

WHEN FRIENDS FIGHT: RELATIONSHIPS BETWEEN LANGUAGE USE,  
FRIENDSHIP QUALITY, AND GENDER WHEN  
RECALLING INTERPERSONAL CONFLICT

A DISSERTATION

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BY

ALEXANDRA ANNE AMERSDORFER, B.A., M.S.

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## DEDICATION

This dissertation is dedicated to my furry son, Biscotti. I am forever grateful for his love and companionship. Every ounce of my motivation to complete graduate school has come from my desire to provide him with the best life possible. I love you, buddy.

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I love you all.

## ABSTRACT

ALEXANDRA ANNE AMERSDORFER

### WHEN FRIENDS FIGHT: RELATIONSHIPS BETWEEN LANGUAGE USE, FRIENDSHIP QUALITY, AND GENDER WHEN RECALLING INTERPERSONAL CONFLICT

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Friendships comprise some of the most meaningful and significant relationships of our lives, providing companionship, support, and joy (Rawlins, 2017). As conflict is often inevitable in friendships, the ways in which we cognitively process these experiences may be reflective of friendship quality. The literature reveals that language use, such as the use of pronouns or emotion words, can provide critical insight into our thoughts and feelings (Biesen, Schooler, & Smith, 2016; Fitzsimons & Kay, 2004; Frost, 2013; Gilbert & Karahalios, 2009). Gender has also been shown to influence how relationship conflict is managed (Antony & Sheldon, 2019; Keener, Strough, & DiDonato, 2019). The current study aimed to fill gaps in the literature by examining pronoun and emotion word use when describing a conflict with a friend and the related associations with friendship quality and gender. None of the proposed hypotheses were supported by the results of this study, indicating that as operationalized by the methods in this investigation, friendship quality does not impact the use of plural pronouns, positive emotion words, or negative emotion words when recalling an interpersonal conflict with a best friend.

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## CHAPTER I

### INTRODUCTION

Friendships account for some of the most meaningful and significant relationships of our lives. Friendships provide companionship, support, and joy (Rawlins, 2017). While the individuals whom we call our friends may change, the role of being a friend is one that we often carry throughout the lifespan. A friendship requires effort to maintain and this often means navigating conflict. The ways in which we internally conceptualize conflict and choose to navigate it may be impacted by the quality of our friendships. Previous research has indicated that language use, such as the use of pronouns or emotion words, can reveal critical information about our thoughts and feelings (Biesen et al., 2016; Fitzsimons & Kay, 2004; Frost, 2013; Gilbert & Karahalios, 2009). How do individuals cognitively process being hurt by a friend? Further, what do the words they use when recounting conflict with a friend reveal about their friendship quality? While there is extensive research on language and romantic relationships, no current research has examined pronoun and emotion word use when describing a conflict with a friend and the related association with friendship quality. The current study aimed to fill this gap in the literature. The results provide a greater understanding of the inner workings of close friendships, allowing the promotion of healthy friendships ideals. Additionally, the results hold clinical relevance, which will aid clinicians in the development of better interventions for conflict navigation in friendships. These interventions may also be particularly useful for residentially-based programs in which university students live

together on-campus, such as living-learning communities (Inkelas & Weisman, 2003).

Conflict amongst peers can be commonplace in these settings (Smith, 2015).

### **Key Concepts**

Several key concepts are relevant to this study. They include friendship and friendship quality, conflict, and how these relational elements can manifest in language.

A brief overview of these concepts is provided prior to noting the rationale for the proposed investigation.

#### **Friendship and Friendship Quality**

Extensive research demonstrates the importance of friendships, which begin to form as early as preschool (Howes, 1983) and continue to represent an important aspect of social support amongst elderly individuals (Larson, Mannell, & Zuzanek, 1986).

Friendships are associated with a broad range of positive outcomes, such as general happiness (Baldassare, Rosenfield, & Rook, 1984; Demir & Weitekamp, 2007; Diener & Seligman, 2002; Gladow & Ray, 1986; Lyubomirsky, Tkach, & DiMatteo, 2005). Several factors appear to be linked with friendship quality, including peer status (Meuwese, Cillessen, & Güroğlu, 2017), certain mental health diagnoses (Rodebaugh, 2009), romantic involvement during adolescence and emerging adulthood (Camirand & Poulin, 2019), mindfulness (Pratscher, Rose, Markovitz, & Bettencourt, 2018), and being married (Flynn, 2006).

Friendship quality is an important variable in the study of friendships as it helps us understand how and why friendships work. Friendship quality can be considered as a

specific type of relationship quality. In terms of definitions, the definition used by Buhrmester and Furman (2008) to develop the Network of Relationships Inventory – Relationship Qualities Version (NRI-RQV) is helpful: the concept of relationship quality consists of the degree to which supportive and discordant characteristics are present in a relationship (with more supportive characteristics reflecting higher relationship quality and more discordant characteristic representing lower relationship quality). This definition reflects what the current study assessed.

### **Conflict**

Conflict is inevitable in relationships. Putnam (2006) suggested that communication is a fundamental component of conflict and defined conflict as an incompatibility, an expressed struggle, and interdependence between two or more parties. Previous research has extensively explored conflict in relationships. For example, lower conflict with best friends has been found to be associated with well-being in young adults (Sherman, Lansford, and Volling, 2006). There are many different strategies of conflict resolution, which tend to change with age (Laursen, Finkelstein, & Betts, 2001). Coercion is favored amongst young children, while negotiation is favored by adolescents and young adults. Some research reveals gender differences in conflict resolution (Antony & Sheldon, 2019; Keener et al., 2019). While conflict is an inevitable and important aspect of friendships, it is currently unknown whether the language individuals use when describing conflicts with friends is related to friendship quality.

## **Language**

Previous research indicates that language use reveals important information about cognitive processes and various types of relationships. Most of the previous research has focused on language and romantic relationships. For example, the use of “you” and “me” pronouns are associated with the negative perception of interaction quality and communication quality in couples (Biesen et al., 2016). Use of negative emotion words in couples is associated with less intimacy and more break-up thoughts (Frost, 2013). Less is known about the relationship between language-use and friendships. Some research has indicated that the use of first-person plural pronouns is associated with perceived closeness of a relationship with a same-sex best friend (Fitzsimons & Kay, 2004). Other studies have shown that the use of positive emotion words over social media is associated with greater tie-strength in friends (Gilbert & Karahalios, 2009). However, the study of language in friendships is quite sparse.

### **Purpose of the Study**

There is extensive research on associations between language use and romantic relationship quality, but very little on language use and friendship quality. Analyzing language use when describing conflict with a best friend reveals important information about how individuals cognitively process these experiences. A better understanding of how individuals cognitively process being hurt by a friend and how this relates to friendship quality allows for better identification of healthy friendship models as navigation of conflict is essential to maintaining friendships (Hartup, 1992). This

knowledge allows us to better promote healthy friendship patterns and ideals.

Additionally, the results hold clinical relevance, which will aid therapists in the development of better interventions for conflict navigation in friendships.

## CHAPTER II

### LITERATURE REVIEW

This literature review initially explores friendship quality, conflict within friendships, and language, with particular emphasis on pronouns and emotion words. Following this, the scholarship on friendship, conflict in friendships, and language is detailed. The literature review concludes with a summary illustrating how this research fills a gap in the scholarship on language and relationships; research questions are presented.

#### **Friendship**

In general, it is well established that humans benefit from relationships with other humans. Social connection is so important that in its absence, loneliness can develop, which significantly increases risk of suicide (Lasgaard, Goossens, & Elklit, 2011). Friends represent one aspect of social connection and these relationships play an important role in our lives. Hays (1988) provided a thorough definition of friendship, conceptualizing it as a relationship that is characterized by “voluntary interdependence between two persons over time, which is intended to facilitate socio-emotional goals of the participants, and may involve varying types and degrees of companionship, intimacy, affection and mutual assistance” (p. 395). Who we select as friends depends on a number of factors, but in general, individuals tend to form friendships with those to whom they are similar (Lazarsfeld & Merton, 1954; McPherson, Smith-Lovin, & Cook, 2001). Friendships are important across the lifespan, as we see children form intimate bonds

with peers beginning as early as preschool (Howes, 1983) and friends continue to provide important social support well into late adulthood (Larson et al., 1986).

The impact of friendship on the lives of individuals is broad. Research has long since established a link between social support and positive mental and physical health outcomes, and friends play an integral role in an individual's support network (Cassel, 1976; Heller, 1979; Kaplan, Cassel, & Gore, 1977). In addition to its physical and mental health implications, friendship has been linked with overall happiness (Baldassare, et al., 1984; Demir & Weitekamp, 2007; Diener & Seligman 2002; Gladow & Ray, 1986; Lyubomirsky et al., 2005). In sum, friendship is an important interpersonal experience and has been found to be associated with many different positive outcomes.

Due to the many established links between friendship and various positive outcomes, an understanding of friendship quality is important. Friendship quality assesses the degree to which a friendship is positive and beneficial to an individual (Berndt, 2002). Friendship quality involves factors such as intimacy, companionship, and supportiveness. An understanding of the factors that influence friendship quality can lead to improvements in overall well-being.

### **Friendship Quality**

Several factors impact friendship quality and its development. These are explored as well as the relationships between friendship quality and psychological distress.

**Influences on the development of friendship quality.** The literature on romantic relationship/marital quality is expansive, particularly when compared with the

literature on friendship quality. Previous research has indicated that romantic relationships also have important implications for physical and mental health (Gove, Hughes, & Style, 1983; Weiss & Aved, 1978). However, the literature on romantic relationship quality is not explored within this study, as the investigative focus is on friendship quality. The two areas do share some overlap however, such as in the impact of early parent-child interactions.

From an attachment perspective, it may be theorized that individuals who develop strong bonds with their caregivers during infancy and childhood will go on to develop more successful social relationships than those with poor attachments to caregivers (Bowlby, 1969). Through receiving responsive and sensitive care from caregivers, children learn to see their caregivers as dependable and trustworthy, in addition to learning to view themselves as being worthy of care. If children form a secure attachment bond with their caregivers, the caregivers will represent a safe base, to whom the children can refer back if needed during periods of exploration (Ainsworth, Blehar, & Waters, & Wall, 2015). Social bonds can be formed through these periods of exploration. Research indicates that the quality of the parent-child relationship is associated with quality of friendship with peers (Belsky & Cassidy, 1994; Youngblade & Belsky, 1992). Relationships with caregivers represent an important contributing factor in friendship quality.

Relationships with siblings during early childhood have also been shown to impact friendships in later life. Deniz and Downey (2015) examined sibling and peer

relationships, studying 4,188 children aged 10 to 15. Results were consistent with previous research, in that the number of siblings was unrelated to quality of peer relationships. However, this study also found that the quality of sibling relationships was related to the quality of peer relationships, indicating that siblings play a role in the development of relationships with other youths. Smorti and Ponti (2018) also examined sibling relationships, exploring how they are related to best friendship relationship quality in 310 children between the ages of 8 and 11. Results indicated that higher sibling relationship quality was associated with more prosocial behavior, which then positively influenced best friendship quality. In general, it appears that relationships with siblings have an impact on the development of relationships with peers and friends.

Peer status also plays a role in friendship quality among adolescents (Meuwese et al., 2017). In one such study, peer status was divided into two categories: preference and popularity. Preference was defined as likability and described as being associated with high prosocial qualities and low antisocial qualities. Popularity was defined as a perceptual phenomenon that is based on how one is seen by others, reflecting both status and power. Popularity was described as being more diverse in terms of prosocial and antisocial qualities, meaning popular peers may display both types of behavior. Results indicated that individuals who are friends with more preferred and more popular individuals reported higher levels of friendship quality. Empathy was explored as a mediator and results indicated that higher levels of empathy in one's friend explained why individuals were more satisfied with friends who were highly preferred. However,

empathy was not a mediator for the relationship between friendship quality and popularity. Peer status appears to be an important factor in friendship quality for young people.

Friendships may look different over time. Camirand and Poulin (2019) examined the differences in best friendship quality between adolescence and emerging adulthood. In this study, adolescent participants were asked to identify their romantic partner and report on the quality of their relationship with their best friend each year, for 7 years. Participants' romantic involvement patterns were identified as belonging to one of four categories (late, sporadic, long-term, frequent). Late involvement refers to young people who delayed involvement in a romantic relationship throughout the assessment period. Sporadic involvement refers to young people who alternated between periods of being single and being involved in short-term romantic relationships. Long-term involvement refers to young people who stayed in one to two commitment long term relationships. Finally, frequent involvement referred to young people who were consistently engaged in short-term relationships, often changing romantic partners. Results indicated that participants who were categorized into the late involvement group experienced an increase in conflict with their best friend during the assessment period. Participants in the sporadic involvement and frequent involvement groups tended to report increases in intimacy in their relationship with their best friend. Finally, those in the long-term involvement group displayed no changes in intimacy in their relationship with their best

friend. Therefore, romantic involvement appears to play a role in best friendship quality among adolescents and emerging adults.

Research indicates that there are a number of other factors that contribute to adult friendship quality. A longitudinal study of friendship quality found that some of these factors include a fair friendship structure, being strongly embedded in a social network, and receiving social support from parents in adolescence and romantic partners in young adulthood (Flynn, 2006). This study also found that marriage has a negative impact on friendship quality. Other studies have reported that specific personality characteristics are related to friendship quality. For example, Berry, Willingham, and Thayer (2000) found that extraversion, neuroticism, agreeableness, and openness predicted measures of young adult friendship quality. Friendship quality in adulthood is clearly impacted by many variables.

**Friendship quality and psychological distress.** The quality of friendships has been shown to impact several mental health concerns and vice versa; the associations here are often bi-directional and complex. In particular, research shows that there are relationships between quality of friendship and anxiety, depression, and eating disorders. For example, research indicates that people with social phobia, or significant anxiety related to social interactions, tend to perceive their friendship quality as lower than individuals with other diagnoses (Rodebaugh, 2009). Interestingly, no relationship was found between social phobia and perception of quality of relationship with family members. Social phobia appears to uniquely impact perception of quality of relationship

with friends. As might be expected, depressed and lonely adolescents have lower quality of peer relationships (Spithoven et al., 2017). Friendship also moderates the relationship between anxiety-withdrawal and adolescent psychological maladjustment (Markovic & Bowker, 2017). Previous research has revealed simply having one friend can reduce feelings of loneliness for adolescents who tend toward anxious-withdrawal in relationships.

Research has also revealed that certain relational patterns among adolescents are associated with greater friendship quality and better mental health (Bastin, Vanhalst, Raes, & Bijttebier, 2018). These researchers examined the impact of co-rumination on friendship quality and depressive symptoms in children between the ages of 9 and 17. Co-rumination is a relational pattern in which two individuals communicate extensively about problems and dwell on negative affect. Co-brooding and co-reflection are the two components that interact to create co-rumination. Co-brooding refers to a tendency to focus on negative affect and catastrophize in reaction to problems. Co-reflection refers to a tendency to attempt to seek insight into a problem and make causal analyses about why the problem is occurring. Results of the study indicated that co-brooding is associated with more concurrent and prospective depressive symptoms in girls, while co-reflection is associated with less concurrent and prospective depressive symptoms in girls, as well as higher concurrent positive friendship quality for boys and girls. For adolescents, communicating with friends in order to gain insight into personal problems may improve relationships and reduce depressive symptoms.

Research has also examined the impact of friendship on depressive symptoms and suicide (Marver et al., 2017). Results indicated that impaired friendship was associated with greater risk of suicide, with quality of friendship contact having a greater impact than frequency of friendship contact. Self-reported depressive symptomatology was found to explain the effect of friendship on suicide attempts. Strong friendships may serve as a protective factor against depressive symptoms, which then reduces risk of suicide attempts.

Despite research that indicates that social phobia leads to lower perception of friendship quality (Rodebaugh, 2009), research indicates that social anxiety does not predict actual friendship quality in young adults (Rodebaugh, Lim, Shumaker, Levinson, & Thompson, 2015). Additionally, greater friendship quality was found to predict lower social anxiety 6 months after initial assessments. In other words, individuals with social anxiety may perceive their friendships to be lower quality, but this may not be reflective of reality.

Further, research indicates a relationship between quality of relationships with friends and relatives and various other anxiety disorders, which may differ based on romantic relationship status (Priest, 2013). In individuals who are divorced, widowed, or separated, lower relationship quality with both friends and relatives was associated with agoraphobia without panic, and social phobia. Lower relationship quality with relatives was associated with increased risk of generalized anxiety disorder and post-traumatic stress disorder, and lower relationship quality with friends was associated with an

increased risk of agoraphobia with panic. In individuals who have never been married, lower relationship quality with relatives was associated with an increased risk of generalized anxiety disorder, panic attack, and panic disorder, while lower relationship quality with friends was associated with an increased risk of social phobia. Finally, for individuals who are married or cohabitating, lower quality relationships with relatives and friends is associated with social phobia, while lower quality of relationships with relatives and spouse/partner was associated with an increased risk of generalized anxiety disorder and post-traumatic stress disorder. One's romantic relationship status may play a role in the relationship between friendship quality and anxiety symptoms.

Friendship quality may also influence disordered eating. In a study of adolescent girls, researchers examined the role of friendship quality in the relationship between body dissatisfaction and disordered eating (Schutz & Paxton, 2007). Results indicated that body dissatisfaction and disordered eating were associated with negative friendship qualities, including friend alienation and friend conflict. Addressing quality of friendships with peers appears to be important for interventions related to body dissatisfaction and disordered eating.

Recent research has revealed that the practice of mindfulness may play a role in the quality of interpersonal relationships. One such study examined the relationship between mindfulness during interpersonal interactions, co-rumination, and friendship quality (Pratscher et al., 2018). As noted earlier, co-rumination refers to engaging in excessive talk about problems and negative feelings with another individual.

Interpersonal mindfulness was defined as awareness of self and others, while maintaining a nonjudgmental and nonreactive presence during an interpersonal interaction. Results indicated that more engagement in interpersonal mindfulness was associated with greater friendship quality. Adapting a mindful approach to interpersonal interactions may improve friendship quality.

Friendship stability is another factor with implications for mental health (Ng-Knight et al., 2019). In a longitudinal study of 593 United Kingdom children (with an average age of 11 years and 2 months), associations between friendship stability and academic attainment, emotional problems, and conduct problems were examined. First assessments took place during the last year of primary school and second assessments took place during the first year of secondary school. Overall, results indicated that children's friendships were not very stable during this time, with 73% of participants identifying a different best friend one year later. Additionally, results suggested that children who kept the same best friend were more likely to display higher academic attainment and lower levels of conduct problems. This may indicate a benefit for helping children preserve their friendships during academic transitions.

In sum, research indicates that poor friendship quality is associated with several forms of psychological distress, while good friendship quality is related to better psychosocial adjustment, fewer problem behaviors, and overall happiness (Bagwell et al., 2005; Brannan, Biswas-Diener, Mohr, Mortazavi, & Stein, 2013; Chan & Lee, 2006; Demir, Orthel, & Andelin, 2013; Holder & Coleman 2007; Pittman & Richmond, 2008).

It is important to study friendship quality further, as this variable has such a broad impact on individuals' lives.

### **Conflict in Friendship**

Conflicts in relationships are inevitable and have the potential to impact relationships significantly. Research indicates that high levels of conflict within close friendships are associated with symptoms of hostility and anxiety (Bagwell et al., 2005). Conflict within friendships likely impacts perception of friendship quality, indirectly affecting other important variables, such as psychological adjustment and well-being.

Much of the existing literature on conflict in friendships focuses on adolescents. One such study examined conflict resolution strategies in adolescents (de Wied, Branje, & Meeus, 2007). Results indicated that dispositional affective empathy (which includes traits such as emotional matching, sympathy, and personal distress) was positively related to problem solving and negatively related to conflict engagement in friendships among adolescents. Problem solving involves doing something active to fix a relational problem, often utilizing compromise and discussing a conflict effectively. Conflict engagement is similarly active, but is destructive to relationships, as it often involves intense anger, verbal abuse, and a loss of self-control. Results also indicated sex differences in conflict resolution strategies, with girls using more problem solving, withdrawal, and compliance than boys. Withdrawal and compliance are passive conflict resolution techniques. Withdrawal involves avoiding the conflict or becoming distant, while compliance

involves not defending one's position or simply giving in to the other individual engaged in the conflict.

Cillessen, Jiang, West, and Laszkowski (2005) studied predictors of friendship quality among adolescent dyads, examining five separate dimensions of friendship quality, including conflict, closeness, companionship, helping, and security. Analyses revealed that perception of conflict in friendships has important implications on friendship quality. Aggression was related to perception of conflict and lower positive friendship qualities, while prosocial behavior was related to lower perceptions of conflict and higher perceptions of positive friendship qualities.

For young adults, lower conflict with best friends is associated with well-being (Sherman et al., 2006). Individuals with harmonious relationships with both siblings and friends, as characterized by high levels of warmth and low levels of conflict, had the greatest levels of well-being. However, for individuals with low-involved relationships with siblings (as indicated by low warmth and low conflict), having a harmonious friendship compensated for the negative effect of the sibling relationship on well-being. Harmonious relationships with siblings did not compensate for the negative effects of low involved friendships on well-being. A low conflict, harmonious relationship with a friend may be uniquely protective against the negative effects of other difficult relationships on well-being.

Conflict may present differently based on gender and type of relationship. Connolly et al. (2015) explored the strategies of conflict engagement utilized by

adolescents within their relationships with their other-gender romantic partners and same-gender best friends. Results indicated that female best friends tended to be more affiliative than male best friends, as well as romantic partners. It was also found that romantic partners were more relationally aggressive toward each other than female best friends. In romantic relationships, female partners tended to display more relationally aggressive behaviors than their male partners. Male partners also displayed more affiliative behaviors than their female partners.

In a similar, but more recent study, Keener et al. (2019) examined gender differences in adolescents' reported strategies of conflict. Specifically, strategies of conflict included communal, or other-focused strategies, and agentic, or self-focused strategies. The use of these conflict-navigation strategies was explored among same-gender friends, other-gender friends, and other-gender heterosexual romantic partners. Results indicated that both boys and girls reported engaging in both communal and agentic strategies significantly more in their same and other-gender friendships, as opposed to their romantic relationships. Girls reported using significantly more agentic strategies across all three types of relationships than boys did.

As conflict is inevitable in friendships, it is important to understand how individuals repair relationships after engaging in conflict with friends. Antony and Sheldon (2019) explored gender differences and the role of forgiveness in friendships after conflict. In this study, adults were asked to describe relational transgressions in their friendships, report the perceived severity of these transgressions, and discuss the

strategies used to communicate forgiveness after the transgression. Results were different based on gender. Transgressions between men typically including more encroachment on other intimate relationships and theft, while transgressions between women most typically included the disclosure of personal information beyond the boundary of the friendship. Conflicts between men had the potential to include aggression, sometimes escalating from verbal to physical aggression, while women often made an effort to sabotage other close relationships that they perceived as threatening to the friendship. Finally, to communicate forgiveness, men tended to attempt to minimize the conflict, while women tended to discuss the conflict in detail. Repairing conflict within a friendship appears to differ significantly based on gender.

The review of the literature clearly establishes friendship as an important relationship in the lives of individuals, having an impact on numerous variables. Thus, the development and maintenance of friendships are critical to our well-being. Important clues to these processes may be evident in language. Language and its relationship to friendship quality is examined next. Language use may indirectly reveal information about the quality of one's friendships.

### **Language**

Communication takes several different forms but can essentially be defined as a process that allows information to be passed from one individual to another (Miller, 1951). Learning to speak is a significant milestone for children as it allows them to facilitate social action, thus constructing a social world (Schieffelin & Ochs, 1986).

Language both impacts relational bonding and is impacted by relational processes (Bradac, 1983). Most relational conflicts involve the use of language in some way.

Text analyses have often been used to provide insight into complex thoughts and feelings. For example, one study analyzed essays written by students with different levels of depression and found that their use of language reflected their degree of depression (Bucci & Freedman, 1981). In another study, internet message board posts were analyzed to examine differences in language used by individuals who endorsed pro-anorexia beliefs in comparison to individuals in recovery from eating disorders (Lyons, Mehl, & Pennebaker, 2006). Results indicated that individuals who endorsed pro-anorexia beliefs utilized more positive emotion words and less anxiety words. They also displayed a lower degree of cognitive reflection and lower levels of self-directed attention when compared with those in recovery from eating disorders. Written language can reveal important information about cognitive processes. The use of written language is one of the primary methods of communication used today and is the focus on the current study.

Psychologists have studied the use of language for centuries. In the beginning of the development of psychology as a field, Freud (1901) theorized that small mistakes in speech revealed an individual's true thoughts and feelings (often referred to as a *Freudian slip*). Later, Rorschach (1921) developed projective tests intended to elucidate personality based on the words an individual used to describe an ambiguous inkblot. Now, advancements in technology have allowed us to analyze text and link word use to a variety of human behaviors (Tausczik & Pennebaker, 2010). The Linguistic Inquiry and

Word Count (LIWC) software was created and validated for this purpose. LIWC is a text analysis program that counts and categorizes words into groups that are psychologically meaningful. Examples of LIWC word categories include pronouns (subcategorized into types of pronouns), social processes (i.e., mate and talk), affective processes (i.e., cried and abandon), positive emotion (i.e., love), and negative emotion (i.e., hurt). Analyzing the use of specific types of words can reveal information about affective, cognitive, and behavioral processes. Examining the types of words individuals use when describing events allows for deeper psychological insights.

### **LIWC and Pronouns**

LIWC software has been used to examine the impact of pronoun use on close relationships. While it may be expected for first-person plural pronouns (i.e., we) to be associated with higher levels of relationship quality, the evidence to support this idea is mixed. Previous studies have shown that for relatives of individuals with certain mental health diagnoses, the use of second-person pronouns (i.e., you) is more important in predicting lower relationship satisfaction (Simmons, Chambless, & Gordon, 2008). It has been hypothesized that the use of second-person pronouns conveys more blame, which has the potential to negatively impact relationships.

Further, analyses of instant message conversations between heterosexual partners have revealed that while first-person singular pronoun (i.e., I) use by women is associated with higher relationship satisfaction for both individuals in the relationship,

first-person plural pronoun use is unrelated to relationship satisfaction (Slatcher, Vazire, & Pennebaker, 2008).

In a study of how individuals perceive their communication with their romantic partner, Biesen et al. (2016) found that when individuals and their partners use more “you” words, they perceive interactions to be more negative. “Me” words were also found to negatively influence perceptions of interactions. However, the use of “we” words was unrelated to perceived communication quality.

The literature on pronoun use in friendships is sparse, but some evidence supports a link between the use of first-person plural pronouns and perceived closeness of a relationship with a same-sex best friend. Fitzsimons and Kay (2004) found that when individuals were prompted to write about their same-sex friend using sentences that contained the word we, they rated their friendship as being closer, more intimate, and more important than individuals who were asked to write sentences containing the friend’s name and I.

Other studies have shown that the use of first-person plural pronouns is associated with important relationship outcomes. Lin, Lin, Huang, and Chen (2016) analyzed written text by Taiwanese college students who were prompted to discuss a recent conflict with a parent. Results indicated that the word we moderated the relationship between children’s conflict management style and their psychological well-being. Higher frequency of the word we was considered to indicate a higher index of relational focus, leading to more compromising during conflict. In another study, researchers examined

associations between pronoun use and positive/negative aspects of relationships (Tani, Smorti, & Peterson, 2015). Results indicated that for women, use of the word I when recalling memories with close friends was negatively correlated with positive relationship qualities, such as companionship, intimacy, affection, admiration, reliable alliance, and satisfaction. Further, the word I was positively correlated with conflict in relationships, a negative relationship aspect. In contrast, the word we was positively correlated with positive relationship aspects, such as admiration and reliable alliance.

### **LIWC and Emotions**

LIWC software has also been used to examine the impact of emotion word use on close relationships. One such study examined Facebook friendships to determine how language use can be used to predict the strength of the bond between two friends (Gilbert & Karahalios, 2009). The use of positive emotion words (i.e., birthday, congrats, and sweetheart) was found to be associated with higher levels of relationship tie strength. Other variables associated with stronger ties included intimacy words, number of days since last communication, and number of mutual friends. Another study examined the influence of positive and negative emotions words on relationship quality (Tani et al., 2015). Results indicated that positive emotion word use was associated with more affectionate friendships in men, but not women. Relationships that were characterized by higher imbalances of power between friends were associated with more negative emotion words for both men and women.

Frost (2013) examined how narrative construction of intimacy and affect in romantic relationship stories predicted individuals' relationship quality and stability. Participants were asked to compose stories about their romantic relationship, centered around the following four prompts: joyous events, painful events, decision-making experiences (i.e., deciding whether or not to move in together), and relationship goals. Analyses revealed that pronoun use was significantly correlated with relationship closeness. No associations were found between positive emotion words and relationship quality outcomes. Frost hypothesized that this result may be related to limitations of the LIWC software as it may not be fully able to capture the nuance of language. For example, positive emotion words are sometimes prefaced by negatives (i.e., "I was *not* happy."). Results of the study also indicated that negative emotion word use was associated with few intimacy words and more break-up thoughts. While research has revealed some associations between positive/negative emotion word use and aspects of relationship functioning, gaps in the literature remain.

### **Language and Gender**

Previous research reveals gender differences in the use of language (Kendall & Tannen, 1997). For example, workplace studies reveal that men tend to interrupt more and speak longer when it is their turn to speak. Further, women tend to use facilitative, personal styles of communication, whereas men tend to use more of an assertive, authoritative style. Women tended to use communication to engage others and minimize differences between themselves and others, while men tended to use strategies of display

(such as swearing, joking, and using slang) and give direct commands. These differences between genders in use of language are likely to reveal intimate cognitive processes.

Other studies have indicated that women are more likely than men to speak tentatively, by using hedges, qualifiers/disclaimers, tag questions, or intensifiers (Lakoff, 1973). Lakoff (1973) theorized that men tend to use more dominant speech due to their dominant place in Western society, while women tend to use more tentative speech, reflecting their subordinate social position. A more recent meta-analysis found that the effect of gender on use of tentative language is significant with a small effect size (Leaper & Robnett, 2011). Several moderators were found to increase effect sizes, including longer periods of observed conversations, sampling undergraduates (vs. other adults), observing groups (vs. dyads), and research labs settings (vs. other settings). Based on findings, Leaper and Robnett theorized that women's use of tentative language reflects interpersonal sensitivity, as opposed to a lack of assertiveness.

An earlier meta-analysis examined children's use of affiliative and assertive language (Leaper & Smith, 2004). Results indicated that girls tended to be more talkative and use more affiliative language, while boys tended to use more assertive language. However, the effect sizes for these three categories ranged from negligible (talkativeness and affiliative language) to small (assertive language). This suggests that gender differences in children's use of assertive language may be very slight.

A separate study examined gender differences in use of assertive language by analyzing 10 million Facebook messages from 52,000 users (Park et al., 2016). Results

indicated that women were more likely to discuss family, friends and their social lives, while men were more likely to discuss objects and anger. Men also tended to swear more and use more argumentative language. Further, women were slightly more likely to use assertive language and substantially more likely to use affiliative language. More specifically, women tended to use language that was interpersonally warmer, more compassionate, and polite, while men used language that was colder, more hostile, and impersonal. This study further reflects the significant gender differences in use of language.

Age may also be an important factor to consider when examining gender differences in language use. O’Kearney and Dadds (2004) examined the written responses of 303 adolescents aged 12 to 18 to two separate audio vignettes. The audio vignettes were intended to elicit either anger or fear. Participants were asked to imagine themselves as the protagonist of the vignette and write about their feelings. Overall, results indicated that adolescent use of emotion language changes with age, shifting toward more complex emotional language during later adolescence. Results also indicated gender differences, with boys displaying more expressive and behavioral referents and girls displaying more internally directed and less semantically specific referents. These results suggest that adolescent boys and girls may process emotions differently.

In a separate study, video tapes of second, sixth, and 10th grade same-gender best friends were analyzed for gender differences in topical coherence (Tannen, 1990).

Compared to boys, girls were more quickly able to find a topic of conversation. Girls were also more likely to discuss a smaller number of topics, typically relating to intra or interpersonal difficulties. The second and sixth grade boys tended to talk less but focused on a greater number of topics, while the 10th grade boys tended to discuss highly personal topics, but developed their own topic and minimize their partner's topic. This study may provide further support for the importance of consider age when examining gender differences in language.

In an analysis of 14,000 text samples from 70 different studies, Newman, Groom, Handelman, and Pennebaker (2008) examined gender differences in language use. Results indicated the women tended to use more words related to social and psychological processes. The category of social process words included four subcategories: communication, friends, family, and humans. Examples of communication words include converse, talk, and share. Examples of friend words include buddy, pal, and coworker. Examples of family words include brother, mom, and cousin. Examples of human words include woman, group, and boy. The category of psychological processes included words related to emotions (both negative and positive) and sensations (such as hearing, feeling, and seeing). Results also indicated that men tended to speak about impersonal topics and refer more to object properties. The focus of men's use of language was external, serving to describe processes, events, and objects. Prepositions, long words, numbers, and articles were prominent in men's speech. Additionally, results did not align with common stereotypes regarding gender and language, finding no gender differences

in reference to time, anger, sexuality, number of words, use of first-person pronouns, and use of qualifiers in the form of exclusion words (such as but or although). Overall, Newman et al. found that gender differences are more significant when there are fewer restrictions on language use.

The literature indicates that gender has an extensive influence on language use. It is important to examine gender differences in language use, as language can reveal information about complex cognitive processes.

### **Rationale**

There is extensive literature on language use and romantic relationships, but relatively little is known about language use and friendship. Specifically, no studies have examined how language use when recalling an interpersonal transgression committed by a friend relates to reported friendship quality. As friendship is associated with a number of important outcome variables, it is vital that the literature be expanded. An understanding of any possible associations between language use in recalling an interpersonal transgression and friendship quality allows for further research into how friendship quality can be maximized. Because gender is related to ways in which interpersonal transgressions are negotiated, gender was included in the investigation. Results of the current study are useful for the development of interventions to improve coping after an interpersonal transgression. Such interventions may assist clinicians in helping clients resolve conflicts with close friends. Further, interventions may be useful

to campus residential advisors, who are associated with managing dorms or living learning communities, to aid in resolving conflict between peers.

### **Research Questions**

To fill the existing gap in the friendship quality literature, the following research questions were proposed:

1. Does friendship closeness predict more frequent use of “we” pronouns when recalling interpersonal transgressions?
2. Does friendship closeness predict more frequent use of positive emotion words when recalling interpersonal transgressions?
3. Does friendship discord predict the use of negative emotion words when recalling interpersonal transgressions?
4. Does gender moderate any of the relationships between friendship closeness/discord and the use of “we” pronouns or positive and negative emotion words?

Specific hypotheses and their related analyses are presented in Chapter 3.

## CHAPTER III

### METHOD

#### **Participants**

Participants initially included 152 psychology undergraduate students from a mid-sized southern university and the general public via social media. This sample size was selected to suit an alpha of .05, a power of .80, and a medium effect size (Statistics Solutions, 2010). After 31 invalid responses were removed, the sample for this study contained 121 participants. Participants were removed for submitting duplicated surveys or for responding in a manner that indicated inattentiveness or inaccuracy (a lack of variance in responses, responding too quickly, etc.). Overall, 20% of participants were removed for submitting invalid responses.

As seen in Table 1, participants were primarily female, White, heterosexual, and single. Ages ranged from 18 to 61, with an average of 20.24 years old. The average duration of relationship with best friend was 6.44 years. The range of duration of relationship with best friend was 6 months to 22 years.

Table 1

*Descriptive Statistics for Categorical Participant Demographics*

Variable	<i>n</i>	%
<b>Gender</b>		
Male	35	28.9
Female	86	71.1
<b>Race</b>		
White/European American	52	43.0
Hispanic/Latina/Latino/ Latinx	29	24.0
Black/African/African American	17	14.0
Asian/Asian American	13	10.7
Multiracial	8	6.6
Indigenous	1	.8
Prefer Not to Answer	1	.8
<b>Sexual Orientation</b>		
Heterosexual	100	82.6
Lesbian	1	.8
Gay	4	3.3
Bisexual	9	7.4
Pansexual	2	1.7
Queer	1	.8
Prefer Not to Answer	4	3.3
<b>Relationship Status</b>		
In a Relationship	46	38.0
Single	75	62.0

*Note.* *n* = 121.

## **Instrumentation**

### **Recalling an Interpersonal Transgression**

Participants were asked to write about a time in which they were emotionally hurt by their best friend. The prompt read as follows:

Think of the most recent occasion in which your best friend did something to hurt you. Please answer the open-ended questions as completely as you can. What happened? How did it make you feel? What did you do when this happened? Why do you think this person did this to you?

### **Friendship Quality**

Participants were given the NRI-RQV questionnaire to assess best friendship quality (Buhrmester & Furman, 2008). The NRI-QV is a measure that assesses both positive and negative relationship qualities among children, adolescents, and adults. It can be used to examine a variety of types of relationships (parent-child, romantic partner, etc.) but was used solely to examine best friendships within the current study. Positive relationship features assessed include companionship, disclosure, emotional support, approval, and satisfaction, while negative relationship features assessed include conflict, criticism, pressure, exclusion and dominance. Three items comprise each of the 10 subscales.

Rather than utilizing the subscales individually, the current study focused on closeness (positive relationship features) and discord (negative relationship features). The

use of the Closeness and Discord scales has been recommended by Furman and Buhrmester (2010) and has been used in other studies (e.g., Phung & Goldberg, 2017). The NRI-QV measure utilizes a 5-point Likert scale, ranging from 1 (*never or hardly at all*) to 5 (*always or extremely much*). The closeness scale is comprised of items 1, 3, 4, 6, 8, 11, 13, 14, 16, 18, 21, 23, 24, 26, 28 and the discord scale is comprised of items 2, 5, 7, 9, 10, 12, 15, 17, 19, 20, 22, 25, 27, 29, 30. To generate closeness and discord scores, the mean of the items for each scale is calculated. The closeness scale can thus range from 1 to 5 and the discord scale from 1 to 5. Low scores represent less of each construct, while higher scores represent more. An example of an item from this measure is “How often do you spend fun time with this person?” The measure was found to have high internal consistency, moderately high stability over a one-year period, and moderate convergence among different reporters (Furman & Buhrmester, 2009; see Appendix A).

### **Demographic Questionnaire**

Basic demographic information was collected, including age, gender, sexual orientation, and race/ethnicity. Participants were also asked to report the length of time that they have known their best friend (see Appendix B).

### **Procedure**

Ethical considerations for this study was reviewed by the Texas Woman’s University Institutional Review Board. Participants were recruited using SONA, an online research recruitment website as well as through social media. Participants were selected based on gender to try to ensure that equal numbers of men and women were

represented within the sample. Those who were recruited via SONA elected to be involved in the study in exchange for research credits for their psychology courses. Data was collected using PsychData, an online survey host. Once accessing the study, participants clicked on a link that took them to an Informed Consent form (see Appendix C). Participants then filled out the demographic questionnaire, the NRI-RQV, and responded to the prompt regarding an interpersonal transgression with their best friend.

At completion of the study, participants were provided with a list of downloadable or printable counseling resources in case they experienced any distress or emotional discomfort during the investigation (see Appendix D). Upon exiting the survey, those who were recruited via SONA entered their personal 5-digit SONA identification code, so that they could be granted credit for their participation.

Following data collection, NRI-RQV protocols were scored. The free written responses to the prompt regarding conflict with a friend were analyzed using the LIWC software. The LIWC software processes written or transcribed text and provides a word count for selected categories of words (Tausczik & Pennebaker, 2010). Examples of word categories include social processes (i.e., family, friends, humans), cognitive processes (i.e., insight, causation, discrepancy) and perceptual processes (i.e., see, hear, feel). The current study focused on the use of first-person plural pronouns, positive emotion words, and negative emotion words. Examples of first-person plural pronouns as categorized by the LIWC software include we, us, and our. Examples of positive emotion words as categorized by the LIWC software include love, nice, and sweet. Finally, the LIWC

categorizes negative emotion words into four categories: broadly defined negative emotion words (i.e., hurt, ugly, and nasty.), anxiety words (i.e., worried, fearful, and nervous), anger words (i.e., hate, kill, and annoyed), and sadness words (i.e., crying, grief, and sad). The current study examined all categories of negative emotion words. Analyses were conducted using SPSS.

### **Hypotheses**

Analyses consisted of the following three multiple regressions: 1) examining the relationship between the use of we pronouns on friendship quality with a best friend, 2) examining the relationship between the use of positive emotion words on friendship quality with a best friend, and 3) examining the relationship between the use of negative emotion words on friendship quality with a best friend. Finally, a moderation analysis was planned to determine whether gender serves as a moderator for any of the relationships between friendship closeness/discord and the use of “we” pronouns or positive and negative emotion words.

It was expected that individuals who use more collective pronouns (i.e., we) when recalling a recent interpersonal transgression and how they coped with the situation would report higher levels of friendship quality within their relationship with their best friend. Previous research indicates mixed support for the relationship between use of first-person plural pronouns and positive relationship outcomes (Fitzsimons & Kay, 2004; Lin et al., 2016; Slatcher et al., 2008; Tani et al., 2015). It was also hypothesized that individuals who use more positive emotions words when writing about the

experience of a recent interpersonal transgression would report higher levels of friendship quality within their relationship with their best friend. Previous research has indicated that positive emotion word use is associated with more positive relationship aspects (Gilbert & Karahalios, 2009; Tani et al., 2015). Further, it was hypothesized that individuals who use more negative emotion words when writing about a recent interpersonal transgression would report lower levels of friendship quality within their relationship with their best friend. Previous research indicates that negative emotion word use is associated with more negative relationship aspects (Frost, 2013; Tani et al., 2015). Presumably, this would lead to lower relationship quality. Finally, previous research reveals gender differences in conflict management (Antony & Sheldon, 2019; Connolly et al., 2015; Keener et al., 2019). Therefore, it was expected that gender would moderate the relationship between friendship quality and the use of we pronouns or positive and negative emotion words (Baron & Kenny, 1986). Table 2 shows the specific hypotheses and corresponding analyses to be used in this study.

Table 2

*Hypotheses and Corresponding Analyses*

Hypothesis	Analysis
Higher relationship closeness and lower relationship discord scores on the NRI-QV will predict the use of first-person plural pronouns when recalling interpersonal transgressions.	Multiple regression
Higher positive relationship quality and lower negative relationship quality scores on the NRI-QV will predict	Multiple regression

the use of positive emotion words when recalling interpersonal transgressions.

Higher negative relationship quality and lower positive relationship quality scores on the NRI-QV will predict the use of negative emotion words when recalling interpersonal transgressions.

Multiple regression

Gender will moderate the relationships between relationship closeness/discord and pronoun and emotion word use.

Moderation

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## CHAPTER IV

### RESULTS

Before analyses were conducted, participants were removed for submitting duplicated surveys or for responding in a manner that indicated inattentiveness or inaccuracy (a lack of variance in responses, responding too quickly, etc.). Free written responses were spell checked in order to ensure the accuracy of LIWC analyses. Data were examined to see if assumptions were met for their respective analyses.

A one-way ANOVA was conducted to compare the effect of gender on all continuous variables (closeness score, discord score, five closeness subscales, five discord subscales, use of plural pronouns, use of first-person singular pronouns, use of second-person pronouns, use of third-person pronouns use of positive emotion words, and use of negative emotion words). Firstly, an analysis of variance showed that the effect of gender on closeness was significant,  $F(1, 104) = 5.87, p < .05$ . Women ( $M = 3.42, SD = .58$ ) reported higher levels of closeness than men ( $M = 3.12, SD = .64$ ). Further, analyses of variance showed the effect of gender on four closeness subscales was significant, with women scoring higher than men on companionship, intimate disclosure, emotional support, and approval (see Table 3). A separate analysis of variance showed that the effect of gender on the use of plural pronouns was significant,  $F(1, 119) = 4.42, p < .05$ . Men ( $M = 3.29, SD = 2.64$ ) used more plural pronouns than women ( $M = 2.30, SD = 2.21$ ). A final analysis of variance showed that the effect of gender on third-person

pronouns approached significance,  $F(1, 119) = 3.73, p = .056$ . Women ( $M = 6.04, SD = 3.54$ ) used more third-person pronouns than men ( $M = 4.56, SD = 4.43$ ).

Table 3

*Effect of Gender on Companionship, Intimate Disclosure, Emotional Support, and Approval*

Gender	Companionship		Intimate Disclosure		Emotional Support		Approval	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Men	3.18	1.02	3.35	1.11	3.29	.91	3.37	.87
Women	3.56	.85	3.90	.93	3.83	.89	3.76	.84

A one-way ANOVA was conducted to compare the effect of ethnicity on all continuous variables. Analyses of variance showed the effect of ethnicity on conflict and criticism was significant (see Table 4). Asian and Black individuals endorsed higher levels of conflict and criticism than individuals who identified as Latinx, White, and other.

Table 4

*Effect of Ethnicity on Conflict and Criticism*

Ethnicity	Conflict		Criticism	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Asian/Asian American	2.08	.93	2.03	.73
Black/African/African American	2.06	1.06	1.92	1.10
Hispanic/Latino/Latina/Hispanic American	1.53	.73	1.47	.73
White/Caucasian/European American	1.47	.63	1.39	.65
Other	1.63	.58	1.21	.35

A one-way ANOVA was conducted to compare the effect of sexual orientation on all continuous variables. Analyses of variance showed the effect of sexual orientation on satisfaction and criticism was significant (see Table 5). Individuals who identified as heterosexual, gay, bisexual, and pansexual reported higher levels of satisfaction than those who identified as lesbian, queer, and those who preferred not to disclose their sexual orientation. Lesbian-identified individuals reported higher levels of criticism than those of other sexual orientations. However, just one participant identified as lesbian, so these results may not be generalizable, based on the small sample size.

Table 5

*Effect of Sexuality on Satisfaction and Criticism*

Sexual Orientation	Satisfaction		Criticism	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Heterosexual	4.12	.88	1.56	.77
Gay	4.33	.47	1.25	.32
Lesbian	3.0	0	4.0	0
Bisexual	4.67	.53	1.41	.60
Pansexual	4.46	.47	1.00	0
Queer	2.33	0	1.00	0
Prefer not to answer	2.56	.51	1.83	.88

A one-way ANOVA was conducted to compare the effect of relationship status on all continue variables. Relationship status did not significantly impact any of the continuous variables.

Multiple linear regressions were calculated to predict the use of first, second, and third-person pronouns on relationship closeness and discord. The relationship between

the use of first-person pronouns and relationship closeness and discord was not significant ( $F(2, 101) = 1.22, p > .05$ ). with an  $R^2$  of .01. The relationship between the use of second-person pronouns and relationship closeness and discord was not significant ( $F(2, 101) = 0.68, p > .05$ ). with an  $R^2$  of .01. The relationship between use of third-person pronouns and relationship closeness and discord was also not significant ( $F(2, 101) = 1.61, p > .05$ ) with an  $R^2$  of .03.

Correlations were run to assess the relationships amongst closeness score, discord score, use of plural pronouns, use of first-person singular pronouns, use of second-person pronouns, use of third-person pronouns use of positive emotion words, and use of negative emotion words (see Table 6). Two significant relationships emerged. A weak positive relationship was found between relationship closeness and discord,  $r = .25, p < .05$ . Further, a weak positive relationship was found between the use of plural pronouns and the use of positive emotion words,  $r = .25, p < .05$ .

Table 6

*Correlations*

Variable	1	2	3	4	5	6	7	8
1. Closeness	1							
2. Discord	.247*	1						
3. 1st Person Singular Pronouns	-.104	.039	1					
4. 1st Person Plural Pronouns	-.143	-.090	-.038	1				
5. 2nd Person Pronouns	-.115	-.019	.071	-.094	1			
6. 3rd Person Pronouns	.058	.153	.035	-.147	-.106	1		
7. Positive Emotion Words	.035	-.084	-.131	.249**	.128	-.140	1	
8. Negative Emotion Words	-.026	-.065	.019	.039	-.022	-.035	-.060	1

\* Correlation is significant at the .05 level

\*\* Correlation is significant at the .01 level

## **Primary Analyses**

### **Use of Plural Pronouns, Relationship Closeness, and Discord**

It was hypothesized that higher relationship closeness and lower relationship discord scores on the NRI-QV would predict the use of first-person plural pronouns when recalling interpersonal transgressions. A multiple linear regression was calculated to predict the use of plural pronouns based on closeness and discord. The relationship was not significant ( $F(2, 101) = 1.44, p > .05$ ) with an  $R^2$  of .03. A multiple linear regression was calculated to predict the use of plural pronouns based on each of the closeness and discord subscales (companionship, disclosure, emotional support, approval, satisfaction, conflict, criticism, pressure, exclusion and dominance). The relationship was not significant ( $F(10, 93) = .83, p > .05$ ) with an  $R^2$  of .08.

### **Use of Positive Emotion Words, Relationship Closeness, and Discord**

It was hypothesized that higher positive relationship closeness and lower relationship discord scores on the NRI-QV would predict the use of positive emotion words when recalling interpersonal transgressions. A multiple linear regression was calculated to predict the use of positive emotion words based on closeness and discord. The relationship was not significant ( $F(2, 101) = 0.72, p > .05$ ) with an  $R^2$  of .01. A multiple linear regression was calculated to predict the use of positive emotion words based each of the 10 closeness and discord subscales. The relationship was not significant ( $F(10, 93) = .45, p > .05$ ) with an  $R^2$  of .05.

### **Use of Negative Emotion Words, Relationship Closeness, and Discord**

It was hypothesized that higher relationship discord and lower relationship closeness scores on the NRI-QV would predict the use of negative emotion words when recalling interpersonal transgressions. A multiple linear regression was calculated to predict the use of negative emotion words based on closeness and discord. The relationship was not significant ( $F(2, 101) = 0.40, p > .05$ ) with an  $R^2$  of .01. A multiple linear regression was calculated to predict the use of negative emotion words based each of the ten closeness and discord subscales. The relationship was not significant ( $F(10, 93) = .86, p > .05$ ) with an  $R^2$  of .09.

### **Gender as a Moderator**

Moderation analyses were run utilizing the Hayes PROCESS macro to determine whether gender served as a moderator for any of the relationships between friendship closeness/discord and the use of “we” pronouns or positive and negative emotion words. Analyses were not significant.

## CHAPTER V

### DISCUSSION

The current study aimed to examine the relationship between best friendship quality, conflict, and language use, as well as the influence of gender on these relationships. None of the proposed hypotheses were supported by the results of this study, indicating that as operationalized in this study, friendship quality did not impact the use of plural pronouns, positive emotion words, or negative emotion words when recalling an interpersonal conflict with a best friend. Gender was not found to be a moderator for any of the relationships between friendship closeness/discord and the use of we pronouns or positive and negative emotion words.

A weak positive relationship was found between relationship closeness and discord. Additionally, a weak positive relationship was found between the use of plural pronouns and the use of positive emotion words. No relationship was found between relationship closeness and discord and use of first, second, or third-person pronouns.

Several findings related to gender were found. An ANOVA showed that the effect of gender on closeness was significant, with women reporting higher levels of closeness than men. Specifically, women reported more companionship, intimate disclosure, emotional support, and approval than men. Further, an ANOVA showed that the effect of gender on the use of plural pronouns was significant with men using more plural pronouns than women. Finally, an ANOVA showed an effect of gender on the use of

third-person pronouns approached significance, with women using more third-person pronouns than men.

Additionally, the effects of ethnicity and sexual orientation on all continuous variables were examined. Asian and Black individuals endorsed higher levels of conflict and criticism than individuals who identified as Latinx, White, and other. Individuals who identified as heterosexual, gay, bisexual, and pansexual reported higher levels of satisfaction than those who identified as lesbian, queer, and those who preferred not to disclose their sexual orientation. Lesbian-identified individuals reported higher levels of criticism than those of other sexual orientations.

### **Integration with Prior Literature**

Associations between friendship quality and language use when recalling an interpersonal conflict have not previously been studied. The current study is an important step in understanding the impact of friendship quality on how individuals process conflict with best friends. As operationalized in this study, findings suggest that friendship quality has no significant impact on the use of pronouns, positive emotion words, or negative emotion words when recalling an interpersonal conflict with a best friend.

The current study provides a better understanding to the inner workings of best friendships. Previous research indicates that several factors influence the development of friendship quality, including parent-child relationship (Belsky & Cassidy, 1994; Youngblade & Belsky, 1992), sibling relationship quality (Deniz & Downey, 2015; Smorti & Ponti, 2018), peer status (Meuwese et al., 2017), romantic involvement

(Camirand & Poulin, 2019; Flynn, 2006), and personality (Berry et al., 2000). Results of the current revealed a weak positive relationship between relationship closeness and discord, which may seem paradoxical at first glance. However, this may indicate that a certain amount of discord is normative between best friends, and one cannot exist without the other. These results parallel existing literature that demonstrates that conflict in marital relationships can predict relative improvements in relationship satisfaction across time (Overall & Simpson, 2013). It has been theorized that conflict is motivating, encouraging partners to make positive changes to their behavior and allowing for more successful problem resolution. It is reasonable to assume that friendships low in closeness would also be low in discord. It is also plausible that very close relationships may reflect unhealthy dynamics, in which discord is also highly likely (King & Terrance, 2006).

The current study contributes to the existing body of literature on conflict. Previous studies have indicated that the level of conflict in friendships is associated with different aspects of psychological well-being, including hostility and anxiety (Bagwell et al., 2005) and overall well-being (Sherman et al., 2006). These studies indicated that high levels of conflict are associated with negative psychological outcomes. The current study expands the understanding of the nature of friendships, as results indicated a weak positive relationship between friendship closeness and discord. While high levels of conflict within friendships appear to negatively impact individuals, it appears that some degree of discord can coexist with friendship closeness.

Previous literature also illuminates gender differences regarding conflict in friendships. Studies have demonstrated gender differences in conflict resolution strategies among adolescents (Connolly et al., 2015; de Wied et al, 2007; Keener et al., 2019) and type of transgressions related to conflicts among adults (Antony & Sheldon, 2019). The current study contributes to the existing literature with findings that suggest that gender does not significantly impact friendship closeness, friendship discord, or use of language when recalling a conflict with a best friend. This suggests that men and women may have similar psychological processes for understanding conflict within their friendships.

Additionally, the current study found that women tend to report more closeness in their friendships than men, but not more discord, which is consistent with previous studies (McGuire & Leaper, 2016; Polimeni, Hardie, & Buzwell, 2002). One study found that women tend to report more friendship closeness, less friendship competition, and more distress over friendship competition (McGuire & Leaper, 2016). An earlier study found that women tend to report more emotional closeness with their same gender best friends, but report levels of behavioral and cognitive closeness that are equal to men's friendships (Polimeni et al., 2002). Polimeni et al. theorized that gender differences regarding emotional closeness in friendships may be the results of gender role socialization. The current study provides further context to how different genders perceive and evaluate friendships, which may potentially explain some of the differences in conflict management.

The current study found differences in ethnicity with regards to conflict and criticism, with Asian and Black individuals endorsing higher levels of conflict and criticism than individuals who identified as Latinx, White, and other. These results differ somewhat from previous research. Pernice-Duca (2010) utilized an earlier version of the NRI (Furman & Buhrmester, 1985) and found no differences in conflict with best friends among Black, Latinx, and White adolescents. These disparate results indicate that further studies are necessary to better understand the impact of ethnicity on conflict among best friends.

The current study also found differences in sexual orientation with regards to friendship satisfaction and criticism. Individuals who identified as heterosexual, gay, bisexual, and pansexual reported higher levels of satisfaction than those who identified as lesbian, queer, and those who preferred not to disclose their sexual orientation. These findings contribute to the existing literature on sexual orientation and friendship quality, with previous studies indicating that sexual-minority male youths report significantly greater levels of attachment to their best friends than heterosexual male youth, while sexual-minority and heterosexual female youths report similar levels of best friend attachment (Diamond & Dube, 2002). The current study also found that lesbian-identified individuals reported higher levels of criticism than those of other sexual orientations, which contradicts previous research. Nardi and Sherrod (1994) found that gay men and lesbian women report similar levels of conflict. However, the current study's results

regarding sexual orientation may not be generalizable, as only one participant identified as a lesbian.

Findings of the current study are important, as friendship quality has been found to be linked to a number of factors relating to psychological distress, including depression and loneliness (Bastin et al., 2018; Marver et al., 2017; Spithoven et al., 2017) and body dissatisfaction and disordered eating (Schutz & Paxton, 2007). Additionally, previous research establishes a link between lower friendship quality and symptoms of anxiety disorders, which differs depending on romantic relationship status (Priest, 2013).

Participants of this study were grouped into relationship categories of cohabitating, married, never married, divorced, separated, or widowed. The results of the current study contradict previous findings, as relationship status was found to be unrelated to friendship closeness or discord. However, participants in the current study were only asked whether or not they were currently involved in a romantic relationship and information regarding separations, divorces, et cetera, was not assessed. It is possible that results may have been different if more specific data regarding relationship status was collected.

Language reveals our thoughts and emotions about the world around us (Chung & Pennebaker, 2007). Even seemingly insignificant words, such as pronouns, can convey important information about emotional state, social identity, and cognitive styles (Pennebaker, Mehl, & Niederhoffer, 2003). Results of the current study indicate that plural pronoun use is unrelated to friendship closeness or discord. As one previous study also established that there is no such relationship between use of plural pronouns and

romantic relationship satisfaction (Slatcher et al., 2008), it is possible that individuals cognitively process friendships and romantic relationships similarly. However, another study found that the word *we* was positively correlated with positive relationship aspects, such as admiration and reliable alliance (Tani et al., 2015). Admiration and reliable reliance of friendships was not assessed in the current study, so the association between these variables and plural pronoun use among friends remains unclear.

Previous research also indicates a link between use of second-person pronouns and lower relationship satisfaction among relatives of individuals with certain mental health diagnoses (Simmons et al., 2008). This is contradicted by the current study, where results indicated no relationship between second-person pronouns and friendship closeness or discord. However, the design of the current study potentially limited use of second-person pronouns, due to the use of the writing prompt (i.e., “What happened? How did it make you feel? What did you do when this happened? Why do you think this person did this to you?”). Use of second-person pronouns would have been unusual in response to this prompt.

The previous literature on the use of *I* and *me* words in relationships is mixed (Biesen et al., 2016; Fitzsimons & Kay, 2004; Slatcher et al., 2008; Tani et al., 2015). One study indicated that the use of first-person singular pronouns in women is associated with higher relationship satisfaction for both individuals in the relationship (Slatcher et al., 2008). Other studies indicated that the use of *I* words is less helpful. For example, a study found that when individuals were prompted to write about their same-sex friend

using sentences that contained the word we, they rated their friendship as being closer, more intimate, and more important than individuals who were asked to write sentences containing the friend's name and I (Fitzsimons & Kay, 2004). A separate study found that the use of me words negatively influenced perceptions of interactions between partners (Biesen et al., 2016). Finally, a third study found that for women, use of the word I when recalling memories with close friends was negatively correlated with positive relationship qualities and positively correlated with conflict (Tani et al., 2015). The current study found no relationship between use of first-person singular pronouns and friendship closeness or discord, indicating that further studies are necessary to better understand this concept.

The results of the current study provide further information regarding the importance of language, revealing that plural pronoun use is associated with positive emotion word use when discussing friendship conflicts. This contradicts a previous study that found no link between plural pronoun use and positive emotion words in couples' text messages (Slatcher et al., 2008). It is possible that the link between use of plural pronouns and positive emotion words is unique to individuals' processing of conflict with friends. However, the results of the current study may provide some support for existing studies in the couples' literature, which indicates that the use of we, as opposed to you, serves as an indicator of positive relational functioning (Karan, Rosenthal, & Robbins, 2019). Further research is needed to clarify the relationship between use of plural pronouns and positive emotions words in friendship.

Previous literature has established that language use can reveal important information about individuals' emotional experiences and their social relationships (Gilbert & Karahalios, 2009; Tani et al., 2015). One study found that use of positive emotion words is associated with higher levels of relationship tie strength (Gilbert & Karahalios, 2009), while another found that positive emotion word use was associated with more affectionate friendships in men, but not women (Tani et al., 2015). The results of the current study appear to be somewhat contradictory of these previous studies, as no relationship between use of positive or negative emotion words and friendship closeness or discord was found. However, friendship closeness and discord is different from tie strength and affection. The results of the current study are consistent with a previous study which found no relationship between positive emotion words and relationship quality outcomes (Frost, 2013).

Finally, the current study contributes to the existing body of literature on gender differences in use of language. The literature has long since established that men and women communicate differently (Kendall & Tannen, 1997; Leaper & Robnett, 2011; Leaper & Smith, 2004; Newman et al., 2008; O'Kearney & Dadds, 2004; Park et al., 2016; Tannen, 1990). Results of the current study are consistent with this literature in establishing those gender differences, in that men were found to use more plural pronouns and women were found to use more third-person pronouns. This contradicts the results of a previous study which found no gender differences in use of plural pronouns, but supports that study's finding that women tend to use more third-person pronouns

(Newman et al., 2008). It appears that further studies are needed to clarify gender differences in pronoun use.

### **Implications for Practice**

The current study has important implications for clinical practice. Individuals often seek therapy for help with relationship issues. For example, in 2018, relationship issues (with roommates, friends, or romantic partners) were the fourth most common reason for seeking therapy at university counseling centers (LeViness, Bershad, Gorman, Braun, & Murray, 2018). Results of the current study may be used to guide interventions for therapists who are working with clients regarding relationship issues with friends. Additionally, the results may be used to assist faculty and residential advisors who are involved in living learning communities on college campuses better support their residents while they navigate conflict with their peers. For example, the current study's finding that friendship closeness is positively correlated with friendship discord may be used to help normalize co-existing connection and conflict within close relationships. Individuals who feel shame around having conflict with their friends may benefit greatly from being told that conflict is normal and can be a part of a healthy, functioning friendship.

Additionally, the current study's findings that the use of we language is associated with positive emotions may also be useful for therapists. Clients who present with friendship concerns could be informed about the potential relevance of we language in building and sustaining positive emotions in their friendships. Furthermore, studies

indicate that a client's working alliance with their therapist is among the most important factors in positive therapy outcomes (Wampold, 2015). If therapists are encouraged to use more we language in early sessions with their clients, they may be able to help generate positive emotions for their clients regarding therapy, leading to the development of a strong alliance. Additionally, it may be helpful for couples' therapists to encourage the use of we language between couples. The positive emotions generated by we language may help build couples motivation to continue to work through their relationship issues.

### **Future Directions**

It may be helpful to replicate this study with oral (as opposed to written) recollections of a recent conflict with a best friend. Research indicates that there are differences in oral and written communication regarding emotional events (Balon & Rimé, 2016). Specifically, there are differences in emotion word use, pronoun use, and cognitive word use. It is possible that this study may have yielded different results if it incorporated oral recollections of conflict. Future studies may consider incorporation oral recollections and transcribing responses to be analyzed with LIWC software.

It may also be useful for future research to examine the quality of other types of relationships, such as parents or siblings, and its influence on language use when recalling a conflict. Friendships are elective relationships, whereas relationships between given parents and siblings are not. Parent relationships may be of particular interest, due to the power differential that is not typically as present in adult friendships and sibling

relationships (Campion-Barr, 2017; De Goede, Branje, & Meeus, 2009). Examining different types of relationships may reveal a link between relationship quality and language use when recalling a conflict.

Further, it may be helpful for future research to examine the language used when individuals recall joyous events with their best friends. For example, participants could be asked to respond to a prompt such as “Please describe the last time you and your best friend had a joyous and connecting experience.” Responses to this prompt may reveal associations to friendship quality. It may also help examine friendship quality from a different angle, which could be especially helpful for participants who are conflict adverse and may struggle to write about such a topic.

Finally, it may be helpful for future research to explore other factors that may impact language use when recalling interpersonal conflicts. For example, it may be helpful to examine relationship satisfaction, rather than relationship quality. While relationship quality examines the degree to which supportive and discordant characteristics are present in a relationship, relationship satisfaction emphasizes an individual’s overall subjective evaluation of their friendship (Buhrmester & Furman, 2008; Graham, Diebels, & Barnow, 2001). Examining friendships through this lens may have yielded different results. Additionally, it may be helpful for future research to explore the impact of other factors on language used when recalling a conflict with a friend, such as attachment style or personality characteristics. Examining these factors

may lead to a clearer picture of what influences individuals' cognitive processing of conflict.

### **Limitations**

There are several potential limitations to this study. Firstly, the results of this study may not be generalizable due to limitations in demographic variables. The vast majority of participants were White, female, heterosexual, and between the ages of 18 and 22. Class background of participants was not assessed. Because participants were primarily college students, and all participants had access to computers with internet, this may have indirectly limited the sample to participants to those of mid to upper-class background. Currently, there is virtually no research on the relationship between friendship quality and social class. It is possible that a sample that included more working-class participants would have yielded different results.

Further, the current study examined friendship quality, conflict, and language use at a single point in time. It is possible that these variables could change over time and future research should examine this possibility. For example, it may be useful to study the relationship between friendship quality, conflict, and language use at different stages of friendship. It may also be useful to examine the relationships between these variables at different points in time following a conflict (i.e., the day after a conflict, a month later, and 6 months later). This would allow for the exploration of how duration of time since a conflict occurred impacts cognitive processing of said experience.

Additionally, it should be noted that the data for the current study was collected from March to May of 2020, which was during the global COVID-19 pandemic. In response to the pandemic, much of United States population self-isolated as a safety measure (Killgore, Cloonan, Taylor, & Dailey, 2020). Research indicates that during this time, individuals' loneliness increased significantly. Loneliness and isolation may have impacted participants of the current study with regards to their perception of their friendships.

Finally, it is possible that the wording of the prompt was not broad enough to capture multiple perspectives on what constitutes conflict. The prompt specifically asked participants to discuss a conflict, but some participants wrote that they "could not recall having any conflict" with their best friend. The wording of the prompt may have conveyed a narrow definition of conflict, causing participants to think of verbal arguments. However, conflicts can occur even without a verbal argument; therefore, it may have been helpful to revise the writing prompt used within the current study to read "Discuss a time when you felt angry, hurt, or disappointed by a friend."

Nonconfrontational responses to a grievance with a friend can include avoidant and withdrawing behaviors (Stern, 1994; Thayer, Updegraff, & Delgado, 2008). Shifting the wording of the prompt to encourage a range of responses to grievances with friends, including confrontational and nonconfrontational responses, may have been helpful.

Additionally, the present study did not consider the influence of attachment style. Previous research indicates that attachment style has an impact on conflict style, with

securely attached individuals reporting the use of more compromising strategies than avoidant or anxiously attached people and anxiously attached people using more dominating strategies (Levy & Davis, 1988; Pistole, 1989). It is possible that using the word “conflict” in the current study’s prompt activated a schema of interpersonal difficulties and influenced participants’ written responses. Utilizing a more neutral prompt (i.e., “Discuss a time when you felt angry, hurt, or disappointed by a friend.”) may have led to more authentic responses.

### **Conclusion**

This study provided valuable insight into the relationships between best friendship quality, conflict, and use of language. Findings suggest that relationship quality has no impact on use of pronouns or emotion words when describing a conflict with a best friend. A better understanding of how individuals process conflict with their best friends is important as these friendships are often a meaningful and important facet of individuals’ lives.

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## APPENDIX A

### The Network of Relationships—Relationship Quality Version

**Description.** The NRI-RQV is a combination of the Network of Relationships Inventory (Furman & Buhrmester, 1985) and a family relationship measure developed by Buhrmester, Camparo & Christensen (1991). This 30-item survey has ten scales with 3 items per scale. It assesses 5 positive features, including companionship, disclosure, emotional support, approval, and satisfaction, and 5 negative relationship features including, conflict, criticism, pressure, exclusion and dominance.

Companionship (COM)

- 1 How often do you spend fun time with this person?
- 11 How often do you and this person go places and do things together?
- 21 How often do you play around and have fun with this person?

Intimate Disclosure (DIS)

- 2 How often do you tell this person things that you don't want others to know?
- 12 How often do you tell this person everything that you are going through?
- 22 How often do you share secrets and private feelings with this person?

Pressure (PRE)

- 3 How often does this person push you to do things that you don't want to do?
- 13 How often does this person try to get you to do things that you don't like?
- 23 How often does this person pressure you to do the things that he or she wants?

Satisfaction (SAT)

- 4 How happy are you with your relationship with this person?
- 14 How much do you like the way things are between you and this person?
- 24 How satisfied are you with your relationship with this person?

Conflict (CON)

- 5 How often do you and this person disagree and quarrel with each other?
- 15 How often do you and this person get mad at or get in fights with each other?
- 25 How often do you and this person argue with each other?

Emotional Support (SUP)

- 6 How often do you turn to this person for support with personal problems?
- 16 How often do you depend on this person for help, advice, or sympathy?
- 26 When you are feeling down or upset, how often do you depend on this person to cheer things up?

Criticism (CRI)

- 7 How often does this person point out your faults or put you down?
- 17 How often does this person criticize you?

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

Approval (APP)

8 How often does this person praise you for the kind of person you are?

18 How often does this person seem really proud of you?

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

Dominance (DOM)

9 How often does this person get their way when you two do not agree about what to do?

19 How often does this person end up being the one who makes the decisions for both of you?

29 How often does this person get you to do things their way?

Exclusion (EXC)

10 How often does this person *not* include you in activities?

20 How often does it seem like this person ignores you?

30 How often does it seem like this person *does not* give you the amount of attention that you want?

**Scoring.** Scales are scored are created by averaging the 3 items making up the scale.

Two additional factors can be computed:

*Closeness:* the mean of the companionship, disclosure, emotional support, approval, and satisfaction scales.

*Discord:* the mean of the conflict, criticism, pressure, exclusion and dominance scales.

## APPENDIX B

### Demographic Questionnaire

**Age:** \_\_\_\_\_

**Gender:**

- Man
- Woman
- Transgender
- Nonbinary
- Other
- Prefer not to answer

**Race/Ethnicity:**

- Asian/Asian American
- Black/African/African American
- Hispanic/Latino/Latina/Hispanic American
- White/Caucasian/European American
- Pacific Islander/Native American
- Other (please specify)
- Prefer not to answer

**Sexual Orientation:**

- Heterosexual
- Lesbian
- Gay
- Bisexual
- Other (please specify)
- Prefer not to answer

**How long have you known your best friend?**

\_\_\_ Years and \_\_\_ Months

**Are you currently in a romantic relationship?**

- Yes
- No

## APPENDIX C

### Consent to Participate in Research

Title: Conflict in Friendships

Investigator: Alexandra Amersdorfer (aamersdorfer@twu.edu)

Advisor: Sally D. Stabb, Ph.D. (sstabb@twu.edu)

### Explanation and Purpose of the Research

You are being asked to participate in a study at Texas Woman's University. This study is being conducted as part of a doctoral dissertation. Participation consists of responding to survey questions about your personal characteristics and your feelings about your current best friend. The purpose is to better understand friendships.

### Description of Procedures

As a participant in this study you will be asked to spend approximately 30 minutes of your time. At a place and time of your choosing prior to the deadline, you will complete an online study in which you read written scenarios, provide your thoughts, and respond to survey questions.

You will sign up for the study in the SONA system which will provide you with a participant ID number which you will enter in a separate survey at the conclusion of your participation. The identifying information will not be linked to your responses. Confidentiality will be protected to the extent that is permitted by law.

### Potential Risks

The researcher will ask you questions yourself, your best friend, and a conflict that you have experienced with your best friend. A possible risk in this study is discomfort with these questions you are asked. If you become tired or upset you may take breaks as needed. You may also stop answering questions at any time and end the interview. If you feel you need to talk to a professional about your discomfort, the researcher has provided you with a list of resources.

Another risk in this study is loss of confidentiality. Confidentiality will be protected to the extent that is allowed by law. Any personal information collected for this study will not be used or distributed for future research even after the researchers remove your personal or identifiable information (e.g. your name, date of birth, contact information).

The researchers will try to prevent any problem that could happen because of this research. You should let the researchers know at once if there is a problem and they will help you. However, TWU does not provide medical services or financial assistance for injuries that might happen because you are taking part in this research.

### Participation and Benefits

Your involvement in this study is completely voluntary and you may withdraw from the study at any time. Your participation and cooperation is greatly appreciated. While no study stands alone, your participation is helping to explore any area of research that has not been examined by the means in the current study. As such, it is hoped that the data from this study will create further research in the field of psychology. In addition, you will also receive class credit for your participation.

#### Questions Regarding the Study

Please print a copy of this signed and dated consent form to keep for your records. If you have any questions regarding your participation in the study, please contact Alexandra Amersdorfer at [aamersdorfer@twu.edu](mailto:aamersdorfer@twu.edu). If you have questions about your rights as a participant in this research or the way this study has been conducted, you may contact the TWU Office of Research and Sponsored Programs at 940-898-3378 or via e-mail at [IRB@twu.edu](mailto:IRB@twu.edu).

## APPENDIX D

### Resources

## Resources

Thank you for your participation in this study. If you experienced discomfort as a result of this study and would like to speak to a mental health professional, please contact one of the following services:

### Texas Woman's University Counseling & Psychological Services

- (940-898-3801)
- Provides free counseling for TWU students.

### University of North Texas Psychology Clinic

- (940-565-2631)
- Provides counseling to those in the Denton County community at a reduced cost, using a sliding payment scale that is based on your income.

### APA Psychologist Locator

- ( <http://locator.apa.org/> )
- Find a therapist in your area.