upon the subjective interpretations of interaction reported by the partners involved. As a result, video recall and similar observational procedures for examining couples have become more popular (Collins, Welsh, & Furman, 2009). This method involves recording interactions, and then asking the participants to review the recordings in order to provide feedback about the meaning and emotional experiences that resulted from the conversation (Welsh & Dickson, 2005). Rather than relying on self-reports alone, researchers can utilize video recall to gather multiple perspectives of adolescent interactions (Welsh & Shulman, 2008). One advantage to using video recall is the ability to capture subjective understandings of behavior, as defined by the persons engaged in the interaction. Previous research of subjective ratings indicates that each member of a romantic relationship has unique experiences, beliefs, and expectations that not only shape their interaction behaviors, but also their interpretations of interactions (Galliher, Welsh, Rostosky, & Kawaguchi, 2004).

Although some of the naturalistic elements of conflict resolution between partners are lost in laboratory settings, even small, just detectable negative aspects may be representative of interaction styles typically demonstrated by couples. For example, in laboratory settings, it is easy for observers to distinguish unhappy couples from happy ones because negativity is still detectable - even when couples are trying to project

happiness during conflict resolution (Heyman, 2001). In a study by Gottman and Krokoff (1989), married couples were asked to engage in a conflict resolution task both at home, and in a laboratory setting. Couples' interactions at home, without an observer present, contained more negative affect and negative affect reciprocity than their interactions in the lab. Additionally, detectable levels of negativity were present in laboratory conversations, especially for those couples rated higher in negativity during the home interaction (Gottman & Krokoff, 1989). From this study, we can conclude that interaction in laboratory settings may be representative of typical conversations between couples.

More recently, Welsh developed code-specific video recall procedures in which recordings are paused at set intervals to allow participants to rate their subjective understanding of an interaction on a variety of specific dimensions (Welsh & Dickson, 2005). For example, participants in the present study were asked to evaluate video clips on various dimensions related to relationship quality and depression. In a similar study with late adolescents, couples engaged in an interaction task while being recorded (Galliher, Welsh, Rostosky, & Kawaguchi, 2004). Using a video recall procedure, participants evaluated multiple 25-second recordings based on dimensions of support, conflict, humor, frustration, giving in, and persuasion. Afterwards, participants were asked to fill out a survey measuring the quality of their relationship. Investigators determined that less conflict in the interaction predicted overall better relationship quality, and that low quality relationships were characterized by irritation, antagonism, and notably high levels of conflict (Galliher, Welsh, Rostosky, & Kawaguchi, 2004).

The Present Study

The present study sought to examine the relationship between conflict resolution interactions, relationship quality, and adjustment in college aged romantic partners. Participants rated the quality of their romantic relationships and completed several questionnaires assessing their own adjustment. A video recall procedure was used to gather participant's own perceptions of a conflict resolution discussion. These perceptions were expected to correlate with measures of relationship quality, as well as depression.

In addition to relationship quality and support, previous research has found that there is a strong relationship between interaction styles and symptoms of depression, although the causal direction of this association is unclear (Cramer, 2004). Coyne's study of conversations between depressed and non-depressed females revealed that interaction with a depressed person results in feelings of depression, anxiety, hostility and rejection (Coyne, 1976). His seminal study laid the foundation for understanding the interaction style of depressed individuals, and the effects of their behavior on others. This is particularly relevant to the present study, as there is clearly something different about the way people with depressive symptoms interact.

Interestingly, previous research has demonstrated that relationship quality is particularly associated with depression in females. Daley and Hammen (2002) found that dysphoric female adolescents tend to view the quality of relationships with best friends and romantic partners quite negatively. In their study, dysphoric females were asked to complete surveys assessing depression, relationship stress, and quality of emotional support received from both best friends and romantic partners. Chronic stress in the

relationships reported by participants was associated with depressed mood (Daley & Hammen, 2002). This relationship may be partially explained by females' increased susceptibility to depression compared to males (Rudolph, 2002). A growing body of research has demonstrated that females consider interpersonal conflict to be more stressful than males, and that these gender differences increase throughout development (for a review see Rudolph, 2002). One goal of the present study is to understand how features of interaction during a conflict resolution discussion may contribute to perceptions of relationship quality and adjustment in college student couples.

Given the significant amount of interaction between romantic partners, it is plausible that negativity can create a cycle of negative interaction that leaves one or both partners feeling depressed. In fact, a history of marital distress can lead to depressive symptoms for both husbands and wives (Gabriel, Beach, & Bodenmann, 2010). Observation of married couple interactions revealed that depressed wives showed the highest levels of negative behaviors, while depressed husbands displayed the lowest levels of positive behaviors (Gabriel et al., 2010). Previous research has also demonstrated a connection between perceived low positivity and high negativity with the presence of depression in couples. For example, researchers have examined problem-solving interactions in couples with a depressed wife and the impact of these interactions on each spouse (McCabe & Gotlib, 1993). In their study, McCabe and colleagues examined the relation between observational interaction data and self-reported spousal perceptions of their partners. Husbands in the depressed group perceived their family environment to be more negative than did either member of the non-depressed couples,

and depressed couples perceived their spouses to be more dominating, hostile, and less friendly.

Importantly, college students have been identified as an at-risk population for depressive disorders (ACHA-NCHA, 2009). Perhaps this is because college students experience significant life transitions during their college years, and begin to rely more heavily on social support beyond their parent/guardian relationships. Since romantic relationships are associated with a variety of positive and negative psychological outcomes, it is particularly necessary to examine the impact of relationships in late adolescence. Relationship dissolution has been associated with the onset of depression in adolescents because to them, a break-up is considered a major life event (Monroe et al., 1999). Even when controlling for other life stresses, recent break-ups predicted the first onset of depression in a 13-month longitudinal study of adolescents (Monroe et al., 1999). Therefore, it is important to understand the role of romantic partners whom college-aged individuals may turn to when in need of social support, because college students are particularly vulnerable to the onset of depressive symptoms.

For the present study, it is hypothesized that there will be a correlational relationship between how romantic partners evaluate the conflict and the perceived support received from each partner. It is hypothesized that positive evaluations of the conflict discussion will be positively correlated with social support, but inversely correlated with depression. Negative evaluations of the conflict discussion are predicted to positively correlate with depression, but inversely correlate with social support. Negative interaction in the relationship generally, as reported in the NRI, is expected to

positively correlate with negative evaluations of the conflict discussion. By contrast, negative interaction in the relationship generally is expected to inversely correlate with positive evaluations of the conflict discussion. Additionally, the study will examine how these constructs relate to the mental health of college students to demonstrate that poor romantic relationships can possibly lead to maladjustment and depressive symptoms. Lastly, it is predicted that there will be some difference between how the conflict resolution interaction variables relate to depressive symptoms and relationship quality based on gender. It is hypothesized that these correlations will be stronger for females than males. This hypothesis is based upon previous research that indicates females are more vulnerable to the onset of depressive symptoms due to stressors and conflict in their interpersonal relationships (Rudolph, 2002).

Method

Participants

Participants included 152 college students involved in a romantic relationship at the University of Maine between the ages of 18 and 27 ($M = 19.45$, $SD = 1.46$). All couples had been dating for at least four weeks, with 97.4% of participants identifying as being in exclusive dating relationships ($M = 15.16$ months; $SD = 13.42$; *Median* = 11 months; *Range* 6 weeks to 5 years). For their participation in the experiment, subjects received either research credit or a gift card to a local store. Upon arrival, all participants read and signed an informed consent document.

Measures

Demographic and Health Questionnaire.

Information about participant characteristics (e.g., age, sex, ethnicity, sexual orientation), their romantic relationship (e.g., length of relationship, living arrangements), and health-related factors (e.g., exercise, medication and substance use, weight) were assessed using a self-report demographic questionnaire designed specifically for the dissertation study from which this research is based (see Appendix A). The data used in this study was taken from a larger dissertation study examining college student dating relationships. The demographic information was used to describe the sample.

Relationship Quality

The *Network of Relationships Inventory* (NRI; Furman & Buhrmester, 1985) is used to measure the positive and negative features of social relationships (see Appendix B). For the present study, participants reported on the quality of their relationships with their dating partner. Several versions of this questionnaire exist; the version that was used for this study consists of 30 items that load onto the following 10 subscales: companionship, instrumental aid, intimacy, nurturance, affection, enhancement of worth, reliable alliance, conflict, punishment, and annoyance. Participants rated the extent that a statement (e.g., “How much do you talk about everything with this person?”) applies to their relationship with their dating partner on a 5-point scale ranging from 1 (*little or none*) to 5 (*the most*). Items load onto broadband factors of social support (positive quality; 21 items) and negative interactions (negative quality; 9 items). The measure is scored by summing and averaging the items that comprise the broadband scales to create an item-average score for both dimensions that ranges from 1 to 5. Higher scores are indicative of greater levels of social support or negative interactions within a particular

relationship. Although the NRI was developed for use with children, it has also been used with adolescent and college student populations (Furman & Buhrmester, 1992). In the present study, internal consistencies (Cronbach's α) ranged from .91 to .96 across relationship types and the broadband scales.

Depression

The *Beck Depression Inventory-Second Edition* (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item self-report screening questionnaire designed to assess the severity of depressive symptoms in clinical and non-clinical populations (see Appendix C). Each item is rated on a four-point scale ranging from 0 to 3 where 0 reflects no symptoms and 3 reflects severe symptoms. Participants are asked to choose the one statement from each group that best describes the way they have felt for the past two weeks (e.g., "I have not lost interest in other people or activities," "I am less interested in other people or things than before," "I have lost most of my interest in other people or things," or "It's hard to get interested in anything"). The item assessing suicidality was dropped from the measure of the present study, resulting in a total of 20 items. This practice is consistent with previous studies examining depressive symptoms in adolescents (see Williams, Connolly, & Segal, 2001). The total score for this measure is calculated by summing item responses, with possible total scores ranging from 0 to 60. Higher scores on the BDI-II indicate more severe depressive symptoms. Internal consistency for this measure was strong in the present study (Cronbach's $\alpha = .85$).

Lab Task

Interaction Task

Prior to the conversation tasks, each participant was asked to complete the *Couples' Issues Checklist* in order to identify potential sources of conflict in the relationship (see Appendix D). For the purposes of this study, the checklist was created by combining and slightly modifying Capaldi, Wilson, and Collier's (1994) *Partner Issue Checklist* and Welsh, Grello, Dickson, and Harbor's (2001) *Adolescent Partner Couples' Issues Checklist* to be appropriate for college student dating couples. The resulting checklist consisted of 25 items, with the option to write-in an issue that was not on the list. From the list, participants were asked to select three issues that they have had with their dating partner, and to star the issue that they most wanted to discuss with their partner during the videotaped interaction. The checklist includes some items that are fairly neutral (e.g., "Not having a car or other transportation for dates") while others are more emotive (e.g., "Partner being jealous if you talk to other men/women"). Once the participants selected the three topics they most wished to discuss, they rated these items on a Likert-type scale of 1-10 to indicate how much they were bothered by that particular issue from 1 (*not at all*) to 10 (*extremely*). The purpose of this checklist was to identify potential topics for the conflict discussion, and was not used in the data analysis.

Video Recall Procedure

During the study, couples were recorded via computer while having three brief conversations with each other. The interaction task is completely automated and based on a procedure developed by Capaldi and Wilson (1992) and later modified by Welsh and Dickson (2005). The purpose of the first conversation was to allow the couples time to become comfortable interacting while being recorded. For this interaction, couples were

instructed to plan a party together for five minutes. Suggested points to discuss included who to invite and what food/drinks to serve. After completing this initial task, the couples were then instructed to discuss topics selected by researchers based on their responses to the *Couples' Issues Checklist*. These "Issues" conversations were eight minutes in length, and were counterbalanced across dyads participating in the study (e.g., male's problem was discussed first then female's problem was discussed first). Upon completion of these conversations, the couples were led to separate rooms to independently complete the *Global Interaction Scale*.

Global Interaction Scale

The *Global Interaction Scale* (GIS; Welsh, Grello, Dickson, & Harper (2001) was developed by researchers who examined partner interaction with a video-recall procedure. It consists of 17 statements about the interaction that the participants rate on a 5-point scale ranging from 0 (*never*) to 4 (*always*; see Appendix E). Eight of the questions assess the participants' genuineness during the interaction (e.g., "Was your partner trying to hide something from you," "Were you able to express your true thoughts and feelings?"). The remaining questions assess global feelings of connectivity, withdrawal, and hostility during the interaction (e.g., "Did you feel connected to your partner," "Did you withdraw from your partner?"). This measure was previously used to assess the internal validity of the interaction task and to determine whether the laboratory conversation resembled typical conversations between participants. In the present study, the positive and negative dimensions of the GIS are used to gather perceptions of overall positivity (Cronbach's $\alpha = .70$) and negativity (Cronbach's $\alpha = .82$) ratings by each

partner immediately following the conflict resolution task. The positive dimension was constructed by averaging scores from items that assessed honesty, laughter, and connectedness (GIS Positive). Similarly, the negative dimension included items assessing concealment, bullying, and withdrawal (GIS Negative).

Video Recall Ratings

After completing the GIS, participants each received instructions (via computer) for the interaction recall procedure. For this part of the study, each partner independently viewed and rated their two “Issues” interactions twice. Ratings were collected simultaneously on two separate computers that were located in two different rooms. During the first viewing, the participant rated 40 twenty-second segments of their own thoughts and feelings; the second time they rated 40 twenty-second segments of their perceptions of their partner’s thoughts and feelings. For the purposes of this study, only the assessments of the participant’s own thoughts and feelings were analyzed. The computer program is set to select half of the observations from the second conversation and the remainder from the third conversation. In prior testing for this procedure, it was determined that 20 seconds is the optimum segment length for rating thoughts and feelings (Welsh & Dickson, 2005). For this recall, participants rate their interaction with their partner along seven dimensions on a 5-point rating scale ranging from 0 (*not at all*) to 4 (*very much*). These dimensions were chosen on the basis of Joiner et al.’s (1993) theory about how the interacting partner might react to a depressed person’s interactional style (e.g., feelings of frustration, annoyance, guilt, hostility). Coyne proposed that depressed people engender feelings of frustration, hostility, and guilt in their interactions

with others (Coyne, 1976). For this recall, additional items were included to assess positive features of interpersonal interactions (e.g., connectedness and support). The support and connectedness dimensions were retained from the original video recall procedure task developed by Welsh (Welsh & Dickson, 2005; Smith, Welsh, & Fite, 2010). For the purposes of this study, ratings of support and connectedness were averaged to create a composite positive score (Video Recall Positive). The items assessing frustration, annoyance, guilt and hostility were averaged to create a composite negative score (Video Recall Negative). Upon completion of the experiment, participants were given a brief statement regarding the nature and goals of the study, as well as an opportunity to ask any questions. They were also asked to indicate whether they felt participating in the study would impact their relationship. All couples were provided with a copy of their consent form and a list of resources should they experience distress as a result of their participation. No participants indicated experiencing distress upon completion of the study.

Procedures

Telephone Screening

Participants were able to sign up for the study using the web-based scheduling program Experimentrix. Those who signed up were contacted by phone to determine eligibility for participation, and asked a few general questions regarding the nature of their relationship. Questions included their own and their partner's ages, how long they have been dating their partner, and if their partner knew about the study and was willing

to participate. Eligible couples were scheduled for a three-hour laboratory session, and received reminder emails three days prior to, and the day of, their scheduled session.

Laboratory Session

Upon arrival to the laboratory, participants were greeted by a trained research assistant who completed the informed consent process and outlined the study for them in more detail. The participants then completed the *Couples' Issues Checklist*, which was collected by research assistants to later determine the “Issues” conversation topics. Participants then were left to complete the major study questionnaires on SurveyMonkey, which took approximately thirty minutes to complete. Once both partners had completed their questionnaires on SurveyMonkey, they were led into the observation room to complete the interaction tasks. In the observation room, couples were seated at a table within touching distance of each other and facing a small, but visible, video camera that recorded them as they engaged in the three short conversations. Before the task, a research assistant briefly explained their instructions and provided the participants with their *Couples' Issues Checklist*. The issues identified by each participant had been highlighted by the research assistant. The research assistant then started the computer program that runs the interaction task and left the couple alone together in the observation room. Once alone, the couples participated in the interaction procedure that was described in more detail above. After the conversations were complete, the participants were separated to complete the video recall portion of the study. Upon completion of their assessments, participants were fully debriefed and provided with a list of local resources should they experience distress from participating in the study.

Results

To examine the relationships among perceptions of the conflict resolution task, and measures of support and depression, correlation analyses were first conducted (see Table 1 descriptives, Table 2 for correlations). Analyses revealed a significant association between NRI Support and GIS Positive. Likewise, there was a strong association between NRI Negative Interaction, GIS Negative, and Video Recall Negative. These initial analyses also revealed that ratings of GIS Negative and Video Recall Negative positively correlated with NRI Negative Interaction. Both the GIS Positive and Video Recall Positive ratings were inversely associated with social support. As expected, GIS Negative and Video Recall Negative positively correlated with self-reports of depression.

Next, to further investigate the relationship between the conflict resolution variables, relationship quality, and depressive symptoms, stepwise multiple regression analyses were conducted to determine which of the interaction and relationship quality variables best predicted depressive symptoms (see Table 3). GIS Positive ($\beta = -.22, p < .05$) and NRI Negative Interaction ($\beta = .21, p < .05$) emerged as significant predictors of depression ($F(2, 148) = 10.97, p < .001$). Specifically, GIS Positive and NRI Negative Interaction predicted increased depressive symptoms, accounting for 12.9% of the variance.

Finally, interrelationships amongst all study variables were examined separately by gender. As expected, all conflict resolution interaction variables (i.e. Video Recall Positive, Video Recall Negative, GIS Positive, GIS Negative) were correlated with ratings from the NRI and BDI-II for both genders (see Table 4 for descriptives, Table 5

Table 1

Means and Standard Deviations for Perceptions of Interaction, Measures of Relationship Quality, and Depressive Symptoms

Variable	M	SD
1. Video Recall Positive	2.38	0.99
2. Video Recall Negative	0.57	0.58
3. GIS Positive	25.28	3.66
4. GIS Negative	2.15	3.31
5. NRI Support	4.22	0.63
6. NRI Negative Interaction	1.77	0.70
7. Depression	5.63	5.12

Note: NRI = Network of Relationships Inventory, GIS = Global Interaction Scale.

Table 2

Correlations Between Perceptions of Interaction, Measures of Relationship Quality, and Depressive Symptoms

Variable	1	2	3	4	5	6	7
1. Video Recall Positive	--						
2. Video Recall Negative	-0.46**	--					
3. GIS Positive	0.47**	-0.54**	--				
4. GIS Negative	-0.40**	0.58**	-0.67**	--			
5. NRI Support	0.26**	-0.14	0.29**	-0.22**	--		
6. NRI Negative Interaction	-0.30**	0.38**	-0.41**	0.47**	-0.23**	--	
7. Depression	-0.09	0.17*	-0.30**	0.22**	-0.12	0.29**	--

Note: NRI = Network of Relationships Inventory, GIS = Global Interaction Scale.

* = $p < .05$, ** = $p < .01$.

Table 3

Multiple Regression: Depression Model

	β	t	p
GIS Positive	0.21	2.53	<.05
NRI Negative Interaction	-0.22	-2.56	<.05

Note: NRI = Network of Relationships Inventory, GIS = Global Interaction Scale.

Table 4

Means and Standard Deviations for Perceptions of Interaction, Measures of Relationship Quality, and Depressive Symptoms By Gender

	Male		Female	
	M	SD	M	SD
Video Recall Positive	2.33	1.01	2.43	0.97
Video Recall Negative	0.61	0.61	0.54	0.55
GIS Positive	25.19	3.78	25.37	3.56
GIS Negative	2.27	3.28	1.93	2.98
NRI Negative Interaction	1.86	0.72	1.68	0.67
NRI Support	4.13	0.64	4.30	0.61
Depression	5.16	4.99	5.97	4.71

Note: NRI = Network of Relationships Inventory, GIS = Global Interaction Scale.

Table 5

Correlations Between Perceptions of Interaction, Measures of Relationship Quality, and Depressive Symptoms By Gender

Variable	1	2	3	4	5	6	7
1. Video Recall Positive	--	-0.40**	0.42**	-0.31**	0.33**	-0.27*	-0.09
2. Video Recall Negative	-0.52**	--	-0.50**	0.51**	-0.11	0.52**	0.36**
3. GIS Positive	0.52**	-0.59**	--	-0.69**	0.33**	-0.48**	-0.37**
4. GIS Negative	-0.50**	0.66**	-0.69**	--	-0.22	0.53**	0.27*
5. NRI Support	0.18	-0.15	0.25*	-0.22	--	0.33**	-0.22
6. NRI Negative Interaction	-0.32**	0.22	-0.33**	0.53**	-0.21	--	0.28*
7. Depression	-0.10	-0.04	-0.23*	0.18	-0.22	0.34**	--

Note: Correlations for males are reported above the diagonal; those for females, below the diagonal.

NRI = Network of Relationships Inventory, GIS = Global Interaction Scale.

* = $p < .05$, ** = $p < .01$.

for correlations). Follow-up independent samples *t*-tests revealed no significant differences between groups. Similar to that described above, a stepwise multiple regression analysis was conducted for each gender using the conflict resolution interaction variables, relationship quality, and depression. For each gender, one predictor variable was retained in each regression model as the unique predictor of depressive symptoms. For males, low levels of positivity from GIS Positive significantly predicted depressive symptoms [$R^2 = .14$, $F(1,73) = 11.70$, $p < .001$; $\beta = -.37$]. For females, NRI Negative Interaction significantly predicted symptoms of depression [$R^2 = .12$, $F(1,74) = 9.65$, $p < .01$; $\beta = .34$] (for multiple regression models please see Tables 6 and 7).

Discussion

The goal of this study was to examine the relationship between perceptions of conflict resolution interaction, relationship quality, and depression in college student couples. A significant association between self-reports of relationship quality and perceptions of interaction was discovered in this college student sample. Likewise, perceptions of interaction were linked with depressive symptoms uniquely for both males and females. These findings suggest the importance of utilizing self-reports of conflict resolution interaction perception as they relate to relationship quality and adjustment, particularly by gender.

As expected, results supported the hypothesis that perceptions of conflict resolution interaction would be associated with reports of relationship quality. Consistent with the understanding of relationship quality suggested by Furman and Buhrmester (1985; 1992), the present study investigated general relationship quality in terms of two

Table 6

Multiple Regression: Depression Model for Males

	β	t	p
GIS Positive	-0.37	-3.42	<.001

Note: GIS = Global Interaction Scale.

Table 7

Multiple Regression: Depression Model for Females

	β	t	p
NRI Negative Interaction	0.34	3.11	<.01

Note: NRI = Network of Relationships Inventory.

domains: social support and negative interaction. Significant correlations between positive evaluations of the interaction and social support were found. Conversely, significant correlations emerged between negative evaluations of the interaction and negative interaction present in the relationship generally. By and large, these findings replicate existing previous research that has examined the association between interaction and relationship quality (Pasch & Bradbury, 1998; see Collins, Welsh, & Furman, 2009 for a review). However, unlike most previous research on romantic partners, this study expanded upon current knowledge by utilizing perceptions of the conflict resolution interaction obtained through self-reports rather than by outside observers (Gottman & Krokoff, 1989).

Ratings of the conflict resolution interaction (i.e. GIS Positive, GIS Negative, Video Recall Positive, and Video Recall Negative) were significantly correlated with negative interaction reported in the relationship generally. Negative items, which included GIS Negative and Video Recall Negative, were associated with NRI Negative Interaction. These results suggest a strong relationship between negativity present in the conflict resolution interaction, and negativity present in the relationship generally. Similarly, positive conflict resolution items, which included the GIS Positive and Video Recall Positive, were inversely associated with NRI Negative Interaction. This means that positivity present in the conflict resolution discussion predicted more positivity in the relationship outside of the laboratory task. These results are particularly interesting given the specificity of the conflict resolution variables, and that the GIS was originally designed to evaluate the internal validity of a video-recorded task. As such, one may

conclude that the measures of interaction evaluation used in this study accurately capture perceptions of conflict resolution discussion in a way that is consistent with more global measures (i.e. NRI Negative Interaction).

In terms of the second hypothesis, it was expected that perceptions of the conflict resolution interaction and measures of relationship quality would be significantly associated with depression. One way that perceptions were gathered was through the GIS, which included items assessing honesty, laughter, connectedness, concealment, bullying, and withdrawal. The GIS items which researchers considered positive (i.e. honesty, laughter, and connectedness) were significantly and inversely associated with depression. As expected, the GIS items considered negative (i.e. concealment, bullying, and withdrawal) were positively associated with depression as well. Likewise, the 'Video Recall Negative' perception dimensions assessed the extent to which a participant experienced frustration, annoyance, guilt, and hostility. These items were selected on the basis of Coyne's (1976) findings that those feelings emerge as a result of interacting with a depressed person. Coyne's interpersonal theory of depression suggests that depressed individuals make conversation partners uncomfortable if their depression becomes apparent to others (Coyne, 1976). This uncomfortableness may manifest as feelings of frustration or annoyance in response to the depressed individual.

Negative interaction dimensions (i.e. GIS Negative, NRI Negative Interaction and Video Recall Negative) all demonstrated a significant positive correlation with depression. These results are consistent with Coyne's (1976) findings that depression is connected to interaction style. It is especially interesting that these associations emerged,

even though very few individuals in the sample were depressed. Coyne (1976) suggests that even mild symptoms of depression may result in maladaptive social processes, which is probably why these associations emerged in the present sample. The findings suggest that interaction styles and perceptions of interaction are so closely related to adjustment in dating individuals, that an association emerges even for those who exhibit very few symptoms of depression. The stepwise multiple regression analysis was conducted to determine which variables in the study were unique predictors of depression. The results of the regression analysis demonstrate that perceptions of general interactions, as well as interactions during a conflict resolution, are both strong predictors of depressive symptoms in dating, college-aged individuals.

To examine how perceptions of interaction, relationship quality, and depression differ by gender, researchers conducted analyses similar to those described above. An initial correlational analysis revealed that the primary variables of interest were still significantly related for both genders. In general, the conflict resolution interaction variables were better predictors of relationship quality and adjustment for males than for females (see Table 5). This is inconsistent with the previous literature that indicates females are more susceptible to depression after engaging in conflict or interpersonal stress (Rudolph, 2002). It is possible that these results were inconsistent with previous literature because the measure significantly associated with males (GIS Positive) was a better predictor of depressive symptoms than that which was associated with females (NRI Negative Interaction) in this particular sample.

Interestingly, the stepwise multiple regression analysis by gender revealed a unique predictor of depressive symptoms for both males and females. The GIS Positive measure was significantly and inversely associated with depression for males. For females, negative interactions in the relationship generally, as reported in the NRI, significantly predicted depressive symptoms. Again, the interaction variable was slightly more predictive of depressive symptoms for males than for females. Perhaps these results demonstrate that unique aspects of interactions affect males and females differently. For males, it was low levels of honesty, laughter, and connectedness during conflict resolution that was associated with depression. For females, it was conflict, punishment, and annoyance present in the relationship generally that predicted depressive symptoms. That males are affected by lower levels of positivity, while females by higher levels of negativity, is consistent with a previous study conducted by Gabriel and colleagues (2010) examining interaction between romantic partners. This may be due to the strong resemblance that college student dating relationships have to marital relationships. If that is the case, then this finding highlights the relative significance that college student dating relationships have. However, unlike the study conducted by Gabriel and colleagues (2010) this research examined interaction in a relatively non-depressed sample. From these conclusions, one suggestion for future research is to emphasize the different aspects of interaction that contribute to poor relationship quality and depressive symptoms for each gender (i.e. honesty and connectedness for males, conflict, punishment and relative power for females). Additionally, future research involving romantic partners could investigate positive and negative interaction qualities as unique predictors of depressive

symptoms based upon gender. It is possible that males may be slightly more sensitive to individual occurrences of conflict in the short-term, while females may be more affected by interpersonal stressors gradually and over time.

Limitations of the Present Study

Contrary to expectations, the positive ratings of the video recall and social support were not significantly (negatively) associated with depression in the analysis of the entire sample. It is possible that lack of social support was not an accurate predictor of depression in this particular sample, because very few individuals in the study were depressed. Although previous research indicates a strong connection between social support and psychological outcomes, like depression (Galliher, et al., 2004), perhaps a relationship was not found in this study due to the small sample size. Another reason may be that unlike ‘Video Recall Negative,’ ‘Video Recall Positive’ only included two items to assess the interaction, and therefore may not have been a comprehensive measure of interaction perception, particularly to predict depressive symptoms. Finally, some self-selection bias may have played a role, since supportive couples may have been more likely to participate in the experiment in the first place. As a result, it is difficult to determine whether the couples that participated are an accurate representation of college-student couples. Couples with poorer relationship quality may be less willing to engage in a recorded conflict resolution discussion with their partner, particularly in a research setting.

Given that the sample of participants consisted of predominantly Caucasian, and generally well-adjusted college-aged individuals, it is also possible that these results will

not generalize to more diverse and clinically-depressed populations. Coyne (1976) suggests that people with higher levels of depressive symptoms tend to elicit greater negative feelings from those they interact with. Though it is important to understand these findings in well-adjusted samples, future research should seek to replicate these results in couples with one or two depressed partners. A different relationship between the interaction variables, relationship quality, and depression may emerge. Contrary to the results of this study, more significant relationships may emerge for females in relationships with one depressed partner, especially if the female partner is depressed.

An additional limitation of the present study is that the causal direction of the correlational relationships is unknown. Since data were collected during a single laboratory session, it is impossible to know whether poor relationship quality and depressive symptoms were a result of negative perceptions of interactions, or vice-versa (Cramer, 2004). However, it is necessary to understand how these variables covary since they have significant implications for the psychosocial well-being of college student in romantic relationships.

This study expanded upon the existing body of knowledge of couples' interaction by examining self-reports of interaction perceptions by gender. Though a great deal of attention has been devoted to married couples in years past, the findings of this study demonstrate depressive symptoms may result from interaction patterns and poor relationship quality in dating individuals. Unexpectedly, interaction perceptions were generally a better predictor of depressive symptoms for males than for females. However, analyses revealed that differences between genders arose from perception of a conflict

resolution interaction, or interaction in the relationship generally. These findings highlight the significant, though relatively unexplored, impact that perceptions of interaction may have on males in heterosexual dating couples.

Regardless of gender, it is clear that one's perception of interactions with a romantic partner can have significant psychological implications. To help alleviate the effects of negative, or less positive interaction with a romantic partner, clinicians should be aware of the potential consequences to both males and females. Just as with married couples, perhaps interaction and conflict resolution trainings can be implemented to improve relationship quality and help prevent the onset of low depressive symptoms in college-aged dating populations.

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APPENDIX A

Demographic & Health Questionnaire

1. **Birth date** (Month/Day/Year): _____

2. **Age** _____

3. **Sex**: (check one):

____ Male ____ Female

4. **Race** (check one):

____ White ____ Black ____ American Indian/Native American
____ Latino/a ____ Asian ____ other (please
specify): _____

5. **How many adults are there in your household of origin (where you grew up)?**

6. **Adult #1**

a. **Relationship to you** (check one):

____ Biological parent
____ Adoptive parent
____ Stepparent
____ other (please explain): _____

b. **Sex** (check one):

____ Male ____ Female

c. **Current occupation (job-please be specific):**

d. **Does he/she work:**

____ full time ____ part time?

e. Highest level of education completed? (check one only)

- Less than 7th grade
- Junior high school (9th grade)
- Partial high school (10th or 11th grade)
- High school graduate
- Partial college or specialized training
- University or college graduate
- Graduate professional training (graduate degree)
- other (please specify): _____

7. Adult #2

a. Relationship to you (check one):

- Biological parent
- Adoptive parent
- Stepparent
- other (please explain): _____

b. Sex (check one):

- Male
- Female

c. Current occupation (job- please be specific):

d. Does he/she work:

- full time
- part time?

e. Highest level of education completed? (check one only)

- Less than 7th grade
- Junior high school (9th grade)
- Partial high school (10th or 11th grade)
- High school graduate
- Partial college or specialized training
- University or college graduate
- Graduate professional training (graduate degree)
- other (please specify): _____

**8. Are you dating the person you are participating in this study with? ...YES/
NO**

9. How long has this romantic relationship lasted? _____years, _____months

10. Do you live with this person? (circle one).....YES/NO

11. **Are you:** (check one)

- Casually dating (you also date other people)
- Exclusively dating (you only date each other)
- Engaged
- Married
- We aren't really in a relationship, we just wanted the money/credit

12. **Have you considered breaking up with this person?** (circle one).....YES/NO

13. **Do you want to break up with this person?** (circle one).....YES/NO/
UNSURE

14. **Do you think this person wants to break up with you?** (circle one)....YES/NO/
UNSURE

The items on this page (Questions 12-16) ask about your sexual orientation. If these items make you uncomfortable, please skip them and move on to the next page.

12. Who are you sexually attracted to?

- Males
- Females
- Both males and females
- I am not sexually attracted to anyone

13. How many different males have you had sexual experiences with in your life?

- None
- 1 person
- 2 people
- 3 or more

14. How many different females have you had sexual experiences with in your life?

- None
- 1 person
- 2 people
- 3 or more

15. How would you describe your sexual orientation?

- Heterosexual (sexually attracted to the opposite sex)
- Mostly heterosexual
- Bisexual (attracted to both men and women)
- Gay or lesbian (attracted to the same sex)
- Other _____
- I am not sure
- I don't understand this question

16. When you think or daydream about sex, do you dream about:

- Males
- Females
- Both
- I don't daydream about sex

Height: _____ Weight: _____

Do you take any medications (e.g., prescription, over the counter, vitamins)? YES NO

If so, please list all medications: _____

Do you use birth control (e.g., pills, IUC, injections, patch)? YES NO

If so, please list the type and name of birth control: _____

Do you have any health problems (e.g., asthma, diabetes, hypertension)? YES NO

If so, please list all health problems: _____

Are you currently pregnant? YES NO

If so, how many weeks/months have you been pregnant? _____

Do you have regular monthly periods (25-32 days)? YES NO

If so, when did your last menstrual period begin (record date)? _____

Do you smoke cigarettes? YES NO

If so, when was the last time you had a cigarette? _____

How many cigarettes do you smoke each day (e.g., 5 a day, pack a day)? _____

How long have you been smoking cigarettes on a regular basis (e.g., 5 years)? _____

Do you exercise on a regular basis? YES NO

If so, when was the last time you exercised? _____

Do you drink caffeine products (e.g., soda, tea, coffee, energy drinks) on a regular basis?

YES NO

If so, how many caffeinated products do you drink each day? _____

Do you drink alcohol (e.g., beer, liquor) on a regular basis? YES NO

If so, how many alcoholic drinks do you drink in a typical week? _____

APPENDIX B

Network of Relationships Inventory

Everyone has a number of people who are important in his or her life. These questions ask you about your relationship with the following people: your boyfriend/girlfriend, a same-sex friend, and an opposite-sex friend.

The first questions ask you to identify the two friends about whom you will be answering the questions.

Please choose the most important same-sex friend you have had in college. You may select someone who is your most important same-sex friend now, or who was your most important same sex friend earlier in high school. **Do NOT choose a sibling.** If you select a person with whom you are no longer friends, please answer the questions as you would have when you were in the relationship.

Same-Sex Friend's First Name _____

How long is/was the friendship? __ years __ months

Are you close friends now?

A. Yes **B. Friends, but not as close as before** **C. No**

Please choose the most important same-sex friend you have had in college. You may select someone who is your most important same-sex friend now, or who was your most important same sex friend earlier in high school. **Do NOT choose a sibling, relative, boyfriend or girlfriend—even if he or she was or is your best friend.** If you select a person with whom you are no longer friends, please answer the questions as you would have when you were in the relationship.

Other-Sex Friend's First Name _____

How long is/was the friendship? __years __months

Are you close friends now?

A. Yes **B. Friends, but not as close as before** **C. No**

1. How much free time do you spend with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

2. How much do you and this person get upset with or mad at each other?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

3. How much does this person teach you how to do things that you don't know?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

4. How much do you and this person get on each other's nerves?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

5. How much do you talk about everything with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

6. How much do you help this person with things she can't do by herself?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

7. How much does this person like or love you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

8. How much does this person treat you like you're admired and respected?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

9. How sure are you that this relationship will last no matter what?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

10. How often does this person point out your faults or put you down?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

11. How much do you play around and have fun with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

12. How much do you and this person disagree and quarrel?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

13. How much does this person help you figure out or fix things?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

14. How much do you and this person get annoyed with each other's behavior?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

15. How much do you share your secrets and private feelings with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

16. How much do you protect and look out for this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

17. How much does this person really care about you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

18. How much does this person treat you like you're good at many things?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

19. How sure are you that your relationship will last in spite of fights?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

20. How often does this person criticize you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

21. How often do you go places and do enjoyable things with this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

22. How much do you and this person argue with each other?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

23. How often does this person help you when you need to get something done?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

24. How much do you and this person hassle or nag one another?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

25. How much do you talk to this person about things that you don't want others to know?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

26. How much do you take care of this person?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

27. How much does this person have a strong feeling of affection (loving or liking) toward you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

28. How much does this person like or approve of the things you do?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

29. How sure are you that your relationship will continue in the years to come?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

30. How often does this person say mean or harsh things to you?

	Little or None	Somewhat	Very Much	Extremely Much	The Most
Boyfriend/ Girlfriend	1	2	3	4	5
Best Same-Sex Friend	1	2	3	4	5
Best Other-Sex Friend	1	2	3	4	5

APPENDIX C

Beck Depression Inventory-II

Permission to reproduce this measure not obtained by the copyright holder.

To obtain a copy of the original measure, please contact:

The Psychological Corporation
19500 Bulderve
San Antonio, TX 78259
Phone: (800) 872-1726
www.psychcorp.com

APPENDIX D

Couples' Issue Checklist

Listed below are some things which can cause problems for dating couples. We'd like you to pick up to three issues that you've had with your partner. We'll ask you to discuss these issues for seven minutes with your partner during the videotaping. If you would rather discuss a topic or issue that is not on the list, please write it in at the bottom, and you can discuss that instead. Please circle the issues that you have picked, and place a star next to the issue you would most like to discuss.

1. Partner promising to do something and then not doing it.
2. Partner expecting you to do everything with them when you'd like to spend time with other friends.
3. Partner being jealous if you talk to other men/women.
4. Partner flirting with other men/women.
5. Never having enough money/partner not having a job.
6. Who should pay on dates.
7. Not having a car or other transportation for dates.
8. Parents not liking your boyfriend/girlfriend.
9. Sex, sexual behaviors, or contraception issues.
10. Expecting you to drop your own interests or hobbies and do theirs.
11. Expecting you to spend so much time either with them or talking on the phone that you can't get your work, or other things you have to do, done.
12. Having a hard time talking to each other, knowing what to talk about.
13. Not feeling able to be yourself around them.
14. Boyfriend/girlfriend not taking an interest in things you are interested in.
15. Not liking your boyfriend's/girlfriend's attitudes or behaviors.

16. Not liking the way your partner drinks alcohol, smokes cigarettes, or uses marijuana or other drugs.
 17. Not liking some of your boyfriend's/girlfriend's friends.
 18. How often to go on dates.
 19. Whether to go out as a couple or with friends.
 20. Where to go when you go out together.
 21. Partner not spending enough time with you.
 22. How to end a relationship.
 23. Partner putting you down in front of others.
 24. Partner not washing, taking care of hair, or clothes.
 25. Partner avoiding talking about difficult issues.
 26. Other:
-

APPENDIX E

Global Interaction Scale

INSTRUCTIONS: The following questions refer to the discussion you and your partner just had during the recording. Please fill in the box that you feel best answers the questions.

1. How often do the two of you have a discussion like this?

- Never
- Seldom
- Sometimes
- Usually
- Always

2. Who do you feel controlled the conversation?

	1	2	3	4	5	
I did	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	My Partner Did

	Never	Seldom	Sometimes	Usually	Always
3. Were you honest?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Were you trying to make your partner laugh?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Were you hiding something from your partner?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Were you able to express your true thoughts and feelings?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Were you trying to attack or bully your partner?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Did you feel attacked or bullied by your partner?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Did you withdraw from your partner?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Did you feel connected to your partner?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Was your partner honest?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Was your partner trying to make you laugh?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Was your partner trying to hide something from you?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Was your partner able to express their true thoughts and feelings?
15. Was your partner trying to bully or attack you?
16. Did your partner withdraw from you?
17. Did your partner feel connected to you?

APPENDIX F

Informed Consent

Dear Participant,

Spring 2012

You are being asked to participate in a University of Maine research project. The study is being conducted by Jessica Fales, doctoral candidate in the Department of Psychology and Dr. Douglas W. Nangle, Professor in the Department of Psychology. The purpose of this research is to learn more about your thoughts and feelings, features of your romantic relationship, and how you respond to stress within this relationship. You must be at least 18 years of age, be physically healthy, and not be pregnant to participate in this study. *We believe you can help us and other adolescents by participating in our study.*

What's involved? The total time to complete this project is approximately 3 hours total. This project involves completion of a series of surveys, a videotaped interaction task, and provision of saliva samples. Female participants will be asked to provide follow-up information approximately 6 weeks following the laboratory session. The first set of questionnaires will take approximately 20 minutes to complete, the laboratory session will take approximately 160 minutes, and the second set of questionnaires will take approximately 15 minutes.

Questionnaires at Time 1

- You will be asked to complete a series of questionnaires online at a secure website (www.surveymonkey.com).
- You will be asked to answer questions about:
 - feelings of loneliness, depression, and social anxiety
 - how you communicate with others
 - the quality of your relationships with significant others
 - health related information (e.g., height, weight, medication use, drug and alcohol use, sexual behaviors, sexual orientation)
- Examples of items you will be responding to include:

How often do you feel that you have a lot in common with the people around you?

Do you find yourself often asking the people you feel close to how they truly feel about you?

How sure are you that this relationship will last no matter what?

Do you drink alcohol (e.g., beer, liquor) on a regular basis?

Laboratory Session

- **Interaction task:** Upon completion of the surveys, you and your partner will be asked to participate in a video-taped interaction task where you will have three short conversations with each other. First you will be asked to plan a party together. Then, you and your partner will discuss an issue related to your relationship that you selected during the questionnaire portion of the study. Some examples of discussion topics include: "Partner promising to do something and then not doing it," "Where to go when you go out together," "Not liking some of your boyfriend's/girlfriend's friends." Your partner will

have the opportunity to discuss similar issues with you. Each of these discussions will last approximately 7 minutes.

- **Measuring Stress Levels:** You will be asked to give a saliva sample (e.g., drool into a small straw) when you arrive to the session, and at 4 regularly spaced intervals following the interaction task.
- **Recall procedure:** After the final saliva sample is collected, you will be asked to watch portions of the interaction that you had with your partner and rate how you felt and what you were thinking during your conversations.

Questionnaires at Time 2

- Female participants will be contacted via email and provided with a link to an online questionnaire where they will be asked to report on the status of their relationship with their partner, and answer questions concerning their mood and relationship quality. This portion of the study will take approximately 10-15 minutes.

What are the Risks? Some individuals may feel uncomfortable during the interaction task with their partner due to the nature of the discussion. While similar discussions occur naturally within the context of any close relationship, it is possible that discussing problematic issues in your relationship during a videotaped laboratory session could have a negative effect on your relationship.

There is also a chance that you may feel uncomfortable answering some of the questionnaire items. You may leave any question blank that you do not feel comfortable answering. **You may choose to end participation at any time; however, ending participation early will result in a loss of credit.** If you choose to end participation early, you will receive the credits that you have earned up to that point (1 credit for each hour of participation). Completion of the full laboratory portion of the study is required to earn the \$15 gift certificates. There is a referral list provided at the end of this form if you would like to speak with someone about any physical or emotional effects you experience as a result of your participation.

As for the risks associated with completing the online questionnaires at SurveyMonkey, they are thought to be no greater than the risks encountered during routine internet access. SurveyMonkey has enhanced security and safety measures in place to protect the website and its uses from fraud, and states that customers' information will not be used for any other purposes. You can find out more information about their security by clicking on the privacy statement found at www.surveymonkey.com.

What are the Benefits? While there are no direct benefits to participants, your participation will be very valuable in helping us learn the kinds of social processes people engage in in their relationships with others, how such interactions might be related to negative thoughts and feelings, and whether these factors are related to our experience of stress. This knowledge will help psychologists design more effective intervention programs for individuals who engage in less adaptive social behaviors.

Is there Compensation? PSY 100 students will receive three research credits in their introductory psychology course for participating in this study (1 credit for each hour of participation). In addition, you and your partner will each receive a \$15 gift certificate (choice of iTunes or Target) upon completion of the laboratory portion of the study.

Will my answers be private? Names will not be attached to the data collected and the information will only be used for research purposes. A code number (e.g., 101A) will be used on the information that you provide in this study to protect your identity. Your partner will also be assigned a code number (e.g., 101B). Your partner will not be able to see your responses to questionnaire items, rating responses, or cortisol results, and you will not be able to see your

partner's data. Only advanced and trained research assistants will have access to a list that links your name to your assigned code number. This list will be kept separate from your data.

The Psychology Department's SurveyMonkey account has enhanced security features that help keep your information private. Some of the questionnaire items you will be asked to answer are about alcohol consumption. Answers to these questions will also be kept confidential regardless of your age.

Your saliva samples will be sent away to a laboratory for analysis. No names are attached to the samples and samples are destroyed at the lab. All other data will be stored in a locked laboratory room that is only available to the principal investigators and research assistants. The list that links your name to your ID number is maintained in a separate locked laboratory room on a separate computer and will be kept indefinitely.

Is this Voluntary? Your participation is voluntary. You do not have to answer any questions or ask any questions that you do not want to. You can end participation at any time; however, terminating early may result in a loss of credits (as per the schedule described in the above section on "Risks"). If a question makes you uncomfortable, you can skip it and move onto the next question.

Questions/Concerns? If you have any questions about your rights as a research participant, please contact Gayle Jones, Assistant to the University of Maine's Protection of Human Subjects Review Board, at 581-2049, or e-mail at gayle.jones@umit.maine.edu. There is a referral list provided at the end of this form if you would like to speak with someone about any physical or emotional effects you experience as a result of your participation. If you have questions regarding this project, please feel free to email Jessica Fales, Jessica.fales@umit.maine.edu or Dr. Douglas Nangle, doug.nangle@umit.maine.edu. We love to talk about our research!

Sincerely,

Jessica L. Fales, M.A.
Doctoral Candidate, Clinical Psychology

Douglas W. Nangle, Ph.D.
Professor of Psychology

Participant Signature

Date

I have read and understood the above information and I understand that signing the form indicates my consent to participate in the project. I understand that I have the right to end my participation at any time, though there may be some loss of benefits.

Referral List

Referrals listed below are provided as options and do not reflect an endorsement by the University of Maine.

Cutler Health Center (free to University of Maine students)	581-4000
Psychological Services Center (sliding fee scale based on income)	581-2034
Dr. Peter Ippoliti (charges by the hour)	852-2982
Dr. Lucy Quimby (charges by the hour)	945-3675

AUTHOR'S BIOGRAPHY

Annie Ledoux was born in Portland, Maine on April 15, 1991. She was raised in Gorham, Maine and graduated from Cheverus High School in 2009. Annie will graduate from the University in Maine as a double-major in Psychology and Communication. As a member of the research-intensive track, Annie worked as a research assistant in two psychology laboratories under the direction of Drs. Nangle and McCoy throughout her time as an undergraduate student. She is a member of honor societies Psi Chi and Lambda Pi Eta, was selected for the John W. Nichols Award, the Woffard Gardner Award, and as the Outstanding Graduating Senior in the Department of Communication and Journalism with a major in Communication. Annie also received a College of Liberal Arts and Sciences Undergraduate Research Fellowship in support of her independent thesis project, for which she earned Highest Honors. After graduation, Annie hopes to pursue a PhD in Clinical Psychology to work with military service members and their families.