MODALITY ORIENTATION:

EXAMINING INDIVIDUAL DIFFERENCES IN BELIEFS TOWARD

MODALITY SWITCHING BEHAVIORS ON THE COMMUNICATION

INTERDEPENDENCE PERSPECTIVE

by

Kelly A. Sweeney

A thesis submitted to the Faculty of the University of Delaware in partial
fulfillment of the requirements for the degree of Master of Arts in Communication

Spring 2019

MODALITY ORIENTATION:

EXAMINING INDIVIDUAL DIFFERENCES IN BELIEFS TOWARD

MODALITY SWITCHING BEHAVIORS ON THE COMMUNICATION

INTERDEPENDENCE PERSPECTIVE

by

Kelly A. Sweeney

Approved: _____
Scott Caplan, Ph.D.
Professor in charge of thesis on behalf of the Advisory Committee

Approved: _____
Kami Silk, Ph.D.
Chair of the Department of Communication

Approved: _____
John Pelesko, Ph.D.
Interim Dean of the College of Arts and Sciences

Approved: _____
Douglas J. Doren, Ph.D.
Interim Vice Provost for Graduate and Professional Education

ACKNOWLEDGMENTS

Scott Caplan, Ph.D., for all of the effort, patience, and time he devoted to this project and for being a support system for me along the way. Thank you for listening to my ideas and helping them become a reality. I will forever be thankful for your encouragement, understanding, and countless supportive emails. It's my sincere hope that we collaborate on more projects in the future and keep in touch.

John Courtright, Ph.D., and Danielle Catona, Ph.D., for their time, understanding, and wisdom. Thank you so much for always having my back and for treating me like a colleague as well as a student. I am incredibly grateful to have had such an amazing committee guide me through this process.

Dustin Fuhrmann, for all of his patience, comfort, love, and support. You built me up when I was doubting myself. Thank you for listening to me, making me laugh, and for making both my undergraduate and graduate experience at UD the best.

My parents, Don and Jody Sweeney, and my family for everything. I would not be where I am today or who I am today without your love and encouragement. Thank you for loving me, supporting me, and for having the patience to listen to me talk your ears off. Thank you all for the unconditional love.

My grandparents, Frances D'Lauro McKinney, Donald Sweeney, and Gerri Sweeney, thank you for always being there and believing in me. The support that you have given me over the years, both financial and emotional, has never been unappreciated. Thank you for being the best grandparents I could ask for.

My siblings, for all of the laughter, motivation, encouragement, and phone calls. Especially my sister, Mary Sweeney, for having the patience to listen to me talk for hours on end about this project. Without their constant love and support this project would not have been completed. Thank you for believing in me when I didn't believe in myself.

My cohort, who made me laugh, helped me relax, and understood the struggles of completing a thesis. In particular, Wyatt Dawson, thank you for goofing off with me, laughing at my jokes even when they're not funny, and for putting up with having me in every class throughout our graduate career. I am fortunate to have met you all. You are all so talented and I hope that we will continue to keep in touch.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

The purpose of this study was to advance our understanding of mixed-media relationships and modality switching behaviors by revisiting the communication interdependence perspective introduced by Caughlin and Sharabi (2013). More specifically, the research sought to determine if individual differences in preferences toward modality switching behaviors moderated the effects between dyadic modality switching behaviors and relational quality. Furthermore, the study examined how variables such as, social skill and attachment security, contribute to the formation of an individual's preferences for modality switching behaviors. Lastly, the present study explored whether the communication interdependence perspective could be applied to roommate relationship dynamics.

Two hundred and seventy-six people (N= 276) participated in the main study. Results found support for the communication interdependence perspective. However, the data indicated that individual differences in preferences toward modality switching behaviors did not have a moderating effect on the communication interdependence perspective. Interestingly, when applied to *roommate* relationships, the communication interdependence perspective revealed significant patterns both consistent and inconsistent with Caughlin and Sharabi's (2013) previous findings.

In short, this study serves as a starting point for testing the boundaries of current mixed-media perspectives. By identifying relevant boundary conditions, future research can gain a greater understanding of how technological modes impact and contribute to interpersonal communication and social relationships.

Chapter 1

INTRODUCTION

Today, people use *both* face-to-face and technological channels to establish, build, and maintain social relationships. According to Parks, "social relationships are often conducted using a rapidly evolving portfolio of mobile and Internet-based media" (2007, p. 505). Multiple studies have identified the increasing need to observe how communication technologies affect our social relationships (Caughlin et al., 2016; Haythornthwaite, 2005; Parks, 2017; Walther, 2006). Because people are frequently communicating through a mix of channels, it is important to investigate how the combination of diverse channels impacts the interpersonal communication process.

Parks (2017) defined *mixed-media relationships* as "social relationships that parties conduct in whole, or in part, through the use of multiple media, including face-to-face" (p. 506). In mixed-media relationships, individuals frequently engage in the process of *modality switching*, shifting interactions from one communication channel or mode to another. In this context, a "mode" or "channel" refers to the basic form into which a message has been encoded (written text, speech, still image). For example, modality switching occurs when a husband and wife have a fight in person and, then later, the wife sends a text message about the fight to her husband. Although mixed-media relationships are common, researchers are still developing their understanding of how technology influences our social relationships. According to Caughlin and

1

Sharabi (2013), "communication technologies have become pervasive in relationships, they are used for multiple purposes, and there is no simple way to summarize their general impact" (p. 874). Given that relationship partners commonly utilize communication technologies as a way to manage social relationships, it is important to consider how technological modes impact the development of our personal relationships (Sharabi & Caughlin, 2017).

Recent work suggests that communication modes, and the way they are managed, impact important relational outcomes such as closeness and satisfaction (Caughlin et al., 2016; Parks, 2017; Sharabi & Caughlin, 2017). Scholars have used a variety of terms to describe technologically mediated communication channels (e.g., mediated communication, computer-mediated communication, TMC). Thus, it is important to note in the present study that "technologically mediated communication" and "mediated communication" both refer to the same concept.

Caughlin and Sharabi's (2013) study on the *communication interdependence perspective* found that modality switching behaviors were correlated with romantic relationship quality. More specifically, their results indicated that instances when conversations extended back and forth between communication channels were related to relational closeness. Furthermore, instances of difficulties transitioning across communication modes were related to relational quality. Such findings indicate that our communication modes, and the way that we manage them, relate to perceptions of relational quality. Given these recent insights, the current study aimed to investigate

mixed-media relationships by exploring the communication interdependence perspective and varying preferences toward modality switching behaviors.

Purpose of the Current Study

Overall, the present study had four main goals. The first goal was to revisit the *communication interdependence perspective* and to further investigate the relationship between modality switching behaviors and relational outcomes. The second goal was to explore areas where the communication interdependence perspective could be expanded by examining potential moderating variables. More specifically, the study examined whether individual differences in value and preferences toward modality switching behaviors moderated the relationship between dyadic modality switching behaviors and relational quality.

A new construct, "modality orientation," is introduced in this study to characterize individual preferences and ratings of value toward modality switching behaviors such as, *mode integration*, *mode segmentation*, and *difficulties transitioning* identified in Caughlin and Sharabi (2013). The study tested whether individual modality orientation moderated relationships identified within the communication interdependence perspective. Moreover, the present study investigated variables which may contribute to the formation of an individual's perspective toward modality switching behaviors. Therefore, a third goal of this study was to examine how variables such as social skill and attachment security contribute to the formation of individuals' modality switching preferences.

Additionally, the current project explored whether the communication interdependence perspective could be applied to relationships outside of romantic pairs. Previous research on the communication interdependence perspective focused on romantic relationship dynamics and conflict-behaviors (Caughlin et al., 2016; Caughlin & Sharabi, 2013). Conversely, the current study investigated modality switching behaviors and preferences among college *roommates*, as opposed to *romantic* pairs.

According to Caughlin et al., "College students use technologically mediated communication frequently, and there is evidence that the closer their relationships, the more likely they are to use mediated communication and to have mediated communication become interconnected with their face-to-face communication." (2016, p. 61). Furthermore, college roommates were selected for observation because roommate dynamics vary in terms of perceived relational closeness and satisfaction (Argyle & Henderson, 1984). Thus, the fourth goal of this study was to observe how the communication interdependence perspective relates to various relationship-types by observing roommate relationship dynamics.

Literature Review

Before introducing the hypothesized model, this section presents two important theoretical approaches that inform the current understanding of mixed-media relationships. First, *media multiplexity theory* by Haythornthwaite (2005), which considers how the number of different channels used to communicate are related to

relational closeness. Second, the *communication interdependence perspective*, introduced by Caughlin and Sharabi (2013), which explains how communication channels are connected and related to interpersonal relational outcomes.

Media Multiplexity

Media multiplexity theory provides a useful lens to understand how individuals mix and utilize diverse communication channels as they develop their relationships (Haythornthwaite, 2005; Sharabi & Caughlin, 2017; Walther & Parks, 2002). The theory suggests that as people grow closer to each other, they communicate through a greater range of communication channels (Haythornthwaite, 2005). According to Haythornthwaite, *weakly tied* relationships include people that we know but would not consider as close friends. On the other hand, *strongly tied* relationships include close friends, romantic partners, co-workers, and relatives who have a willingness to work with us, share information, resources, and access to the contacts they know. Haythornthwaite found that relationships with strong ties utilize more communication channels and communicate more frequently than weakly tied pairs. In other words, as people grow closer to one another, they tend to increase the number of channels they use to communicate and communicate more frequently.

Additionally, research on media multiplexity suggests that people engage in frequent interactions through multiple channels, rather than relying on just one to communicate (Ledbetter, 2009; Sharabi & Caughlin, 2017). Ramirez and Broneck's (2009) study on everyday maintenance through multiple channels found evidence that

different communication modes do not always replace others as relationships become closer. More specifically, they found that instant messaging, talking on the phone, e-mailing, and talking in person tended to be positively correlated (Ramirez & Broneck, 2009). Such findings suggest that relational partners tend to broaden their range of communication channels as they become closer, as well as indicate that media may be used more frequently as relationships develop.

Overall, media multiplexity theory demonstrates that people utilize a diverse mix of modes to communicate within their close relationships. However, media multiplexity theory does not address *how* the media are being used (Caughlin & Sharabi, 2013; Haythornthwaite, 2005). The next step to gaining a greater understanding of mixed-media relationships involves examining how these various communication channels interact, impact, and contribute to our personal relationships.

Communication Interdependence Perspective

Caughlin and Sharabi's (2013) communication interdependence perspective focuses on the extent to which different modes of communication impact, or are related to one another, within a given relationships. Because the theory is primarily concerned with how a mix of channels relate to each other, the communication interdependence perspective examines perceptions and patterns of modality switching behaviors. Recall that modality switching refers to when interactions shift from one communication channel or mode to another (Parks, 2017).

According to Parks (2017, p. 508), modality switching has largely been framed in terms of the switch from "lean" text to "rich" face-to-face interaction. The "lean-ness" or "rich-ness" of a medium depends on the range of cue systems the channel provides (Walther, 2006). Cues are verbal and nonverbal behaviors that guide conversation or social interaction. Walther defined "media richness" as a medium's "ability to personalize messages (i.e., to tailor messages for a specific recipient), the capacity to use natural and varied language, and the extent to which message exchanges offer immediate feedback" (2006, p. 463). The number of available cues a medium provides is important to consider because cues provide context which impacts a person's ability to accurately receive and understand a message.

A primary concern surrounding modality switching involves whether switching between communication channels *enhances* or *diminishes* communication (Ramirez & Zhang, 2007). As discussed above, technological communication channels contain fewer details and social cues compared to face-to-face communication. As a result, changing modalities from lean to rich channels may alter both what can be easily conveyed and how it is interpreted. On the other hand, as Ramirez and Zhang (2007, p. 289) pointed out "shifting from leaner, text-only modes of communication to richer, multi-modal forms of interaction, including face-to-face, holds the potential to enhance partner impressions because of the additional social information that results from the exchange of relational messages using multiple modalities." Thus, whether modality switching aids or hinders the communication process remains unclear (Parks, 2007).

The communication interdependence perspective highlights the importance of three key concepts related to modality switching: *mode integration*, *mode segmentation*, and *difficulties transitioning*. Mode integration describes instances when discussions extend back and forth between mediated channels and face-to-face interactions (Caughlin et al., 2016; Caughlin & Sharabi, 2013). Mode segmentation refers to when people are able to talk about certain issues comfortably via one mode of communication, but are not able extend that communication easily through another mode. Lastly, *difficulty transitioning* refers to the evident interference among communicative modes when individuals have difficulty transitioning between face-to-face and technologically mediated modes. Each of these terms are used within the communication interdependence perspective as "markers of interdependence among modes of communication" (Caughlin & Sharabi, 2013, p. 881). These concepts are important to address because they not only contribute to one's understanding of the communication interdependence perspective, but also they identify common behaviors observed when an individual engages in the process of modality switching.

Overall, the communication interdependence perspective suggests that "a key to understanding relationships involves understanding how relational behaviors are (and are not) interconnected" (Caughlin & Sharabi, 2013, p. 877). Caughlin and Sharabi observed instances of integration, mode segmentation, and difficulties transitioning to find a connection between modality switching behaviors and relational outcomes among romantic dyads. More specifically, Caughlin and Sharabi found mode integration behaviors to be positively associated with relational closeness in

college students' romantic relationships. Furthermore, instances of difficulties transitioning a conversation from one communication mode to another were inversely related to relational closeness. Lastly, results indicated that participants who had topics that they talked about only via mediated communication (i.e. instances of mode segmentation), reported lower ratings of relational closeness and satisfaction than did people who reported that they did not have topics they only discussed via technologies (2013; p. 885). Such findings suggest that how we operate within and between face-to-face and technologically mediated communication channels both impact and contribute to relational outcomes within our personal relationships.

Summarizing previous theories.

Media multiplexity theory proposes that relational closeness and intimacy are associated with the number of communication channels a dyad utilizes. Moreover, the communication interdependence perspective further advances our understanding of mixed-media relationships by illustrating how modality switching behaviors can impact each other and also influence relational outcomes within personal relationships. Media multiplexity theory and research on modality switching are important to address and understand because they have contributed to and helped shape our current understanding of mixed-media relationships (Parks, 2017). Furthermore, research should continue to explore the nature of mixed-media relationships because they advance our understanding of how media use relates to interpersonal communication and social relationships (2017). Thus, the main focus of the present study was to

expand our understanding of the previously identified relationship between communication modes, modality switching behaviors, and relational outcomes, identified within Caughlin and Sharabi's (2013) article on the communication interdependence perspective.

Focus of the Current Study

The central research question for this study is whether differences in individual preferences toward modality switching behaviors moderate the relationship between dyadic modality switching behaviors and relational quality. The model presented in this section brings together concepts from the communication interdependence perspective and examines how differences in preferences toward modality switching behaviors may impact the theory. The following section addresses the rationale behind this study's attempt to expand the communication interdependence perspective, describes the modality orientation construct, and presents the overall model that was tested.

Expanding the Communication Interdependence Perspective

The communication interdependence perspective offers a useful explanation for the relationship between modality switching behaviors and relational outcomes. However, the model may be refined by identifying its boundary conditions. Boundary conditions help further develop theories by addressing occasions or instances when the observed relationship between variables does or does not apply (Busse, Kach, &

Wagner, 2015). If boundary conditions for the communication interdependence perspective can be identified, then the model would provide a more detailed explanation for how and when modality switching might influence relational outcomes (Caughlin et al., 2016).

The current study sought to expand the communication interdependence perspective by considering an individual's preferences toward modality switching behaviors within the model. Recent findings from Caughlin et al. (2016) suggest that individuals have varying opinions and preferences toward modality switching behaviors. More specifically, the researchers found that people have varying attitudes and preferences for what is considered an "appropriate" way to successfully utilize technological communication channels (2016). For example, some people think that is it completely inappropriate to discuss conflict with a romantic partner via text message. On the other hand, there are people that may think it is totally comfortable and acceptable to discuss conflict via technological channels with a romantic partner. Such findings suggest that the appropriateness of certain modality switching behaviors may be partly negotiated among pairs (2016).

Furthermore, Caughlin et al. (2016) indicated that differences in preferences toward modality switching behaviors may be an important variable for future research to consider. Thus, the present study developed and tested the modality orientation construct as a way to identify a potential moderating variable and investigate how individual differences in perception toward modality switching impact, and contribute to, our understanding of the communication interdependence perspective.

Defining Modality Orientation

The construct of an individual's modality orientation is based on the idea that not all individuals view and value modality switching in the same way. As mentioned above, Caughlin et al. (2016) found that people have varying attitudes and preferences for what is considered an "appropriate" way to utilize technological communication channels. For example, a teenager who uses technology and social media often to maintain their personal relationships probably has a different view of modality switching compared to an older man who rarely uses technology to convey relational information. Although it is possible that individuals differ in the way that they view communication modes as being connected and their comfort level surrounding shifting modes, the current literature has not yet explored how these differences impact modality switching behaviors. Therefore, this study introduces the concept of an individual's modality orientation as a way to encapsulate and identify an individual's perspective toward modality switching behaviors.

The current study defines individual modality orientation as the degree to which an individual values and is comfortable with modality switching behaviors. More specifically, an individual's modality orientation is a combination of the extent to which they: view communication modes as connected, expect to engage in modality switching, and value relational messages conveyed across communication channels. Here, the modality orientation construct reflects an individual's preferences toward the three key modality switching behaviors identified in Caughlin and Sharabi's (2013) study (i.e. mode integration, mode segmentation, difficulties transitioning). Chapter 2

12

will discuss, in more detail, the items used to capture individual modality orientation, as well as illustrate how the modality orientation variable presented in this study relates to previous literature.

The Hypothesized Model – Expanding Communication Interdependence

The model proposed below hypothesizes that individual differences in modality orientation moderate the effects observed between modality switching behaviors and relational outcomes identified within the communication interdependence perspective. The following section describes the theoretical model.
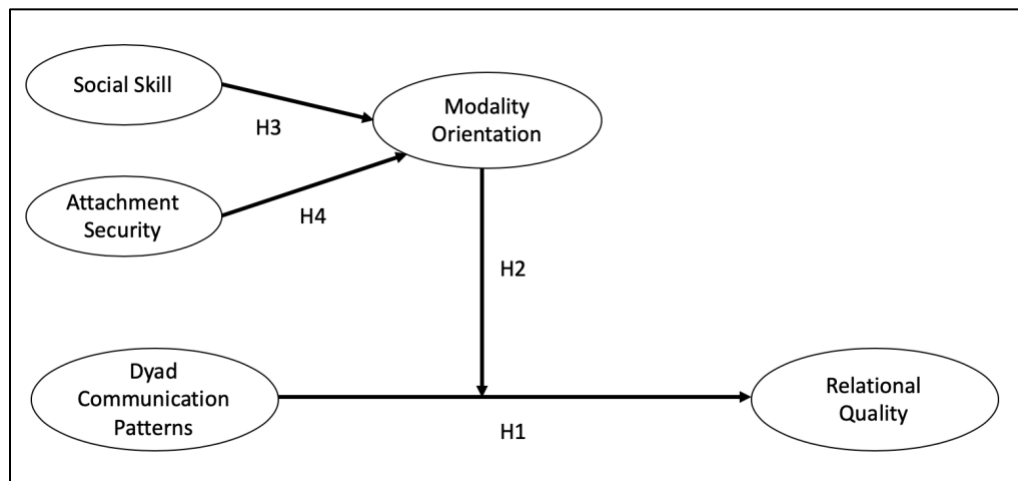

Figure 1   The Hypothesized Model

The model illustrated in Figure 1 describes the relationship this study examined. As discussed, Caughlin and Sharabi's (2013) communication interdependence perspective suggests that modality switching behaviors (i.e. mode

integration, mode segmentation) relate to relational outcomes (i.e. relational closeness, relational satisfaction). Given that the present study is concerned with identifying a moderating variable within the communication interdependence perspective, H1 and H2 replicated predictions supported by Caughlin and Sharabi's (2013) previous findings.

H1: Dyadic mode integration behaviors will be positively associated with relational quality.

H1a: Dyadic difficulties transitioning behaviors will be negatively associated with relational quality.

Additionally, the model presented here suggests that not all individuals value modality switching behaviors in the same way, and these differences in preference relate to how strongly modality switching behaviors impact relational outcomes. In other words, the study hypothesized that the effect that modality switching behaviors had on a dyad's relational quality would be stronger or weaker depending on an individual's values and expectations. For example, Caughlin and Sharabi (2013) found difficulty transitioning between face-to-face and mediated communication channels was inversely associated with relational closeness. This effect may be likely if the individuals within a dyad highly value successful integration between communication modes. However, if both partners *do not* value integration between communication modes, then it is likely that their relational satisfaction will not be impacted by transitioning difficulties. Therefore, the tested model predicted that:

14

H2: Modality orientation will moderate the effects observed between modality switching behaviors and relational quality outcomes.

More specifically, the present model predicted that, for individuals who endorse an integrated modality orientation, integration between communication modes would be positively related to relational quality outcomes among college roommates. Similarly, it was expected that for individuals who highly endorse mode integration behaviors, difficulties transitioning between mediated communication and face-to-face channels would be negatively associated with relational quality among college roommates. These outcomes were expected based on previous research on the communication interdependence perspective (Caughlin et al., 2016; Caughlin & Sharabi, 2013). Thus, the model predicted that for individuals who highly endorse mode integration behaviors, relational quality outcomes would be positively affected by successful instances of dyadic integration and negatively affected by dyadic difficulties transitioning between modes.

Additionally, the proposed model predicted that, for individuals who endorse mode segmentation preferences, difficulties transitioning would not significantly impact relational quality among college roommates. Similarly, for individuals who endorse mode segmentation preferences, integration between communication modes would be negatively related to relational quality among college roommates. These outcomes were expected because individuals who highly endorse mode segmenting behaviors tend to value when modes are kept more distinct and separate (Caughlin et al., 2016; Caughlin & Sharabi, 2013). Thus, the model predicted that, for individuals

15

who highly endorse mode segmentation behaviors, relational quality outcomes would not be significantly impacted by dyadic difficulties transitioning and/or negatively affected by successful integration between communication modes.

Now that the inclusion of modality orientation within the model has been addressed, considering what factors contribute to the development of an individual's modality orientation becomes important. The model depicted in Figure 1 illustrates how individual difference variables such as social skill and attachment security may contribute to the formation of one's modality orientation. The following paragraphs serve to describe how each of these variables may contribute to the formation of an individual's modality orientation.

Riggio (1989) argued that skill in communicating is critical in the formation and maintenance of interpersonal relationships. Yet, communication skill varies from person to person. For example, Riggio asserted that people vary in their ability to express themselves, control their communication skills, and regulate the communication process. As discussed in the literature review, when people shift from rich interactions to leaner media, the message may not be as easily communicated or interpreted, depending on the contextual clues available. As a result, individuals who are more skilled in message production and interpretation may be more comfortable with the process of modality switching. Because modality switching involves a shift in the number of available social cues (i.e., nonverbals, environment), an individual who is skilled in message production and interpretation might have less difficulty being involved in the process compared to a less skilled individual.

On the other hand, individuals who are less skilled in message interpretation might find modality switching to be a more difficult task. If a person finds it difficult to interpret messages conveyed through a certain channel, they may be less likely to prefer that form of communication (Caughlin & Sharabi, 2013; Sharabi & Caughlin, 2017). Therefore, the study proposed that social skill may contribute to the formation of one's modality orientation because social skill relates to how comfortable an individual is with the process of modality switching.

H3: Individuals high in social skill will be more likely to endorse mode integration preferences.

Finally, the model predicted that an individual's attachment security may contribute to the formation of one's modality orientation. Adult attachment security reflects an individual's needs in terms of *attachment anxiety* and *attachment avoidance* (Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998; Meier, Carr, & Currier, 2013). According to Meier et al. "*attachment anxiety* reflects a negative view of self and an optimistic view of others" (p. 316). People who score high on attachment anxiety are often dependent in interpersonal relationships and tend to worry about whether their partner is available, attentive, and responsive. On the other hand, *attachment avoidance* "stems from a positive view of self and negative beliefs about others" (p. 316). People who score high on attachment avoidance prefer not to rely on others and frequently attempt to maintain emotional distance in their relationships.

For the purposes of the model presented here, both attachment anxiety and avoidance are likely to influence modality orientation. An individual's attachment security relates to how a person behaves socially (Meier et al., 2013), which may subsequently relate to one's modality switching behaviors. Specifically, attachment anxiety is likely to be associated with greater preferences for mode integration behaviors due an increased need to engage with others. For example, a person who has high levels of attachment anxiety tends to be dependent on their social relationships and frequently worry about the responsiveness of people they have close relationships with. As a result, an individual fitting this description may highly value when communication messages are able to shift across channels because they highly value communicating with individuals upon whom they depend. Therefore, a person with high levels of attachment anxiety is more likely to endorse preferences for mode integration behaviors.

On the other hand, attachment avoidance is likely to be associated positively with mode segmentation preferences and difficulties transitioning due to an increased need for relational distance. For example, a person characterized as having high levels of attachment avoidance tends to not be dependent on others and prefers to keep emotional distance in their relationships (Meier et al., 2013). Consequently, a person fitting this description may place low value on the process of modality switching because modality switching allows for conversations to extend beyond its original channel. Thus, a highly avoidant individual is likely to endorse preferences for mode segmentation behaviors, rather than mode integration behaviors, as a way to create

more emotional distance in their relationships. Also, a highly avoidant person may experience more difficulties transitioning between communication channels because they may prefer modes to be highly segmented, as opposed to highly integrated. Therefore, the study proposed that attachment security is likely to contribute to the formation of an individual's modality orientation because attachment security relates to how one behaves socially.

H4: Individuals high in attachment avoidance will be more likely to endorse mode segmentation preferences.

H4a: Individuals high in attachment anxiety will be more likely to endorse mode integration preferences.

Overall, this study sought to gain a better understanding of mixed-media relationships and the communication interdependence perspective. The model identifies ways that the communication interdependence perspective can be further extended by investigating the impact of individual differences in preference toward modality switching behaviors. Furthermore, the study hypothesized that one's modality orientation significantly influences and/or moderates the affects between communication behaviors and relational outcomes that a dyad experiences on a relational level.

Chapter 2

METHODS

Before the main study, a pilot study was conducted to assess the reliability of an original scale developed to measure modality orientation. The following section provides a detailed description of the pilot study, the main study, and the measures of interest.

Pilot Study

An original scale was created to measure modality orientation (see Appendix A). A pilot study was conducted to determine if the scale items were reliable and valid. To provide further support for validity of the modality orientation measure, the pilot study also included measures of social skill and attachment security. Significant relationships found among social skill, attachment security, and modality orientation provided further support for the inclusion of the modality orientation variable. Reliability of items were measured using the alpha coefficient and face validity was established by using modified questions from Caughlin and Sharabi's (2013) scale.

Pilot Study Participants

Data for the pilot study were collected from an online self-report survey distributed to undergraduate students ($N = 110$) enrolled in communication courses at the University of Delaware. Students were offered extra credit in an amount specified by their instructors in exchange for participation. The sample contained more women

(72.7%; *N* = 80) than men (27.3%; *N* = 30). Participants were young adults who ranged from 18 to 27 years of age (*M* = 19.81; *SD* = 1.22).

Pilot Study Measures

The modality orientation scale items were separated into three sub-scales for analysis: *mode integration*, *mode transitioning*, and *mode segmentation*. All items were assessed with 7-point Likert scales ranging from *Strongly disagree* (1) to *Strongly agree* (7).

Mode integration was measured with nine items that were adapted from Caughlin and Sharabi's (2013) *integration* scale. Each item was constructed to assess the extent to which participants valued when topics that arose via mediated channels were referenced in a later face-to-face interaction and vice versa. The nine items were averaged to create an index of mode integration (*M* = 4.82, *SD* = .81). The mean of these results suggests that participants varied on how much they valued integration behaviors but tended to lean more toward valuing integration behaviors as opposed to disvaluing them. These results suggested promise for the measure because it was expected that participants would vary in regards to how much value they place on mode integrating behaviors. Items for this measure generated a more than acceptable reliability index (α = .84). These results led to the decision to include these scale items within the overall modality orientation scale.

Mode transitioning was evaluated with six items that were adapted from Caughlin and Sharabi's (2013) *difficulty transitioning* scale. Each item was

constructed to evaluate the extent to which participants feel comfortable or at ease

when transitioning from in-person to mediated communication and vice versa. The six

items were averaged to create an index of mode transitioning ($M = 5.32$, $SD = .85$).

The mean of these results suggested that participants tended to feel more comfortable

when transitioning between communication channels as opposed to less comfortable.

This makes sense because the pilot sample consisted of a younger audience (ages 18 –

27) who may have more experience using communication technologies and as a result

may feel more comfortable transitioning between modes. Items for this measure were

shown to be reliable ($\alpha = .75$), which subsequently provides support for including

these items within the overall modality orientation scale.

  Mode segmenting was measured with four items that were adapted from

Caughlin and Sharabi's (2013) *mode segmentation* scale. Each item was constructed to

evaluate the extent to which participants discuss some issues or topics exclusively

through face-to-face interaction or through mediated messaging. The four items were

averaged to create an index of mode segmenting ($M = 2.26$, $SD = .86$). The four items

used to create this scale were all reverse coded items. Thus, the average scores for

these results indicate that participants tended to agree more with statements that

promoted topic segmentation across communication channels. The reliability measure

for these items was considered acceptable ($\alpha = .70$).

  To assess the validity of the modality orientation scale, the pilot survey also

contained items from the short form of the Social Skills Index (SSI) and the

Experiences in Close Relationships scale (ECR-S). The SSI and the ECR-S scales

were included in the pilot because the main study hypothesized that social skill and attachment security contribute to the formation of an individual's modality orientation. Both of these measures were included in the pilot survey because significant correlations between these measures and the modality orientation variable would suggest or indicate validity within the modality orientation scale.

Pilot Study Results

From the pilot data, Correlations revealed a weak, yet significant relationship between *mode transitioning* and *emotional expressivity*, $r = .25$, $p < .01$, such that high levels of mode transitioning were associated with high levels of emotional expression. Correlations also revealed a weak and significant relationship between *mode segmentation* and *emotional sensitivity*, $r = -.24$, $p < .05$, such that high levels of mode segmentation were associated with lower levels of emotional sensitivity. Lastly, Correlations revealed a weak relationship between *mode segmentation* and *social sensitivity*, $r = -.20$, $p < .05$, such that high levels of mode segmentation were associated with low levels of social sensitivity. All of these findings provided initial insight into potential connections the main study explored in more detail.

Summary of findings.

The purpose of the pilot study was to test the modality orientation measure and provide support for reliability and validity of the scale. Results from the pilot study found the three sub-scales used to measure modality orientation to be reliable.

Additionally, the pilot study revealed significant correlations between the modality orientation sub-scales and social skill sub-scales, all of which are variables of interest for the main study. The pilot study was successful in that it established support for the modality orientation measure and offered insight to connections the main study also explored. The next section discusses the main study and describes each of the measures the main study utilized.

Main Study

Participants and Procedures

Participants were undergraduate students who completed an online, self-report survey about their individual communication mode preferences and their dyadic communication behaviors with a current roommate. Students were chosen for this study because they use technologically mediated communication frequently, and there is evidence that the closer their relationships, the more likely they are to use mediated communication and to have mediated communication become interconnected with their face-to-face communication (Caughlin et al., 2016, p. 61).

The sample included a total of 318 participants. However, because the main study was concerned with observing roommate relationships, 34 participants were removed because they indicated that they did not currently have a roommate. Additionally, in an effort to remove invalid responses, the researcher calculated the average length of time participants' spent taking the survey. A total of 8 outlier cases were removed on the basis of falling three standard deviations under or over the

average length of survey completion time. As a result, the final sample for the main study consisted of 276 people ($N = 78$ males, 28.3%; $N = 197$ females, 71.4%; $N = 1$ non-binary, .4%) with an average age of 19.67 years old ($SD = 1.07$).

Measures

Social skill.

Riggio (1989) asserted that social skill is a "multidimensional construct that includes skills in receiving, decoding, and understanding social information. It further involves social participation skills such as verbal and emotional expression, regulation of social behavior, and social role-playing abilities" (p. 1). The current study utilized the short version of the Social Skills Inventory (SSI) developed by Riggio to measure a global level of social skill development indicative of overall social competence or social intelligence.

The SSI measures emotional and social levels of expressivity, sensitivity, and control. Expressivity refers to the skill with which individuals communicate; sensitivity refers to the skill with which they interpret the communication messages of others; and control refers to the skills with which they are able to regulate to the communication process in a social situation (Riggio, 1989). In the main study, *Social skill* was assessed with 24 5-point items with responses ranging from *Not like me at all* (1) to *Exactly like me* (5) ($M = 4.52$, $SD = .51$). Unfortunately, contrary to previous studies, the SSI variable produced a less than ideal index of reliability ($\alpha = .66$).

Attachment avoidance & anxiety.

The model in Figure 1 displayed two hypotheses about how attachment security might influence modality orientation. In this study, attachment avoidance and attachment anxiety were measured with the short form of the Experiences in Close Relationships Scale (ECR-S) developed by Wei et al. (2007). The ECR-S is used to measure attachment security because the short version of the scale has equivalent validity to the original ECR scale across studies (2007).

Attachment avoidance was measured using three 7-point Likert scale items ranging from *Strongly disagree* (1) to *Strongly agree* (7) reported in Wei et al. (2007). The mean for attachment avoidance was 2.57 ($SD = 1.09$, $\alpha = .86$). Similarly, *attachment anxiety* was measured using five 7-point Likert scale items ranging from *Strongly disagree* (1) to *Strongly agree* (7) reported in Wei et al. (2007). The mean for attachment anxiety was 3.08 ($SD = 1.25$, $\alpha = .88$).

Dyadic communication patterns.

Dyadic communication patterns reflect the participant's assessment of their communication behaviors and patterns with their roommate. Specifically, the study included items describing instances of mode integration, mode segmentation, and difficulties transitioning. Items for this variable were modified from Caughlin and Sharabi's (2013) scale used to assess instances of integration, mode segmentation, and difficulties transitioning between modes among roommates.

Instances of *dyadic integration* refer to the extent to which topics that arose via mediated channel were discussed in-person and vice versa (Caughlin and Sharabi, 2013). Items for this measure were reported in Caughlin and Sharabi's study and adjusted for this study to address roommate relationships, as opposed to romantic relationships. Dyadic integration behaviors were measured using twelve 7-point items, which produced an excellent reliability coefficient ($M = 3.90$, $SD = 1.30$, $\alpha = .96$)

Dyadic mode segmentation refers to participants' reports on whether there are some issues they discuss either exclusively in-person or through mediated channels (Caughlin and Sharabi, 2013). Participants answered items using 7-point scales which ranged from *Strongly disagree* (1) to *Strongly agree* (7). Dyadic mode segmentation behaviors were measured using six items that addressed segmenting to particular mediated channels ($M = 2.79$, $SD = 1.36$, $\alpha = .92$) and one item that addressed segmenting to face-to-face discussions ($M = 4.87$, $SD = 1.84$). Items for this measure were reported in Caughlin and Sharabi's study and adjusted for this study to address roommate relationships.

Lastly, instances of *dyadic difficulties transitioning* between face-to-face and mediated channels were assessed with two items reported in Caughlin and Sharabi (2013) which were adjusted to address roommate relationships. Dyadic transitioning difficulties refer to how often a participant experiences discomfort when transitioning from mediated modes to face-to-face discussions and vice versa. In Caughlin and Sharabi's study, the two items used to measure dyadic difficulties transitioning were averaged to create a single index of difficulty transitioning. Thus, for the current

study, the researcher averaged dyadic difficulties transitioning items to create a single measure which produced an acceptable reliability index ($M = 2.46$, $SD = 1.33$, $\alpha = .76$)

Relational quality.

Relational quality refers to the participant's perception of overall relational quality with their roommate. The study utilized a modified version of Wiltz's (2003) Roommate Friendship Scale, which assesses roommate quality using a 5-point scale ranging from *Strongly disagree* (1) to *Strongly agree* (5). This scale was selected because it addresses roommate relationship quality as it relates to conflict, perceived closeness, and overall satisfaction. Roommate relationship quality was measured using 28 items and the reliability in this study was excellent ($M = 3.75$, $SD = .67$, $\alpha = .94$)

Modality orientation.

Modality orientation reflects the extent to which an individual views communication modes as connected, expects to engage in modality switching, and values relational messages conveyed across communication channels. Items used to operationalize individual modality orientation were created to reflect the modality switching behaviors identified in Caughlin and Sharabi's (2013) study. Because Caughlin and Sharabi's study focused on dyadic modality switching behaviors, items used to measure individual modality orientation were modified to address individual preferences as opposed to dyadic behaviors.

As mentioned previously, results from the pilot study revealed three reliable sub-scales used measure modality orientation. The three sub-scales address mode integration preferences, instances of mode transitioning discomfort, and individual mode segmentation preferences. Items for this measure were assessed with 7-point Likert scales ranging from *Strongly disagree* (1) to *Strongly agree* (7). Based on the pilot study results, the researcher utilized the three sub-scales to observe a measure for modality orientation in the main study.

Individual mode integration preferences were measured with nine items that were adapted from Caughlin and Sharabi's (2013) *integration* scale. Each item was constructed to reflect the extent to which participants valued when topics that arose via mediated channels were referenced in a later face-to-face interaction and vice versa. For the main study, nine items were averaged to create an index of individual mode integration preferences ($M = 4.74$, $SD = .81$, $\alpha = .81$).

Individual transition difficulties preferences were evaluated with three items that were adapted from Caughlin and Sharabi's (2013) *difficulty transitioning* scale. Each item was constructed to evaluate the extent to which participants feel comfortable or at ease when transitioning from in-person to mediated communication and vice versa. The three items were averaged to create an index of mode transitioning ($M = 5.39$, $SD = .95$, $\alpha = .59$). Unlike to the pilot study results, items for this measure produced a less than acceptable reliability index. As a result, the sub-scale used to measure *individual transition difficulties* was not included in the final measure used to reflect an individual's modality orientation.

Individual mode segmentation preferences were assessed using five items that were adapted from Caughlin and Sharabi's (2013) *mode segmentation* scale. The pilot study used four items to measure individual mode segmentation preferences. However, in an effort to increase the scale's reliability, another item used was added to the main study. Each item was constructed to evaluate the extent to which participants discuss some issues or topics exclusively through face-to-face interaction or through mediated messaging. The five items were averaged to create an index of individual mode segmentation preferences ($M = 5.64$, $SD = .95$, $\alpha = .79$).

Originally, the total measure of individual modality orientation was supposed to capture individual mode integration preferences, instances of transition difficulties, and mode segmentation preferences. However, the data collected in the main study revealed that the sub-scale used to measure individual transition difficulties produced a less than acceptable index of reliability ($\alpha = .59$). As a result, a total measure of *modality orientation* was computed by combining the average scores from the individual mode integration preferences and mode segmentation preferences sub-scales ($M = 5.19$, $SD = .74$). Thus, the final measure used to reflect modality orientation and test the hypotheses in the main study included measures for individual mode integration and segmenting preferences and excludes individual transition difficulties measures.

Chapter 3

RESULTS

This chapter reports the findings of the current study. First, the chapter discusses how each of the three main dyadic modality switching behaviors related to roommate relationship quality. Then, the chapter presents the results for each of the hypothesis tests presented earlier. Lastly, the overall findings are summarized.

Relationship Between Dyadic Behaviors and Relationship Quality

A zero-order correlation analysis examined the relative association between each of the dyadic modality switching behaviors and roommate relationship quality.

Table 1. Pearson Correlation Analysis: Dyadic Modality Switching Behaviors and
Roommate Relationship Quality

	1	2	3
1 Dyad Integration Behaviors	1		
2 Dyad Mode Segmentation Behaviors	.27**	1	
3 Dyad Difficulty Transitioning Behaviors	.22**	.22**	1
4 Roommate Relationship Quality	.62**	.35**	-.05

$** p < .01; N = 276$

As illustrated in Table 1, the analysis revealed a significant correlation between *dyadic mode segmentation* behaviors and *roommate relational quality* ($r = .35, p < .01$), indicating that dyadic mode segmentation behaviors were significantly and *positively* related to relational quality among roommates. In other words, the

results suggest that having some topic restrictions and/or boundaries for mediated and face-to-face channels was associated with higher ratings of roommate relationship quality.

The analysis also indicated a significant correlation between *dyadic mode integration* behaviors and *roommate relational quality* ($r = .62$, $p < .01$). Here, greater instances of discussions extending back and forth between face-to-face and mediated channels were associated with higher ratings of roommate relationship quality. This finding is important because it reveals that dyadic mode integration behaviors had the strongest association with roommate relationship quality apart from any of the other dyadic communication behaviors of interest (see Table 1).

Finally, *dyadic transitioning difficulty behaviors* were not correlated with roommate relationship quality ($r = -.05$, *ns*). This finding is a departure from results observed by Caughlin and Sharabi's (2013), who found a significant *negative* correlation between dyadic difficulty transitioning behaviors and roommate relationship quality. Even though the current study's findings reflect the same directional results, the overall relationship was not significant among roommates. The discussion and limitations section will describe in further detail the possible interpretations of some of these results.

Results of Hypothesis Tests

The following paragraphs report the results of the analyses that tested the proposed model presented in Chapter 1. Recall that H1a predicted that *dyadic*

transitioning difficulties would be negatively associated with *roommate relationship quality*. However, as Table 1 illustrates, there was not a significant correlation between dyadic transitioning difficulties and roommate relational quality. H1a was not supported.

Similarly, H1 predicted that *dyadic integration behaviors* would be positively related to *roommate relationship quality*. As illustrated in Table 1, there was a significant and *positive* correlation between dyadic integration behaviors and roommate relationship quality. Based on these findings, H1 was supported.

A hierarchical regression analysis tested H2, which predicted that an individual's modality orientation would moderate any effects observed between dyadic modality switching behaviors and relational quality. Because this hypothesis involved testing how modality orientation related to the relationship between dyadic modality switching behaviors and relational quality, the modality orientation variables were entered in the first step and an interaction term was added to the regression model in the second step. The dyadic mode integration variable was selected as one of the main predictors used to test H2 because dyadic integration behaviors were most strongly correlated with relational quality.

Overall, the regression model was significant, $F(2, 273) = 83.57$, $p < .01$, adjusted $R^2 = .38$. The analysis revealed that modality orientation did not significantly predict roommate relationship quality ($\beta = .01$, $t(275) = .28$, *ns*). However, dyadic integration behaviors did significantly predict roommate relationship quality ($\beta = .32$,

t (275) = 12.79, $p < .01$). In other words, more frequent instances of dyadic integration

behaviors resulted in higher ratings of roommate relationship quality.

In step two of the regression analysis an interaction term (dyadic integration

behaviors x modality orientation) was entered as another predictor. When compared to

the findings in step one, the inclusion of the interaction term did not improve the

model (R^2 change = .001, $F = .52$, $p = .47$). Thus, H2 was not supported. The data

yielded support for the pre-established relationship between dyadic modality switching

behaviors and relational outcomes. However, contrary to what was predicted, the

modality orientation variable did not moderate the relationship.

Hypotheses H3, H4, and H4a predicted that social skill and attachment security

were associated with individual modality integration and mode segmentation

preferences. A correlation analysis was used to test H3, H4, and H4a (see Table 2).

Table 2. Correlation Analysis: Testing Modality Orientation Preferences with Social
Skill and Attachment Security

	1	2	3	4	5
1 Mode Integration Preferences	1				
2 Mode Segmentation Preferences	.40**	1			
3 Anxious Attachment Security	.14*	.07	1		
4 Avoidance Attachment Security	.03	-.04	.05	1	
5 Social Skill	.31**	.19**	.30**	.06	1

** p < .01, * p < .05; N = 276

H3 predicted that *social skill* would be positively associated with endorsing

mode integration preferences. A correlation analysis revealed a significant correlation

between social skill and individual modality integration preferences ($r = .31$, $p < .01$).

In other words, individuals high in social skill were more likely to value mode integration behaviors. Thus, H3 was supported. However, as discussed in Chapter 2, the scale used to measure social skill produced a less than acceptable reliability coefficient of .66. As a result, the data used to test H3 cannot confidently be interpreted.

H4 predicted that *attachment avoidance* would be associated with endorsing *mode segmentation preferences*. However, as illustrated in Table 2, the correlation analysis revealed that attachment avoidance was not significantly related to mode segmentation preferences ($r = -.04$, *ns*). Thus, H4 was not supported.

Finally, H4a predicted that *attachment anxiety* would be associated with endorsing *mode integration preferences*. There was a significant correlation between attachment anxiety and mode integration preferences ($r = .14$, $p < .01$). Thus, H4a was supported. Individuals high in attachment anxiety were more likely to endorse a preference for instances when topics are referenced across modes.

Summary of findings.

This chapter presented results of hypothesis tests the main study sought to investigate. A correlation analysis revealed that dyadic mode segmentation behaviors were positively and significantly associated with roommate relational quality. Additionally, the results revealed an even stronger positive association between dyadic mode integration behaviors and roommate relational quality – suggesting dyadic mode integration behaviors was the dyadic behavior with the strongest connection to

roommate relational quality. The results supported H1 but not H1a – which suggested that dyadic mode integration behaviors are significantly related to relational quality among roommates and dyadic difficulty transitioning behaviors are not.

A hierarchical multiple regression analysis tested H2, which predicted that individual modality orientation would moderate the relationship between dyadic integration behaviors and relational quality. Here, the data indicated that modality orientation does not have a moderating effect and H2 was not supported. Lastly, a second correlation analysis was conducted to examine how factors such as, social skill and attachment security, relate to preferences toward modality switching behaviors. The data indicated that social skill (H3) and attachment anxiety (H4a) were both significantly associated with modality orientation preferences. However, attachment avoidance was not found to have a significant connection to modality switching preferences. Overall, H1, H3, and H4a were supported by the current data while H1a, H2, and H4 were not supported.

Chapter 4

DISCUSSION AND LIMITATIONS

This chapter summarizes and interprets the main study's findings, connects the main study to broader literature, and offers recommendations for future research. The sections below discuss the main goals of the study, address the current study's findings, and illustrate how they contribute to current literature. Lastly, the conclusion identifies limitations of the current project as well as discusses potential directions for future studies on the topic of modality switching and mixed-media relationships.

Contributions to Current Literature

Revisiting the Communication Interdependence Perspective

The current study had four main goals. The following paragraphs address each of these goals and discusses how successful the main study was at meeting them. The first goal of this study was to revisit the communication interdependence perspective to extend our understanding of how technology and modality switching behaviors impact relational outcomes in mixed-media relationships. The communication interdependence perspective asserts that "a key to understanding relationships involves understanding how relational behaviors are (and are not) interconnected" (Caughlin & Sharabi, 2013, p. 877). Additionally, the perspective identifies *mode integration, mode segmentation, and difficulties transitioning* as three key dyadic modality switching behaviors. These modality switching behaviors are important to examine because

previous studies (Caughlin & Sharabi, 2013; Caughlin et al., 2016) have found

evidence that suggests that all three of the key modality switching behaviors are

significantly related to relational closeness and satisfaction. Such findings indicate that

communication modes, and how they are used, convey relational meaning. In this

light, it is important to continue understanding modality switching and modality

switching behaviors because they strongly relate to perceptions of relational quality.

The present study examined some of the previously observed relationships

between dyadic modality switching behaviors and relational outcomes. Recall that the

overall model predicted that *dyadic mode integration* would be positively related to

relational outcomes among roommates. Consistent with previous findings (Caughlin

& Sharabi, 2013), dyadic mode integration behaviors were significantly positively

related to relational quality. As described in Chapter 1, dyadic mode integration

behaviors represent instances when topics that arose via one channel are discussed in

another. Therefore, the findings suggest that greater instances of topic references

across modes were related to more positive ratings of relational quality.

Similarly, the model predicted that *dyadic difficulties transitioning* would be

inversely related to ratings of *relational quality* among roommates. Inconsistent with

Caughlin and Sharabi's (2013) findings, the current study did not observe a significant

relationship between dyadic mode transitioning difficulties and relationship quality.

The current study's results (H1a) are similar to previous studies in that they both

suggest an inverse relationship exists between dyadic transition difficulties and

relational outcomes (Caughlin & Sharabi, 2013). However, this study did not observe

a significant relationship between dyadic difficulties transitioning and relational outcomes. Such findings suggest there is not a significant association between mode dyadic transition difficulties and relational quality among roommates. Thus, results from H1 and H1a hypothesis tests provided only partial support for the communication interdependence perspective. A following section will discuss in further detail possible explanations for the differences observed between the current study's findings and Caughlin and Sharabi's (2013) previous research.

Investigating Individual Modality Orientation

Another goal of the main study was to explore areas where the communication interdependence perspective could be expanded as well as identify a variable that moderates the relationship between dyadic modality switching behaviors and relational outcomes. More specifically, this study attempted to expand the communication interdependence perspective by accounting for individual differences in preferences toward modality switching behaviors. As discussed in the literature review, our current understanding of mixed-media relationships could be more descriptive if boundary conditions relevant to the communication interdependence perspective are identified. Furthermore, Caughlin et al. (2016) found evidence which suggests that people *do* have individual differences in preferences and usage of technologically mediated channels. Such findings support the researcher's decision to use the current study to explore whether individual differences in preferences toward

modality switching behaviors had any moderating effects on the relationship between dyadic modality switching behaviors and relational quality.

The current study proposed a new construct, *modality orientation,* which reflects an individual's values and preferences toward modality switching behaviors. A regression analysis revealed that individual differences in modality orientation did not moderate the relationship between dyadic modality switching behaviors and relational quality among roommates. In other words, individual values and preferences toward modality switching behaviors did not significantly influence the relationship between dyadic modality switching behaviors and relational quality. One explanation for these findings is that *individual* preferences may not have an impact on *dyadic modality switching preferences* and *relational quality* because both of these variables are measuring constructs at the *dyadic* level.

Given the results, it is likely that preferences toward modality switching behaviors are an important factor to consider. But variations in preference may be more descriptive if measured by observing differences in preference at the dyadic level for comparison. Future research should continue to explore how individual preferences relate to modality switching behaviors, as well as, consider exploring *differences* in individual preferences *between* dyadic partners.

Social skill, Attachment Security, and Modality Switching Preferences

The main study also sought to examine additional variables that the researcher hypothesized may shape individual preferences toward modality switching behaviors.

Recall that the model predicted that individual modality orientation would produce a moderating effect when applied to the communication interdependence perspective (H2). Given these predictions, I also wanted to investigate which variables may contribute to the formation of an individual's preferences. Thus, the last set of hypotheses (H3, H4, and H4a) focused on how social skill and attachment security, relate to preferences toward modality switching behaviors. Social skill and attachment security were hypothesized as predictors because social skill impacts interpersonal communication and attachment security relates to preferences and values toward emotional distance and reliance on personal relationships (Meier, Carr, & Currier, 2013).

The data indicated that individuals with high social skills are more likely to endorse a preference for mode integration behaviors. A possible explanation for these results is that individuals high in social skill may prefer mode integration behaviors because they are comfortable with their social abilities across modes. However, the social skill measure generated a less than acceptable reliability coefficient (Social Skills Index; $\alpha = .66$). Thus, even though the current study's data support H3, the results should be interpreted with caution.

Recall that H4 and H4a predicted how attachment security relates to modality switching preferences. An analysis failed to find a significant relationship between *attachment avoidance* and modality switching preferences. Yet, the results did reveal a significant positive relationship between *attachment anxiety* and relational outcomes. In other words, individuals with high attachment anxiety were more likely to endorse a

preference for mode integration behaviors. As described in Chapter 1, person who has high levels of attachment anxiety tends to be dependent on their social relationships and frequently worry about the responsiveness of people they have they close relationships with (Meier et al., 2013). Thus, a possible interpretation of these results is that individuals with high attachment anxiety have a greater preference for mode integration behaviors because they value the ability to communicate with those on who they depend. Future research should continue to look into the nature of this relationship because it may provide a useful explanation for motivations behind performing certain modality switching behaviors.

Consistencies and Deviations from Previous Findings

In an effort to produce results comparable to Caughlin and Sharabi's (2013) findings, the current study measured dyadic modality switching behaviors using a similar variables and measurement scales. Overall, there were two main differences between the current study's method and Caughlin and Sharabi's study. The first difference was the relationship type selected for observation. Recall that the fourth goal of this study was to explore whether the communication interdependence perspective could be applied to relationships outside of romantic pairs. As a result, the current project focused on observing *roommate* relationship dynamics, as opposed to strictly romantic pairs. Roommate relationships were intentionally selected because roommate pairs allowed the researcher to analyze partners outside of a romantic

partner dynamic, as well as, observe a relationship dynamic with varying perceptions of closeness and satisfaction (Argyle & Henderson, 1984).

The second difference between studies was the relational outcome variable observed. Caughlin and Sharabi's (2013) measured overall relational quality by measuring *relational closeness* and *relational satisfaction* separately. Here, *roommate relational quality* was selected as the main outcome variable for analysis. Roommate relational quality was selected because Wiltz's (2003) Roommate Friendship Scale measures relationship quality specifically for roommate relationship dynamics. Other than these two key differences, the measures used within the current project are fairly similar to Caughlin and Sharabi's study. Given the similarities in measurement and variables of interest, the following paragraphs will compare the findings from H1 and H1a's hypothesis tests with Caughlin and Sharabi's results to examine which patterns are consistent and/or inconsistent with previous findings.

As mentioned previously, the current study's results were consistent with previous findings (Caughlin & Sharabi, 2013), which suggests that *dyadic mode integration behaviors* are positively associated with *relational quality*. Yet, one notable difference between the current study's results and previous findings (Caughlin & Sharabi, 2013) is the strength of the relationship identified. In the current study, a correlation analysis revealed a significant relationship between dyadic integration behaviors and relational quality among *roommates* ($r = .62, p < .01$). On the other hand, in Caughlin and Sharabi, a correlation analysis revealed a significant relationship between dyadic integration behaviors and relational quality among

college-aged *romantic partners* ($r = .12$, $p < .05$). Even though both results are statistically significant, the current project's finding is notably higher compared to previous findings (2013). The variance in relationship strength between studies is interesting because both studies have comparable sample populations and utilized very similar scales for analysis (2013).

Given that a main difference between both studies was the relationship-type observed (i.e. roommate relationship vs. romantic relationship), it is likely that relationship-type observed contributed, in part, to the significant differences across studies. In this light, future research on the communication interdependence theory may be able to identify significant patterns in how the perspective applies to different relationship-types. Overall, the present study found support for the communication interdependence perspective, and also, evidence suggesting that relationship-type observed may be an important variable for future research to consider.

Lastly, H1a's hypothesis test also revealed some notable differences when compared to Caughlin and Sharabi's (2013). Recall that, inconsistent with Caughlin and Sharabi's findings, H1a's hypothesis test did not reveal a significant relationship between *dyadic mode transitioning difficulties* and *relationship quality*. A possible explanation for the differences in results across studies may be that relationship-type impacts which dyadic modality switching behaviors are viewed as important to display within a relationship. For example, Caughlin et al., (2016) found "it may not always be possible to label particular uses of TMC during conflict as either constructive or destructive; instead, whether a particular utilization is successful might depend on

differences in attitudes or in how well partners are able to convince each other that various potential uses of TMC are appropriate" (p. 69).

In other words, attitudes toward modality switching behaviors, and perception of the "appropriateness" of modality switching behaviors, may be partly negotiated among dyadic pairs. In this light, it is possible that variables such as, *intimacy*, and *relationship-type*, contribute to the effect observed between dyadic modality switching behaviors and relational quality. Thus, one possible interpretation of this study's findings may be that dyadic transition difficulties are not perceived as an important relational behavior among roommates. For example, if two roommates have a shallow and distant relationship, then instances when communication does not smoothly flow across channels may not perceived as an important behavior. Other the other hand, in a romantic relationship where intimacy is high, behaviors that make communication with their partner less fluid may be viewed as important. Given these results, future research should consider how variables such as, intimacy and relationship-type, impact the value or perceived importance of dyadic modality switching behaviors among dyadic pairs.

Summary of findings.

Overall, the study provides three main contributions to the body of interpersonal and mixed-media communication literature. First, the study utilized similar variables and measures to explore and provide further support for the communication interdependence perspective. Specifically, dyadic mode integration

45

behaviors were positively and *strongly* associated with relational quality among roommates. Recall that dyadic mode integration behaviors account for instances when topics that arose via one communication channel are discussed via another. Therefore, this finding is notable because recent work (Caughlin & Sharabi, 2013; Caughlin et al., 2016; Parks, 2017) suggests that the interconnections between technological modes and face-to-face communication *matter* and have an impact on important relational outcomes. Therefore, the first significant contribution the current study provides is further support for the communication interdependence perspective and evidence which suggests that interconnections between channels are significantly associated with relational outcomes.

Second, the study adds to current literature by investigating if individual differences in preferences toward modality switching behaviors moderated the effects observed within the communication interdependence perspective. Findings from Caughlin et al. (2016) indicated that differences in preferences toward modality switching behaviors may be an important variable for future research to consider. Unfortunately, the data did not provide support to suggest that individual differences in preferences toward modality switching behaviors have a significant impact on the relationship between dyadic modality switching behaviors and relational quality. However, a possible limitation to H2's hypothesis test is that the current study only investigated the individual preferences of half of the dyadic pair of interest. For example, Caughlin et al. (2016) suggested that the meaning of technologically mediated communication may be partly negotiated among dyadic pairs. Based on

these findings, it is likely that discrepancies in individual preferences toward modality switching behaviors *between* dyadic partners is a variable worth investigating. Thus, these results are insightful because they explore the impact of individual preferences, as well as, indicate that future research should consider how discrepancies in preference among dyadic partners may impact dyadic behaviors and/or relational outcomes.

Additionally, the current project advances the interpersonal and mixed-media relationship literature by exploring other variables that may shape our understanding of the communication interdependence perspective. More specifically, the data revealed *social skill* and *attachment anxiety* to be significantly related to individual preferences for *mode integration behaviors*. Such findings suggest that communication skill and/or an individual's need to manage emotional distance may be significant contributors to our preferences for modality switching behaviors (Meier et al., 2013). The study addressed how *intimacy* and *relationship-type* may also be important variables for future research to consider.

Given the current study's consistencies and deviations from Caughlin and Sharabi's (2013) research, it is likely that relational intimacy and relationship-type impact the perceived importance of dyadic modality switching behaviors. Therefore, this study's third notable contribution is illustrating how variables such as, social skill, attachment security, intimacy, and relationship-type, are all factors that future mixed-media research should consider. While these are the main findings offered by this study, there are a few limitations and future directions that should be addressed. The

47

following section addresses limitations of the present study and discusses suggestions for future research.

Limitations and Future Directions

Overall, this study was an exploratory endeavor that found support for the communication interdependence perspective and investigated areas where the perspective could be extended further. However, there are also important limitations. First, the scale used to capture a measure of individual *modality orientation* should be reexamined and refined before being used in future analysis. Even though the pilot study provided initial support for a reliable and valid scale, not all of the modality orientation sub-scales produced consistently reliable measures across studies.

More specifically, the sub-scales which measured individual preferences of mode integration and mode segmentation were consistently reliable across studies. On the other hand, the sub-scale items that measured individual preferences toward difficulties transitioning did not produce reliable measures within the main study. The differences in sub-scale reliability across studies indicates that the modality orientation scale is likely to contain some measurement error. Based on these results, the modality orientation scale items used to measure individual preferences toward difficulties transitioning should be revisited and adjusted to ensure that the scale accurately accesses the intended construct.

Another measurement limitation involves the Social Skills Index, which was used to capture a measure of social skill (SSI; Riggio, 1989). The SSI was initially

selected because it typically produces a reliable measure of social skill. Yet, the SSI produced a less than acceptable reliability index. As a result, data from the current study that suggests a significant relationship exists between social skill and mode integration preferences (H3) should be interpreted with caution. Thus, future research that attempts to investigate how social skill contributes to modality switching behaviors may benefit from utilizing a different scale to measure social skill.

Moreover, the researcher neglected to measure some key variables that could have impacted the results produced in this study. For example, the study did not, but should have, included an assessment of the participant's perceived importance of their roommate relationship, perceived level of intimacy, and an assessment of individual preferences from the other half of the dyadic pair. As illustrated previously, areas where the current study deviates from previous research (Caughlin & Sharabi, 2013; Caughlin et al., 2016) suggests that differences in relational intimacy and relationship-type may impact the perceived importance of dyadic modality switching behaviors. For example, in the current study, it's possible that dyadic transitioning difficulties did not significantly impact roommate relationship quality because some roommates do not view communication with their roommate as valuable or important. In that light, transitioning difficulties, which complicate or hinder one's ability to smoothly communicate with their roommate, may not be a factor that significantly impacts relational quality.

Furthermore, future research on dyadic modality switching behaviors should consider the perceptions of *both* partners within a dyad. The additional information

would likely provide a greater understanding of how modality switching behaviors

impact relational outcomes among dyadic pairs because analysis would include the

perception of both participants. As previously mentioned, evidence from Caughlin et

al., (2016) suggests that the appropriateness of certain modality switching behaviors

may be partly negotiated among pairs. As a result, a limitation of the current project is

measuring only half of the dyadic pair's preferences.

Given that it is likely that the individual preferences of *both* partners contribute

to the dyadic modality switching behaviors actually enacted between pairs, it was a

limitation that the present study did not account for both pair's preferences and

perceptions. Therefore, future research should consider examining variables such as,

perception of relational importance, perceived level of intimacy, and individual

perceptions of both dyadic partners, because each of these variables could help

contribute to our understanding of the communication interdependence perspective as

well as shape our understanding of mixed-media relationships.

Closing Reflections

The current study was successful in finding support for the communication

interdependence perspective, yet unsuccessful in identifying a significant moderating

variable. Even though the data did not suggest that individual differences in

preferences toward modality switching behaviors moderates the relationship between

dyadic modality switching behaviors and relational quality, the data did provide

insights for future directions. For example, is it likely that discrepancies in

expectations and individual preferences toward modality switching behaviors *between* dyadic partners might be a more important factor for future research to consider.

Research on the topic of expectancy violation theory supports the premise that expectancy violations can have positive or negative consequences for relational outcomes (Guerrero, Anderson, & Afifi, 2011). As a result, it is likely that differences in individual expectations *between* dyadic pairs could impact perceptions of relationship quality. Furthermore, it is evident in the current study's findings that people *do* have varying values and expectations toward modality switching behaviors. Therefore, future research should continue to investigate how these differences in views and values toward modality switching behaviors contribute to the mixed-media communication process.

Finally, it is imperative that future research continues to explore theories that contribute to our understanding of mixed media relationships, such as the communication interdependence perspective and media multiplexity. Recent work (Caughlin & Sharabi, 2013; Caughlin et al., 2016; Parks, 2017) has provided strong evidence to suggest that the interconnections between technological modes and face-to-face communication *matter* and have an impact on important relational outcomes. However, as previously described in Chapter 1, the communication interdependence perspective and the media multiplexity theory could both be strengthened by identifying boundary conditions. Both of these perspectives contribute to our understanding of mixed-media relationships, and future research efforts on these

topics could increase the sophistication of our understanding of interpersonal communication.

The current study has addressed the need for investigating the relevant moderating or mediating variables that relate to mixed-media theoretical perspectives. Even though the study's results did not find evidence to support a significant moderating variable, it was successful in that it provided insight toward future research directions. Overall this study serves as a starting point for testing the boundaries of current mixed-media perspectives in an attempt to gain a greater understanding of how technological modes impact and contribute to interpersonal communication and important relational outcomes.

REFERENCES

Argyle, M., & Henderson, M. (1984). The rules of friendship. *Journal of Social and Personal Relationships, 1*(2), 211–237. https://doi.org/10.1177/0265407584012005

Bartholomew, K., & Horowitz, L. M. (1991). Attachment styles among young adults: A test of a four-category model. *Journal of Personality and Social Psychology, 61*(2), 226-244. doi:10.1037//0022-3514.61.2.226

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46 – 76). New York: Routledge.

Busse, C., Kach, A. P., & Wagner, S. M. (2015). Boundary conditions: What they are, how to explore them, why we need them, and when to consider them. *SSRN Electronic Journal*. doi:10.2139/ssrn.2713980

Caughlin, J. P., Basinger, E. D., & Sharabi, L. L. (2016). The connections between communication technologies and relational conflict: A multiple goals and communication interdependence perspective. In J. A. Samp (Eds.), *Communicating interpersonal conflict in close relationships: Contexts, challenges, and opportunities* (pp. 57 - 72). New York: Routledge.

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,* 837- 893. doi:10.1111/jcom.12046

Guerrero, L. K., Andersen, P. A., & Afifi, W. A. (2011). *Close encounters: communication in relationships*. Los Angeles CA: Sage.

Haythornthwaite, C. (2005) Social networks and internet connectivity effects. *Information, Communication & Society, 8*(2), 125-147. doi:10.1080/13691180500146185

Ledbetter, A. M. (2009). Patterns of media use an multiplexity: Associations with sex, geographic distance and friendship interdependence. *New Media & Society*, *11*, 1187-1208.

Ledbetter, A. M. (2015). Media multiplexity theory: technology use and interpersonal tie strength. In D. O. Braithwaite & P. Schrodt (Eds.), *Engaging theories in interpersonal communication: Multiple Perspectives* (2nd ed., pp. 363 - 376). Thousand Oaks, CA: Sage.

Parks, M. R. (2017). Embracing the challenges and opportunities of mixed-media relationships. *Human Communication Research, 43*(4), 505-517. doi:10.1111/hcre.12125

Ramirez, Jr., A. & Broneck, K. (2009). "IM me": Instant messaging as relational

    maintenance and everyday communication. *Journal of Social and Personal*

    Relationships, *26*, 291-314. doi: 10.1177/0265407509106719

Riggio, R. E. (1989). Social skills and interpersonal relationships: Influences on social

    support and support seeking. In W. H. Jones & D. Perlman (Eds.), *Advances in*

    personal relationships, Vol. 2. Greenwich, CTL JAI Press.

Sharabi, L. L., & Caughlin, J. P. (2017). Usage patterns of social media across stages

    of romantic relationships. In N. Punyanunt-Carter and J. Wrench (Eds.), *Swipe*

    right for love: The impact of social relationships in modern romantic

    relationships (pp. 15-29). Lanham, MD: Lexington.

Walther, J. B., & Parks, M. R. (2002). "Cues Filtered Out, Cues Filtered in: Computer

    Mediated Communication and Relationships," In: G. R. Miller (Eds.), *The*

    handbook of interpersonal communication (pp. 529-563). Thousand Oaks, CA:

    Sage.

Walther, J. B. (2006). Nonverbal dynamics in computer-mediated communication, or

    :(and the net :('s with you, :) and you :) alone. In V. Manusov & M. L.

    Patterson, (Eds.), *The Sage handbook of nonverbal communication* (pp. 461 -

    480). Thousand Oaks, CA: Sage.

Wei, Meifen, Russell, Daniel W., Mallinckrodt, Brent & Vogel, David L. (2007) The

    experiences in close relationship scale (ECR)-short form: Reliability, validity,

    and factor structure, *Journal of Personality Assessment, 88*: (2), 187 — 204.

Wiltz, J. (2003). Measuring relationship strength in roommates with MR/DD: The

    development of the Roommate Friendship Scale (RFS). *Research in*

    developmental disabilities, 24*(5)*, 359-367.

Appendix A

MODALITY ORIENTATION SCALE ITEMS

* NOTE: the (*) symbol at the end of a statement represents a reverse coded item

Instructions: The purpose of this study is to examine opinions about communicating face to face and communication through online messaging. FOR THE PURPOSES OF THIS STUDY **"MESSAGING"** REFERS TO TEXT MESSAGING AND/OR MESSAGING THROUGH ONLINE APPLICATIONS SUCH AS FACEBOOK, MESSENGER, WHATS APP, ETC.

(1) Strongly disagree	(2) Disagree	(3) Somewhat disagree	(4) Neither agree not disagree	(5) Somewhat agree	(6) Agree	(7) Strongly agree

Questions – General Modality Orientation – Beliefs/Values/Feelings/Comfort

Instructions: The first set of questions are going to ask you about communication in general and your level of comfort when you switch from talking in person to messaging and vice versa. For the following questions please indicate the degree to which you agree with each of the following statements:

1. Certain topics should only be discussed in person (i.e. face-to-face). *

2. Certain topics should only be messaged about, rather than discussed in-person. *

3. Friends should be able to talk in person about any topic that they also talk about through messaging.

4. Friends should be able to message about any topic that they also talk about in person.

5. I think it's important to use messaging as a way to keep an earlier in-person conversation going.

6. Messaging should be used to communicate moment to moment needs and not for ongoing conversations. *

7. It's useful for people to use messaging to bring up sensitive topics they plan to talk about in person later.

8. It's useful for people to message about things they don't want to talk about in person. *

9. It's easier to use messaging to avoid talking about sensitive issues in person. *

10. When an in-person discussion isn't fully resolved, I think it's important to message about it later.

11. It's a good idea to use messaging to bring up sensitive topics that I plan to talk about later in person.

12. I find it easy to message about an earlier in person conversation.

13. I find it hard to message about an earlier in person conversation. *

14. I often feel **uncomfortable** when my friends message me about an in-person conversation we had earlier. *

15. I often feel **uncomfortable** when my friends talk to me in person about a conversation we just messaged about. *

16. Its **comfortable** for me to move a conversation from in person to messaging.

17. Its **comfortable** for me to move from messaging to a conversation in person.

18. When I'm **uncomfortable** talking about something in person, I think it's useful to message about it instead. *

Questions – Friend Preferences - Modality Orientation

Instructions: The next set of questions ask about general communication behaviors and expectations that you think are important when communicating with **CLOSE FRIENDS.** When answering the following questions, please indicate how much you agree with the following statements about **CLOSE FRIENDS.**

1. When talking in person, **close friends** should bring up conversations they previously messaged about.

2. When messaging each other, **close friends** should bring up conversations they previously had in person.

3. After hanging out in person, it's important for **close friends** to continue a conversation through messaging.

4. After an argument in person, **close friends** should message each other to continue the conversation about it.

5. After messaging about an argument, **close friends** should talk in person about the argument.

6. After talking in person, **close friends** should message each other later to let them know that they had a good time.

7. **Close friends** should talk in person about personal issues, rather than messaging about them. *

8. **Close friends** should message about personal issues, rather than talking face to face about them. *

9. Instead of messaging, **close friends** should catch up with each other in person. *

<center>**Questions – Romantic Preferences - Modality Orientation**</center>

Instructions: The next set of questions ask about general communication behaviors and expectations that you think are important when communicating within **ROMANTIC RELATIONSHIPS.** When answering the following questions, please indicate how much you agree with the following statements about **ROMANTIC RELATIONSHIPS.**

1. When talking in person, **romantic partners** should bring up conversations they previously messaged about.

2. When messaging each other, **romantic partners** should bring up conversations they previously had in person.

3. After hanging out in person, it's important for **romantic partners** to continue a conversation through messaging.

4. After an argument in person, **romantic partners** should message each other to continue the conversation about it.

5. After messaging about an argument, **romantic partners** should talk in person about the argument.

6. After a date, **romantic partners** should message each other later to let them know that they had a good time.

7. **Romantic partners** should talk in person about personal issues, rather than messaging about them. *

8. **Romantic partners** should message about personal issues, rather than talking face to face about them. *

9. Instead of messaging, **romantic partners** should catch up with each other in person. *

SOCIAL SKILLS INDEX (SHORT FORM)

* NOTE: the (*) symbol at the end of a statement represents a reverse coded item

Instructions: Please read each question, and then bubble in the circle that best

represents how you feel.

(1) Not like me at all	(2) A little like me	(3) Like me	(4) Very much like me	(5) Exactly like me

1. I usually feel comfortable touching other people. *

2. I am interested in knowing what makes people tick. *

3. I am not very skilled in controlling my emotions.

4. I love to socialize. *

5. There are certain situations in which I find myself worrying about whether I am doing or saying the right things.

6. I can be comfortable with all types of people-young and old, rich and poor.

7. My facial expression is generally neutral.

8. I can easily tell what a person's character is by watching his or her interactions with others.

9. It is very hard for me to control my emotions. *

10. I always mingle at parties. *

11. I often worry that people will misinterpret something I have said to them.

12. When in a group of people, I have trouble thinking of the right things to talk about. *

13. I rarely show my anger.

14. I always seem to know what other peoples' true feelings are no matter how hard they try to conceal them.

15. I am very good at maintaining a calm exterior even if I am upset.

16. I usually take the initiative to introduce myself to strangers.

17. I can be strongly affected by someone smiling or frowning at me.

18. I would feel out of place at a party attended by a lot of very important people.

19. I am able to liven up a dull party.

20. I can instantly spot a "phony" the minute I meet him or her.

21. While I may be nervous on the inside, I can disguise it very well from others.

22. At parties I enjoy talking to a lot of different people. *

23. It is very important that other people like me.

24. I am often chosen to be the leader of a group.

25. I rarely show my feelings or emotions.

26. I am often told that I am a sensitive, understanding person.

27. I am rarely able to hide a strong emotion.

28. I enjoy going to large parties and meeting new people.

29. I'm generally concerned about the impression I'm making on others.

30. I can easily adjust to being in just about any social situation.

EXPERIENCES IN CLOSE RELATIONSHIPS SCALE (SHORT FORM)

Experience in Close Relationships Scale – Short Form; Wei et al., (2007)

* NOTE: the (*) symbol at the end of a statement represents a reverse coded item

Instruction: The following statements concern how you feel in romantic relationships.

We are interested in how you generally experience relationships, not just in what is

happening in a current relationship. Respond to each statement by indicating how

much you agree or disagree with it. Mark your answer using the following rating

scale:

(1) Strongly disagree	(2) Disagree	(3) Somewhat disagree	(4) Neither agree not disagree	(5) Somewhat agree	(6) Agree	(7) Strongly agree

1. It helps to turn to my romantic partner in times of need. *

2. I need a lot of reassurance that I am loved by my partner.

3. I want to get close to my partner, but I keep pulling back.

4. I find that my partner(s) don't want to get as close as I would like.

5. I turn to my partner for many things, including comfort and reassurance. *

6. My desire to be very close sometimes scares people away.

7. I try to avoid getting too close to my partner.

8. I do not often worry about being abandoned. *

9. I usually discuss my problems and concerns with my partner. *

10. I get frustrated if romantic partners are not available when I need them.

11. I am nervous when partners get too close to me.

12. I worry that romantic partners won't care about me as much as I care about them.

Scoring Information:

Anxiety = 2, 4, 6, 8 (reverse), 10, 12

Avoidance = 1 (reverse), 3, 5 (reverse), 7, 9 (reverse), 11

ROOMMATE RELATIONSHIP QUALITY SCALE

Roommate Relationship Quality Scale; Wiltz, J. (2003)

* NOTE: the (*) symbol at the end of a statement represents a reverse coded item

Instructions: Please answer the following questions about your current roommate.

Note – if you have multiple roommates, please pick one and keep that same person in mind when answering the following questions.

(1) Strongly disagree	(2) Disagree	(3) Somewhat disagree	(4) Neither agree not disagree	(5) Somewhat agree	(6) Agree	(7) Strongly agree

1. We have fun with each other.

2. We spend nearly all of our free time together.

3. We help one another out when needed.

4. If we have a problem, we will often work it out on our own.

5. We confide in each other.

6. We miss each other when we are apart.

7. We sometimes get into fights. *

8. We help one another when one of us has a problem.

9. We do fun things together.

10. When one of us does a good job at something, we are happy for the other person.

11. We act cold and distant toward one another. *

12. We have confidence in one another.

13. We are open, honest, and genuine with each other.

14. If I or my roommate does something that bothers the other, we easily make up.

15. Sometimes we do things for each other to make the other person feel special.

16. We show respect for one another.

17. We hold grudges easily against one another. *

18. We understand one another well as individuals.

19. We disagree about many things. *

20, We cooperate with one another.

21. We enjoy spending time together.

22. If someone was bothering one of us, the other would step in to help.

23. If we have a fight or argument, we can say "I'm sorry" and everything will be alright.

24. We are happiest when we are together.

25. We have a lot of interpersonal conflict. *

26. If one of us forgot lunch or needed a little money, the other would loan it.

27. We like to joke around with each other.

28. We like one another a lot.

DYADIC COMMUNICATION BEHAVIORS SCALE

Modified from the Dyadic Communication Behaviors Scale found in Caughlin &

Sharabi (2013)

* NOTE: the (*) symbol at the end of a statement represents a reverse coded item

Instructions: Please answer the following questions about your current roommate.

Note – if you have multiple roommates, please pick one and keep that same person in

mind when answering the following questions.

Dyadic Mode Integration –

(1) Never	(2)	(3)	(4) Sometimes	(5)	(6)	(7) Always

1. When you're talking with your partner through Internet chat, how often do you refer

to conversations you've had in person?

2. When you're talking with your partner through private Internet messaging (e.g., e-

mail, private Facebook messages), how often do you refer to conversations you've had

in person?

3. When you're talking with your partner through public Internet messaging (e.g.,

Facebook wall posts), how often do you refer to conversations you've had in person?

4. When you're talking with your partner over the phone, how often do you refer to

conversations you've already had in person?

5. When you're talking with your partner through video chat, how often do you refer

to conversations you've already had in person?

6. When you're talking with your partner through text messaging, how often do you refer to conversations you've had in person?

7. When you're talking with your partner in person (face to face), how often do you refer to things you've already texted about?

8. When you're talking with your partner in person, how often do you refer to things you've already talked about through Internet chat?

9. When you're talking with your partner in person, how often do you refer to things you've already talked about through private Internet messaging (e.g., e-mail, private Facebook messages)?

10. When you're talking with your partner in person, how often do you refer to things you've already talked about over the phone?

11. When you're talking with your partner in person, how often do you refer to things you've already talked about through video chat?

12. When you're talking with your partner in person, how often do you talk about things you've publicly posted on Facebook or some other social network site?

Dyadic Mode Segmentation –

(1) Strongly disagree	(2) Disagree	(3) Somewhat disagree	(4) Neither agree not disagree	(5) Somewhat agree	(6) Agree	(7) Strongly agree

1. There are some topics we only talk about through text messaging.

2. There are some topics we only talk about through video chat.

3. There are some topics we only talk about through phone calls.

4. There are some topics we only talk about through public Internet messaging (e.g.,

Facebook wall posts).

5. There are some topics we only talk about through Internet chat.

6. There are some topics we only talk about through private Internet messaging (e.g.,

e-mail, private Facebook messages).

7. There are some topics we only talk about in person (i.e., face-to-face).

Dyadic Difficulty transitioning –

(1) Never	(2)	(3)	(4) Sometimes	(5)	(6)	(7) Always

1. How often do you experience *dis*comfort when transitioning from conversations

with your partner that take place in person to technological channels?

2. How often do you experience *dis*comfort when transitioning from technological

channels to conversations with your partner that take place in person?

Appendix F

IRB LETTER – PILOT STUDY

DATE: September 25, 2018

TO: Kelly Sweeney
FROM: University of Delaware IRB

STUDY TITLE: [1323733-1] Communication Pilot Survey

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS
DECISION DATE: September 25, 2018

REVIEW CATEGORY: Exemption category 2

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Maria Palazuelos at (302) 831-8619 or mariapj@udel.edu. Please include your study title and reference number in all correspondence with this office.

Appendix G

IRB LETTER – MAIN STUDY

UNIVERSITY OF DELAWARE   RESEARCH OFFICE

210 Hullihen Hall
University of Delaware
Newark, Delaware 19716-1551
Ph: 302/831-2136
Fax: 302/831-2828

DATE:	November 20, 2018
TO:	Kelly Sweeney
FROM:	University of Delaware IRB
STUDY TITLE:	[1323733-2] Communication Pilot Survey
SUBMISSION TYPE:	Amendment/Modification
ACTION:	DETERMINATION OF EXEMPT STATUS
DECISION DATE:	November 20, 2018
REVIEW CATEGORY:	Exemption category # (2)

Thank you for your submission of Amendment/Modification materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Nicole Farnese-McFarlane at (302) 831-1119 or nicolefm@udel.edu. Please include your study title and reference number in all correspondence with this office.