A Dyadic Study of Relational Turbulence and Communication in Cross-sex Friendships

Dissertation

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Margaret Catherine Rooney, M.A.

Graduate Program in Communication

The Ohio State University

2015

Dissertation Committee:

Jesse Fox, Advisor

R. Lance Holbert

Nancy Rhodes

Copyright by

Margaret Catherine Rooney

Abstract

This mixed-methods dissertation tested the applicability of Solomon and Knobloch's (2004) relational turbulence model to cross-sex friendships and also explored communication in cross-sex friendships. In Study 1, 16 young adults participated in interviews concerning their experiences in cross-sex friendships. Findings from this study provided validation of the presence of turbulence in cross-sex friendships as well as insights into communication channel use in managing cross-sex friendships. Results were used to conceptualize a survey study of cross-sex friendships.

In Study 2, 76 cross-sex friend pairs (152 participants) completed an online survey about their experiences of uncertainty, interference, and turbulence in their friendship, as well as communication channel use in their friendship. Findings provide partial support for the applicability of the relational turbulence model in cross-sex friendships, as well as insight into communication channel use across cross-sex friendship types. Implications for future testing of the relational turbulence model and cross-sex friendships in general are discussed.

Dedication

To Justin, whose constant love, support, and sacrifice made this dissertation possible.

And to Clark, for bringing so much joy to my life.

Acknowledgements

I am tremendously grateful for my advisor, Dr. Jesse Fox. Whether I needed a bit of pushing or a bit of coddling, you were there to provide it. I feel so fortunate to have learned from you, and appreciate the depth of your knowledge, wisdom, and insight. I am also indebted to my committee members, Dr. Lance Holbert and Dr. Nancy Rhodes, who provided guidance and encouragement throughout the dissertation project.

I was told that my friends from graduate school would be friends for life, and I feel so incredibly grateful for the relationships developed over the past few years. I'd especially like to thank Bridget Potocki, Jenn Tyrawski, Rachel Ralston, Elizabeth Jones, Angela Palmer-Wackerly, and Laura Willis for your willingness to lend an ear, read a draft, commiserate, and laugh together as we navigated through graduate school.

To my friends outside of academia, particularly Lindsey Carr, Eileen Martindale, Amanda Torres, and Heather Franklin – thank you for knowing me so well, supporting me, and making me laugh. Our group texts were a breath of fresh air during the dissertation process, and I'm so glad we haven't lost each other. You will forever have a special place in my life and heart. I'm also so appreciative of my church family, especially my small group, for all of their prayers and support.

This truly would not have been possible without the assistance of my family. I especially want to thank my parents, Mark and Marian Sorce, who have supported me in

more ways than I can count. I feel so fortunate to be your daughter. To my siblings: Dan Sorce, Jeanie Musil, and Ellie Gerace. Thank you for checking in on me, believing in me, and encouraging me. I feel exceptional gratitude to my sister, Jeanie, for watching Clark the past year. Knowing he was in good hands allowed me to focus on my work, and I love how much you love him. I'd also like to thank my in-laws and extended family for their love and support.

To my husband, Justin, I am forever grateful. Though I tried to paint a picture of what our lives would be like while I was in school, I don't think either of us could have anticipated the many ups and downs we would face. Thank you for supporting and encouraging me, and especially for taking on all those extra chores. I thank God for providing me with such a great partner and friend, and I love you more than words can say. Thank you to my son, Clark, for being such a tremendous source of joy in my life. Your sweet nature, smiles, and silliness provided such great stress relief, and my life is immeasurably better because you're in it. Finally, for life, the universe, and everything, I thank Him.

Vita

2005	A.A. General Education, College of DuPage
2007	B.A. Communication Studies, Elmhurst College
2013	M.A., Communication, The Ohio State University
2010 to present	Graduate Teaching Associate, School of
	Communication, The Ohio State University

Publications

Fox, J., & Rooney, M. C. (2015). The Dark Traid and trait self-objectification as predictors of men's use and self-presentation behaviors on social networking sites. *Personality and Individual Differences*, 76, 161-165.

Fields of Study

Major Field: Communication

Minor Field: Interpersonal Communication

Specialization: College and University Teaching

Table of Contents

Abstract	ii
Dedication	iii
Vita	iv
List of Tables	vii
List of Figures	viii
Chapter 1: Introduction and Overview	1
Cross-sex Friendships	2
Relational Turbulence	5
Relational Turbulence in Cross-sex Friendships	8
Channel Selection and Use	12
Dyadic Data Analysis	19
Chapter 2: Study 1	24
Method	
Results	27
Discussion	
Chapter 3: Study 2 Method	
Recruitment	
Sample	

Measures	
Chapter 4: Data Analysis and Results	45
Data Preparation	
Preliminary Analyses	
Substantive Analyses	
Chapter 5: Discussion and Conclusions	56
Summary of Study 1 Results	
Summary of Study 2 Results	
Implications	61
Limitations and Future Directions	
References	66
Appendix A: Tables and Figures	77
Appendix B: Study 1 Interview Guide	90

List of Tables

Table 1. Assessment of Nonindependence	.78
Table 2. Assessment of Sex Differences	79
Table 3. Correlation Matrix	.80
Table 4. Assessment of Differences in Symmetry of Desires	.81
Table 5. Channel Use Differences	.82
Table 6. Multiple Regression on Mobile Maintenance Expectations	.83
Table 7. Multiple Regression on Entrapment	.84
Table 8. Multiple Regression on Channel Use	.85
Table 9. APIM: Relational Turbulence Model	.86

List of Figures

Figure 1. Breakdown of Friendship Types	87
Figure 2. Relational Turbulence Model	88
Figure 3. Actor-partner Interdependence Model	89

CHAPTER 1: INTRODUCTION AND OVERVIEW

The relational turbulence model proposes that the transition from casual to serious dating is marked by heightened turbulence resulting from increased uncertainty and interdependence in the relationship, such as the integration of the partners' social lives (Solomon & Knobloch, 2004). The claims of the relational turbulence model have been supported across numerous studies (see review in Solomon & Theiss, 2011), but to date the model has only been applied to romantic relationships. This primary purpose of this dissertation is to extend the application of the relational turbulence model to young adults' heterosexual cross-sex friendships (i.e., friendships between men and women), as these relationships are also often marked by uncertainty and turbulence, such as romantic or sexual attraction experienced by one or both parties (Guerrero & Mongeau, 2008; Mongeau et al., 2006; Reeder, 2000).

Of additional interest is the way these uncertainties and tensions are managed via communication. Scholars have dedicated some attention to the exploration of relational maintenance in cross-sex friendships (see Guerrero & Chavez, 2005; Malachowski & Dillow, 2011; Weger & Emmet, 2009), but channel selection has not been a focus of this research. Recent research on communication channel use (e.g., face-to-face, texting, video chat) in interpersonal relationships suggests that concepts such as relational context and relationship stage influence channel use (Ledbetter, 2014; Ruppel, 2014).

Additionally, channel selection has been shown to influence both relational development (Jin & Peña, 2010; Sheer, 2011) and relational outcomes, such as satisfaction (Caughlin & Sharabi, 2013). This dissertation will examine the relationship between channel selection and relational turbulence in cross-sex friendships, with particular focus on the ways that channel selection may be a source of relational turbulence, as well as a tool for addressing relational turbulence.

Because cross-sex friendships are increasingly common, especially in young adulthood (Monsour, 2002), it is important to better our understanding of communication in these relationships. Additionally, this study will increase our understanding of the various ways that mediated and non-mediated channels are selected and used for communication and relationship development in cross-sex friendships. Finally, the model has not yet been applied to cross-sex friendships. This study will allow for further testing of the relational turbulence model by testing the core tenants of the model, as well as testing some potential boundary conditions for the model.

Cross-sex Friendships

Cross-sex friendships are most common in young adulthood, especially among college students (Monsour, 2002), as college provides a rich environment for the development of this type of friendship (Weger & Emmett, 2009). Cross-sex friendships have unique benefits for both sexes (Baumgarte & Nelson, 2009; Sprecher & Regan, 2002), including insights into the other sex (Baym, Zhang, Kunkel, Ledbetter, & Lin, 2007; Canary & Emmers-Sommer, 1997), less competitiveness than same-sex friendships (Rawlins, 1982; Werking, 1997), lower expectations than romantic relationships or samesex friendships (Fuhrman, Flannagan, & Matamoros, 2009), and a safe environment for

exploring sex differences (Werking, 1997). However, as O'Meara (1989) noted, despite the lack of traditional courtship behaviors, attraction and sexual behavior are often present in cross-sex friendships.

Though the benefits are many, there are also numerous challenges present in cross-sex friendships. In addition to the voluntary (and thus less secure) nature of friendships, cross-sex friendships in particular do not have clear social scripts or guidelines for appropriate behaviors (Argyle & Henderson, 1985; O'Meara, 1989), and are generally higher in sexual ambivalence (Egland, Spitzberg, & Zormeier, 1996). For example, though flirtation is present in both romantic and platonic relationships, the flirtation scripts for cross-sex friends are less clear (Egland et al., 1996). Egland and colleagues (1996) also point out that although friendships are non-sexual by definition, 1) people often enter cross-sex friendships, but 3) most find the sexual component of cross-sex friendships to be problematic or inappropriate.

Of primary interest to scholars has been the challenge of attraction in these friendships. Cross-sex friendships are often challenged by sexual attraction by one or both parties (Afifi & Faulkner, 2000; Halatsis & Christakis, 2009), especially in young adults (Kan & Cares, 2006). In addition to attraction, romantic or sexual desire is also fairly common (Afifi & Faulkner, 2000; Bleske-Rechek & Buss, 2001; Reeder, 2000). Though often challenging, research has found that sexual attraction can be both a cost and a reward in the friendship (Kaplan & Keys, 1997; Sapadin, 1988), as it is a source of both uncertainty and excitement (Egland et al., 1996). In fact, studies have found that some individuals like cross-sex friendships *because* of their relationship potential, not in

spite of it (Bleske & Buss, 2000; Kaplan & Keys, 1997). Guerrero and Chavez (2005) specify four types of cross-sex friendships (see Figure 1): 1) *strictly platonic*, where both friends lack desire to escalate the friendship, 2) *mutual romance*, where both friends desire to escalate the friendship, 3) *desires romance*, where one friend desires to escalate the romance, but believes the other does not, and 4) *rejects romance*, where one friend wants to remain platonic, but believes the other does not.

O'Meara (1989) identified four specific challenges in cross-sex friendships, three of which are relevant to the issue of attraction. First, the emotional bond challenge refers to confusing liking with attraction by one or both members of the dyad. As Reeder (2000) notes, sexual attraction is most common in the early stages of a relationship, and it is possible that the initial attraction experienced in a cross-sex friendship may fade. A second challenge centers on the issues surrounding public presentation, or how outsiders perceive the relationship. There is a normative expectation that most relationships between men and women are primarily romantic or sexual (Reeder, 2000), so even if cross-sex friends have purely platonic feelings toward each other, those in their social network may be hard to convince otherwise. The final challenge has to do with negotiating sexual boundaries in the friendship. Numerous studies have found evidence of sexual activity in cross-sex friendships (Bleske & Buss, 2000; Fuiman, Yarab, & Sensibaugh, 1997; Monsour, 1992; O'Sullivan & Gaines, 1998). And though an assumption exists that once cross-sex friends engage in any sexual activity that the relationship has become romantic (Werking, 1997), often no romantic relationship results (Afifi & Faulkner, 2000). However, due to the more fragile nature of cross-sex friendships (Wiseman, 1986), engaging in sexual activity will likely have important

implications for the relationship that could be negative, such as only one member of the dyad wants to move the relationship from platonic to romantic (Bell, 1981; Rubin, 1985; Sapadin, 1988), or positive, such as helping the dyad overcome the sexual tension, boundary issues, or uncertainty (Afifi & Faulkner, 2000; Rubin, 1985). As Afifi and Faulkner (2000) note, ideally cross-sex friends would discuss sexual activity within their relationship, but because doing so would likely be face-threatening, individuals are unlikely to engage in such discussions.

A final challenge comes in the form of relational uncertainty, which is defined as the degree to which an individual lacks confidence about the accuracy of their perceptions about a relationship (Knobloch & Solomon, 1999). The developing body of literature on cross-sex friendships suggests that individuals in these relationships often experience uncertainty, and that this uncertainty stems from confusing physical and interpersonal attraction (Guerrero & Chavez, 2005; Weger & Emmett, 2009), as well as ambiguity about romantic intent (Afifi & Burgoon, 1998). However, there are still many gaps in our knowledge of uncertainty in cross-sex friendships, as only some studies have found lower amounts of uncertainty in cross-sex friendships compared to romantic relationships (Guerrero & Chavez, 2005; Weger & Emmett, 2009). Guerrero and Chavez (2005) also raise the important question of whether uncertainty itself discourages relationship talk between cross-sex friends, or if the uncertainty is present *because* the friends are not engaging in relationship talk.

Relational Turbulence

The relational turbulence model (Solomon & Knobloch, 2004) is centered on the issues that arise as romantically involved couples' transition from casual to serious

dating; from independence to interdependence. This period of time in a relationship is often filled with heightened intensity and drama (i.e., turbulence) that can lead to polarized emotions, cognitions, and communication behaviors (Theiss & Solomon, 2006).

The model proposes that relational uncertainty, which they define as the degree of confidence in one's perceptions about a relationship, is the main source of relational turbulence (Solomon & Knobloch, 2004). The authors outline three types of relational uncertainty: self, partner, and relationship. Self-uncertainty refers to doubts about one's own involvement in the relationship, *partner uncertainty* refers to doubts about the partner's involvement in the relationship, and *relationship uncertainty* refers to doubts and ambiguity about the dyad as a unit. Past research has linked uncertainty to more extreme emotional states (Planalp & Honeycutt, 1985; Planalp, Rutherford, & Honeycutt, 1988), polarized cognitions about self and partner (Planalp & Honeycutt, 1985), and increased negative appraisals of irritations in the relationship (Solomon & Knobloch, 2004). Based on this research, the relational turbulence model argues that uncertainty increases cognitive and emotional reactivity, further contributing to relational turbulence. Additionally, the model argues that relational uncertainty is greatest at moderate levels of intimacy, such as the transition from casual to serious dating (Solomon & Knobloch, 2004). For example, there is evidence that the frequency of confrontation and verbal aggression coincides with the establishment of emotional attachment in a relationship (Billingham & Sack, 1987; Cloven & Roloff, 1994).

Another source of relational turbulence is goal interference from one's partner (Solomon & Knobloch, 2004). *Interference* refers to the increasing influence one has on

another's daily life and activities, such as taking time away from other relationships. As a couple becomes more interdependent, the process of integration often leads to disruptions in the development of their relationship, such as interrupted action sequences and other errors or missteps. These interruptions and errors lead to emotional arousal (Berscheid, 1983), which the authors argue will lead to increased reactivity and turbulence (Theiss & Solomon, 2006). As is the case with uncertainty, the model suggests that interference is greatest at moderate levels of intimacy, as couples likely experience increased hiccups as their lives become increasingly interdependent.

The original model suggests that the presence of uncertainty and goal interference will result in appraisals about the relationship, specifically severity appraisals and relationship threat appraisals (Solomon & Knobloch, 2004). *Severity appraisals* examine the size of a problem or issue, while *relationship threat appraisals* consider the degree to which a problem or issue will impact relational well-being. Most importantly, appraisals serve as indicators of relational turbulence. Later studies conceptualized turbulence more broadly than the negative appraisals outlined above, such as asking participants to assess their perceptions of turmoil or irritation in their relationship (Knobloch, 2007a; Theiss & Knobloch, 2009).

The model assumes that turbulence is a result of developing intimacy, as the relationship is being redefined and the two individuals are integrating their lives and identities (Solomon & Knobloch, 2004). Additionally, the authors assume that relationship characteristics can moderate reactions to various relational phenomena, such as jealousy (Theiss & Solomon, 2006). Finally, it is assumed that uncertainty and interference will influence whether talk about the relationship is direct or indirect (Theiss

& Solomon, 2006). For example, increased uncertainty will likely lead to more indirect communication behaviors, as they are less risky and more face-saving.

The initial study testing the relational turbulence model found that appraisals peak at moderate levels of intimacy, as predicted (Solomon & Knobloch, 2004). Additionally, uncertainty and interference were positively related to severity and relationship threat appraisals, as expected. However, contrary to prediction, uncertainty and interference did not mediate the relationship between intimacy and appraisals; instead, they were significant predictors of intimacy and relationship threat appraisals. See Figure 2 for their revised model.

The relational turbulence model has only been applied to romantic relationships, justified by the argument that other types of relationships, such as family relationships and friendships, are unlikely to experience a significant period of turbulence (Solomon & Knobloch, 2004). The authors attribute this lack of turbulence to clearer role expectations and social scripts for other types of relationships. However, cross-sex friendships may be an exception to this assumption.

Relational Turbulence in Cross-sex Friendships

It has been suggested that the relational turbulence model may be especially applicable to cross-sex friendships, because they often go through a renegotiation of the nature of the relationship, as well as changes in commitment level (Guerrero & Mongeau, 2008). Additionally, multiple scholars have noted that social norms and scripts for friendships, cross-sex friendships in particular, are not well defined and must be negotiated, as friendships are voluntary in nature (Argyle & Henderson, 1985; Egland et al., 1996; Hall & Baym, 2012; O'Meara, 1989; Wiseman, 1986). Mongeau and colleagues (2006) suggest that cross-sex friends may experience a variety of turning points in their relationship, such as the disclosure of feelings by one or both parties, or the first instance of physical intimacy between friends.

As noted in the literature on cross-sex friendships between heterosexuals, issues of social and sexual attraction often lead to tension in the relationship (Halatsis & Christakis, 2009; O'Meara, 1989; Reeder, 2000). Many friendships are able to overcome these tensions with the friendship persisting, but prior to that the relationship will likely experience turbulence. For this reason, the relational turbulence model may be appropriate for the study of cross-sex friendships, as issues of uncertainty and interference also mark many of these relationships.

The relational turbulence model argues that uncertainty in romantic relationships leads to turbulence, and it is not too far of a stretch to imagine that uncertainty in crosssex friendships may also lead to turbulence. It is not uncommon for members of crosssex friendships to experience uncertainty (Afifi & Faulkner, 2000; Afifi & Guerrero, 1998; Guerrero & Chavez, 2005; Egland et al., 1996; Weger & Emmett, 2009). Individuals in cross-sex friendships may also experience the three types of uncertainty identified in the model: self-uncertainty (e.g., do I like him/her as more than a friend?), partner uncertainty (e.g., is he/she flirting with me?), and relationship uncertainty (e.g., is pursuing a romantic or sexual relationship worth risking our friendship?). Guerrero and Mongeau (2008) note that individuals are more likely to experience increased uncertainty when they perceive their friend's goals to be different from their own, or when changes in behavior occur, such as an increase in affection by one friend. Additionally, in the early stages of a cross-sex friendship, many individuals confuse liking and attraction (O'Meara, 1989; Reeder, 2000), or enter into the friendship partially due to the attraction they feel (Egland et al., 1996). Egland and colleagues (1996) also note the heightened ambivalence of cross-sex friendships, while other studies have found evidence of misattributions of friendly behavior as sexual intentions, especially by males (Abbey, 1987; Shotland & Craig, 1988).

Though we know that cross-sex friends often experience uncertainty about their relationship, how might that uncertainty differ across friendship types? For participants in the *desires romance* and *rejects romance* groups, uncertainty is likely higher because there is perceived disagreement about each participants' relational desires. Additionally, participants in the *mutual romance* group are likely experiencing heightened uncertainty, as their situation most closely resembles the typical application of the relational turbulence model. However, uncertainty is probably lower for participants in the *strictly platonic* group, as their friendship type implies an agreement and desire to remain only friends. To test these assumptions, the following hypothesis is offered:

H₁: Individuals in the *strictly platonic* group will experience less uncertainty than individuals in the *mutual romance*, *desires romance*, or *rejects romance* groups.

In addition to uncertainty, the relational turbulence model identifies goal interference as an additional source of turbulence, and there are many types of goal interference that can occur in cross-sex friendships. For example, establishing expectations and boundaries for the friendship may be difficult, as the social scripts for friendships are less developed than for other types of relationships, such as marriages (Booth & Hess, 1974; Hays, 1988; Wiseman, 1986), and thus must be tested and negotiated (Hall & Baym, 2012). Cross-sex friendships may also be challenged by

increased intimacy and interdependence, such as the challenges of integrating their social lives and figuring out how much communication they should have with each other to develop and maintain the relationship (Guerrero & Chavez, 2005). Other possible sources of interference include discrepancies in whether or not both partners want to pursue a romantic relationship (Afifi & Burgoon, 1998), the crossing of friendship boundaries (e.g., disclosing feelings or engaging in sexual intimacy), and dealing with communication differences (Arnold, 1995). For these reasons, the following hypothesis is offered:

H₂: Individuals in the *strictly platonic* group will report less interference than individuals in the *mutual romance, desires romance*, or *rejects romance* groups.

In the same way that uncertainty and interference lead to turbulence in romantic relationships, they are likely also indicative of turbulence in cross-sex friendships. Uncertainty and interference may lead to turbulence in the friendship. For example, if friends engage in physical intimacy for the first time, something not too uncommon in cross-sex friendships (Fuiman et al., 1997; O'Sullivan & Gaines, 1998; Owen & Fincham, 2012; Paik, 2010), it will likely impact the status of the relationship regardless of whether it is perceived as a positive or negative development in the friendship. We also know that cross-sex friendships are more fragile and at greater risk of termination than other relationship types (Griffin & Sparks, 1990; Wiseman, 1986), and arguably more likely to experience turbulence as a result. Thus, the following hypothesis is offered:

H₃: Individuals in the *strictly platonic* group will report less turbulence than individuals in the *mutual romance, desires romance,* and *rejects romance* groups.

Finally, the relational turbulence model predicts that turbulence will be highest at moderate levels of intimacy (Solomon & Knobloch, 2004), due to the challenges that come along with increased interdependence in a relationship. Cross-sex friendship might experience the same increase in turbulence at a moderate level of intimacy, particularly when an individual is deciding whether or not they see any romantic potential in the relationship. To test this assumption, the following hypothesis is offered:

H₄: Turbulence will be highest at moderate levels of intimacy.

Channel Selection and Use

In addition to exploring relational turbulence in cross-sex friendships, this study seeks to explore the role of communication in such friendships. Specifically, this dissertation will address communication channel use in cross-sex friendships. Though the terms "communication channel" and "media" are used somewhat interchangeably in the literature, for the purpose of this study both terms refer to any medium for communication, including offline communication, such as face-to-face conversations, and online communication, such as Internet chatting. What follows is an overview of two key approaches to the study of communication channel selection and use, followed by their suggested role in the study of turbulence in cross-sex friendships.

Rational actor perspective. There is evidence that individuals make their communication channel choices based on practical, personality, or social factors (Frisby & Westerman, 2010), an idea that complements Markus's (1994) rational actor perspective. This perspective examines how individuals make channel choices when communicating. The rational actor perspective argues that there are both good uses (i.e., positive social outcomes) and bad uses (i.e., negative social outcomes) of communication

technology, and that decisions about which channel to use are rationally made by considering the characteristics of the channel (e.g., the types of cues it allows for), situational factors (e.g., the goal of the message), and personal factors (e.g., impression management concerns). The rational actor perspective argues that channel selection is both an *active* and *goal driven* pursuit, and that individuals are aware of the costs and benefits of various channels, resulting in communication channel choices that are deliberate. Later studies have supported the rational actor perspective, including Madell and Muncer's (2005) study, which found that individuals often choose mediated communication channels for their practicality, Tillema and colleagues' (2010) study which found that the content of a message may dictate channel selection, and Frisby and Westerman's (2012) study which found that individuals often choose the channel which is either most appropriate or most beneficial to themselves. Specific to the study of personal relationships, research has found that individuals sometimes use communication modes strategically to meet their personal or relational goals (Joinson, 2004; Ledbetter, 2010; Ledbetter & Mazur, 2013; Ruppel, 2014).

Media multiplexity. Research suggests that multiple communication channels are used, and used in different ways, in personal relationships (Morey et al., 2013; Ledbetter, 2010; Ruppel, 2014; Walther & Parks, 2002; Westerman, Van der Heide, Klein, & Walther, 2008). Hawthornthwaite's media multiplexity theory (2005) originated in the study of social networks and suggests that relationship tie strength is positively related to the number of media used in a relationship. This theory has been extended by Ledbetter and colleagues. Ledbetter (2010) argued and found evidence for the integration of equity theory, particularly the concept of interdependence, into media multiplexity theory. In

later work, Ledbetter and Mazur (2013) suggest that media multiplexity theory can be used to examine relationship outcomes, not just social networks.

Though past research tended to examine only one media at a time, such as looking solely at online communication, recent work has started to incorporate multiple modes of communication into the study of personal relationships. There is evidence that people in relationships use multiple media in relationship maintenance (Walther & Parks, 2002) and that communication channels each have their own effect on personal relationships (Hall & Baym, 2012). A recent study by Ruppel (2014) notes a lack of multimodal relationship research, despite an abundance of evidence demonstrating that individuals use multiple communication channels across a variety of relationship types. Findings from her study suggest that channels function differently at different stages in a relationship, particularly as they relate to self-disclosure. Other scholars have noted that communication channels do not operate in isolation of each other, and should be studied in combination (Baym, 2009; Caughlin & Sharabi, 2012).

Channel Selection in Personal Relationships

Over the years a significant amount of scholarship has examined channel selection in personal relationships. Studies have found, for example, that technology is used differently in long-distance and proximate relationships (see review in Tong & Walther, 2011), that couples use mobile phones as a way of staying connected to each other (Licoppe, 2004), that technology is frequently used for early relationship development (Fox, Warber, & Makstaller, 2013; Jin & Peña, 2010; Weisskirch & Delevi, 2013), and that technology is often used for keeping track of one's partner (Phillips & Spitzberg, 2011). In terms of relational outcomes, the literature suggests that the frequency of face-to-face and mediated communication is positively related to closeness and satisfaction (Caughlin & Sharabi, 2013), that channel richness can influence relational development (Sheer, 2011), that an increase in the frequency and duration of phone calls is related to reduced uncertainty and increased love and commitment (Jin & Peña, 2010), and that texting is negatively related to relationship length (Jin & Peña, 2010).

With regard to friendships, studies suggest that social networking sites are used primarily to maintain existing relationships with individuals seen less frequently, such as high school friends (Joinson, 2008; Lampe, Ellison, & Steinfeld, 2006). A 2012 study by Hall and Baym found that young adults much prefer texting to calling their closest friend and that the average number of texts sent to one close friend each day was 38 messages. Specific to cross-sex friendships, studies suggest that communicating online may be a way to buffer against increased intimacy (Guerrero & Chavez, 2005), that cross-sex friends engage in everyday talk behaviors less frequently than same sex friends, both face-to-face and over the phone (Ledbetter, Broeckelman-Post, & Krawsczyn, 2011), and that dealing with sexual tension in cross-sex friendships requires both public and private management behaviors (Cupach & Metts, 1991).

There has also been a significant amount of work on channel selection and conflict in relationships. For example, cell phones can be a source of relational tension (Baron, 2008; Hall & Baym, 2012), texting can be used as a way to avoid conflict (Cho & Hung, 2011), and there are varying preferences for using texting or face-to-face communication to handle conflict (Frisby & Westerman, 2010). Frisby and Westerman (2010) found that two-thirds of their sample had dealt with conflict over technology, and that participants' conflict style influenced their channel choices. And although many young adults think that using technology to end a relationship is inappropriate (Starks, 2007), many have done it themselves or been on the receiving end of a breakup via technology (Delevi & Weisskirch, 2011; Gershon, 2010).

Channel Selection and Relational Turbulence.

We learn from Theiss and Solomon (2006) that the amount of uncertainty and interference in a cross-sex friendship will influence the proportion of direct and indirect relationship talk, but many questions remain. Of particular interest for this study is the relationship between relational turbulence and communication channel use in cross-sex friendships. In addition to applying the relational turbulence model to cross-sex friendships, a key goal of this study is to examine channel selection in cross-sex friendships. The inclusion of channel selection in the study of relational turbulence will help advance knowledge by examining not only when and why turbulence occurs, but how communication is used in cross-sex friendships. The following hypotheses will examine how the various types of cross-sex friendships may use channels differently:

H₅: Participants in the *strictly platonic* and *mutual romance* groups will use significantly more communication channels than those in the *desires romance* and *rejects romance* groups.

H₆: Participants in the *desires romance* and *rejects romance* groups will report greater use of mediated communication channels than participants in the *strictly platonic* and *mutual romance* groups

As noted earlier, according to the relational turbulence model one of the key sources of turbulence in a relationship is uncertainty (Solomon & Knobloch, 2004). Scholars have begun to examine the way that technology-mediated communication is used as a means for managing uncertainty (Fox & Warber, 2013; Westerman et al., 2008), such as the finding that an increase in the frequency and duration of phone calls is related to reduced uncertainty (Jin & Peña, 2010).

Another source of relational turbulence is goal interference from one's partner (Solomon & Knobloch, 2004). Interference refers to the increasing influence of another person on one's daily life and activities, which can lead to turbulence. In the initial stages of any relationship, there is a time of testing and negotiating boundaries (Hall & Baym, 2012), and as partners determine the nature of their relationship it is likely that turbulence may occur regarding the amount of and ways they communicate with each other.

In the relationship turbulence model, negative appraisals serve as indicators of turbulence (Solomon & Knobloch, 2004). A key purpose of these appraisals is to serve as a sense-making activity to help individuals decide how to interpret or address a partner's negative behavior. It is possible that channel selection, in addition to uncertainty and interference, may influence these relationship appraisals. For example, if a pair of crosssex friends regularly communicate via phone and suddenly one partner decreases their call frequency and starts sending texts instead, that change in channel use may lead to negative appraisals because texting is often used as a way to buffer against increased intimacy and avoid conflict (Cho & Hung, 2011). However, for the partner wishing to decrease intimacy, the change in channel is less likely to cause negative appraisals, as their goals are being achieved by their channel selection. To explore the relationship

between communication channels and elements of the relational turbulence model, the following hypothesis is proposed:

H₇: Uncertainty, interference, and turbulence will be positively related to mediated channel use.

In a similar vein to the relational turbulence model, Hall and Baym (2012) introduce the ideas of mobile maintenance expectations and entrapment to the study of communication channels in personal relationships. Mobile maintenance expectations refer to perceived expectations from one's partner regarding the use of mobile phone technology, including text messaging and voice calls. Their study found that higher mobile maintenance expectations were predictive of overdependence in relationships. Further, that overdependence was predictive of increased perceptions of entrapment, which refers to the amount of stress and pressure one feels regarding mobile communication with a friend, such as feeling pressured to respond quickly to a text message. Entrapment is considered a consequence of overdependence in relationships and their study found it was a significant predictor of dissatisfaction in friendships. The following hypotheses allow for the exploration of mobile maintenance expectations and entrapment in cross-sex friendships:

H₈: Uncertainty, interference, and turbulence will be positively related to mobile maintenance expectations

H₉: Uncertainty, interference, and turbulence will be positively related to mobile entrapment

Dyadic Data Analysis

Dyadic data must be treated differently from the study of individuals because in most cases dyads violate the statistical assumption of independence of observations, which is critical to common statistical techniques, such as multiple regression and ANOVA. Ignoring this non-independence in dyadic data can result in biased statistical analyses (Cook & Kenny, 2005; Gonzalez & Griffin, 2012; Kashy, Campbell, & Harris, 2006; Kenny, 1996; Kenny et al., 2006; Kenny & Judd, 1986).

There are a variety of sources of non-independence (more commonly referred to as interdependence in relational research), such as being in a voluntary relationship like a friendship, being part of a family, or even being part of an experiment together. Interdependence in dyads can be used to test hypotheses about individuals and their relationships because one person's thoughts, emotions, or behaviors are likely to affect his or her partner's thoughts, emotions or behaviors (Cook & Kenny, 2005; Kashy, Campbell, & Harris, 2006). When interdependence is present in a dyad, the two scores from the individuals in that dyad will differ (i.e., be more similar or dissimilar) from two scores from individuals not in a dyad (Kenny et al., 2006). This means that knowledge about one partner's score will tell us something about the other partner's score - in other words, the scores are likely to correlate. However, these correlations are not empirically derived; rather, they come from the theoretical considerations based on the type of data being collected (Kenny & Judd, 1986).

Once scholars recognized that non-independence was an issue in statistical analyses of dyadic data they developed some strategies for addressing this violation of the independence assumption, some of which are still used today. These strategies range in sophistication, and are not without problems. A common strategy is to treat the dyad as two separate samples (Kenny et al., 2006). There are numerous issues with this approach, including the loss of power when results are not combined, misinterpretation of the findings, and a failure to account for partner effects (Kashy, Campbell, & Harris, 2006). There are some common statistical methods used to address non-independence that are also problematic. Some scholars opt to correlate both partners' scores on the outcome variable; a method which does not control for actor and partner effects (Kenny & Cook, 1999). Also, because the two scores may be correlated they must be controlled, and this strategy fails to do that. Another common strategy is to create a "dyad score" by averaging the scores of the two partners, which could lead to mis-measurement (Cook & Kenny, 2005; Gonzalez & Griffin, 2000).

Benefits and drawbacks of dyadic data analysis. The advantages of dyadic data analysis mainly fall in the theoretical realm rather than analytical. The primary strength of dyadic data analysis is that it allows researchers to ask interpersonal and social questions about human behavior (Kenny et al., 2006). This is a great advantage to communication scholars, especially those interested in the study of relationships. With dyadic data analysis we now have an appropriate way to answer questions about how one person influences another, how (dis)similar dyad members are, and how that (dis)similarity in relationships influences certain outcomes of interest (Gonzalez & Griffin, 2012). Using dyadic data we can ask both dyadic and individual-level questions simultaneously, while also "unpacking" the meaning of shared effects (Gonzalez & Griffin, 2000; Gonzalez & Griffin, 2003). Overall, scholars can develop a better understanding of relationships by paying attention to dyadic differences and exploring the normative patterns that emerge from the data (Maguire, 1999). But for all the advantages that come with dyadic data, there are certainly some challenges and limitations that must be considered.

One of the most obvious challenges of dyadic data analysis is perhaps its complexity since there are more elements to take into consideration when designing, executing, and analyzing a dyadic study. Dyadic data analysis is best suited for outcome variables that are either interval or nominal in nature, which limits both study design and the types of variables that can be measured (Kenny et al., 2006). An additional challenge arises in data collection, as it is more difficult to find and retain dyads. But perhaps the greatest challenge is that there is no "right way" to analyze dyadic data (Gonzalez & Griffin, 2003). The method of analysis selected should be dependent on the types of questions being asked. Ultimately, this is a strength of dyadic data analysis, as there is a lot of flexibility when dealing with dyadic data, but it requires a lot of thoughtfulness about the types of questions being asked. Scholars should select the method that best fits their line of questioning, as well as the type of dyad and variables being studied.

Actor-partner interdependence model. The main issue when dealing with dyads that have a personal relationship is addressing the interdependence that the members are likely to have with each other. Because dyads are an interpersonal system, both people need to be considered simultaneously (Kenny & Cook, 1999). For studies such as these, it is very common to use the Actor-Partner Interdependence Model (APIM; see Figure 3) (Kenny et al., 2006). For this model, each member of the dyad has a score on the independent variable, dependent variable, and an error term. The model accounts an actor (i.e., intrapersonal) effect as well as partner (i.e., interpersonal) effect for each member of the dyad. In the case of distinguishable dyads, the model provides two actor and two partner effects. Partner scores on the independent variable are likely to correlate due to interdependence, as are the error terms, which represent non-independence not explained by the model. Using this model, researchers can examine individual effects while controlling for the non-independence present in the dyad. In addition, scholars can study the interdependence itself. Kenny and Cook (1999) outlined four types of outcomes using the APIM: actor-oriented, partner-oriented, couple-oriented, and social comparison. In the actor-oriented outcome, only the actor's score is significant; the partner's score does not have an influence. In the partner-oriented outcome the reverse is true – only the partner's score influences the outcome variable. The couple-oriented outcome occurs when actor and partner scores are the same, indicating a communal relationship. The social comparison outcome occurs when the sum of the actor and partner scores are zero, indicating a competitive relationship. The APIM has been used in the past to test the relational turbulence model (see Knobloch & Theiss, 2010; Theiss, 2011; Theiss & Knobloch, 2009), and it will be appropriate for this study as well. The following hypothesis will examine the dyadic nature of relational turbulence in cross-sex friendships:

H₁₀: Actor and partner uncertainty and interference will be positively associated with actor perceptions of relational turbulence.

Overview of Studies

As noted above, the primary purpose of this dissertation is to test the boundary conditions of the relational turbulence model (Solomon & Knobloch, 2004). This model argues that romantically involved couples will experience turbulence as the relationship

moves from casual to serious, and that the primary cause of this turbulence is the uncertainty and interference that exist during this transition. Though the model has only been applied to romantic relationships, it seems reasonable that it could apply to other types of relationships, such as cross-sex friendships. As outlined above, these relationships are often filled with tension and uncertainty, as physical or romantic attractions are often present for either one or both parties (Afifi & Faulkner, 2000; Bleske-Rechek & Buss, 2001; Reeder, 2000). Additionally, these relationships often experience turbulence, such as one friend expressing their desire to move from a platonic to romantic relationship (Bell, 1981; Rubin, 1985, Sapadin, 1988), or engaging in intimacy behaviors that blur the lines between friendship and romance (Bleske & Buss, 2000; Fuiman et al., 1997; Monsour, 1992; O'Sullivan & Gaines, 1998).

This study also seeks to further the work on cross-sex friendships by examining how the choice of communication channel can be both a source of and solution to the uncertainty and turbulence often found in cross-sex friendships. Cross-sex friendships are becoming more common (Rawlins, 2009) with issues of attraction more prevalent in young adults (Kan & Cares, 2006), further justifying the need for work in this area. Additionally, Halatsis and Christakis (2009) found that many cross-sex friendships are able to resolve the effects of attraction on the relationship. This study will potentially help us understand how they use communication to get there.

CHAPTER 2: STUDY 1

Cross-sex friendships are often challenged by the presence of sexual attraction between one or both parties (Halatsis & Christakis, 2009), especially in young adults (Kan & Cares, 2006). When attraction is present in a cross-sex friendship it can influence important relationship outcomes, such as satisfaction (Baym et al., 2007; Malachowski & Dillow, 2011). Additionally, attraction in cross-sex friendships has been shown to influence relationship maintenance behaviors (Guerrero & Chavez, 2005; Weger & Emmett, 2009). Because cross-sex friendships remain largely understudied and misunderstood (Gaines, 2003), an exploratory study was conducted to aide in the development of a survey on communication in cross-sex friendships. This first study was a qualitative, semi-structured interview study, with the goal of refining and validating the scope of the dissertation project. This was necessary in order to vet researcher assumptions about the experience of cross-sex friendships in young adults. Though many of the findings regarding communication in cross-sex friendships have been replicated numerous times, the advances in technology in recent years (e.g., prevalence of social media platforms) may have contributed to changes in communication not captured by previous research.

Method

Participants

A convenience sample of undergraduate students enrolled in the School of Communication at The Ohio State University was recruited through undergraduate courses. The researcher recruited college students who identified as heterosexual, were not currently in a relationship, and were between the ages of 18 and 25. Recruitment materials invited participants to take part in a short interview that would contain questions regarding their communication and relationships with friends of the oppositesex. Though single participants were targeted, two participants signed up for the study and were including in the following analyses, as they were still able to provide insights into their past experiences with cross-sex friendships. The final sample included 15 students (eight female), ages 18-23 (M = 19.73, SD = 1.58). The sample was made up of 12 Caucasian/European/European-American/White students, two Asian/Asian-American students, and one Caucasian/Pacific Islander student.

Procedures

Interviews were conducted in a reserved laboratory on campus, providing privacy to the researcher and participant during their discussion. Informed consent was gathered before the start of each interview. The researcher briefed participants on the process and purpose of the interview. Participants were then informed that the interview would be audio-recorded and that the interview could be stopped at any time. The author conducted the face-to-face, semi-structured interviews, which lasted up to 30 minutes in duration. An interview guide (see Appendix B) was used to structure the interview while also allowing the interviewer to pursue additional lines of questioning based on participant
responses. Questions in the interview guide focused on participants' preferences for developing and maintaining friendships, their views on the costs and benefits of cross-sex friendships, and their experiences with attraction and communication in cross-sex friendships. Open-ended questions and reflective listening were used to further probe the perceptions and experiences of the participants. Interviews concluded with the researcher summarizing the main points of the participant's answers and asking for comments or feedback. The researcher then answered any questions the participants had before concluding the interview. The participants were not contacted after the interview.

Data Analysis

Recruitment continued until data saturation was reached, which occurs when no new or different information about the concepts and no new categories or themes appear in the data (Charmaz, 2001; Corbin & Strauss, 2009). All interviews were analyzed using the first two stages of the grounded theory approach outlined by Strauss and Corbin (1990, 1998). First, open coding was done to identify broad categories within the data. This was done by listening to all of the interviews and noting the key themes present across responses. Next, axial coding was conducted to identify data to support the broad categories and themes. This involved listening to each interview once more to identify specific examples of each theme. In addition to coding, portions of the interviews were transcribed verbatim to serve as examples of the common themes. Participants and any friends they mentioned were given pseudonyms to provide further confidentiality.

Results

Qualities of Cross-sex Friendships

Males. Participants were asked to identify the qualities they find in cross-sex friendships, specifically any perceived rewards and costs. For men, one of the most common rewards included the idea that female friends are more thoughtful. Keith made the analogy that his female friends are like "*a soft pillow to fall on*" and Scott stated that he liked having female friends because they are "*not jackasses*." Another reward included the idea that cross-sex friendships bring a level of excitement not present in same-sex friendships, such as Josh's statement that: "*Having friends that are girls can be more interesting, especially with that tension there…it's exciting, that thrill.*" A final reward was the notion that having female friends improves the male, as noted by Kevin: "*They make you think a little bit more…they've made me a little more emotional, too, and maybe just a nicer guy.*"

Some costs were also identified, including the notion that friendships with females require more maintenance. Kevin felt of his female friends, "*sometimes they can be a little crazy and needy*" and also disliked that his female friends are "*more emotional than boys, [so] you gotta watch what you say around them.*" Some participants also reported feeling more self-conscious around their female friends, such as Zach's statement that "you have to be more self-conscious of how you look."

Females. Female participants were also asked about the rewards and costs of their cross-sex friendships. Most females stated that their friendships with males were positive because they perceived their guy friends as more fun or relaxed than their female friends. Kayla noted that her male friends are "*more relaxed, less gossipy, just cool and chilling*"

and Alyssa felt that her cross-sex friendships were "*not as tense as with girls*." Many also reported their male friends are less dramatic and less judgmental than female friends. Emily expressed a strong desire to hang out with her male friends, stating: "*I would much rather hang out with guys than girls any day, since girls are annoying*" and Maria appreciated the way her male friends handle conflict: "*conflict isn't that big either, life if you fight with a guy they like brush it off more than a girl would, or they are a little bit more understanding and don't freak out and hold grudges.*"

Costs or challenges included the inability to talk about as many topics as they can with female friends. Nicole felt "girls are more sensitive, and like, as much as that is annoying sometimes, it's also really, really a good thing when you need that." Another cost was having their male friends take on an unwanted role of protector, as expressed by Kayla: "If I am talking to a guy they're like 'Oh, why are you talking to him? He's a douchebag' – I already have a big brother, I don't need more." Another common cost was the challenge of maintaining boundaries in the relationship. Jenny takes the following stance with her cross-sex friendships: "I'll be friends with you and we can hang out, but if you make it awkward then we can't hang out anymore."

Both sexes. Both male and female participants identified the other sex's "different perspective" as a key reward to cross-sex friendships. Alyssa expressed this well when she said: "we can't figure out they way guys think and they can't figure out the way we think, so it's really important to have friends like that...they can give a deeper understanding." In terms of challenges, both males and females frequently identified attraction and tension as challenges to their cross-sex friendships. Emily noted "before I knew some of my friends I thought they were hot" and Nicole shared that "sometimes you

might feel like 'uh...he's hot,' ya know? 'He's like great, he has a great personality,' but then you're just like, to me, I'm like 'stop!'" In addition to physical attraction, social attraction can also be a source of relational uncertainty. Kayla expressed this well when she shared "I think it's hard too when you pick friends who are great people....these are people you are attracted to in a sense because you like who they are." A final challenge included issues stemming from participants' social network, such as others assuming there is romantic and/or sexual attraction within the friendship. Tyler noted about his female friends, "you feel like if you do anything, someone's gonna be like 'oh you want to get with her." A related concern is jealousy from a significant other - either one's own partner feeling jealous, or the friend's partner feeling jealous. Megan, a self-described tomboy with many guy friends, said she has experienced this often with her male friends: "If they get a girlfriend, [she'll] be really, really jealous of me, even though we're like brother and sister." And Lauren shared about a lifelong male friend and how past boyfriends "automatically saw him as a threat" and Kevin shared "the girlfriend doesn't *like it too much – she gets jealous.*"

Past Experiences with Attraction in Cross-sex Friendships.

All participants were able to recall a time when they were attracted to a cross-sex friend as well as a time when a friend was attracted to them. Participants were asked to share about those situations, with a particular focus on if/how the attraction was communicated by each party, experiences in the relationship, and the outcome.

Communicating attraction. Both male and female participants reported an increase in verbal and nonverbal flirting behaviors as a way to convey attraction, as well as increases in mediated communication and face-to-face interactions, especially

spending one-on-one time together. Participants' reported knowing their friend was attracted to them due to increases in flirting and physical touches, Andrew shared how he knew his friend was attracted to him: "[she was] touching my arm when she was laughing, I guess sort of flirting and she would allude to, um, like she just got out of a relationship and she would like always try to hang out just me and her." Another strategy was attempting to drop subtle hints, such as Keith's friend who asked him questions like, "So why aren't you dating anyone?" Scott reported that he tries to be "strategic about everything...I don't want to be obvious." Most participants expressed that they shared their feelings with their friend either face-to-face, over a phone call, or via text message. Some participants did not want to make the attraction known to their friend, such as Josh, who said: "I normally don't let someone know I like them unless I know they like me back."

Turning points. Participants were asked if the relationship experienced a significant event or "turning point" (see Baxter & Bullis, 1986) where it moved from strictly platonic to romantic or sexual. Some participants reported a physical turning point, such as a kiss or other physically intimate encounter. Lauren shared the following experience: "We were best friends since fourth grade, I liked him, he liked me, it was back and forth but we were always good friends…we both had that confusion and we kissed and I was like 'Nope. Nope. Nothing there.'" Most stories, though, involved a verbal turning point, such as the participant or their friend sharing their feelings.

Regardless of the type of turning point, for nearly all participants the event was a significant time of turbulence in the relationship. One participant, Megan, said she experienced this with multiple guy friends and afterward "*they*'*re awkward and*

embarrassed, and then I feel bad. "Tyler said he and a friend ended up dating after a turning point, but it "*turned out horrible.*"

Communicating rejection. In many of the stories, attraction was not reciprocated and the participant was either on the receiving end of a rejection message or in the position of having to reject their friend. Strategies for rejecting the other person included evasion tactics (e.g., spending less time together), or verbal statements indicating a lack of interest or attraction to the friend. Most participants felt such messages were difficult to send or receive. As Josh noted, *"it's hard to say 'I don't want to date you, but I like you.*"

Channel Selection

All participants identified both mediated and non-mediated channels for friendship development and maintenance, including face-to-face interactions, calling, text messaging, and various social media platforms (e.g., Facebook). The majority of participants indicated that most of these relationships start in face-to-face interactions, such as meeting in a class or through friends. The relationship is developed and maintained via additional face-to-face interactions and an increase in mediated channel use, such as texting each other regularly and becoming friends on social media accounts. Participants had similar thoughts about a few of the communication channels, such as the notion that face-to-face is preferable when dealing with serious content. Lauren felt that *"if you can't have face-to-face at least call each other"* and Tyler stated *"I just think conversations should happen face-to-face unless they can't."* Nearly all participants preferred face-to-face communication, and relied on social media or texting to supplement their communication. For example, Josh shared that he "usually text[s] for small things."

Source of uncertainty and tension. Some participants' expressed a belief that some communication channels, particularly texting, can be a source of relational uncertainty and tension. Some participants felt here are not enough cues in text messages, leading to unclear intentions. Keith felt, "with texting you really don't know...sometimes you don't know how someone is feeling" and Emily stated, "texting can come off so many different ways." Kayla felt she is more likely to say something she'd regret over a text versus face to face: "when you're texting you just say 'boom boom boom boom' and then look back at it an hour later and think 'I'm an idiot. '" A final concern with text messages was the feeling that they make things more complicated. As Alyssa said, "I hate text message conversations...I think it over-analyzes it." This feeling of increased complication was also applied to social media in general: "I feel like technology has made relationships more complicated than they need to be... 'who's he tweeting at,' and then there's Facebook chat, there's Twitter, there's texting, phone calls..." – Nicole.

Solution to uncertainty and tension. Though many examples were given of how communication channels can be a source of relational uncertainty and tension, participants also shared the way they can be a solution to that uncertainty and tension. Some participants felt channels can be used strategically as a way to discourage attraction in a relationship. As Andrew said, "*I don't answer back right away because I don't want them to think I like them.*" Scott said something similar: "*If they text something to me and it seems like they are coming on to me and I'm not into them, I just end up ignoring them.*" Perhaps the most common theme was the notion that certain channels can be used

to address an awkward situation, such as telling a friend that their feelings are not reciprocated. Zach shared a time when he told a friend he was not interested in her over Facebook chat – when asked why he used that channel he said "*probably because it's very low risk compared to face-to-face.*" Andrew admitted to using texting "*to get out of the awkward situation.*" Jenny shared about a time where a co-worker kissed her, and she told him later that she was not interested in pursuing a romantic relationship. She chose to tell him over a text message because she felt she "*wasn't on that level with him to talk to him face-to-face about it.*"

Face saving. Participants also used channels strategically in order to save face and reduce perceived risks of disclosure. Jenny noticed her tendency to "*use texting when feeling less confident*" because it is "*easier to say personal things*" over that medium. Josh shared that he "*broke up with someone over email, even though I said I'd never do that.*" A few participants shared that they may switch channels if their first choice is not effective. Kevin shared the following strategy: "*I try to discourage the attraction subtly during face-to-face interactions, but if that doesn't work I will send a [text] message*"

Relational Outcomes

Although a number of participants reported that those friendships needed some time to recover from the disclosure, most of the relationships eventually went "back to normal," suggesting that cross-sex friendships are often able to sustain any initial relational turbulence. Megan said that she has been through this numerous times and, *"after a couple days it returns to normal."* She said she takes the approach that "*we can still be friends, like I don't care, until it becomes, like, too much, and then I'm like* *'alright, we need to stop.'''* In some cases the relationship is improved and strengthened, as was the case for Tyler: *''It got better, actually, and now we're like best friends.''*

Some participants reported never disclosing their feelings, but over time those feelings subsided. Alyssa said that any feeling she's had for her guy friends *"usually go away after a while,"* and Emily said that if she has had feelings for her guy friends it was *"for like a minute and it was, like, gone, and nothing was done about it."* A less common outcome was the termination of the relationship after a turning point. Megan noted that she's had multiple male friends try to kiss her, and that she's *"had multiple friendships ruined because of it."* Finally, in a few cases romantic relationships developed after the turning point.

Lessons Learned and Insights

Participants were asked if there were any ways that their communication with cross-sex friends changed due to these experiences, or if there were any "lessons learned." Some female participants reporting learning that they need to be careful not to flirt with their male friends, and to be more honest about their feelings. Males reported the importance of making sure that the friends are on the same page, and avoiding leading on their female friends. Kevin felt that he "definitely [doesn't] want to lead someone on or make them feel like they were being used." Both males and females reported learning the importance of setting clear boundaries in their cross-sex friendships. Tyler said he approaches his cross-sex friendships like this: "Just making sure we're both on the same page...so it's not like either one of us is questioning."

Participants were asked to share any additional insights they had about cross-sex friendships. Multiple participants shared that sometimes they are attracted to a friend, but

a strong valuing of the friendship will discourage them from acting on those attractions. Andrew said, "I don't want the friendship to be ruined by me making a move that wouldn't be taken well on the other side of it." Similarly, Alyssa expressed the tension she feels with her best guy friend: "Trent is really hot. But he's my best friend. But he's really hot. But if he doesn't feel that way, what do you do?" Several participants also shared that they sometimes envision a future romantic relationship with their friend, such as Jenny's statement that "down the road, who knows what could really happen?"

Discussion

The results from this exploratory study suggest that uncertainty and tension due to attraction are often present in cross-sex friendships, supporting the findings of most literature on cross-sex friendships (Afifi & Faulkner, 2000; Egland et al., 1996; Kan & Cares, 2006; O'Meara, 1989). As noted above, every participant was able to refer to a time when they were attracted to a friend, as well as a time when a friend was attracted to them. Participants were able to identify numerous advantages and disadvantages unique to cross-sex friendships, a finding which has already been established in prior research (see Baumgarte & Nelson, 2009; Sprecher & Regan, 2002).

Additionally, the findings from this study provided insight into the role of communication in cross-sex friendships, particularly the ways in which channel selection can be used strategically. Participant insights reinforce the ideas outlined in Markus's (1994) rational actor perspective (RAP), which argues that there are both good and bad uses (i.e., social outcomes) of channel selection, such as the convenience of phone calls and the increased chance of misunderstanding when texting. The RAP also suggests that channel decisions are influenced by the qualities of the channel, situational factors, and personal factors, which were reflected in numerous participant responses. In terms of channel qualities, participant responses mostly made reference to the amount of cues available in a channel, as well as its convenience. Referenced situational factors included message goals such as trying to discourage attraction or communicate rejection to a friend. Finally, personal factors mentioned included things like judgments about channel appropriateness (e.g., breakups should always happen in person), as well as concerns about face threats.

A key aim of this study was to provide validation and insight for the development of a survey on cross-sex friendships. The findings from these interviews parallel the extant literature on communication in cross-sex friendships, especially the topics of uncertainty and turbulence in those friendships. Participant responses also provided valuable insight into the strategic use of communication in cross-sex friendships. Of particular interest is the perceived duality of some modes of communication, such as texting being both good and bad for relational maintenance.

A limitation of this study is the lack of diversity, as the majority of participants (80%) were Caucasian, and all participants came from the same university. In addition, though the recruitment efforts targeted students between the ages of 18-25, the oldest participant was 23, so the perspectives of older young adults may not have been adequately captured. Finally, it is possible that the researcher's biases influenced the data collection and data analysis processes. Though bias is not completely avoidable, future work could take additional measures to reduce bias, such as having someone other than the primary investigator conduct the interviews. Despite these limitations, this study still

provided meaningful data to both reinforce the existing literature and aid in the development of the main dissertation study.

CHAPTER 3: STUDY 2 METHOD

Recruitment

Because dyadic data is more challenging to collect, this study was executed as an online survey via Qualtrics survey software in an effort to make it as easy as possible for subjects to participate. Another benefit of using online survey software was increased privacy for the participants, as some of the questions inquired about personal or sensitive relationship information. Participants were recruited from courses in the School of Communication, primarily through the participant pool, C-REP. Additionally, the researcher visited numerous classes throughout the recruitment timeline in an effort to maximize sign-ups. For the majority of the recruitment period student participants were offered extra course credit for their participation, and their friend was not offered any incentive. However, toward the end of the recruitment period the student participants' friends were offered a \$5 electronic giftcard to one of three restaurants for participating in the study.

The recruitment materials invited participants take part in a 30-minute online survey addressing communication and experiences in male-female friendships. The materials specifically requested students who were heterosexual, single, between the ages of 18-25, and had a cross-sex friend who also met those criteria. Potential participants were informed that they would need to provide the email address for their friend, and

specified that their friend need not be a student at the university.

Sample

A total of 385 individuals opened the survey, though 61 dropped out early in the survey or had significant missing data and were removed from the analyses. Additionally, 12 participants were removed for failing to meet the required demographics (e.g., age and sexual orientation), 43 were removed because they failed quality control checks, 20 were removed for failing to give correct contact information for an opposite-sex friend, and 42 were removed for answering questions and providing contact information for someone other than an cross-sex friend, such as a romantic partner, sibling, or same-sex friend. Of the remaining 207 participants, 55 were removed because their friend did not complete the survey. The final sample consisted of 152 individuals, or 76 dyads.

Members of the dyads ranged in age from 18-25 (M = 20.22, SD = 1.55), with an ethnoracial breakdown as follows: 76.97% Caucasian, 7.89% African/African-American/Black, 6.58% multi-ethnic, 5.92% Asian/Asian-American, 1.32% other, and less than 1% each Latino/a and Middle-Eastern/Middle Eastern-American.

Of the 76 dyads, 56 (73.68%) consisted friend-pairs who were both single, 18 (23.68%) consisted of friends with different relationship statuses (i.e., one friend reported being single and the other reported being in a relationship), and only two (2.63%) consisted of friends who were both in relationships, but not with each other.

Friendship Variables

Friendship type. Participants were asked to identify their perception of their cross-sex friendship using one of four descriptions outlined by Guerrero and Chavez (2005): 1) *strictly platonic* (neither friend wants to escalate to a romantic relationship;

65.13% of the sample), 2) *mutual romance* (both friends want to escalate the friendship; 13.16%), 3) *desires romance* (the participant would like to escalate the friendship, but their friend probably does not; 12.50%), or 4) *rejects romance* (the participant's friend would like to escalate to the relationship, but the participant does not; 9.21%).

In addition to the categorical measure from Guerrero and Chavez (2005), a scale was created to assess perceptions of the friendship type. This scale included two subscales – the first asked participants to assess their desires for the relationship while the second asked them to assess their perceptions of their friend's desires for the relationship. The "self desires" subscale was measured on a 4-item Likert-type scale (1 = strongly disagree; 5 = strongly agree) with questions such as "I want our relationship to become more romantic" ($\alpha = .86$, M = 3.63, SD = 1.01) The "friend's desires" subscale was also measured on a 4-item Likert-type scale (a = .88, M = 3.63, SD = 1.02). Higher scores on both of these measures imply a preference for a platonic, rather than romantic, relationship.

Symmetry of perceptions. Using the participant responses to the 1-item question about friendship type, dyads that were broken into two groups: those that were in agreement with their friend about the type of friendship and those that were not. A total of 31 dyads (40.79%) were asymmetrical, meaning the participants were asymmetrical in their perceptions of the relationship, such as one person selecting "strictly platonic" and the other selecting "mutual romance." The remaining 45 dyads (59.21%) consisted of participants who were in agreement on their perception of the relationship status, such as both selecting "strictly platonic." It is important to note that dyads were considered to be

in agreement even if their actual relational desires were different, such as one friend selecting "desires romance" and the other selecting "rejects romance," as this indicates that both partners were aware that only one of them had feelings and the other did not.

Intimacy. A categorical relationship stage measure was created to allow participants to identify the status of the friendship. Participants were given the following seven options: 1) we've just recently met and engage in small talk, 2) we have a good amount of personal disclosure, 3) we communicate all the time; our social lives have blended, 4) we are focused on how different we are, often leading to fights and/or disagreements, 5) we talk less than we used to, but still like each other, 6) our relationship seems at a standstill; we are guarded in our interactions, and 7) we are reducing our interactions with each other. Participant responses were recoded to create three groups to serve as indicators of intimacy. The first two relationship stages were combined to create the early relationship group (n = 61) and represented low intimacy. The second two stages were combined to create the mid-relationship group (n = 70) and represented moderate intimacy. The remaining three stages were combined to create the late relationship group (n = 21) and represented low intimacy, as these response options indicated that the friendship was on the decline.

Relational Turbulence Model Variables

Relational uncertainty. Developed by Knobloch and Solomon (1999), the Relational Uncertainty Scale is a 35-item, 6-point (1 = completely uncertain; 6 = completely certain) Likert-type scale that measures self, partner, and relational uncertainty. However, data were not captured for partner uncertainty due to a technical error. As a result, only responses to the relational uncertainty subscale will be used in the data analysis. The 16-item relational uncertainty scale instructed participants to rate their certainty regarding certain elements of their relationship, starting with the prompt "How certain are you about..." The four measured dimensions include: behavioral norms (e.g., "...what you can or cannot say to each other in this relationship?"), mutuality (e.g., "...if you and your friend feel the same way about each other?"), definition (e.g., "...whether this is a romantic or platonic relationship?"), and future (e.g., "...where this relationship is going?"). All four subscales had strong reliability and above-average means (behavioral norms $\alpha = .89$, M = 4.91, SD = 1.05; mutuality $\alpha = .86$, M = 4.59, SD = 1.11; definition $\alpha = .86$, M = 4.81, SD = 1.05; future $\alpha = .85$, M = 4.66, SD = 1.09). The four subscales were then combined to create one measure of relational uncertainty, $\alpha = .87$, M = 4.74, SD = .98). When interpreting the results for this measure it is important to remember that higher scores on this scale imply more certainty.

Interference. Developed by Solomon and Knobloch (2001), the Interference from Partners scale is a 9-item, 5-point ($I = strongly \, disagree; 5 = strongly \, agree$) Likert-type scale that measures perceptions of a partner's influence and interference on one's autonomy (e.g., "My friend influences how much time I devote to my school work" and "My friend interferes with plans I make"). The scale was highly reliable, $\alpha = .92$, with participants indicating below-average interference from their friend, M = 2.12, SD = 0.79.

Relationship thinking (turbulence). As noted by Knobloch (2007a, 2007b), the Relational Turbulence Model does not provide guidance on how best to assess turbulence in relationships, resulting in multiple measures used over the years. For this study turbulence was measured using the scale from Knobloch (2007), adapted from Cate et al.

(1995). Participants were asked to reflect on the amount of time in the past month they thought about four aspects of their relationship (e.g., where the relationship is going, the future of the relationship) using a 5-point Likert-type scale (1 = not at all; 5 = a lot). The four items had strong reliability, $\alpha = .88$, M = 2.22, SD = 1.10. The primary advantage of this measure is that it uses dwelling on a relationship as indicative of turbulence, and is less concerned with the *valence* of the cognitions.

Channel Variables

Channel frequency. Using the items outlined by Caughlin and Sharabi (2013), participants were asked how frequently they use various communication channels to maintain their friendships (e.g., texting, internet chat, video chat, phone calls, face-to-face), using a 5-point Likert-type scale (1=never; 5 = all of the time). The averages for each channel, in order of most-to-least use, are as follows: face-to-face, M = 4.01, SD = 1.05; text messages, M = 3.95, SD = 0.96; phone calls, M = 2.52, SD = 1.24; internet chat, such as Google chat, M = 2.19, SD = 1.24; public messages, such as Twitter, M = 2.14, SD = 1.09; private messages, such as e-mail, M = 1.96, SD = 1.07; and video chat, M = 1.70, SD = 1.10. The items were also summed to determine the average number of channels used by each participant (M = 4.88, SD = 1.72).

Mobile maintenance expectations. Participants' perceptions of their friends' communication expectations were assessed using Hall and Baym's (2012) scale for mobile maintenance expectations. This 9-item Likert-type scale asks questions such as "My friend expects me to call/text to check in" and "My friend expects me to call/text to tell them where I am going" (1 = never; 5 = always). Though Hall and Baym measured calling and texting separately, they were combined in this study to reduce participant

fatigue. The scale reliability was strong ($\alpha = .95$), with an average score below the midpoint (M = 2.23, SD = .98).

Entrapment. Participants were asked to report whether or not they feel trapped by the mobile communication in their friendship, particularly with regard to the expectations being placed on them. This 7-item Likert-type scale included questions such as "I am pressured to respond quickly to all calls or texts from my friend" (1 = strongly*disagree,* 5 = strongly agree). The scale items were highly reliable ($\alpha = .91$), with an average score below the midpoint (M = 1.60, SD = .73).

CHAPTER 4: DATA ANALYSIS AND RESULTS

Data Preparation

Imputation. The first step in data preparation was to address any missing data in the dataset, as missing data can result in the loss of power and the introduction of bias into statistical analyses. Additionally, some statistical software will not function for dyadic analysis if data are missing, so it was necessary to impute values for the missing data (Kenny et al., 2006). Though a somewhat common practice is to impute the variable mean where data are missing, this can often lead to biased data (Scheffer, 2002). First, the amount of missing data was determined to aid in the selection of an imputation method. This was done by conducting a missing values analysis in SPSS, which revealed that of the variables with missing data, none had more than 5% missing – in fact, the highest missing was 4.6% and most were less than 2%. Next, Little's (1988) MCAR test was conducted on the variables with missing data to determine if the missing data was random or not. This test was not significant ($\chi^2 = 2403.67$, df = 3897, p = 1.00), meaning that the missing values were indeed missing completely at random. Based on the amount of randomly missing data, the Expectation-Maximization (EM) algorithm (Dempster, Laird, & Rubin, 1977) was used to impute missing values, as this is the recommended route when there are very small amounts (i.e., less than 5%) of missing data. The EM algorithm works by estimating the means, variances, and covariances for cases with

complete data, which are then used to estimate regression equations that relate the variables to each other. These equations are then used to estimate the missing values, and this process is repeated until the "most likely" value is generated. The advantage of EM imputations is that they factor in the other variables to arrive at a value that is the best fit.

Mean centering. In multilevel modeling, the intercept is interpreted as the value of the outcome variable when the predictor variable is equal to zero (Kenny et al., 2006; Luke, 2004). Many studies contain measures that do not have a meaningful zero, such as a 5-item Likert-type scale. To resolve this issue it is recommended that the predictor variables be centered, which is a process of transforming a variable by subtracting a constant (usually the mean) from the scores on that variable. For this study the predictor variables were grand mean-centered which is done by creating an average of the actor and partner means, then subtracting those grand means from the scores. It is important to note that decisions on centering are primarily conceptual, and if zero is a meaningful value in a predictor variable it should not be centered.

Tests of nonindependence and power analyses. One of the most important tests in a dyadic data analysis is the test of nonindependence, as it determines if there is enough statistical power to detect nonindependence in the dyads. For interval-level variables this is done by calculating a Pearson product-moment correlation for the actor and partner scores. It is recommended that a more liberal *p*-value (e.g., 0.20), be used to increase the likelihood that any existing nonindependence is recognized (Kenny et al., 2006).

Kenny and colleagues (2006) provide the recommended number of dyads for appropriate power of the r statistic. They suggest that a dyadic study needs around 80

dyads to have sufficient power for Pearson r values of .3 or higher to result in at least a 78% likelihood of rejecting the null hypothesis. The amount of confidence increases as the strength of the correlation increases, such that 80 dyads and a Pearson r of .4+ results in 96% or higher confidence that the null was rejected.

APIM and multilevel modeling. Though analysis via pooled regression is possible, Kenny and colleagues describe it as "awkward" (2006, p. 173) and suggest MLM or SEM for distinguishable dyads instead. However, even the choice between MLM and SEM can be complex, as there are many factors to consider and each come with their own set of advantages and disadvantages (Huta, 2014; Kenny et al., 2006). For this study MLM was chosen for a few reasons. First, although SEM is perceived as the easier option for distinguishable dyads, MLM too can be used for distinguishable dyads. Second, SEM typically requires a larger sample size than MLM for adequate power. Third, MLM protects well against Type-1 error, and also gives insight into how coefficients differ across groups of participants.

The APIM was tested using SPSS and Kenny's (2015) APIM web application, the former providing overall model statistics and the latter providing more detailed effects findings, which SPSS does not calculate. Some adjustments to the variables and model settings were made to tailor the MLM to the APIM. First, the distinguishing variable was recoded (males = 1, females = -1) to allow for effects analyses. Second, interaction terms were created to account for the effects of the predictor variable on the distinguishing variable (i.e., sex). Third, the model is changed by removing the homogeneity-of-variance assumption, which allows for the error variances on the distinguishing variable (i.e., sex) to differ. Fourth, the restricted maximum likelihood estimation (REML) was

used instead of the maximum likelihood estimation (ML) because the REML is less biased than the ML, especially with smaller data sets (Campbell & Kashy, 2002). Finally, when computing the APIM in SPSS it is important that the *p*-value is divided by two in order to make it one-tailed, as SPSS does not provide a way to do this automatically (Kenny et al., 2006).

Preliminary Analyses

First, friend scores on each of the key variables were correlated to test for nonindependence (see Table 1). Only three variables (friend's relationship desires, mobile expectations, and number of channels used) showed significant nonindependence. However, in this study distinguishability is more of a conceptual issue, rather than statistical, so most analyses were conducted with the dyad as the unit of analysis whenever possible. Second, paired sample *t*-tests were conducted to identify any sex differences the key variables (see Table 2). Findings suggest multiple significant sex differences, particularly in the variables related to perceptions about the relationship, such as satisfaction and relational desires. Finally, bivariate correlations were conducted on the key variables for three separate groups: males, females, and dyads (see Table 3).

Symmetry of friendship type

In addition to looking at sex differences, the data were also assessed to examine differences in the symmetry of friendship types. Participants were broken up into two groups: those who were in agreement about their perception of their friendship (e.g., both reported the relationship as *purely platonic*), n = 90 participants (45 dyads) and those who were not in agreement (e.g., one participant selected *purely platonic* and the other selected *desires romance*), n = 62 participants (31 dyads). It is important to note that

symmetry focuses on whether or not the dyad members agreed about what each other wanted; not whether or not they wanted the same thing. For example, if one member of a dyad selected *desires romance* and the other selected *rejects romance*, they would be viewed as symmetrical, since both friends perceived that only one of them wants to escalate the relationship. However, if both friends selected *rejects romance*, they would be considered asymmetrical, since they both think the other person wants a romantic relationship, when in fact they do not.

As a preliminary step, independent sample *t*-tests were done to compare scores on key variables between participants who are in a friendship with symmetrical desires versus those who are in a friendship with asymmetrical desires (see Table 4). Multiple significant differences were found, with a few of them being particularly notable. First, participants in asymmetrical (i.e., mismatched) friendships reported significantly higher relationship thinking than those in symmetrical friendships, t(150) = -4.21, p = .000, r = .33. As relationship thinking is an indicator of relational turbulence, this finding provides evidence that turbulence is higher for those with asymmetrical relational desires. Another interesting finding was that participants in symmetrical friendships reported significantly higher relational certainty than those in asymmetrical relationships, t(150) = 3.29, p = .001, r = .26. Finally, individuals in symmetrical relationships were much more confident in their own relational desires (t(150) = 3.81, p = .000, r = .30), and were also more confident in their perception of their friend's relational desires (t(150) = 4.26, p = .000, r = .33).

Next, paired-sample *t*-tests were conducted to explore sex differences within each type of relational group (symmetrical versus asymmetrical). For friend pairs with

symmetrical relational desires, females reported significantly higher desire for the friendship to remain platonic (t(44) = -4.32, p = .000, $M_{diff} = -.53$), and they also reported significantly stronger perceptions that their friend wanted the relationship to remain platonic (t(44) = -3.45, p = .001, $M_{diff} = -.43$). Overall these findings suggest that even when both members are matched in their desires, females are overall more confident in their assessments. For participants with asymmetrical relational desires, there was no significant difference in one's own desire for the friendship to remain platonic (t(30) = -.85, p = .401).

Substantive Analyses

Cross-sex friendships and the relational turbulence model. The following series of tests were conducted to examine differences across the four friendship types: *strictly platonic* (n = 99), *mutual romance* (n = 20), *desires romance* (n = 19), and *rejects romance* (n = 14). Kruskal-Wallis *H*-tests were used instead of one-way ANOVAs because some of assumptions were violated, particularly the test for normality. Though ANOVA is generally referred to as a "robust" test that can handle violations, it becomes less so when there are unbalanced group sizes (Lix, Keselman, & Keselman, 1996), as was the case for these data. The Kruskal-Wallis *H*-test, however, can accommodate data that violate the assumptions of normality and even group distribution.

Friendship type and uncertainty. The first hypothesis proposed that participants who identified as *strictly platonic* would experience less uncertainty than those in the other groups. A Kruskal-Wallis *H*-test was executed to identify differences in relational uncertainty across the friendship types, with significant findings, $\chi^2(3) = 13.92$, p = .003.

Pairwise comparisons revealed a significant median difference between participants in the *strictly platonic* (Mdn = 5.13) and *rejects romance* (Mdn = 4.25; p = .009) groups, but not for any other group combinations. Thus, H₁ was partially supported.

Friendship type and interference. The second hypothesis sought to examine the relationship between friendship type and interference, predicting that individuals in the *strictly platonic* group would perceive less interference from their friend than the other groups. Results from the Kruskal-Wallis *H*-test suggest a significant difference across the groups, $\chi^2(3) = 7.97$, p = .047. Pairwise comparisons revealed a significant median difference between participants in the *strictly platonic* (*Mdn* = 2.00) and *mutual romance* (*Mdn* = 2.61; p = .03) groups, but not for any other group combinations, implying only partial support for H₂.

Friendship type and relationship thinking (turbulence). A third Kruskal-Wallis *H*test was done to test the third hypothesis, which predicted significantly less turbulence for individuals in the *strictly platonic* group compared to the other friendship types. Results suggest a significant difference across the groups, $\chi^2(3) = 53.35$, p = .000. Pairwise comparisons revealed significant median differences between participants in the *strictly platonic (Mdn* = 1.50) group when compared to the *mutual romance* group (*Mdn* = 3.38, p = .000), the *desires romance* group (*Mdn* = 3.25, p = .000) and the *rejects romance* group (*Mdn* = 2.75, p = .003). Based on these findings, H₃ was fully supported.

Intimacy and the relational turbulence model. Hypothesis four predicted that turbulence would be highest at moderate levels of intimacy. This was tested by conducted a one-way ANOVA that compared three levels of intimacy, which were assessed using a relationship stage measure. Results indicate a significant difference in the amount of

relationship thinking across the different levels of intimacy, F(2, 149) = 4.55, p = .012. Tukey post-hoc testing revealed a significant increase in relationship thinking from those in early stages of the relationship (M = 1.91, SD = 1.00) to those in the middle stages of the relationship (M = 2.36, SD = 1.08, p = .051) as well as early versus late stages of the relationship (M = 2.63, SD = 1.28). This finding does not support hypothesis four – though turbulence was significantly higher after the early stages of the relationship, it was actually highest at late stages of the relationship. Additional ANOVAs were conducted to examine the relationships between intimacy and two outcome variables, uncertainty and interference. There was a significant difference in the amount of uncertainty across the levels of intimacy, F(2, 149) = 3.81, p = .024. Tukey post-hoc tests identified a significant decrease in certainty from those in the mid-stages of the friendship (M = 4.90, SD = .90) to those in the late stages of the friendship (M = 4.24, SD = 1.12, p = .018). This suggests that participants were more certain about their relationship at the middle stage of friendship, rather than at the decline. Finally, a one-way ANOVA explored differences in perceptions of interference across levels of intimacy, with significant results F(2, 149) = 3.29, p = .040. Tukey post-hoc testing found a significant increase in interference from those in early stages of the friendship (M = 1.94, SD = .80) to those in mid-stages of the friendship (M = 2.29, SD = .77, p = .031), but no significant difference was found with those in late stages of friendship.

Channel use and the relational turbulence model. The next series of tests examine relationships between the friendship types, relational turbulence model variables, and communication channel use.

Friendship type and channel use. Multiple Kruskal-Wallis H-tests were done to address H₅ and H₆, which sought to examine the relationship between friendship types and communication channel use. Hypothesis five predicted that individuals in the *strictly* platonic and mutual romance groups would use more channels than the other two groups, and was tested by comparing the friendship types on their overall number of channels used for relationship maintenance, given the following seven options: private instant messaging, public instant messaging, texting, Internet chatting, video chatting, calling, and face-to-face interaction. Results did not indicate a median difference in the number of channels used, $\chi^2(3) = .76$, p = .860, resulting in the rejection of H₅. Hypothesis six predicted that individuals in the desires romance and rejects romance groups would report increased use of mediated communication channels, such as texting or instant messaging. To test this hypothesis the friendship types were compared on their frequency of use for the seven different channels (see Table 5). Though there was no evidence of increased mediated channel use by those in the *desires romance* and *rejects romance* groups (and thus no evidence to support H_6), there was evidence that a few of the channels were used significantly more often by those in the *mutual romance* group compared to those in the strictly platonic group. Specifically, texting frequency was higher for participants in the *mutual romance* (Mdn = 5) compared to those in the *strictly platonic* group (Mdn = 4), as were video chatting ($Mdn_{mutualromance} = 2.5, Mdn_{strictlyplatonic} =$ 1) and phone calls ($Mdn_{mutual romance} = 3$, $Mdn_{strictly platonic} = 2$).

Hypotheses seven through nine predicted that the relational turbulence model variables (uncertainty, interference, and relationship thinking) would be positively related to channel use, mobile maintenance expectations, and entrapment. These hypotheses were tested using multiple regression analyses (regression coefficients and standard errors for significant relationships can be found in Tables 6-8).

To test hypothesis seven, which predicted that the relational turbulence model variables would be positive predictors of mediated channel use, regression analyses were executed for each of the seven channel options. Findings suggest that although public Internet messaging (F(3, 147) = 1.46, p = .229) and Internet chatting (F(3, 146) = 1.78, p)= .153) were not predicted by the relational turbulence model variables, the other five were. Specifically, uncertainty and interference significantly predicted face-to-face conversation use, F(3, 147) = 3.27, p = .023, Adj. $R^2 = .04$, while uncertainty and relationship thinking predicted text message use, F(3, 146) = 9.62, p = .000, Adj. $R^2 =$.15. Additionally, relationship thinking alone predicted private Internet messaging (F(3, 1)) 148) = 2.84, p = .039, Adi, $R^2 = .04$), video chatting (F(3, 146) = 5.30, p = .002, Adi, $R^2 = .04$) .08), and calling, F(3, 147) = 3.85, p = .011, Adj. $R^2 = .05$. These results only provide partial support for H_7 ; of the three relational turbulence model variables, relationship thinking seemed to be the strongest predictor of mediated channel use, as it was predictive of private IM, video chatting, texting, and calling. Higher certainty predicted greater text messaging and face-to-face communication, and interference only predicted face-to-face communication.

A regression was done to test the relational turbulence model variables as predictors of mobile maintenance expectations, with significant results, F(3, 148) =24.38, p = .000, Adj. $R^2 = .32$. Uncertainty, interference, and relationship thinking were all significant predictors of mobile maintenance expectations, thus supporting H₈. Another regression analysis was done to test the relational turbulence model variables as predictors of entrapment, with significant results, F(3, 148) = 16.82, p = .000, Adj. $R^2 = .24$. However, only interference was a significant predictor of entrapment, resulting in only partial support of H₉.

Actor-partner interdependence model. To test hypothesis 10 a multilevel model was constructed with partner's interference and relational uncertainty as the predictor variables, with relationship thinking (i.e., turbulence) as the outcome variable, and sex as the distinguishing variable (see Table 9). First, the correlation between the two members on the outcome variable was significant (r = .30, p = .01), indicating interdependence in the data. For both men and women the actor effect of uncertainty on relationship thinking was significant, but the partner effects were not. Regarding interference, though there was a significant actor effect of interference on relationship thinking for women, there was not a significant effect for men. Additionally, partner effects of interference on relationship thinking provide partial support for H₁₀.

CHAPTER 5: DISCUSSION AND CONCLUSIONS

The primary goal of this study was to test the applicability of the relational turbulence model to cross-sex friendships. The first study, a qualitative interview study, provided insights about experiences of uncertainty and tension in cross-sex friendships, as well as the role of various communication channels in navigating those relationships. These findings helped to inform the second study, a dyadic online survey, which aimed to test the main tenants of the relational turbulence model in a yet unexplored relationship type. Additionally, the survey study explored the role of communication in cross-sex friendships, with an emphasis on channel use and the relational implications of mobile communication.

Summary of Study 1 Results

Though briefly addressed earlier, the findings from Study 1 provided qualitative evidence of relational turbulence and strategic communication channel use in cross-sex friendships. As past research suggests (Monsour, 2002; Weger & Emmett, 2009), cross-sex friendships were prevalent in this sample of young adults. In fact, all participants in the study were able to identify at least one time when they experienced uncertainty and tension in a cross-sex friendship, with most participants citing numerous such occasions. Additionally, participant examples fell into all four of the friendship types outlined by Guerrero and Chavez (2005): *strictly platonic, mutual romance, desires romance*, and

rejects romance.

Participants identified many of the same benefits of cross-sex friendships that have been noted in past studies, such as insight into the opposite sex (Baym, Zhang, Kunkel, Ledbetter, & Lin, 2007; Canary & Emmers-Sommer, 1997), increased excitement (Bleske & Buss, 2000; Kaplan & Keys, 1997) as well as lower expectations (Fuhrman et al., 2009) and competitiveness (Werking, 1997) than same-sex friendships. A novel finding was the notion that female friends aid in the development of their male friends. This is essentially the "Michaelangelo phenomenon," (Rusbult, Finkel, & Kumashiro, 2009), which suggests that close partners help each other develop into their ideal selves. Disadvantages identified in this study also mimic findings in the literature, particularly the presence of uncertainty (Guerrero & Chavez, 2005; Weger & Emmett, 2009), issues related to attraction (e.g., Halatsis & Christakis, 2009), challenges establishing boundaries (e.g., Afifi & Faulkner, 2000), and public presentation concerns (e.g., O'Meara, 1989). Taken as a whole these findings reinforce the existing body of literature, which suggests that men and women have a variety of reasons for developing cross-sex friendships, and that these friendships are categorically different than same-sex friendships.

Study 1 also provided insight into the ways that communication channels are used, and used strategically, in cross-sex friendships. Participant responses paralleled the arguments in Markus's (1994) rational actor perspective, particularly statements that identified the costs and benefits of various communication channels, such as texting being a way to save face and social media being used for relationship maintenance. Additionally, participants noted the good and bad social outcomes related to channel use,

such as the notion that text messages lack cues, which can lead to ambiguity and confusion. Again, the findings here support the existing literature on communication in close relationships, but as little of that work has given special attention to cross-sex friendships, this study makes a meaningful contribution to improving our understanding of communication channel decision-making for cross-sex friends.

Summary of Study 2 Results

Study 2 findings provided partial support for the applicability of the relational turbulence model to cross-sex friendships, particularly for individuals in asymmetrical relationships and groups other than *strictly platonic*. Participants in the *strictly platonic* group were significantly more certain about their friendship than those in the *rejects romance* group, but not when compared to the other two groups. It is interesting that significant differences were found for the *rejects romance* group, but not the *desires romance* group. It is possible that the presence of romantic feelings for one's friend has a strengthening effect on certainty about one's desires for the relationship, regardless of perceptions of the other person's feelings. Results also revealed a significant decrease in the amount of interference for participants in the *strictly platonic* group is most similar to the typical relationship-type examined in the model, the presence of heightened interference follows the logic that relationship development provokes increased interdependence, and thus interference, from one's partner.

The findings for friendship type and relationship thinking were significant and fully supported the claim that individuals in the *strictly platonic* group would experience significantly less relationship thinking than those in the other three groups. As

relationship thinking is indicative of turbulence, this finding suggests a notable increase in turbulence for participants in the *desires romance, rejects romance*, and *mutual romance* groups. The finding from the *mutual romance* group is not too surprising, since, as was stated before, that group is most similar to a romantic relationship. However, that those who perceive only one friend desiring the escalation to a romantic relationship reported significantly more turbulence is a unique contribution to the literature on crosssex friendships. This finding also provides evidence that supports the broadening of the relational turbulence model to include cross-sex friendships, particularly those that have discrepancies in relational desires.

A notable finding was the significant increase in relationship thinking for participants past the early stages of friendship. Though it was highest for those whose friendship was at a decline, the findings still suggest a notable jump in relationship thinking once a relationship is becoming more intimate, which is the general trend found in tests of the relational turbulence model.

Testing the relational turbulence model using the APIM provided further insight into the sex differences previously noted in the study of cross-sex friendships (e.g., Egland et al., 1996), and allowed for additional testing of the relational turbulence model in cross-sex friendships while preserving the unique nature of the friendship dyad. Though partner effects did not significantly influence the relationship between uncertainty and interference on relationship thinking, as was predicted, actor effects did. Specifically, both male and female participants' own feelings of relational uncertainty significantly predicted their own relationship thinking, but their friends' relational uncertainty did not. Additionally, female participants' perceptions of interference from

their friend significantly predicted relationship thinking, but this was not true for male participants. This difference between interference and relationship thinking may be due to a sex difference in how interference is experienced by young adults in cross-sex friendships. For example, women may find interference from a male friend more threatening to their safety, which could result in a stronger perception of turbulence. Overall, these findings support the relationship between uncertainty and turbulence as outlined by the relational turbulence model, and partially support the model's proposed relationship between interference and turbulence, at least for females in cross-sex friendships.

Results from this study also allowed for the examination of communication channel use and cross-sex friendships. Findings from this study suggest that participants in the *mutual romance* group used significantly more texting, video chatting, and phone calls when compared to those in the strictly platonic group. This finding falls in line with Haythornthwaite's (2005) media multiplexity theory, as participants in the *mutual romance* group likely have stronger ties than those in the other groups. However, further testing would need to be done to support this claim. Despite this finding, the data do not appear to suggest that friendship type has a large impact on how frequently certain channels are used in a cross-sex friendship. Interestingly, regressions found a significant positive relationship between relationship thinking and mediated channel use, particularly text messaging, private Internet messaging, video chatting, and phone calls. It is possible that increased channel use makes the relationship more salient, resulting in increased relationship thinking, but it could also be the case that one's preoccupation with the relationship results in more attempts at communication across a variety of channels.

However, causality cannot be determined with the current dataset, so future would need to be done to further tease apart this relationship.

The relationship between the relational turbulence model variables and two channel-related measures, mobile maintenance expectations and entrapment, were explored. Relational uncertainty, interference, and relationship thinking were significant predictors of mobile maintenance expectations. Only interference, however, was a significant predictor of mobile entrapment. Interestingly, mobile maintenance expectations were not related to perceptions of relational uncertainty, but entrapment was. This finding indicates a distinction between expectations and entrapment, which may have to do with emotional valence such that expectations do not produce as negative of a reaction as entrapment does. Next, mobile maintenance expectations and entrapment were both moderately related to perceptions of interference. This is a somewhat intuitive finding, as feeling burdened to communicate with one's friend is a type of interference in a relationship. Finally, mobile maintenance expectations and entrapment were both related to relationship thinking. Though not direct measures of frequency, higher scores on both mobile maintenance expectations and mobile entrapment imply increased communication behaviors (i.e., responding frequently or rapidly), which might lead to increased relationship thinking.

Implications

Though there was evidence of turbulence, some of the variables in the relationship turbulence model did not transfer as well to the cross-sex friendships. The conceptualization and role of intimacy was particularly problematic, as there may be more variation in the trajectory of cross-sex friendships when compared to romantic
relationships, so intimacy may not be the primary catalyst of uncertainty in cross-sex friendships as it is in romantic relationships. Additionally, intimacy was measured differently across the studies, so model comparisons may not be appropriate. Solomon and Knobloch (2004) measured intimacy using a composite variable that assessed love, commitment, and expectations in romantic relationships, but this assessment of intimacy may not be appropriate for some cross-sex friendships. The relationship stage measure used in this study only offered a crude look at intimacy, but it did find a significant increase in turbulence after the early stages of a friendship.

Interestingly, discrepancies in participant responses across dyads may imply something unique about friendships. The tests for nonindependence were mostly insignificant, meaning there was not much evidence of interdependence in the dyads. The data also revealed a lack of agreement about various qualities of the relationship, such as perceptions of relational desires and relationship stage. Additionally, the APIM did not identify any partner effects, which could be the result of uncaptured, rather than nonexistent, interdependence. So why is agreement amongst friends hard to come by? We know that friendships are less secure than other relationship types, so that may be influencing one's ability to recall information about a friendship. For example, though many romantic couples celebrate their anniversary this is not the norm in friendships, so even questions about relationship length can be challenging for friends to answer. Though the discrepancies are interesting in and of themselves, they do provide a challenge for data analysis, as interdependence may go undetected. As noted by Kenny and colleagues (2006), the interdependence itself may be of interest to relationship researchers, so if it is not captured it cannot be assessed.

62

Limitations and Future Directions

As is the case with any study, there are a few limitations that should be noted. Though the use of a college sample is less problematic because young adults were the key population of interest, this study only recruited from one university and as a result only included participants who were either a student at that university or the friend of a student at that university, and thus are not generalizeable to the larger population. Additionally, it is possible that the relationships between the variables of interest differ for young adults who are not college students, which could be examined with further testing. Another concern is the issue of sample size, as a larger sample would have allowed for greater accuracy in the findings. Though this study met the minimums outlined by Kenny and colleagues (2006), they recommend around 100 dyads for dyadic data analysis. Also related to the sample was the uneven distribution of friendship types, resulting in limited analytical options. Though the nonparametric Kruskal-Wallis H-test was able to provide insights into group differences, it is not as robust as its parametric counterpart, the one-way ANOVA.

Some issues of measurement were also present in this study. There were discrepancies between the qualitative and quantitative measures that limited the inferences that could be made across studies. For example, the survey measurement of communication channel use was somewhat broad and did not allow for a close examination of the way channel use in cross-sex friendships; no survey measure directly asked about the strategic selection of communication channels. However, the interviews from Study 1 were able to capture deeper insights into channel selection and use. Still,

63

this study examined multiple modes of communication, responding appropriately to past scholars' call for multimodal communication work (Baym, 2009; Caughlin & Sharabi, 2012; Ruppel, 2014). Additional measurement issues include the technical error that resulted in a lack of data for partner uncertainty, preventing a full test of the relational turbulence model. However, past studies have found self, partner, and relational uncertainty to be highly correlated, with self and partner uncertainty feeding into relational uncertainty (Knobloch 2007a, 2007b). Though analyses examining the three types of uncertainty would have been preferable, the model was adequately tested using only the relational uncertainty measure. The measurement of turbulence was an additional challenge in this study, as the scale for relationship thinking only indirectly implies turbulence, compared to two other suggested measures: a semantic scale and an open-ended relationship narrative (Knobloch, 2007a). However, this method was chosen primarily because it does not require participants to ascribe a valence to their relationship thinking. Finally, though some interesting discrepancies existed across dyad members, from a statistical standpoint these discrepancies resulted in less reliable data. Future improvements on measurement to increase consistency across dyads would be helpful. For example, using memory cues to help increase response accuracy would increase the value of the quantitative relationship variables.

These studies provided a number of new insights into cross-sex friendships in young adults, but it is worth exploring in future work if these findings exist in older populations. For example, work by McBride and Kirby (2009) explores the notion of having a close platonic relationship with a co-worker, also known as a "work spouse." Like many cross-sex friendships, relationships with a work spouse often have challenges

64

related to partner jealousy and misperceptions from outsiders. However, differences in relationship goals and life circumstances may make a significant difference. Additionally, it would be interesting to explore the applicability of the relational turbulence outside of heterosexual participants. It would be interesting, for example, to look at friend pairs with different sexual orientations to examine the sources of turbulence in those relationships.

Although this study found some support for the applicability of the relational turbulence model to cross-sex friendships additional studies are necessary to replicate these findings. Additionally, future work should examine more closely the roles of communication channels in cross-sex friendships, exploring in more depth the specific ways they are a source of and solution to relational uncertainty, interference, and turbulence. However, this study provides a valuable step toward better understanding the unique nature and challenges of cross-sex friendships.

References

- Abbey, A. (1987). Misperceptions of friendly behavior as sexual interest: A survey of naturally occurring incidents. *Psychology of Women Quarterly*, 11, 173-194. doi:10.1111/j.1471-6402.1987.tb00782.x
- Afifi, W. A., & Burgoon, J. (1998). "We never talk about that": A comparison of crosssex friendships and dating relationships on uncertainty and topic avoidance. *Personal Relationships*, 5, 255–272. doi:10.1111/j.1475-6811.1998.tb00171.x
- Afifi, W. A., & Faulkner, S. L. (2000). On being 'just friends': The frequency and impact of sexual activity in cross-sex friendships. *Journal of Social and Personal Relationships*, 17(2), 205–222. doi:10.1177/0265407500172003
- Afifi, W. A., & Guerrero, L. K. (1998). Some things are better left unsaid II: Topic avoidance in friendships. *Communication Quarterly*, 36, 231-249. doi:10.1080/01463379809370099
- Argyle, M. & Henderson, M. (1985). *The anatomy of relationships*. London, UK: Heinemann.
- Arnold, L. B. (1995). Through the narrow pass: Experiencing same-sex friendships in heterosexual(ist) settings. *Communication Studies*, 46(3-4), 234-244. doi: 10.1080/10510979509368454
- Baron, N. (2008). *Always on: Language in an online and mobile world*. New York, NY: Oxford University Press.
- Baumgarte, R., & Nelson, D. W. (2009). Preference for same- versus cross-sex friendships. *Journal of Applied Social Psychology*, 39(4), 901–917. doi:10.1111/j.1559-1816.2009.00465.x
- Baxter, L. A., & Bullis, C. (1986). Turning points in developing romantic relationships. *Human Communication Research*, 12, 469-493. doi:10.1111/j.1468-2958.1986.tb00088.x
- Baym, N. K. (2009). A call for grounding in the face of blurred boundaries. *Journal of Computer-Mediated Communication*, 14(3), 720–723. doi:10.1111/j.1083-6101.2009.01461.x

- Baym, N. K., Zhang, Y. B., Kunkel, A., Ledbetter, A., & Lin, M. C. (2007). Relational quality and media use in interpersonal relationships. *New Media and Society*, 9(5), 735–752. doi:10.1177/1461444807080339
- Bell, R. R. (1981). Friendships of women and men. *Psychology of Women Quarterly*, 5(3), 402–417. doi:10.1111/j.1471-6402.1981.tb00582.x
- Berger, C. R., & Calabrese, R. J. (1975). Some explorations in initial interaction and beyond: Toward a developmental theory of interpersonal communication. *Human Communication Research*, 1(2), 99-112. doi:10.1111/j.1468-2958.1975.tb00258.x
- Berscheid, E. (1983). Emotion. In H. H. Kelley, E. Berscheid, A. Christensen, J. Harvey, T. L. Huston, G. Levinger, et al. (Eds.), *Close relationships* (pp. 110–168). San Francisco, CA: Freeman.
- Billingham, R. E., & Sack, A. R. (1987). Conflict tactics and the level of emotional commitment among unmarrieds. *Human Relations*, 40(1), 59-74. doi:10.1177/001872678704000105
- Bleske, A. L., & Buss, D. M. (2000). Can men and women be just friends? *Personal Relationships*, 7, 131–151. doi:10.1111/j.1475-6811.2000.tb00008.x
- Bleske-Rechek, A. L., & Buss, D. M. (2001). Opposite-sex friendship: Sex differences and similarities in initiation, selection, and dissolution. *Personality and Social Psychology Bulletin*, 27, 1310–1323. doi:10.1177/01461672012710007
- Booth, A., & Hess, E. (1974). Cross-Sex Friendship. *Journal of Marriage and the Family*, *36*(1), 38–47.
- Brashers, D. E. (2001). Communication and uncertainty management. *Journal of Communication*, *51*, 477-497. doi:10.1111/j.1460-2466.2001.tb02892.x
- Brashers, D. E. (2007). A theory of communication and uncertainty management. In B.
 B. Whaley & W. Smater (Eds.), *Explaining communication: Contemporary theories and exemplars* (pp. 223-242). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Campbell, L. & Kashy, D. A. (2002). Estimating actor, partner, and interaction effects for dyadic data using PROC MIXED and HLM: A user-friendly guide. Personal Relationships, 9(3), 327-342. doi:10.1111/1475-6811.00023
- Canary, D. J., & Emmers-Sommer, T. M. (1997). Sex and gender differences in personal relationships. New York, NY: Guilford Press.

- Caughlin, J. P., & Sharabi, L. L. (2013). A communicative interdependence perspective of close relationships: The connections between mediated and unmediated interactions matter. *Journal of Communication*, 63, 873-893. doi:10.1111/jcom.12046
- Charmaz, K. (2001). Qualitative interviewing and grounded theory analysis. In J.F. Gubrium & J.A. Holstein (Eds.), *Handbook of Interview Research*. Thousand Oaks, CA: Sage Publications.
- Cho, V., & Hung, H. (2011). The effectiveness of short message service for communication with concerns of privacy protection and conflict avoidance. *Journal of Computer-Mediated Communication*, 16, 250–270. doi:10.1111/j.1083-6101.2011.01538.x
- Cloven, D. H., & Roloff, M. E. (1994). A developmental model of decisions to withhold dating irritations in romantic relationships. *Journal of the International Society for the Study of Personal Relationships*, 1(2), 143-164. doi:10.1111/j.1475-6811.1994.tb00059.x
- Cook, W., & Kenny, D. (2005). The actor-partner interdependence model: A model of bidirectional effects in developmental studies. *International Journal of Behavioral Development*, 29(2), 101–109. doi:10.1080/01650250444000405
- Corbin, J. M., & Strauss, A. L. (2009). *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Los Angeles, CA: Sage Publications.
- Cupach, W. R., & Metts, S. (1991). Sexuality and communication in close relationships. In K. McKinney & S. Sprecher (Eds.), *Sexuality in close relationships* (pp. 93-110). Hillsdale, NJ: Lawrence Erlbaum.
- Delevi, R., & Weisskirch, R. S. (2011, November). *Using technology in relationship dissolution*. Paper presented at the annual conference of the National Council on Family Relations, Orlando, FL.
- Dempster, A. P., Laird, N. M., & Rubin, D. B. (1977). Maximum likelihood from incomplete data via the EM algorithm. *Journal of the Royal Statistical Society*, *B*, 1-38. doi:
- Egland, K. L., Spitzberg, B. H., & Zormeier, M. M. (1996). Flirtation and conversational competence in cross-sex platonic and romantic relationships. *Communication Reports*, 9(2), 105–117. doi:10.1080/08934219609367643
- Fox, J., & Warber, K. M. (2014). Social networking sites in romantic relationships: Attachment, uncertainty, and partner surveillance on Facebook. *Cyberpsychology, Behavior, and Social Networking*, 17(1). doi:10.1089/cyber.2012.0667

- Fox, J., Warber, K. M., & Makstaller, D. C. (2013). The role of Facebook in romantic relationship development: An exploration of Knapp's relational stage model. *Journal of Social and Personal Relationships*, 30(6), 771-794. doi:10.1177/0265407512468370
- Frisby, B. N., & Westerman, D. (2010). Rational actors: Channel selection and rational choices in romantic conflict episodes. *Journal of Social and Personal Relationships*, 27(7), 970–981. doi:10.1177/0265407510378302
- Fuiman, M., Yarab, P., & Sensibaugh, C. (1997, July). Just friends? An examination of the sexual, physical, and romantic aspects of cross-gender friendships. Paper presented at the International Network on Personal Relationships, Oxford, OH.
- Fuhrman, R. W., Flannagan, D., & Matamoros, M. (2009). Behavior expectations in cross-sex friendships, same-sex friendships, and romantic relationships. *Personal Relationships*, 16, 575–596. doi:10.1111/j.1475-6811.2009.01240.x
- Gaines, S. O., Jr. (2003). [Review of the book *Women and men as friends: Relationships* across the lifespan in the 21st century]. Journal of Social and Personal *Relationships*, 20, 143-144.
- Gershon, I. (2010). Breaking up is hard to do: Media switching and media ideologies. *Journal of Linguistic Anthropology, 20*, 389-405. doi:10.1111/j.1548-1395.2010.01076.x
- Gonzalez, R., & Griffin, D. (2004). Measuring individuals in a social environment: Conceptualizing dyadic and group interaction. In C. Sansone, C. C. Morf, & A. T. Panter (Eds.), *Handbook of methods in social psychology* (pp. 313-334). Thousand Oaks, CA: Sage Publications.
- Gonzalez, R., & Griffin, D. (2012). Dyadic data analysis. Handbook of research methods in psychology: Data analysis and research (Vol. 3, pp. 439–450). New York: American Psychological Association.
- Griffin, E., & Sparks, G. G. (1990). Friends forever: A longitudinal exploration of intimacy in same-sex friends and platonic pairs. *Journal of Social and Personal Relationships*, 7(1), 29-46. doi:10.1177/0265407590071002
- Guerrero, L. K., & Chavez, A. M. (2005). Relational maintenance in cross-sex friendships characterized by different types of romantic intent: An exploratory study. *Western Journal of Communication*, *69*(4), 339–358. doi:10.1080/10570310500305471

- Guerrero, L. K., & Mongeau, P. A. (2008). On becoming "more than friends": The transition from friendship to romantic relationship. In S. Sprecher, A. Wenzel, & J. Harvey (Eds.), *Handbook of relationship initiation* (pp. 175-194). New York, NY: Psychology Press.
- Halatsis, P., & Christakis, N. (2009). The challenge of sexual attraction within heterosexuals' cross-sex friendship. *Journal of Social and Personal Relationships*, 26(6-7), 919–937. doi:10.1177/0265407509345650
- Hall, J. A., & Baym, N. K. (2012). Calling and texting (too much): Mobile maintenance expectations, (over)dependence, entrapment, and friendship satisfaction. *New Media and Society*, 14(2), 316–331. doi:10.1177/1461444811415047
- Hays, R. B. (1989). The day-to-day functioning of close versus casual friendships. Journal of Social and Personal Relationships, 6, 21-37. doi:10.1177/026540758900600102
- Haythornthwaite, C. (2005). Social networks and Internet connectivity effects. *Information, Communication, and Society, 8*(2), 125-147. doi:10.1080/13691180500146185
- Huta, V. (2014). When to use hierarchical linear modeling. *The Quantitative Methods for Psychology*, *10*(1), 13-28.
- Jin, B., & Peña, J. F. (2010). Mobile communication in romantic relationships: Mobile phone use, relational uncertainty, love, commitment, and attachment styles. *Communication Reports*, 23(1), 39-51. doi:1 0.1080/08934211003598742
- Joinson, A. N. (2004). Self-esteem, interpersonal risk, and preference for e-mail to face-to-face communication. *CyberPsychology and Behavior*, *7*, 472–478. doi:10.1089/cpb.2004.7.472
- Joinson, A. N. (2008). Looking at, looking up or keeping up with people? Motives and uses of Facebook. In *Proceedings of the SIGCHI conference on Human Factors in Computing Systems* (pp. 1027-1035). New York, NY: ACM Press.
- Kan, M. L., & Cares, A. C. (2006). From "friends with benefits" to "going steady": New directions in understanding romance and sex in adolescence and emerging adulthood. In A. C. Crouter, & A. Booth (Eds.), *Romance and sex in adolescence and emerging adulthood: Risks and opportunities* (pp. 241–258). Mahwah, NJ: Erlbaum.
- Kaplan, D. L., & Keys, C. B. (1997). Sex and relationship variables as predictors of sexual attraction in cross-sex platonic friendships between young heterosexual adults. *Journal of Social and Personal Relationships*, 14(2), 191–206. doi:10.1177/0265407597142003

- Kashy, D. A., Campbell, L., & Harris, D. W. (2006). Advances in data analytic approaches for relationships research: The broad utility of hierarchical linear modeling. In A. L. Vangelisti & D. Perlman (Eds.), *The Cambridge handbook of personal relationships* (pp. 73-89). New York, NY: Cambridge University Press.
- Kenny, D. A. (1996). Models of non-independence in dyadic research. *Journal of Social* and Personal Relationships, 13(2), 279–294. doi:10.1177/0265407596132007
- Kenny, D. (2015). Actor Partner Interdependence Model estimated by multilevel modeling. [Internet application software]. Retrieved from https://davidakenny.shinyapps.io/APIM_MM/
- Kenny, D. A., & Cook, W. (1999). Partner effects in relationship research: Conceptual issues, analytic difficulties, and illustrations. *Personal Relationships*, 6(4), 433– 448. doi:10.1111/j.1475-6811.1999.tb00202.x
- Kenny, D. A., & Judd, C. M. (1986). Consequences of violating the independence assumption in analysis of variance. *Psychological Bulletin*, 99(3), 422–431. doi:10.1037/0033-2909.99.3.422.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). Dyadic data analysis. New York, NY: Guilford Press.
- Knobloch, L. K. (2007b). Perceptions of turmoil within courtship: Associations with intimacy, relational uncertainty, and inference from partners. *Journal of Social and Personal Relationships*, 24(3), 363-384. doi:10.1177/0265407507077227
- Knobloch, L. K. (2007a). The dark side of relational uncertainty: Obstacle or opportunity.
 In B. H. Spitzberg & W. R. Cupach (Eds.), *The dark side of interpersonal communication* (2nd ed., pp. 31–60). Mahwah, NJ: Erlbaum.
- Knobloch, L. K., & Solomon, D. H. (1999). Measuring the sources and content of relational uncertainty. *Communication Studies*, 50, 261–278. doi:10.1080/10510979909388499
- Knobloch, L. K., & Theiss, J. A. (2010). An actor-partner interdependence model of relational turbulence: Cognitions and emotions. *Journal of Social and Personal Relationships*, 27(5), 595–619. doi:10.1177/0265407510368967
- Lampe, C., Ellison, N., & Steinfield, C. (2006). A Face(book) in the crowd: Social searching vs. social browsing. *Proceedings of the 2006 20th Anniversary Conference on Computer Supported Cooperative Work* (pp. 167–170). New York, NY: ACM Press.

- Ledbetter, A. M. (2010). Content- and medium-specific decomposition of relational maintenance behaviors in friendships: Integrating equity and media multiplexity approaches. *Journal of Social and Personal Relationships*, 27(7), 938-955. doi:10.1177/0265407510376254
- Ledbetter, A. M. (2014). Online communication attitude similarity in romantic dyads: Predicting couples' frequency of e-mail, instant messaging, and social networking site communication. *Communication Quarterly*, 62(2), 233-252. doi:10.1080/01463373.2014.890120
- Ledbetter, A. M., Broeckelman-Post, M. A., & Krawsczyn, A. M. (2011). Modeling everyday talk: Differences across communication media and sex composition of friendship dyads. *Journal of Social and Personal Relationships*, 28(2), 223–241. doi:10.1177/0265407510377904
- Ledbetter, A. M. & Mazur, J. P. (2013). Do online communication attitudes mitigate the association between Facebook use and relational interdependence? An extension of media multiplexity theory. *New Media and Society*, *16*(5), 806-822. doi: 10.1177/146144813495159.
- Licoppe, C. (2004). 'Connected' presence: The emergence of a new repertoire for managing social relationships in a changing communication technoscape. *Environment and Planning D: Society and Space, 22*(1), 135–156. doi:10.1068/d323t
- Little, R. J. A. (1988). A test of missing completely at random for multivariate data with missing values. *Journal of the American Statistical Association*, *83*(404), 1198-1202. doi:10.1080/01621459.1988.10478722
- Lix, L. M., Keselman, J. C., & Keselman, H. J. (1996). Consequences of assumption violations revisited: A quantitative review of alternatives to the one-way analysis of variance F test. *Review of Educational Research*, 66(4), 579-619. doi:10.3102/00346543066004579
- Luke, D. A. (2004). Multilevel modeling. Thousand Oaks, CA: Sage Publications.
- Madell, D., & Muncer, S. (2005). A study from a "rational actor" perspective. *Information, Communication and Society*, 8(1), 64–80. doi:10.1080/13691180500066888
- Maguire, M. C. (1999). Treating the dyad as the unit of analysis: A primer on three analytic approaches. *Journal of Marriage and Family*, *61*(1), 213-223.

- Malachowski, C. C., & Dillow, M. R. (2011). An examination of relational uncertainty, romantic intent, and attraction on communicative and relational outcomes in cross-sex friendships. *Communication Research Reports*, *28*(4), 356–368. doi:10.1080/08824096.2011.616245
- Markus, M. L. (1994). Finding a happy medium: Explaining the negative effects of electronic communication on social life at work. ACM Transations on Information Systems, 12 (2), 119-149. doi:10.1145/196734.196738
- McBride, M. C., & Kirby, E. L. (2009). "You're totally her work husband:" Managing misperceptions of the "work-spouse" relationship. In E. L. Kirby & M. C. McBride (Eds.), *Gender actualized: Cases in communicatively constructing realities* (pp. 133-140). Dubuque, IA: Kendall Hunt.
- Mcmillan, S. J., & Morrison, M. (2006). Coming of age with the Internet: A qualitative exploration of how the Internet has become an integral part of young people's lives. *New Media & Society*, 8, 73–95. doi:10.1177/1461444806059871
- Mongeau, P. A., Serewicz, M. C. M., Henningsen, M. L. M., & Davis, K. L. (2006). Sex differences in the transition to a heterosexual romantic relationship. In K. Dindia & D. J. Canary (Eds.), Sex differences and similarities in communication (2nd ed., pp. 337-358). Mahwah, NJ: Lawrence Erlbaum.
- Monsour, M. (1992). Meanings of intimacy in cross- and same-sex friendships. Journal of Social and Personal Relationships, 9, 277–295. doi:10.1177/0265407592092007
- Monsour, M. (2002). *Women and men as friends: Relationships across the Lifespan in the 21st century*. Mahway, NJ: Lawrence Erlbaum Associates
- Morey, J. N., Gentzler, A. L., Creasy, B., Oberhauser, A. M., & Westerman, D. (2013). Young adults' use of communication technology within their romantic relationships and associates with attachment style. *Computers in Human Behavior*, 29(4), 1771-1778. doi:10.1016/j.chb.2013.02.019
- O'Meara, J. D. (1989). Cross-sex friendship: Four basic challenges of an ignored relationship. *Sex Roles, 21*, 525-543. doi:10.1007/BF00289102
- O'Sullivan, L. F., & Gaines, M. E. (1998). Decision-making in college students' heterosexual dating relationships: Ambivalence about engaging in sexual activity. *Journal of Social and Personal Relationships*, 15, 347-363. doi:10.1177/0265407598153003
- Owen, J., & Fincham, F. D. (2012). Friends with benefits relationships as a start to exclusive romantic relationships. *Journal of Social and Personal Relationships*, 29(7), 982-996. doi:10.1177/0265407512448275

- Paik, A. (2010). "Hookups," dating, and relationship quality: Does the type of sexual involvement matter? *Social Science Research*, *39*, 739-753. doi: 10.1016/j.ssresearch.2010.03.011
- Phillips, M., & Spitzberg, B. H. (2011). Speculating about spying on MySpace and beyond: Social network surveillance and obsessive relational intrusion. In K. B.Wright & L. M.Webb (Eds.), *Computer-mediated communication in personal relationships* (pp. 344–367). New York, NY: Lang.
- Planalp, S., & Honeycutt, J. M. (1985). Events that increase uncertainty in personal relationships. *Human Communication Research*, 11, 593–604. doi:10.1111/j.1468-2958.1985.tb00062.x
- Planalp, S., Rutherford, D. K., & Honeycutt, J. M. (1988). Events that increase uncertainty in personal relationships II: Replication and extension. *Human Communication Research*, 14, 516–547. doi:10.1111/j.1468-2958.1988.tb00166.x
- Rawlins, W. K. (1982). Cross-sex friends and the communicative management of sexrole expectations. *Communication Quarterly*, 30, 343-352. doi:10.1080/01463378209369470
- Rawlins, W. K. (2009). The compass of friendship. Thousand Oaks, CA: Sage.
- Reeder, H. M. (2000). I like you...as a friend: The role of attraction in cross-sex friendship. *Journal of Social and Personal Relationships*, *17*(3), 329–348. doi:10.1177/0265407500173002
- Rubin, L. (1985). Just friends. New York, NY: Harper & Row.
- Ruppel, E. K. (2014). Use of communication technologies in romantic relationships: Selfdisclosure and the role of relationship development. *Journal of Social and Personal Relationships*, 1-20. doi:10.1177/0265407514541075
- Rusbult, C. E., Finkel, E. J., & Kumashiro, M. (2009). The Michaelangelo phenomenon. *Current Directions in Psychological Science*, *18*(6), 305-309. doi:10.1111/j.1467-8721.2009.01657.x
- Sapadin, L. (1988). Friendships and gender: Perspectives of professional men and women. *Journal of Social and Personal Relationships*, 5, 387–403. doi:10.1177/0265407588054001
- Schafer, J. L. (1999). Multiple imputation: A primer. *Statistical Methods in Medical Research*, 8(1), 3-15. doi:10.1177/096228029900800102
- Scheffer, J. (2002). Dealing with missing data. Research Letters in the Information and

Mathematical Sciences, 3, 153-160. doi:10.1.1.18.3086

- Sheer, V. C. (2011). Teenagers' use of MSN features, discussion topics, and online friendship development: The impact of media richness and communication control. *Communication Quarterly*, 59, 82–103. doi:10.1080/01463373.2010.525702
- Shotland, R. L. & Craig, J. M. (1988). Can men and women differentiate between friendly and sexually interested behavior? *Social Psychology Quarterly*, 51(1), 66-73.
- Smith, A., Rainie, L., & Zickuhr, K. (2011). *College students and technology*. Washington, DC: Pew Internet and American Life Project.
- Solomon, D. H., & Knobloch, L. K. (2001). Relationship uncertainty, partner interference, and intimacy within relationships. *Journal of Social and Personal Relationships*, 18, 804-820. doi:10.1177/0265407501186004
- Solomon, D. H., & Knobloch, L. K. (2004). A model of relational turbulence: The role of intimacy, relational uncertainty, and interference from partners in appraisals of irritations. *Journal of Social and Personal Relationships*, 21(6), 795-816. doi: 10.1177/0265407504047838
- Solomon, D. H., & Theiss, J. A. (2011). Relational turbulence: What doesn't kill us makes us stronger. In W. R. Cupach & B. H. Spitzberg (Eds.), *The dark side of close relationships II* (pp. 197–216). New York, NY: Routledge.
- Sprecher, S., & Regan, P. C. (2002). Liking some things (in some people) more than others: Partner preferences in romantic relationships and friendships. *Journal of Social and Personal Relationships*, 19, 463 – 481. doi:10.1177/0265407502019004048
- Starks, K. M. (2007). Bye bye love: Computer-mediated communication and relational dissolution. *Texas Speech Communication Journal*, 32(1), 11-20.
- Strauss, A., & Corbin, J. (1998). *Basics of qualitative research: Grounded theory* procedures and techniques (2nd ed.). Newbury Park, CA: Sage.
- Theiss, J. A. (2011). Modeling dyadic effects in the associations between relational uncertainty, sexual communication, and sexual satisfaction for husbands and wives. *Communication Research*, *38*(4), 565–584. doi:10.1177/0093650211402186
- Theiss, J. A., & Knobloch, L. K. (2009). An actor-partner interdependence model of irritations in romantic relationships. *Communication Research*, *36*(4), 510–537. doi:10.1177/0093650209333033

- Theiss, J. A., & Solomon, D. H. (2006). Coupling longitudinal data and multilevel modeling to examine the antecedents and consequences of jealousy experiences in romantic relationships: A test of the relational turbulence model. *Human Communication Research*, 32(4), 469-503. doi:10.1111/j.1468-2958.2006.00284.x
- Tillema, T., Dijst, M., & Schwanen, T. (2010). Face-to-face and electronic communications in maintaining social networks: The influence of geographical and relational distance and of information content. *New Media & Society*, 12(6), 965-983. doi:10.1177/1461444809353011
- Tong, S. T., & Walther, J. B. (2011). Relational maintenance and computer-mediated communication. In K. B. Wright & L. M. Webb (Eds.), *Computer-mediated communication in personal relationships* (pp. 98-118) New York, NY: Peter Lang Publishing.
- Walther, J. B., & Parks, M. R. (2002). Cues filtered out, cues filtered in: Computermediated communication and relationships. In M. L. Knapp and J. A. Daly (Eds.), *Handbook of Interpersonal Communication* (3rd ed., pp. 529-563). Thousand Oaks, CA: Sage.
- Weger, H., & Emmett, M. C. (2009). Romantic intent, relationship uncertainty, and relationship maintenance in young adults' cross-sex friendships. *Journal of Social* and Personal Relationships, 26(6-7), 964–988. doi:10.1177/0265407509347937
- Weisskirch, R. S., & Delevi, R. (2013). Attachment style and conflict resolution skills predicting technology use in relationship dissolution. *Computers in Human Behavior, 29*, 2530-2534. doi:10.1016/j.chb.2013.06.027
- Werking, K. (1997) We're just good friends: Women and men in non-romantic relationships. New York, NY: The Guilford Press.
- Westerman, D., Van der Heide, B., Klein, K. A., & Walther, J. B. (2008). How do people really seek information about others?: Information seeking across Internet and traditional communication channels. *Journal of Computer-Mediated Communication*, 13(3), 751-767. doi:10.1111/j.1083-6101.2008.00418.x
- Wiseman, J. P. (1986). Friendship: Bonds and binds in a voluntary relationship. *Journal* of Social and Personal Relationships, 3(2), 191-211. doi:10.1177/0265407586032005

Appendix A

Tables and Figures

Table 1

Assessment of Nonindependence using Pearson Product-Moment Correlations

Variable	r
Relationship satisfaction	.07
Relationship thinking	.29*
Relationship desires, self	.25*
Friend's relationship desires	.32**
Interference	.26**
Mobile expectations	.53**
Entrapment	.12
Relational uncertainty	.13
* . 0 . ** . 01	

p < .05. p < .01.

Table 2
Assessment of Sex Differences Using Paired Sample t-test for Equality of Means

Variable	Me	en	Women					
v allable	М	SD	M	SD	t	р	r	
Relationship desires, self	3.36	0.98	3.90	0.97	-3.96**	.000	.24	
Friend's relationship desires	3.46	1.00	3.81	1.00	-2.62*	.011	.29	
Relational Uncertainty	4.64	0.86	4.85	1.09	-1.42	.161		
Interference	2.28	0.81	1.95	0.74	2.99^{**}	.004	.33	
Relationship thinking	2.37	1.09	2.07	1.11	2.03^{*}	.046	.23	
Mobile Maintenance Expectations	2.29	0.97	2.16	0.98	1.18	.241		
Mobile Entrapment	1.68	0.73	1.49	0.69	1.68	.097		

Note: df for all = 75 ${}^{*}p < .05$. ${}^{**}p < .01$.

Variable	V1	V2	V3	V4	V5	V6	V7	V8
V1: Relationship thinking	<u>.29</u> *	57**	56**	.30*	.23*	.11	.08	31**
V2: Relationship desires, self	62	<u>.25</u> *	.62	21	00	12	11	.27
V3: Friend's relationship desires	45	.53**	<u>.32</u> **	28	19	12	15	.44**
V4: Mobile expectations	.43**	22	33**	<u>.53</u> **	.51**	.47**	.38**	.13
V5: Mobile entrapment	.30*	05	35**	.45*	.12	.43**	.17	33**
V6: Interference from friend	.45**	09	22	.44**	.47**	<u>.26</u> **	.31**	01
V7: Number of channels	.15	01	18	.35**	.19	.14	.38**	10
V8: Relational uncertainty	36**	.36**	.21	.12	08	08	.07	<u>.13</u>

Table 3Assessment of Nonindependence using Pearson Product-Moment Correlations

Note. N = 76 males, females, or dyads. Correlations for males appear above the diagonal; correlations for females appear below the diagonal; within-dyad correlations appear on the diagonal and are underlined. *p < .05. ** p < .0

Table 4	
Assessment of Differences in Symmetry of Desires Using Independent Sample t-test for Equa	lity of Means

	Ma	atched	Mism	atched				
Variable	D	esires	De	sires	_			
	M	SD	М	SD	t	df	р	r
Relationship desires, self	3.88	0.96	3.27	0.97	3.81**	150	.000	.30
Friend's relationship desires	3.91	0.94	3.24	0.99	4.26**	150	.000	.33
Relationship uncertainty	4.95	0.94	4.44	0.97	3.29**	150	.001	.26
Interference	2.09	0.81	2.16	0.76	-0.53	150	.595	
Relationship thinking	1.92	0.99	2.65	1.13	-4.21**	150	.000	.33
Number of Channels	4.89	1.73	4.85	1.71	0.12	150	.905	
Mobile Expectations	2.10	0.98	2.41	0.95	-1.95 ⁺	150	.053	.16
Entrapment	1.49	0.65	1.72	0.79	-1.90^{+}	113.94	.060	.18
** $p < .01$. + = nearing significance								

	χ^2	df	р	
Private instant messaging	0.98	3	.806	
Public instant messaging	1.87	3	.601	
Texting	8.46	3	.037	
Internet chatting	2.23	3	.525	
Video chatting	16.04	3	.001	
Phone calls	8.79	3	.032	
Face-to-face	2.10	3	.551	

 Table 5

 Channel Use Differences Across Friendship Types Using Kruskal-Wallis H tests

Table 6

Regression Analysis of Relational Turbulence Model Variables on Mobile Maintenance Expectations

Variables	В	SE	β	р
Constant	65	.43		.137
Uncertainty	.26	.07	.26	.000
Interference	.46	.09	.37	.000
Relationship Thinking	.31	.07	.35	.000

Variables	В	SE	β	р
Constant	1.09	.33		.001
Uncertainty	10	.06	14	.172
Interference	.38	.07	.42	.000
Relationship Thinking	.07	.05	.11	.170

Table 7Regression Analysis of Relational Turbulence Model Variables on Entrapment

Table 8Regression Analyses of Relational Turbulence Model Variables on Channels Used

Outcome Variable	Predictor Variables	В	SE	β	р	
Private IM						
	Constant	1.18	.57		.042	
	Uncertainty	.04	.09	.03	.710	
	Interference	.06	.12	.04	.626	
	Relationship Thinking	.22	.09	.23	.011	
Video Chat						
	Constant	.611	.58		.290	
	Uncertainty	.05	.09	.05	.570	
	Interference	.07	.12	.05	.551	
	Relationship Thinking	.31	.09	.31	.001	
Texting						
	Constant	1.73	.49		.000	
	Uncertainty	.33	.08	.34	.000	
	Interference	04	.10	03	.684	
	Relationship Thinking	.33	.07	.39	.000	
Phone Calls						
	Constant	.85	.65		.196	
	Uncertainty	.15	.11	.12	.161	
	Interference	.18	.13	.12	.162	
	Relationship Thinking	.25	.10	.22	.012	
Face-to-Face						
	Constant	2.48	.56		.000	
	Uncertainty	.21	.09	.20	.023	
	Interference	.23	.11	.17	.041	
	Relationship Thinking	.02	.08	.02	.817	
	- •					

Note. Regression analyses for "Public IM" and "Internet Chat" were not significant and thus were excluded from this table; test statistics for their analyses can be found in the text.

Table 9

Actor and partner effects of uncertainty and interference predicting relationship thinking (turbulence)

APIM Parameters	b	SE	р	r
Intercept	2.24**	.10	.000	
Sex	.08	.07	.245	
Relational uncertainty				
Combined actor effect	38**	.09	.000	35
Men	42**	-	.005	32
Women	33**	-	.001	36
Combined Partner effect	06	.08	.465	
Men	.05	-	.646	
Women	18	-	.174	
Interference				
Combined actor effect	.37**	.11	.001	.26
Men	.11	-	.512	
Women	.63**	-	.001	.43
Combined Partner effect	.15	.11	.180	
Men	02	-	.535	
Women	.18	-	.195	

Note. All effects are reported as unstandardized regression coefficients. All p-values divided by two to make them one-tailed. A "-" indicates that the missing values were not provided the software program. $*^{*p} < .01$.

Participant's Desire

		Platonic	Romantic
Perception of Friend's Desire	Platonic	Strictly Platonic (<i>n</i> = 99) "Neither of us wants to escalate our friendship"	Desires Romance (n = 19) "I want to escalate our friendship, but my friend probably doesn't"
	Romantic	Rejects Romance $(n = 14)$ "My friend wants to escalate our friendship, but I don't"	Mutual Romance (n = 20) "Both of us want to escalate our friendship"

	Strictly	Mutual	Desires	Rejects
	Platonic	Romance	Romance	Romance
Males	46	13	12	5
Females	53	7	7	9
Total	99	20	19	14

Figure 1. Types of cross-sex friendships. Developed based on "Relational Maintenance in Cross-sex Friendships Characterized by Different Types of Romantic Intent: An Exploratory Study," by L. K. Guerrero and A. M. Chavez, 2005, *Western Journal of Communication, 69*(4), pp. 339-358.



Figure 2. Relational turbulence model. Adapted from "A Model of Relational Turbulence: The Role of Intimacy, Relational Uncertainty, and Interference from Partners in Appraisals of Irritations," by D. H. Solomon and L. K. Knobloch, 2004, *Journal of Social and Personal Relationships, 21(6)*, 795-816.



Figure 3. Actor-Partner Interdependence Model.

Appendix B

Interview Guide

Interview Guide

- 1. Demographics
 - a. Age?
 - b. Ethnicity?
- 2. Questions about Friendship
 - a. How do you develop new friendships?
 - b. How do you maintain your friendships?
 - i. Which communication channels/media do you use?

(Facebook/Twitter/Instagram/Pinterest/Snapchat)

(Call/text/email/gchat/F2F)

- c. Do you have friends of the opposite sex?
- d. What do you enjoy about these relationships?
- e. What challenges are present in these relationships?
- 3. Can you describe a recent time when you were attracted to a friend of the opposite sex?
 - a. What was the "turning point" in the relationship? What did you feel?
 - b. How did you handle it? What did you do?
 - c. How did they respond?
- 4. Can you describe a recent time when your male/female friend was attracted to you?

- a. What was the "turning point" in the relationship? What do you think they felt?
- b. How did they handle it? What did they do?
- c. How did you respond?
- 5. Did you notice a difference when you used different channels of communication?
- 6. Did you rely on/prefer certain channels depending on your communication goals or the topic of conversation?
- 7. How, if at all, have your experiences with male/female friendships shaped the way you communicate with your friends?
- 8. What have you taken away from these experiences?
 - a. Any new/changed behaviors? Any lessons learned?
- 9. In your experience, what are the negative aspects of friendships with males/females?
- 10. In your experience, what, are the positive aspects of friendships with males/females?
- 11. Is there anything you might not have thought about before that occurred to you during this interview?
- 12. Is there anything you would like to add?
- 13. Is there anything you would like to ask me?