

ABSTRACT

Title of Document: COMPUTER MEDIATED
COMMUNICATION AND NEGOTIATION:
EFFECTS OF MEDIA AND POWER ON
RELATIONSHIP DEVELOPMENT.

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The dissertation examined the *cues filtered out* and Social Information Processing (SIP) approaches to relationship development in an intra-organizational dyadic negotiation by comparing the use of face-to-face (FTF) and e-mail channels. The study further examined the effect of power difference on dimensions of relationship development such as dominance, trust, affect, depth, formality, and task/social orientation. Individuals in organizations use technology based tools such as e-mail to perform a variety of communication tasks. The dissertation provides a test and expansion of SIP with regard to the effects of time on relationship development by testing the theory within a highly social process like organizational negotiation where there is mixed channel use. This dissertation also provides a test of e-mail's unique characteristics and their effects on the development of relationships in an intra-organizational environment. The hypotheses were tested using a dyadic data analysis technique know as the Actor-Partner Independence Model (APIM).

One hundred and forty-eight students (74 dyads) participated in the study and negotiated three times. For the first negotiation, all participants used FTF to establish a baseline relationship measure and for the next two negotiations half of the participants used e-mail and the other half FTF. For the last two negotiations, a power difference also was introduced so that in half of the dyads in each group the seller had greater power than the buyer.

The study produced results in three main areas related to negotiation and computer mediated communication: (1) interpersonal relationships develop over lean media like e-mail; (2) the characteristics of e-mail affect relationship development when compared to FTF; and (3) the preference to use e-mail for future negotiations is affected by prior e-mail negotiation experience with one's partner, computer mediated communication comfort, and the level of dominance one's partner exhibits in e-mail negotiations. With regard to interpersonal relationships and negotiation, the study suggests that individuals learn to manage their interpersonal relationships via e-mail because it can be a useful tool for managing one's persona. Bargaining power and bargaining role were only of limited influence on the development of interpersonal relationships when e-mail was used to negotiate.

COMPUTER MEDIATED COMMUNICATION AND NEGOTIATION: EFFECTS
OF MEDIA AND POWER ON RELATIONSHIP DEVELOPMENT

By

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Dedication

This dissertation is dedicated to my parents, Dan and Dorothy Cronin.

Acknowledgements

Anything of substance is rarely the product of a lone individual – this dissertation is no exception. It is not possible to thank everyone who contributed to this physical product or my intellectual growth, but I sincerely hope that you all know what your support, encouragement, and wisdom have meant to me. Nevertheless, I would like to single out a few people for special recognition.

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Chapter 1: Introduction

The study of Computer Mediated Communication (CMC) is still in its early childhood stage and its use by organizational members is in its early adulthood. Competing theories attempt to address the need to understand the effect of media selection and media characteristics on negotiation. Can electronic mail (e-mail) help to level the playing field when one party has greater power (influence) over another party? What effect does CMC have on the development of relationships between parties? Do the lack of social cues result in less domination, greater trust, more formality, or more efficient negotiations due to a greater task focus? Are parties more or less satisfied with the outcomes of face-to-face (FTF) or CMC negotiations? What differences are there in satisfaction with the CMC as opposed to the FTF process?

The body of research that currently addresses when to use CMC is mixed and contradictory for CMC use in negotiation. The early years of study, when CMC media were very new and rare in organizations, are dominated by the view that the media other than FTF lack nonverbal cues, which make them unacceptable for negotiation (McGrath & Hollingshead, 1994).

E-mail offers some unique characteristics such as rapid transmission and reply without an individual needing to be physically present, text that is stored and available for reexamination throughout the negotiation with regard to previous offers, and the ability to give a negotiator time to think, reflect, strategize, and plan prior to responding to offers (Poole, Shannon, & DeSanctis, 1992). Some research has indicated that e-mail results in more equalized participation (Sproull & Kiesler, 1991)

and in more equal division of resources (Croson, 1999; Shell, 2001; Suh, 1999), whereas other research has found e-mail results in unequal division of resources (Arunachalam & Dilla, 1995).

Rationale for Studying Negotiation, Power, and Electronic Mail

Despite the varied findings regarding the effects of e-mail on negotiation, e-mail is used for negotiations every day in organizations around the world. A key issue that has yet to be explored regarding the use of CMC for negotiation is its interaction with the relative power positions of the parties. A primary purpose of this study, therefore, is to examine the role that power differences and media play on the development of relationships and the desire to use e-mail for future negotiations through empirical research. These issues will be examined within a dyadic intra-organizational setting with a special interest in the process of communication relationship development within an organizational setting (Burgoon & Hale, 1987).

Negotiation and Electronic Mail

Negotiation and electronic mail have generally been considered an illogical task-media pairing in the field of communication studies, with many researchers ignoring the use of e-mail for negotiation tasks (Rice, 1992; Trevino, Lengel, & Daft, 1987). Only in the last few years have researchers begun preliminary studies into the effect of CMC on negotiation and no accepted theoretical model exists yet (McGinn & Croson, 2004). The traditional approach for selecting media channels for negotiation has been based on social presence theory (Short, Williams, & Christie, 1976) and information(or media) richness theory (Daft & Lengel, 1984; Trevino et al., 1987), which argue that e-mail lacks the ability to convey relational messages and

is limited in its ability to carry socio-emotional content (Hiltz & Turoff, 1978; McGrath & Hollingshead, 1994; Siegal, Dubrovsky, Kiesler, & McGuire, 1986; Sproull & Kiesler, 1986). These theories view the media selection decision as one that is objective and rational. For example, information richness theory arranges the various communication mediums along a continuum from rich to lean according to each medium's ability to reduce ambiguity. Ambiguity reduction is a function of the media's ability to facilitate feedback, communicate multiple cues, present individually tailored messages, and use natural language to convey subtleties (Daft & Lengel, 1984). From this perspective, negotiators have been advised that rational individuals would not use e-mail to conduct negotiations because e-mail did not provide the necessary characteristics required for a highly interactive, ambiguous, social process like negotiation. Despite this theory-based advice, negotiators still use e-mail to negotiate, which suggests that further exploration of the media selection process for negotiation is needed.

Computer Mediated Communication Theories

Media richness, along with the work of the other researchers cited above, has been grouped into a research perspective labeled the *cues filtered out* approach (Culnam & Markus, 1987). Theories within this perspective propose that the nonverbal cues and language transmitted via the limited bandwidth of CMC media are a fixed property. As ability to carry nonverbal cues decreases, the ability to effectively communicate complex ideas, thoughts, and emotions decreases. These media may also make individuals less aware of others, more aggressive, more task oriented, less civil, and may create a sense of distance between communicators. Daft

and Lengel's (1984) media richness theory proposes that the medium's degree of bandwidth has an optimal match to message equivocality or uncertainty such that efficient and effective managers match the message to the best media.

Questioning the *cues filtered out* approach, several researchers have taken the opportunity to look at the role of Computer Mediated Communication (CMC) and negotiation (Arunachalam & Dilla, 1992; Croson, 1999; Hollingshead, McGrath, & O'Connor, 1993; Moore, Kurtzberg, Thompson, & Morris, 1999; Morris, Nadler, Kurtzberg, & Thompson, 2002; Sheffield, 1995; Thompson & Nadler, 2002; Suh, 1999; Valley, Moag, & Bazerman, 1998; Walther, 1995). Many of these studies have focused on group decision making processes rather than dyads. The findings by these researchers have been mixed, but in general, have found that relationships develop via computer mediated media in much the same way they do in FTF situations except that they take more time (Walther, 1992, 1994; Walther & Anderson, 1994; Walther & Burgoon, 1992). Thus, e-mail negotiation is a viable alternative to FTF at least in some negotiation situations.

Croson (1999) has reported that more equal and integrative solutions can be achieved with CMC than with FTF. Other researchers studying CMC have reported that users generate more original and higher-quality ideas than FTF groups (Valacich, Paranka, George, & Nunmemaker, 1993), but they reach consensus with more difficulty than FTF groups (Hiltz, Johnson, & Turoff, 1986). Sheffield (1995) has found that CMC negotiators are better able to focus on the negotiation task and achieve better joint outcomes when not distracted by socio-emotional content and not hampered by the limited cognitive capacity of humans. Arunachalam and Dilla

(1992) reported that CMC negotiations resulted in less favorable joint solutions for the negotiators creating a more individualistic orientation. Other research has indicated that liking or a sense of similarity with one's negotiation partner increases satisfaction with the negotiation process and increases the likelihood of reaching an agreement (Moore et al., 1999). These mixed results and sometime contradictory findings suggest a need for further study of not just CMC, but more specifically how negotiations conducted via e-mail are affected under a variety of conditions.

Power, Negotiation, and CMC

One condition that has not been well researched, but is a critical part of any social relationship is power. Little work has been done to examine the role that power plays in negotiations. Kiesler and Sproull (1992) found that e-mail could encourage more equal participation and result in decisions made more on knowledge rather than on the influence of high-status members. Among more experienced CMC users, Adkins and Brasher (1995) found that power relationships present in the organizational culture replicated those found in FTF interactions. The role of power is inherent in any exchange relationship and none more so than in intra-organizational negotiations. This study examines the effect of power differences and media on the interpersonal relationships of colleagues in an intra-organizational environment. It provides the opportunity to not only fill a void in the empirical literature, but to provide advice to negotiators.

Implications for E-mail Negotiators

With the mixed and often conflicting findings regarding e-mail, organizational members need counsel on the effect that e-mail negotiations have on their

organizational relationships. Inherent in intra-organizational relationships is the need to cooperate to achieve organizational goals: A communication medium that creates distrust between members, results in an individualistic orientation, or exploits organizational members to achieve short term-goals will result in a weaker organization. If e-mail negotiations have the potential to achieve interpersonal relationships similar to those achieved by FTF but at a lower cost of time and money where these issues may be of concern, then organizations need to better understand the process. This study looks at the effect of e-mail and relational power on several aspects of interpersonal relations (dominance, trust, affect, formality, task orientation, and depth of relationship) and makes recommendations for conditions when e-mail negotiations may be most favorable.

Contributions to Theory

This dissertation answers the call Walther (2004) made, in his introduction to a special issue of *The Journal of Language and Social Psychology*, for more research that moved beyond media selection to take into account mixed channel use and channel switching. This dissertation does this by having all the negotiators conduct their first negotiation FTF to establish baseline relationship. The participants are then randomly assigned to conduct their next two negotiations either FTF or via e-mail. The dissertation examines how the relationships develop over time, but also provides information on preferred channel use for future negotiations. Although some studies have been conducted regarding CMC and negotiation, none of them have looked specifically at the development of relationships, have used mixed channels, or have studied the effect of these experiences on future media use with a continuing partner.

Finally, this work provides a further test of Walther's (1996) study that found support for the idea that CMC relationship development in organizational settings is affected by prior technology experience and prior relationships.

Walther (2004) also points out the value of continuing to study the role of the internet on relationship development:

... interpersonal goals and relational behavior of the most mundane yet fundamental nature deserve attention, for the electronic environment, once again, may change how they are done or bring them into focus by showing how individuals work through the change in codes. How do individuals assert dominance in a group, when the conversational environment is not amenable to "controlling the floor"? Much research has claimed that CMC equalizes participation in groups, measuring participation frequency to support the claim (p. 393).

Walther is not alone in this call for further study into relationship development into the internet and more specifically into CMC negotiation. McGinn and Croson (2004) proposed that studies of media effects in negotiation need to "investigate the role of social awareness in the interaction" (p. 345). They define social awareness as "the degree of consciousness of and attention to other in the interaction" (p. 334). This study explores the social awareness of the negotiators by not only asking about their own communication behaviors, but collecting perceptions of their partner's behaviors. These measures explore different dimensions of relationship development such as dominance, trust, affect, depth, formality, and task orientation (Burgoon & Hale, 1987).

This dissertation explores some of the newest and most recent trends in relationship development and media use in CMC negotiation while at the same testing long standing theories, like the *cues filtered out* ones that are still included in organizational communication textbooks (Miller, 2006) despite having limited support. The dissertation provides a further test and expansion of Walther's work (1992, 1994) on the effects of time on relationship development by testing his theory within a highly social process like organizational negotiation where there is mixed channel use.

Organization of Dissertation

This dissertation consists of six chapters. The first chapter is an introduction to the study and an overview of the dissertation's organization. Chapter two contains reviews of the relevant literature on CMC and negotiation focusing on the competing theories of media effects, the role of relationships, and the effect of power. Chapter three provides the hypotheses and the rationale leading to each hypothesis and research question. Chapter four presents the method, including a description of the participants, research design, procedures, and the scale construction. Chapter five provides the results of the study including the tests of hypotheses, research questions, and other findings. Chapter six discusses the results of the findings and explores them in light of previous research regarding CMC and negotiation. Chapter six also discusses the implications and contributions of this research and provides directions for future research.

Chapter 2: Literature Review

Media Selection – Cues Filtered Out and Social Information Processing

Media richness theory (Daft & Lengel, 1984; Trevino et al., 1987) has provided a compelling argument for using rich media such as face-to-face (FTF) for negotiations. Because negotiations are often complex discussions involving persuasion and the exchange of personal information, rich media are proposed to be better than lean media for conducting negotiations, according to this theory. Rich media, like FTF, are characterized by the availability of instant feedback, the use of multiple cues, the use of natural language, and the personal focus of medium. These characteristics would seem to make rich media a good match with negotiations – the theory has a high degree of construct validity making it easily understood and acceptable to most researchers. Many researchers subscribe to the media richness theory and assume that e-mail neither provides enough nonverbal cues nor allows the high quality exchange of information required for a successful negotiation outcome when the task is ambiguous. These assumptions have led most researchers to ignore the role of new communication media such as e-mail for negotiation tasks.

As the most common theory for media selection, media richness advocates an objective and rational approach to media selection purporting that for each communication task there is a matching media to use (Daft & Lengel, 1984; Rice, 1993; Trevino et al., 1987). According to media richness, this matching media will be the same for all efficient and effective communicators; it is not dependent on the characteristics of the communicators or the situational context. The rank order of

media in terms of richness is also considered fixed regardless of the task, the individuals involved, or the organizational or social culture. The order from most to least rich is face-to-face, telephone, electronic mail, personal written text (letters, memos), formal written text (documents, bulletins), and formal numeric text (computer output) (Schmitz & Fulk, 1991). Although these rankings have been fairly consistent across studies, the research approach to studying these channels also has been fairly consistent in its dismissal of social and cultural influences on perceptions.

This media richness perspective tends to ignore many of the unique characteristics associated with e-mail (Poole, Shannon, & DeSanctis, 1992) such as the communication relationships between the individuals involved (Walther, 1995; Walther & Burgoon, 1992), the social influences of superiors and co-workers (Fulk, Schmitz, & Steinfield, 1990; Fulk, Steinfield, Schmitz, & Power, 1987), a person's prior media use experiences (Fulk, Schmitz, & Ryu, 1995; Schmitz & Fulk, 1991), and the nature of the task (Rice, 1992). In the interest of clarity and parsimony, media richness studies have assumed a medium's richness to be fixed for all individuals and for all situations and largely ignored these other factors (Rice, 1992).

There are several other media theories that hold similar beliefs about the objective characteristics of media. For example, Short, Williams, and Christie's (1976) social presence theory dealt with traditional media such as letters and the telephone and described the communication channel in term of bandwidth. When the bandwidth is wide, there is an ability to carry many nonverbal cues which allows the presence of individuals to come through and create a warm, friendly interaction (Walther & Parks, 2002). Other researchers (Kiesler, Siegel, & McGuire, 1984;

Siegel, Dubrovsky, Kiesler, & McGuire, 1986; Sproull & Kiesler, 1986), have found that the lack of nonverbal cues in CMC created a task focused interaction that was devoid of self-awareness. This lack of self-awareness, the researcher argued, creates a more hostile individual who is more likely to violate social norms of politeness and reciprocity. The best example of this has been termed “flaming,” whereby internet users send hostile e-mail messages that are “on fire.” Sproull and Keisler (1986) believe that these “flaming” messages would not occur if someone had to deliver them FTF. Together these various perspectives have been named the *cues filtered out* approach by Culnan and Marcus (1987).

One attempt to address the influence that superiors and co-workers have on media selection decisions and to consider the organizational culture was made by Fulk and various associates in the development of the Social Influence Theory (SI) (Fulk et al., 1990; Fulk et al., 1987). Social influence theory is “grounded in the belief that social interaction in the workplace shapes the creation of shared meanings and that these shared definitions provide an important basis for shared patterns of media selection” (Schmitz & Fulk, 1991, p. 488). This theory takes into account the influences that superiors, co-workers, and the general culture of the organization have on which media are viewed as the most effective given the history and status of relationships in a given organization.

SI theory, according to Fulk and her associates (1987, 1990), states that although objective characteristics and constraints in the work environment influence perceptions and behavior, information provided by the social environment is at least of equal importance. In other words, SI theory states that individuals are significantly

influenced by the attitudes about media characteristics and use behaviors of their co-workers and supervisors. An important assumption of SI theory is that individuals are rational when forming attitudes and taking action. However, the rationality used for decisions about media selection is not based simply on the richness characteristics of the media but also on the nature of the task, situational constraints, social influences and norms, and similar past personal experiences or experiences of relevant others.

SI theory was the first theoretical concept that was developed as an alternative approach to media richness theory. Fulk and her associates (1987, 1990, 1991, 1995) conducted a series of studies to look at the media selection process in organizational settings. These studies found support for the theory in that CMC use was affected by prior experience with e-mail and the computer, supervisor and co-worker attitudes regarding media and these colleagues media use behaviors, as well as the objective characteristics of the media (e.g., storage of e-mails, speed of transmission, asynchronous nature). SI theory has its roots in media richness theory in that it starts with some of the same characteristics of a rich media, but it allows for individual and organizational differences to influence the matching of the “right” media to use in any situation. SI theory opened the theoretical door for other approaches to media selection including examining the effect on relational communication and CMC impression management (Lea & Spears, 1992; Parks & Floyd, 1996; Walther, 1996).

Relational Communication in Computer Mediated Communication

Related to the importance of past experiences and organizational culture is the understanding that negotiations do not simply accomplish task goals but also serve to manage a person’s interpersonal identity, organization role, and relationships with

others in a process known as relational communication (Walther, 1995; Walther & Burgoon, 1992). Walther (1995) provides the following:

Relational communication consists of the messages and message dimensions people use to define or redefine relationships (Millar & Rogers, 1976; Parks, 1977), how they regard their relationships, and how they regard themselves and their partners within their relationships (Burgoon & Saine, 1978). (p. 187).

Moving beyond prior experiences and organizational culture to examine CMC relationships is necessary. As people become more skilled at using CMC to form and maintain relationships, they will use the media more often and use it to communicate in new ways, such as negotiation. Their success or failure at these new skills will often determine the nature of their relationships and, in the case of negotiation, their satisfaction with the process and their outcome. Successful negotiators develop and manage their persona in CMC, take advantage of the unique characteristics of the media, and learn how other's use CMC to manage their relationships (Floyd & Parks, 1996; McGinn & Croson, 2004; Tidwell & Walther, 2002; Walther & Boyd, 2002).

The negotiation relationship illustrates the importance of relations between parties because people must work together to achieve their goals. An individual's approach to negotiations will be shaped by past interactions and experiences with the other party, such as whether trust has been built with the other party, whether the other party has attempted to dominate the negotiation, and whether there is a task versus social orientation of both the negotiator and his or her partner. These factors,

among others that contribute to relational communication, should have a significant influence on the negotiators' satisfaction with the negotiation process and outcome.

The *cues filtered out* approaches (Culnam & Marcus, 1987) suggest that e-mail is not rich enough to carry socio-emotional content. These approaches imply that negotiations are primarily task related and that relationships do not develop or change while using e-mail. However, conflicting results have begun to appear, in the field with some studies reporting the appearance of socio-emotional content in CMC discussions. A few early researchers (Hiltz & Turoff, 1978; Rice & Love, 1987) have postulated that over time, as e-mail users gained experience, they may learn to include more of this content. Later researchers who worked with more experienced e-mails users found more socio-emotional content and relational communication included in the interactions (Tidwell & Walther, 2002; Walther, 1992, 1996). However, they reported that more experience with CMC alone does not fully explain how and why relationships develop when using CMC.

Walther and his associates (Tidwell & Walther, 2002; Walther, 1992, 1994, 1995, 1997; Walther & Anderson, 1994; Walther & Burgoon, 1992) have proposed the Social Information Processing (SIP) theory to explain why relationship development occurs in some exchanges and not in others while using CMC. SIP looks at the process of social cognition and interpersonal relationship development (Walther, 1992), and proposes that online communicators are just as driven as FTF communicators to form relationships, control the image presented to others, learn more about their communication partner, and develop ongoing, meaningful relationships. But without the nonverbal cues and bandwidth of FTF, CMC

communicators adjust their text messages with attention to the content, style, and timing. Despite the special attention given to the textual messages, relationship development is expected to take longer than in FTF interactions not only due to the task and relational content that is conveyed over the limited bandwidth but due to the additional time required to develop, send and read written messages. An example of how communicators may adapt their messages is by using emoticons (e.g., graphical smiles, frowns, and other facial expressions created with keyboard characters), sending messages at a certain time of day (e.g., 5 a.m. or 1 a.m.), responding to messages at variable times (5 minutes or making someone wait an entire day, or make a concerted effort to include social content in their messages (e.g., “I just got in from a run – I’ve tuned up my brain and body and am ready to get down to work. Do you ever run?”). SIP suggests that CMC relationships will develop to comparable FTF levels but will simply take more time to reach the FTF level (Walther, 1996; Walther, Anderson, & Park, 1994; Walther & Parks, 2002). Strong support for this temporal aspect of SIP comes from Walther, Anderson, and Park’s (1994) meta-analysis of past CMC studies that were reinterpreted by looking at whether time constraints were imposed on CMC users. Their review supported SIP’s view that when provided additional time the relationships of CMC users will develop but take more time than for FTF communicators. Topi, Valacich, and Rao (2002) also found the CMC users needed more time in a dyadic negotiation task to reach agreement than FTF users.

This SIP theory that Walther advocates shares similar roots with the social influence (SI) theory of Fulk and associates (1990) that relates to media selection in that both recognize the importance of relationships. SI focuses on the influence that

one's network (e.g., co-workers and supervisors) have on media selection decisions whereas SIP expands this idea to look at how individuals manage their relationships with their network. At the heart of Walther's SIP model is the belief the people gather and store information from previous communication encounters to develop strategies and scripts for future messages; CMC communicators actively monitor their communication messages and carefully craft them to compensate for the lack of nonverbal cues (Walther, 1992). This expansion beyond the limited view of SI theory means that for Walther, people are not just influenced by their networks media selection decisions but people's media selection decisions are influenced by the prior communication experiences using the media with their network. For example, even though a co-worker may communicate with a recipient via voice messages, that recipient may choose to respond via e-mail because it allows the recipient to convey more social content, craft a more detailed response, and create a written record of responses. SI theory would recommend that the recipient respond with a voice message, but SIP theory suggests that the recipient analyze the state of the relationship and choose the medium that best supports developing the relationship desired.

The Role of Relationships in Negotiation

Walther and Burgoon (1992) found that CMC groups adapted their text messages to include relational factors. Further, they found that the relational communication factor scores reported by the FTF and CMC groups were similar. They measured these relationship dimensions using the Relationship Communication scale developed by Burgoon and Hale (1987), which measures eight different aspects

of the communication relationship: immediacy/affection, similarity/depth, receptivity/trust, composure, formality, dominance, equality, and task orientation. (Note: The methods section contains a further explanation of Burgoon and Hale's, 1987, scale and its application to CMC studies.) Although SIP theory supports the expectation that FTF and CMC relationships will reach similar levels when experienced CMC communicators attend to message development, what is unknown is whether the characteristics of a medium like e-mail may allow a person to have greater control over relationship development than using FTF communication. For example, in the case of a negotiation with a very social person with whom conversations generally last longer than 30 minutes, e-mail may provide the ability to control the amount of time invested in the negotiation and may provide to the ability to move the relationship to a more task orientation through e-mail messages. This dissertation explores the changes that occur in negotiation relationships using FTF versus CMC in terms of both magnitude and direction of relationship development.

Walther (1994) also used the Relationship Communication scale developed by Burgoon and Hale (1987) and found higher relationship communication levels for CMC groups than FTF groups after only one decision making task. These intact groups then completed two additional decision making tasks using the same channel of communication. Although the initial relational levels were higher than would be expected for the CMC groups in comparison to the FTF groups, the relationship levels for the two media began to converge over time. Walther's (1994) study provided support for the need to better understand the development of relationships in CMC when considered in light of the *cues filtered out* research findings. This

conclusion was further supported by another study involving relationship development in a CMC environment: Liu, Ginther, and Zelhart (2002) reported that users that sent more messages and longer messages to manipulate their persona in CMC were able to better influence the impression of their behaviors and achieve better relations with their partner.

The *cues filtered out* theories do not take into account relationships and organizational context when recommending a channel for negotiating and they further purport that the bandwidth of e-mail is too narrow to support relationship development. From this viewpoint, unless negotiations were viewed as a purely task oriented activity with an obvious and universal solution for all parties, e-mail would not be a viable channel (McGrath & Hollingshead, 1994; Rice, 1993). This view of negotiation is not supported, however, because considering the effect of relationship factors has been shown to be an important part of the negotiation process (Pruitt & Carnevale, 1993; Lawler & Yoon, 1995). Past relational communication experiences affect and influence future decisions not only on what is communicated during a bargaining session but how the information is communicated. Considering relational factors in the communication process often involves taking a long term view of the negotiation relationship. Much of the past research on media channels (Daft & Lengel, 1986) and negotiation (McGrath & Hollingshead, 1994; Rice, 1993; Ulijn & Lincke, 2004) has failed to take into account the influence of past communication encounters and has relied instead on the prescriptive media richness approach that negotiations should be conducted face-to-face. Ignoring the effects of previous

relationships is a weakness in much of the past media selection research and in current e-mail negotiation research.

Naquin and Paulson's (2003) study comparing the role of trust in e-mail and FTF dyads is one example of current research still being structured around the *cues filtered out* approach. This study involved only one intra-organizational negotiation task and the e-mail participants were anonymous (they only had the e-mail address of their partner) and had no prior relationship or expectation that a future relationship would exist. Naquin and Paulson (2003) gave the participants three weeks to conduct their negotiations and found no differences between FTF and e-mail dyads in terms of reaching an impasse, a finding that supports the SIP view that time constraints will affect task completion. However, in comparison to FTF users these researchers found that e-mail users had significantly lower levels of trust, lower levels of satisfaction with their outcome, and a lower desire to interact with their partner in the future. This study ignored the role of previous relationships and created no reason for participants to desire future interactions; a negotiation situation that more closely mirrored an E-bay transaction than the intra-organizational case used for the negotiation task. The context of this study needs to be considered (i.e., anonymous, interpersonal e-mail negotiation) and should not be seen as representative of an intra-organizational CMC negotiation. This dissertation addresses the methodological weaknesses of Naquin and Paulson (2003) in that the organizational negotiation task is conducted in the context of a prior relationship and participants were expecting future interactions.

In a study comparing FTF, telephone, and e-mail negotiations, McGinn and Keros (2002) looked at the effect of close social ties on the negotiation process. They transcribed the negotiations from all three conditions and coded them to identify negotiation improvisations. They identified three improvisations: *opening up*, *working together*, and *haggling*. Negotiations with strangers via e-mail involved *haggling* and resulted in attempts to get the best deal whereas negotiations among individuals with close social ties involved *opening up*. This *opening up* was characterized by mutual trust and a matching of communication behaviors to produce coordinated actions. In the case of e-mail and the telephone, but not FTF, McGinn and Keros (2002) reported that social ties resulted in higher levels of trust, enhanced cooperation, and increased likelihood of reaching an agreement as compared to strangers. When the negotiation transcripts were analyzed, individuals with social ties who negotiated resulted in more matching behaviors and more equal distribution of resources. Their findings indicate that prior relationships affect the outcome of negotiations as well as the process and that considering the role of relationships is especially important when using e-mail to negotiate.

Other researchers (Morris et al., 2002; Moore et al., 1999) have looked at the effects of shared membership in a group, mutual self disclosure, and the establishment of rapport prior to negotiating on the negotiation process. For several years, business school faculty members at Northwestern and Stanford have engaged in a series of long distance negotiations with students in their classes using e-mail. Moore and colleagues (1999) looked at the effect of in-group and out-group membership on the negotiation as well as the effect from making the negotiation

more personal by sharing a black and white photo of their partner, providing a short biographical sketch, providing a list of 11 “emoticons,” and requiring the exchange of a social-related e-mail prior to the start of the business negotiation. They reported that in-group status and the rapport developing exchange resulted in greater reports of positive affect and resulted in almost no impasses. The authors expected that in-group membership would play a role, but found that this simple instruction to establish rapport produced near identical results to being a member of the same group. In a further study, Morris and colleagues (2002) introduced a phone call prior to the negotiation between the students at the two schools, a process referred to as “schmoozing.” Individuals who schmoozed prior to negotiating experienced a greater sense of trust, a higher degree of rapport, and overall better economic and social outcomes than those dyads who did not schmooze prior to negotiating. This simple phone call produced a greater sense of trust among the parties, more positive impressions of each other, a greater sense of depth to the relationship, and a preference to work with their partner again. These studies together indicate the power of a prior relationship when negotiating via e-mail even when the prior interaction is as brief as a short e-mail or five minute phone call. Further study into the effect of a prior FTF relationship on an e-mail negotiation is necessary to determine how an actual FTF negotiation may affect the relationship and preference of the parties to work together in the future.

McGinn and Croson (2004) proposed that the ability of a medium to make negotiators “socially aware” of each other will lead to shared understandings and expectations in the negotiation process. Social awareness is a concept that goes

beyond the media characteristics of synchronicity, co-presence, and richness to include cultural differences, affect, depth of prior relationship, and audience effects. In their study of social awareness, they found that e-mail negotiators without a prior relationship who took part in a single negotiation task were more likely to lie and violate normative behavior expectations. However, they purported that prior relationships would most likely provide enough social awareness to mitigate their findings (McGinn & Keros, 2002; Moore et al., 1999; Morris et al., 2002, Walther, 1996). McGinn and Croson (2004) also provided that in some negotiations, limiting social awareness may be useful. For example, when dealing with a dominant or aggressive negotiator it may be preferable for the other party to not fully understand the aggressive tone of the messages that they are receiving. If the recipient fully understood the dominant relationship tone of the messages, the risk of reaching an impasse in the negotiations may increase.

A recent study into the development of trust and cooperation among three person teams communicating FTF or via synchronous chat provided support for Walther's SIP theory that over time the level of trust in relationships using different media will converge (Wilson, Straus, & McEvily, 2006). In this study, the participants were asked to spend three weeks working together on a decision making task whereby they met one a week for 60 minutes to discuss their assigned task. The meetings were conducting using either FTF (F) or electronic chat rooms (E). There were four communication groups, FEE, EFF, FEE, and FFF, that indicated the media used for each of the three negotiations. The group that started out meeting FTF and then met the next two times electronically did experience decreases in trust once they

began meeting electronically. In the end, all of the groups ended up converging, so that no matter what media was used, no significant differences were found in the levels of trust or cooperation between the four groups after three weeks. This study provides support to Walther's SIP theory for decision making tasks and provides some basis for the expectation that trust and affect may decrease when changing from FTF to e-mail interactions.

Media Development

In addition to considering the role of relationships and time in negotiations, the increased diffusion and evolution of new electronic media, such as enhanced e-mail systems in organizations, requires that the relationship between tasks and media choice continue to be revisited. Poole and associates (1992) recognized the importance that new communication media, and e-mail in particular, have for negotiation interactions and relationships between people. McGrath (1984) also pointed out in his early work on CMC use that negotiation tasks are more complex and difficult than most other organizational communication interactions. Negotiation tasks require the exchange of large amounts of information to identify and resolve issues, the handling of conflicting task and social issues, and require thinking through one's own interests and the partner's interests. Rice's (1993) recommendations for not using CMC for negotiation were also based on this complexity as well as the perceived limited capacity of users to adapt to CMC technology. However, a failure to revisit the use of CMC for negotiation could result in basing practical and theoretical decisions about the use of e-mail on studies involving out-dated technology conducted with users before the era of ubiquitous e-mail use. Zigurs,

Poole, and DeSanctis's (1988) early study on decision-making concluded that inexperienced CMC users needed more practice and guidance on how to adapt the technology to support their communication and decision making skills.

In many of the early studies described by Poole and associates (1992), in their chapter describing research on negotiation and media, the CMC studies used anonymous communication interactions, synchronous communication, one stand alone interaction, and a focus on outcomes rather than relationship development over time. Studies need to recognize these design limitations and take into consideration that most organizational negotiations take place within a long-term relationship context where the parties know each other and expect to work together on a series of tasks. Basing theories and practical negotiation decisions on studies where unknown people communicate with each other for less than an hour using outdated technology lacks the rigor required for a 21st century research design.

Another issue is that past research has typically centered on comparing the appropriateness of using FTF with another medium (Walther, 2002) without considering that geographic and temporal issues may make FTF interactions expensive or impractical in many cases (Naquin & Paulson, 2003). In practice, this limitation of FTF is especially true for business negotiations when limited budgets and time constraints make this approach to negotiation impractical. Simply applying past media selection theories and research completed in pre-computer dominated organizations to present-day organizations would be a mistake (Fulk, 1993). As the technology of e-mail systems has evolved and e-mail use has increased, despite Rice's (1993) and other's warnings (McGrath, 1984), e-mail is being used for

negotiations and other social interactions without the development of theoretical frameworks.

Trevino, Webster, and Stein (2000) and Liu (2002) pointed out the lack of research that integrates the testing of *cues filtered out* theories and social influence theories to understand and test both. Trevino and associates (2000) also reported that much of the research on e-mail use was developed in the early 1990's, has not been restudied and has considered e-mail's characteristics as constant for all users.

Trevino and associates study found significant variance in how individuals used their e-mail systems to manage messages and to respond to messages. E-mails that contained social content were typically responded to much more quickly and were given considerably more attention as opposed to task oriented messages. Overall, they found that media choice was influenced by situational factors including social relationships, technology experience/comfort, organizational climate, distance, the individual's view of the equivocality of the communication situation, and the symbolic meaning of using the medium (Trevino, et al., 2000).

Liu (2002) cited the need for conducting more research that integrates the *cues filtered out* theory and SIP theory. She also proposed that future study designs recognizes the changes in technology, reflect Walther's and colleagues (Walther, 1992, 1995, 1996; Walther et al., 1994) findings on the importance of time and the expectation of future relationships, consider the user's CMC comfort level, and consider the use of multiple media in the interaction. McGinn and Croson (2004) also have cited the lack of theory development in these areas. Despite these calls, few new studies have revisited the basic understanding of e-mail, integrated multiple

theories into the design, or examined CMC usage over multiple interactions with an expectation of future interactions. There has been little development of new theories related to CMC relational communication in the last 10 years (Dabbish et al., 2005). Researchers such as Walther continue to work in the field and refine his SIP model. However, Walther's most recent studies have focused on how communicators develop and adapt their CMC messages to achieve their relational goals given the constraints to the medium (Walther, Loh, & Granka, 2005). Recent studies into negotiation and CMC (Anderson, 2000; Dorado, Medina, Munduate, Cisneros, & Euwema, 2002; Naquin & Paulson, 2003; Ulin & Lincke, 2004) have focused more on the outcome and process satisfaction as well as the effect of culture on the negotiation but lack the theoretical or methodological components discussed above. These studies have involved negotiations of short duration among individuals who have little knowledge of the other party or expect to have communication only during the course of the study.

Studies on the use of e-mail for negotiation need to consider the unique characteristics of the medium such as rapid transmission of messages and the ability to reply without being co-present (Clark & Brennan, 1991; Friedman & Currall, 2003). The capability to store and organize messages for future retrieval is another advantage (Clark & Brennan, 1991). E-mail can be stored for re-examination months and even years later. The ability to forward someone's exact message to others without their knowledge is another unique characteristic of this medium. E-mail provides the possibility to communicate a message to a large group of people at one time and then allows people to respond individually to the message in the privacy of

their home or office (Kiesler, 1997). This response can be sent to just the sender or to all of the original recipients. The ease and speed at which these options can be exercised has created a hybrid of interpersonal and mass channels (Kiesler, 1997). E-mail allows the communicator time to think, reflect, plan, and craft a strategic message prior to responding. The medium also allows for a simple one word response: Yes, thanks, no, etc. The norms of e-mail allow that such one word responses are acceptable and do not violate social norms of appropriate communicating (Tapscott & Caston, 1993) In contrast, in FTF communication, a simple one word response to a message may be perceived as abrupt or even rude, violating Grice's (1998) cooperative principle and quantity maxim. Communicators need to make a contribution to a discussion at the appropriate time in the exchange and in the right direction while providing a response in keeping with the context (Grice, 1998). FTF discussions typically require a longer response based on the context of the discussion, whereas the context of e-mail discussions would allow for one word responses without violating Grice's cooperative principle or quantity maxim.

Clark and Brennan (1991) have developed a concept called grounding whereby communicators come to a common understanding of their interaction. They propose that grounding is affected by two aspects of the interaction: the purpose (e.g., negotiate, make a decision) and the medium (e.g., e-mail, FTF). Integral to grounding is the principle of least collaborative effort whereby communicators try to minimize the amount of communication and combined effort necessary to come to a common understanding. Various media have different constraints that affect their

ability to comply with the principle of least collaborative effort. Clark and Brennan (1991) provide a list of eight potential constraints by which all media should be assessed (p. 141):

1. Copresence: *A* and *B* share the same physical environment.
2. Visibility: *A* and *B* are visible to each other.
3. Audibility: *A* and *B* communicate by speaking.
4. Cotemporality: *B* receives at roughly the same time as *A* produces.
5. Simultaneity: *A* and *B* can send and receive at once and simultaneously.
6. Sequentiality: *A*'s and *B*'s turns cannot get out of sequence.
7. Reviewability: *B* can review *A*'s messages.
8. Revisability: *A* can revise messages for *B*.

Of these eight, e-mail only allows for the reviewability of messages and the revisability of messages. E-mail messages can be stored for long periods of time and can even be shared with third parties. E-mail messages are also revisable in that individuals can edit and rewrite them before sending. Clark and Brennan (1991) purport that when a media lacks one of the eight characteristics it forces people to find alternative ways to ground communication. Because e-mail does not allow for copresence, visibility, audibility, cotemporality, simultaneity, and sequentiality, users must find alternative ways to arrive at a common understanding.

Some ways to make up for the deficiencies of e-mail are to spend increased time formulating the message, sending longer e-mail messages to make oneself clear, reading longer messages to understand the other party, working harder to get someone's attention at the start of an interaction, responding especially quickly once

an e-mail message is received, paying particular attention to when it is one's turn to send a message, repairing misunderstandings quickly, and taking the time to be sure that facts are right in a message. Clark and Brennan's (1991) work conveys the need to consider the media's characteristics within the cultural and relationship background when making the media selection decision. Skilled and comfortable e-mail users may find that they can still achieve common ground with minimal collaborative effort especially in cases of high trust, low dominance, and a strong task orientation. These three relationship dimensions could create an environment whereby collaboration could be achieved at a low cost.

In computer mediated communication, users have been found to express greater levels of conflict and raise issues that may not be dealt with in more rich forms (Siegel et al., 1986, Turoff & Hiltz, 1982). For example, the extended time provided for people to think and analyze an issue may result in their studying an issue in greater detail. The studying could turn into stewing over the issue and result in an angry response whereas in a FTF discussion the flow of the conversation is more likely to preclude obsessing over messages. Studying the message may also give the person time to raise new issues and interests that may be lost in the quick flow of FTF discussions. In addition, CMC may create a sense of not dealing with a real person who has feelings with whom one has a relationship.

This surfacing of conflict may cause negotiations to progress more slowly or contentiously, in the long run better results may be achieved by addressing these underlying issues (Fisher et al., 1991). The surfacing of underlying issues and studying them in detail may allow for a greater number of interests and issues to be

placed on the bargaining table. Negotiators can take advantage of the opportunity to consider their interests and the interests of the other parties without getting caught up in the quick flow of FTF discussion or in emotional responses that are based on affect rather than the task at hand. The success of the negotiator in using e-mail to achieve these goals depends on practice and training in using the medium effectively (Zigars et al., 1988; Nadler, Thompson, & Boven, 2003).

Despite these added possibilities, Rice's (1993) report on the media appropriateness of various mediums found e-mail to be the last choice for negotiating and bargaining activities. Rice collected data on ten communication tasks and asked respondents whether a communication medium was appropriate or not appropriate for each task. These responses were coded as a 0 or 1, creating no variability. The questions were not placed in a personal or organization context, but were simple one question measurements. Many of the participants in the study were new e-mail users of less than eight months, and some participants were dropped because their secretary read their e-mails for them. This group of respondents would be difficult to replicate in today's working world and subsequent research into CMC uses indicates the need to consider media use decisions within either a personal or organizational context (Trevino et al., 2000) as describes in the SI and SIP theories. Rice's early study in to the medium preferences for various tasks does not reflect the current realities of e-mail use in organizations or the influence of situational and culture issues on the media selection process.

E-mail may allow negotiators to concentrate more on interests of a negotiation by providing a written text that becomes the focus of the negotiation rather than

affective personal issues (Jarvenpaa, Rao, & Huber, 1988; Sheffield, 1995). The textual basis of an e-mail message can also allow negotiators to focus more attention on the negotiation process itself to be certain that all issues are raised and discussed (Morley & Stephenson, 1979). Sheffield (1995) conducted a single negotiation task study with dyads assigned to four conditions: phone, FTF, synchronous computer conference, and synchronous computer conference with the partners sitting next to each other but not speaking. Sheffield (1995) found that the competitive individualistic negotiators achieved joint outcomes similar to cooperative negotiators when the partners could not see each other. Sheffield argued that the lack of visual cues resulted in more task focused messages that could not convey the individualistic orientation. Because the dyads were limited to one 35 minute session, the time limit could have resulted in the greater task focus. Moore, Nadler, Kurtzberg, and Thompson's (2000) negotiation study found that under time limits the FTF participants exchanged three times the amount of information that CMC participants did. When under time pressure, CMC negotiations appear to exchange less information and become more task focus.

Some support has been found that CMC negotiations can help to even the playing field by mediating attempts to control or influence the negotiation since the nonverbal cues used by some negotiators to dominate a discussion are missing such as tone of voice, physical size, and dominating the flow of the conversation (Dubrovsky et al., 1991; Siegel et al., 1986). Later research has called this equalization phenomena into question based on the expectation that as users become more skilled in CMC communication they find ways to replicate their nonverbal

behaviors in CMC (Friedman & Currall, 2003). Finally, e-mail can also provide time to study the communication before responding (Hiltz & Turoff, 1978) and can provide a cooling off period between receipt of a conflict laden message and the response to this message (Pruitt & Carnevale, 1993).

In the case of paper based text negotiations, Morley and Stephenson (1977) reported that the negotiations typically rely more on the merits of the case whereas FTF negotiations were found to be influenced by personality and persuasive arguments and to result in greater opinion changes (Dubrovsky et al., 1991). Valley, Moag, and Bazerman (1998) conducted two negotiation studies using dyads, one study compared text messages on paper and FTF and the other study used three mediums: paper text messages, FTF, and the phone. These researchers reported that written negotiations resulted in lower seller trust in the buyer when compared to FTF, but no differences were found between with the phone negotiations and text negotiations. The telephone offers the ability to convey more nonverbal cues than a paper communication making it appear that there is something about co-physical presence that may aid in the development of trust. They also reported that buyers were more likely to take the time to search out information and make better informed bids in the written condition as opposed to the FTF and phone conditions. These results lend support to written negotiations making negotiators focus on the merits of the negotiations and to reflect more on their interests before acting (Dubrovsky et al., 1991; Valley et al., 1996), but that less trust is developed in text-based negotiations.

Some of Walther's (1996) research into socio-emotional content in e-mail messages has indicated that the communications may become *hyperpersonal*. In

other words, without nonverbal cues present individuals read more into the text messages and take them much more personally, which can affect relationship development.. Friedman and Currall (2003) proposed in their article on conflict escalation in e-mail, that these hyperpersonal communications could result in the intensification of conflict. Walther (1996) did not study this aspect of hyperpersonal communication, therefore Friedman and Currall's (2003) assertion may be valid. In the present research, increases in levels of dominance are expected more in e-mail negotiations than in FTF negotiations. Further studies of the role and effect of conflict in e-mail negotiations are needed that involve experienced users that have a long term investment in the development of organizational relationships.

Decision making research with CMC groups has found that these groups make more specific proposals and that members participated more equally in the discussion than in FTF groups (Dubrovsky et al., 1991; Kiesler et al., 1984; Siegel et al., 1986). These studies found that the percentage of communication messages between CMC members was more equally distributed between negotiators than in FTF groups. The CMC users also made more specific proposals because they could take the time to write out and revise their message before sending to the other party. These findings support the expectation that e-mail negotiations are likely to be more task oriented and formal than FTF negotiations.

Research on the ability to detect lies in dyadic communication (Woodworth, Hancock, & Goorha, 2005) has found that liars are more successful at avoiding detection in CMC. The lack of nonverbal cues can result in partner's taking longer to discover their partner's deceptions. CMC allows individuals to take more time to

develop a plausible untrue position statement, craft artful responses (Hancock & Dunham, 2001), and manage one's persona (Walther, 1996). The extra time provided by CMC to respond and develop messages can provide for an increased capability for deception among skilled and experienced e-mail users. This ability of e-mail to transmit messages with low nonverbal content may inhibit the normal truth detecting techniques used by negotiators (Woodworth et al., 2005). More recent research, such as that discussed above, seems to indicate that as CMC communicators become more experienced and skilled at the channel, they find ways to replicate their communication behaviors. Just as Walther (1992; 1995) found that relationships take longer to develop in CMC, people develop and hone their CMC communication skills.

In a negotiation task, e-mail should provide negotiators with the ability to generate specific proposals and ensure that all view points are expressed. E-mail can offer increased satisfaction with the negotiation process by creating clear, egalitarian communications (Sheffield, 1995). E-mail can offer an important advantage over FTF in that it provides a written record of each proposal and is more suited to tracking complex agreements than FTF (Poole et al., 1992). This ability should be an advantage when using e-mail for individuals when faced with a complex task. However, many questions are still unclear: Does e-mail contribute to the reduction or escalation of conflict in negotiations? Does longer response time result in more carefully crafted messages focused on integrated interests or provide additional time to craft deceptions? And how do the e-mail skills of the negotiators affect the

process? More and updated research leading to theories is needed into the effect of e-mail on negotiation.

Power in Negotiation

Social norms can determine the actions that will take place during the negotiation process by helping to prevent conflict altogether, by regulating the way conflict is conducted and providing a solution once conflict arises (Pruitt & Carnevale, 1993). Power has been described as the *essence of bargaining* and the relative amount of power between negotiators can play a major role in a negotiation outcome (Polzer, Mannix, & Neale, 1995). As one party gains more power or control over another, the negotiators can gain the ability to control the exchange of information and are more likely have a better BATNA, Best Alternative to a Negotiated Agreement (Patton et al., 1991). This better BATNA provides negotiators the option to walk away without engaging in the negotiation or grants them the ability to provide an alternative that is just slightly better than their partner's BATNA.

Power in the negotiation relationship has been conceptualized in a number of different ways. One classic approach comes from the work of Emerson (1962). Emerson conceptualized power within the context of the social relationship between parties in that each party is in some way in a position to grant or deny, hinder or facilitate the other's gratification. "Power resides implicitly in the other's dependency" (Emerson, 1962, p. 32). In other words, "Individual A is dependent on individual B to the extent that (a) Individual B can influence the goals of Individual A, and (b) Individual A has few alternatives available for achieving those goals" (Cai, Wilson, & Drake, 2000, p. 596). From this perspective, buyers may be considered to

have an advantage over sellers in that buyers have more options available to purchase their products whereas sellers need every buyer that they can get.

In the case of an intra-organizational transfer negotiation, however, this power relationship may be violated (Lawler & Yoon, 1995). An intra-organizational transfer is a situation in which a member representing one division of an organization sells a product to another division of the same organization. In these cases, the organization has a strategic interest and profit-driven interest in ensuring that the overall organization achieves a better outcome by doing business with itself as opposed to going to another organization. In this special situation, parties may share a close relationship and may be more likely to have interdependent goals, which in general may result in more positive emotions and higher commitment behavior (Lawler & Yoon, 1995). Lawler and Yoon's (1995) theory of relational commitment purports that as members of the same organization negotiate with each other they become more aware of their interdependent relationship with each other, and each time they reach an agreement it produces an *emotional buzz*. This *emotional buzz* can create and deepen the sense of attachment among the organizational members and is referred to as the theory of affective attachment (Lawler & Yoon, 1995). This interdependent relationship and shared goals result in a greater commitment to the organization, according to Lawler and Yoon (1995). In turn, this greater commitment may result in a greater concern for meeting the organizations larger goals as opposed an individual member's goals.

In examining situations of power, Lawler and Yoon (1995) reported that when power was equal agreements were more likely, there was greater commitment to

future negotiations, and more positive emotions were exhibited when compared with unequal power situations. They also reported that mutual dependence produced closer relationships, as reported in the post-experimental questionnaire. The mutual dependencies that exist in intra-organizational negotiation situations can increase the likelihood of reaching agreement. These shared goals should also lead to a win/win bargaining approach which has been linked to increased satisfaction with the outcome and the process (Fisher et al.,1991).

Other studies looking at the role of equal and unequal power report that in cases of unequal power the affect of the more powerful party influenced the overall tone of the negotiation as either positive, integrative, and trusting, or competing and suspicious (Anderson & Thompson, 2004). The affect of the less powerful member did not influence the tone of the negotiation. Anderson and Thompson reported that they can not provide a definitive explanation for this finding but argued that the positive affect of the more powerful member may make the power difference not seem as large and may make the lower power member more open to integrative bargaining. Lawler and Yoon (1993) reported a similar effect in their study in that when intra-organizational members negotiated repeatedly together over time it produced a closer relationship and greater commitment to each other and in turn resulted in more integrative agreements. However, Lawler and Yoon also found that in the early stages of negotiation lower power members tend to resist agreements that reflect the power differences. Not only does time appear to be an important factor in the development of relationships in CMC but it also seems to have an important role when examining power differences between negotiators.

In a CMC setting, Adkins and Brasher (1995) conducted a study in which they examined the use of *powerful* and *powerless* language in small computer mediated groups. The researchers assigned one individual to work with two confederates and participate via computer in a decision-making exercise. In one condition both confederates used powerful language, in the second condition the confederates used powerless language, and in the third condition one confederate used powerful language and the other used powerless language. The use of powerful language resulted in a more credible, attractive, and persuasive perception of the confederates than the use of powerless language. The powerful language users were perceived to be more task-attractive, more competent, more composed, and more persuasive than group members using powerless language.

Although the perception of being powerful was found using the limited bandwidth of CMC in Adkins and Brasher's study (1995), earlier studies reported no differences in influence for group members in CMC media (Kerr & Hiltz, 1982; Kiesler et al., 1984; Siegel et al., 1986). These early studies were conducted with anonymous group members who had little experience with using the technology, making these studies somewhat suspect for today's better trained users. Based on these early works, CMC has been purported to be a power equalizer, reducing the perceptions of power in relationships. Adkins and Brasher's (1995) study was formulated to specifically look at the manipulation of power in a decision making context. Although their work is the first to demonstrate the effect of power perceptions on CMC it just begins to address the role of power in CMC situations.

Further research is needed in CMC regarding the different relational power structures. Deutsch (2002) has argued that despite over 70 years of research into conflict, “the progress does not yet begin to match the social needs for understanding conflict” (p. 318). He further argued that “one of the recent questions that has just begun to be explored by the field is how to overcome oppression: (p. 315). One aspect of this question includes looking at strategies and tactics that individuals with relatively low power could use to develop more equal power sharing. This dissertation contributes to this effort by looking at the effect that negotiating via e-mail may have on the development of the relationships between members within the same organization and how low power members could affect their relationship development by using e-mail.

The development of relationships is a key part of how future negotiations and work in the organization will occur (Lawler & Yoon, 1995). Positive social relationships are more likely to lead to a cooperative orientation whereby members of the same group feel a duty to meet the needs of the entire organization and not just their own personal or small group’s needs (Deutsch, 2002; Lawler & Yoon, 1995). In discussing his fifty years of research on the effect of a cooperative orientation on negotiations, Deutsch summarized his findings by comparing the effects of positive, cooperative orientations with competitive ones:

1. Effective communication is exhibited. More ideas are expressed, greater attention is paid to the ideas of others, there is greater acceptance and influence by the points made by other people, and

there is improved communication and greater understanding of other perspectives.

2. Friendliness, helpfulness, and less obstructiveness is found in the conflict. People report a higher sense of satisfaction with the outcomes, a sense of greater obligation to the other party, and a higher sense of trust of one another.
3. Coordination of effort, divisions of labor, orientation to task achievement, orderliness of discussion, and high productivity are manifest.
4. Feelings of agreement with the ideas of others and a sense of shared values and beliefs of others along with stronger confidence in one's own ideas and the value that others place in them.
5. Willingness to enhance the other party's knowledge, skills, or resources with the belief that as the other party gains power he/she is of greater value to you and this will lead to a better solution.
6. Greater recognition of the legitimacy of interests held by other parties and the need to respect these interests and mutually work to respond to the needs of others (p. 311.)

The nature of negotiations as competing over goals makes conflict inherent in the process, and the handling of this conflict in a positive way is important for all organizational members. Deutsch's recommendations for improving communication, developing a supportive organizational culture, and so on, are all important, yet an understanding of how e-mail may effect each of these aspects of conflict management

is unknown. Overall positive relationships with an organization lead to greater productivity, more favorable interpersonal and intergroup communication, better psychological health, higher self esteem, and higher quality decisions. Exploring what effects the use of e-mail to negotiate has on the development of relationships will contribute to the theoretical body of knowledge by providing a test of the *cues filtered out* and SIP theories under conditions that replicate those of an actual intra-organizational negotiation: An expectation of a continuing relationship, the ability to use multiple channels, and more flexible time limits. This dissertation also contributes to the development of SIP theory by examining the effect of power and media on the development of relationships. Walther and his colleagues (2004) have only begun to fully test the SIP theory. Further tests with new situations like negotiation in the context of a long term relationships are needed to continue building and developing the theory.

This research will contribute to practice by providing advice to organization members on the risks and benefits of negotiating via e-mail and provide recommendations on how and when to use e-mail to negotiate. Despite the limited research and practical training in this area, people are using electronic messaging systems to conduct negotiations as a means to solve organizational problems. This dissertation synthesizes the propositions of several theories and tests them in an environment that more closely replicates intra-organizational negotiation conditions where long term relationship issues are considered.

Chapter 3: Research Hypotheses

As the use of information technology continues to expand in organizations, research is needed to provide information on the effects of technology on organizational success and organizational relationships. This dissertation compares dyads negotiating three scenarios involving equal or unequal power using two different communication media, face-to-face and asynchronous electronic mail. The research examines the effect of the media and power conditions on the interpersonal relationship development between the two participants from the first to the third negotiation. The dissertation also examines the effects of the negotiator's previous communication relationship with his or her partner, experiences with using CMC to negotiate, and comfort with CMC communication on the selection of the future channel for continued negotiations with his or her partner.

Lawler and Yoon (1995) have developed a model where they posit that relationship between partners in dyadic negotiations can override organizational commitment issues, such as the need to produce profit for their division, resulting in *relationship citizenship behavior* as opposed to *organizational citizenship behavior*. Their proposed model indicates that the combination of structural power and the relationship between parties is a complex dynamic that requires further study. When combined with the characteristics of e-mail, power differences in a negotiation setting open the possibility of creating negotiation settlements and interpersonal relationship dynamics that would not be expected with strangers.

Overall, positive relationships within an organization are expected to lead to greater productivity, more favorable interpersonal and intergroup communication,

better psychological health, higher self esteem, and higher quality decisions (Blake & Mouton, 1964; Huselid, 1995; Likert, 1961, 1967; Miller & Monge, 1986; Wiley & Brooks, 2000).

Exploring what effect using e-mail to negotiate has on the development of these relationships contributes not only to the theoretical knowledge about relationship development in CMC negotiations but also provides direction that organizations can use to improve those relationships in their organization that are linked to increased efficiency and profitability. Despite the lack of research and practical training in this area, people use electronic messaging systems to regularly conduct negotiations as a means to solve organizational problems. This dissertation provides organizational members with a better understanding of the effects that negotiating via e-mail as opposed to face-to-face could have on their relationship with co-workers. The dissertation also provides insight into the effects of power differences between negotiators on their relationship development when using e-mail.

Electronic Mail Characteristics

Hypotheses 1 through 6 address the effects of the two media channels (i.e., FTF and CMC) on the direction of the relationship development on 6 dimensions: dominance, depth, affect, trust, formality and task orientation. E-mail allows negotiators to produce more structured messages, more precise messages, and more carefully worded messages that provide an archival record. E-mail also reduces the effect of charisma on relationship development and forces communicators to not rely on the force of a FTF dominant personality to achieve results.

In e-mail negotiations, the limited bandwidth, the lack of co-presence, lack of visibility, lack of cotemporality, and the asynchronous nature (Clark & Brennan, 1991) require negotiators to craft messages that are expected to result in an increase in dominance, formality, and task orientation on the part of the sender and an increased perception of dominance, formality, and task orientation on the part of the receiver as compared to when the medium is FTF. In the FTF situations, the sender will develop messages and receivers will perceive messages that convey increased levels of affect, trust, and depth of the relationship as compared to e-mail negotiators.

All of the negotiators will conduct a first FTF negotiation with his or her partner and then conduct two additional negotiations: half of the dyads will use e-mail and half will continue to use FTF for the last two negotiations. These hypotheses test the effects of the unique properties of e-mail to examine whether these properties may make e-mail a better choice for negotiation than FTF.

The hypotheses are designed to test the SIP theory's expectation that relationship development is possible using CMC media but they have been further refined based on Clark and Brennan's common grounding theory and the principle of least collaborative effort to test the direction of the relationship change. The relationships are also tested based on the work of Morris and colleagues (2002) on rapport building in that each dyad negotiates FTF to establish a baseline relationship. The relationship change is studied by examining the changes in dominance, trust, affect, depth, formality, and task orientation between the end of the first and end of the third negotiation. This study also examines the effects of switching from FTF to e-mail to explore the effect of media change on SIP theory. These hypotheses

examine the effect of starting a relationship with a high bandwidth and strong social awareness (McGinn & Croson, 2004) then, in some cases, narrowing the bandwidth to examine the effect on social awareness.

Construct Development and Measures of Post Dependent and Independent Variables of Relationship Development

The relationship development measures for the study were based on a modified version of Burgoon and Hale's (1987) Relational Communication scale. Burgoon and Hale examined the verbal and nonverbal themes present in people's communication that defined interpersonal relationships. Their scale has been used by a number of researchers and has been effective for studying relationship development in CMC (Anderson, 2000; Liu, Ginther, & Zelhart, 2002; Walther & Burgoon, 1992). Burgoon and Hale developed eight communication dimensions: *immediacy/affection*, *similarity/depth*, *receptivity/trust*, *composure*, *formality*, *dominance*, *equality*, and *task orientation*. This scale is primarily used as a self report measure, but it has been found to be versatile and adaptable for use in other settings such as being used by a third party observer or for coding transcripts or interactions (Rubin, Palmgreen, & Sypher, 1994). It can be used to rate one's own behavior or rate the behavior of a partner or other group members, and it has been used by outside observers to rate exhibited behaviors. Items are responded to on a 7-point Likert scale with items that range from *strongly disagree* (1) to *strongly agree* (7). The full instrument consists of sixty four questions.

In this study, only six of the eight scales were used to provide a measure of perceptions about the other party's relational communication behaviors, and the scale

was used as a self-report measure to assess one's own relational communication behaviors. The six dimensions selected for use in this study were based on the nature of the expected negotiation relationship and because relationship power was included as one of the conditions. The items that measure equality were included in the questionnaire but were not used in the analysis because power was manipulated as an independent variable in the study. This power manipulation would have reduced the usefulness of the equality measure for measuring the development of the relationship because this power manipulation was introduced at the start of the second negotiation.

The validity of this scale's dimensions has been analyzed several times previously, and many criterion-related validity studies have shown the scale to be highly valid (Rubin et al., 1994). Cronbach's alpha coefficients have been reported between .42 and .88 for the dimensions when the scales have been used by Burgoon and Hale and others (Rubin et al., 1994). The reliability is improved because the scale is constructed of several questions that measure each dimension rather than using a single item (Baily, 1994). The scale was used in this study first to establish a baseline relationship after the first negotiation and was then administered again after the second and third negotiation to look at the changes in the six relationship dimensions. The change in relationship was examined by looking at the difference in the scores on these dimensions between the first and third negotiations.

H1a: In e-mail negotiations, the perception of one's dominance will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H1b: In e-mail negotiations, the perception of the partner's level of dominance will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H2a: In FTF negotiations, the perception of the depth of one's relationship will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H2b: In FTF negotiations, the perception of the partner's depth of the relationship will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H3a: In FTF negotiations, the perception of one's affect will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H3b: In FTF negotiations, the perception of the partner's level of affect will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H4a: In e-mail negotiations, the perception of one's formality will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H4b: In e-mail negotiations, the perception of the partner's level of formality will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H5a: In FTF negotiations, the perception of one's trust will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H5b: In FTF negotiations, the perception of the partner's level of trust will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H6a: In e-mail negotiations, the perception of one's task orientation will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H6b: In e-mail negotiations, the perception of the partner's level of task orientation will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

Relationships

A test of the *cues filtered out* theories (Culnam & Markus, 1987) suggests relationships would not change or deepen when using CMC for negotiating. In contrast, the social information processing theory (Walther, 1992) suggests that relationships continue to develop when using CMC to negotiate. A comparison of these two theoretical perspectives can be done by examining the change in relationship over a series of negotiations conducted using either FTF or e-mail. According to Social Information Processing (SIP) theory the development of the relationship should continue overtime, whereas in the *cues filtered out* approach there should be slight if any changes in the development of the relationships.

H7_{cues} is based on the expectation that the richer media of FTF, as compared to lean e-mail, promotes relationship development, even among people who have a pre-existing relationship. This hypothesis is based on the *cues filtered out* perspective, which proposes that e-mail will result in little change in the relationship.

H7_{SIP} is an alternative hypothesis based on the social information processing model. This hypothesis proposes that relationships will develop in the same manner as they do when communicating FTF when enough time is provided to compensate for the limited bandwidth of e-mail and the additional time it takes to send messages. In this study, the negotiations conducted with e-mail should result in a continuing development of the pre-existing relationship as sufficient time was allotted to overcome the bandwidth and message creation problems. As a result of negotiating, relationships do not always develop in the positive direction and it is possible that some relational aspects may become more negative, therefore, the SIP hypothesis measures absolute relationship change.

H7_{cues}: In FTF negotiations, the relationship between the parties will show greater change than in e-mail negotiations.

H7_{SIP}: In e-mail negotiations, the relationship between the parties will show greater change than in the FTF condition.

Role of Power and Negotiation Role

Power differences in relationships affect negotiation outcomes and the future development of these relationships. Understanding how power is displayed and used in CMC negotiations can assist organizational negotiators to achieve better outcomes and develop the most productive intra-organizational relationships. Researcher report

that powerful language can be found in CMC communications and can at times amplify the need to use more direct power language to convey dominance and the increase the awareness of how language is effecting the relationship (Adkins & Brasher, 1995). This use of direct language (Siegel et al., 1986) may result in magnifying power which may result in greater relationship change between the parties than in the FTF condition. According to Adkins and Brasher (1995), the lack of FTF interaction requires the use of more powerful language when using CMC and heightened the impression of the power relationship between the parties when compared with FTF. FTF situations involve nonverbal cues that can substitute for the use of powerful words.

Given the exploratory nature of the study, no hypotheses are proposed here for power and media conditions across negotiator roles (i.e., buyer and seller).

However, these relationships will be analyzed to examine the effects of power on negotiations using CMC or FTF interactions. This examination of the effect of introducing a power difference after the establishment of a baseline relationship in the first FTF negotiation also provides the opportunity to examine the effect of an established intra-organizational rapport on relationship development when power is unequal (Lawler & Yoon, 1993, 1995; Moore et al., 1999; Morris et al., 2002).

For these research questions, power captures the degree of influence or control that negotiators possess based on their role and position in the organization. Whereas the dimension of dominance that is part of Burgoon and Hale's relationship development scale captures the degree of dominance perceived in the individual messages sent and received. In this case, power refers to the fact that one of the

parties has greater influence in the organization due to their personal relationship with their supervisor that should provide them an expected situational advantage. While all negotiators choose the degree of dominance they choose to convey in their individual FTF or e-mail messages. The degree of message dominance expressed and perceived by the parties is captured by the Burgoon and Hale scale while the relative power in the organization serves as a manipulated independent variable in the study.

RQ1: What effect does the power difference between the negotiators have on the change in the six dimensions of relational communication over time as reported by the negotiators themselves?

RQ2: What effect does the power difference between the negotiators have on the change in the six dimensions of relational communication over time in a negotiation as perceived by negotiators?

RQ3: What effect does negotiation role (i.e., buyer/seller) have on the change in the six dimensions of relational communication in a negotiation over time as reported by the negotiators themselves?

RQ4: What effect does the negotiation role (i.e., buyer/seller) have on the change in the six dimensions of relational communication over time in a negotiation as perceived by negotiators?

Future Use

Past studies have found some support for the expectation that use of e-mail within organizations is associated with experience using electronic media (Fulk et al., 1995; Schmitz & Fulk, 1991). Johnanen, Vallee, and Vivian (1979) found that e-mail experience may create an initial advantage for a party and therefore influence the

future selection of e-mail for negotiation in ongoing relationships. Walther's SIP theory (1992, 1994) also purports that future media use will be influenced by previous experiences using the media. Negotiators who have used e-mail to negotiate and have developed some skill at this task-media pairing may prefer to use it for future negotiations as opposed to those who lack experience using e-mail to negotiate.

Studies have found some support for using e-mail to communicate as being positively associated with prior use of this medium. Because e-mail use has become almost a requirement of modern daily life, simply measuring experience may be too simplistic a view about how media are selected. A broader perspective about media selection would be to examine a person's perception of computer and "e-mail friendliness," or their comfort level using computer-mediated communication channels. A measure of this type should encompass comfort using computers, comfort using e-mail in personal and work situations, perceived ease of e-mail use, as well as comfort using other new communication technologies.

Yellen, Winniford, and Sanford (1995) found support for the existence of a relationship between personality type and a person's comfort and satisfaction with computer mediated communication. In other words, the decision to use electronic mail and satisfaction with e-mail may be related not only to the objective characteristics of the medium but also to personality types. For example, computer exchanges may be more comfortable for introverts compared to extroverts so that introverts may have a more positive appreciation of the computer in general and electronic mail in particular for communication tasks. Further, the computer may limit the potential for extroverts to control or monopolize the negotiation, which in

turn, places greater emphasis on the merits of each side rather than the verbal persuasive abilities of individuals (Turoff & Hiltz, 1982; Yellen et al., 1995). Individuals who feel greater affinity and comfort with computers should be more likely to use e-mail for negotiation tasks. Further, individuals who perceive their partners to be dominant in past interactions may be more likely to use e-mail for future interactions.

H8: The preference to use e-mail for future negotiations (i.e., after the third negotiation) with their same partner will be greater for individuals with higher levels of computer mediated communication comfort.

H9: The preference to use e-mail for future negotiations (i.e., after the third negotiation) with their same partner will be greater for individuals who used e-mail to negotiate with their partner in the past.

Several factors associated with relational communication (Burgoon & Hale, 1987) are expected to predict whether e-mail will be used in the future. The first factor is the individual's perception of how dominant his or her partner has been in past negotiations. Dominance is associated with attempts to control, command, and persuade others. Perceiving one's partner as being low in dominance is expected to increase the preference for e-mail use. Negotiators who perceive their partners to be as low dominants may think that e-mail provides sufficient bandwidth and task focus to achieve high relationship and economic outcomes. Negotiators with a low dominant partner may be drawn to the reviewability and revisability characteristics of

e-mail making this medium one that requires the least collaborative effort, in keeping with Clark and Brennan's (1991) grounding theory.

Trust is expected to influence the decision to use e-mail for negotiations. When trust exists in a negotiation relationship there is generally greater cooperation and a more positive relationship (Pruitt & Carnevale, 1993). This positive relationship should result in greater concession making and use of a joint problem solving approach among the negotiators. In cases where high trust exists the use of e-mail should be a more likely selection because the focus of the interaction is on information exchange rather than on hostile, complex negotiation. Walther (1995) and Walther and Burgoon (1992) found that the level of trust individuals experienced when communicating via computer or FTF did not significantly differ once a relationship was established. These findings imply that trust is possible to develop through the use of e-mail and that once individuals have developed trust they will continue to choose to use e-mail. Negotiators may continue to use e-mail given the advantages of asynchronous communication and greater time efficiency. However in situations where trust remains low individuals are expected to be more likely to choose FTF because they will need the larger bandwidth to detect deceptions. In addition to needing an increased bandwidth, low levels of trust will require more collaborative effort and a media with co-presence, visibility, and audibility as consistent with Clark and Brennan's (1991) grounding theory.

H10: The preference to use e-mail for future negotiations with their partner (i.e., after the third negotiation) will be greater for individuals that perceive higher levels of trust in their relationship.

H11: The preference to use e-mail for future negotiations with their partner (i.e., after the third negotiation) will be greater for individuals with perceive lower levels of dominance in their relationship.

Individuals who find that their past negotiation experiences have been more task oriented as opposed to social oriented are expected to prefer the use of e-mail. Task oriented individuals tend to report themselves to be more work-oriented and focused on completing their assignments as compared to social oriented individuals (Burgoon & Hale, 1987). Because fewer nonverbal cues are provided via e-mail, individuals whose past experiences have exhibited a higher social orientation may prefer the use of FTF communication because it may be perceived as better for enhancing their social relationship. The findings regarding this comparison will be especially interesting because Walther (1995) and Walther and Burgoon (1992) found e-mail exchanges between group members to be more socially oriented than FTF exchanges. In both studies on decision making tasks, individuals using e-mail engaged in more socially oriented exchanges than the FTF group. Walther (1995) reasoned that because individuals are social beings they attempt to establish relationships and connect with their communication partners. When using e-mail to establish a relationship for the first time, the participants exchanged more social messages with e-mail than with FTF in an attempt to get to know their partner. The same social exchanges were not necessary in the FTF condition because they had more nonverbal cues to form an impression of their partner. Some evidence also suggests that in organizations e-mail has taken on the dimension of “talk around the

watercooler” (Mantovani, 1994), such that e-mail is used to communicate social information without openly violating the assumptions that one should be “working.”

Negotiators with a high task focus may be also drawn to the reviewability feature of e-mail (Clark & Brennan, 1991) that allows for reviewing their partner’s offerings, interests, and positions. E-mail also provides high task oriented individuals an opportunity to fine tune and revise their offerings with the least collaborative effort (Clark & Brennan, 1991).

H12: The preference to use e-mail for future negotiations with one’s partner (i.e., after the third negotiation) will be greater for individuals that perceive their partner to have a higher task focus in their previous negotiations.

Chapter 4: Methods

This chapter describes the research design, sample, procedures, negotiation scenarios used, questionnaires, data collection process, and creation of constructs (e.g., dominance, trust, depth, affect, task orientation, formality), and a description of the dyadic analysis technique used. The first section describes the influences on the study design. The second section presents the experimental design. The third section describes the participants, task, and experimental procedures. The fourth section discusses the development of the questionnaires including the development of composite constructs and their reliabilities. The final section presents a description of the Actor-Partner Interaction Model used to conduct the analyses.

Influence for Experimental Design

Walther and Burgoon (1992) have suggested that the study of the manipulation of relational cues may yield useful results regarding how people adapt themselves to achieve interpersonal goals within the restriction of a particular media. Thus, this study examines the effect of a series of three negotiation tasks on the development of social relationships. The participants are randomly assigned partners that they keep throughout the experiment. The first negotiation task is conducted using FTF by all parties and for the purpose of establishing a baseline relationship. The final two negotiations occur using either FTF or e-mail based on random assignment. This prior relationship was initiated in keeping with Walther's (1992, 1994) advice that relationships develop over time and that ones conducted using CMC develop more slowly. Establishing a baseline relationship by having the parties

negotiate first using FTF also helped to develop a rapport between the parties. Moore and colleagues (1999; Morris et al., 2002) reported that “schmoozing” or developing rapport prior to the start of a negotiation resulted in reports of better working relationships and higher levels of satisfaction. McGinn and Keros (2002) reported that when friends negotiated using e-mail they behaved more cooperatively and achieve more integrated outcomes than strangers. McGrath (1984) further advised that participants should have an expectation of a future dependency when communicating so that they invest in the relationship formation process as would be found in an actual organizational setting. Building an expectation of a future negotiation relationship into the design of the study was done to improve the external validity of the study.

This research was conducted using a buyer-seller intra-organizational purchasing simulation. Walther (1992; 1994) has recommended that either time pressures or limiting the amount of time for CMC participants to reach an agreement can result in artificially inhibiting relationship development in CMC interactions and that additional time should be provided for the CMC condition. This recommendation has been included in the task design by providing three weeks to conduct the final two negotiations.

Experimental Design

This study is an experiment with a 2 X 2 X 2 factorial design. Three independent variables were manipulated in the negotiation tasks: the medium of communication (face-to-face vs. asynchronous electronic mail), level of power (equal power vs. unequal power), and role (buyer vs. seller). To provide a sufficient level of

statistical power and to allow for the potential loss of dyads, fifteen pairs were sought for each cell. The medium and power were the main focus of the study, but this design allowed for the testing of whether the assigned role of buyer or seller affected results. The dependent variables studied were the change in various aspects of relational communication and the preference to use e-mail as a communication medium for subsequent negotiations. In addition, several additional variables were measured such as comfort with computer mediated communication channels, computer use comfort, perceived levels of self and partner power, and participant demographics.

Table 1: Research Design

		Mode of Communication	
		<u>E-mail</u>	<u>Face-to-Face</u>
Power	<u>Equal</u>	¹ . Equal E-mail (20 dyads)	² . Equal Face-to-Face (19 dyads)
	<u>Unequal</u>	³ . Unequal E-mail (19 dyads)	⁴ . Unequal Face-to-Face (16 dyads)

Participants were randomly assigned the role of either buyer or seller, and were randomly assigned to one of the four negotiation conditions found in Table 1:

Condition 1. Equal Buyer and Seller Power participants conducted their second and third negotiations task using the asynchronous medium of e-mail. The dyads were given two weeks for the second task and one week for the third task to conduct the

negotiations and achieve either agreements or decide they has arrived at an impasse.

All pairs in this condition reached agreements for their second and third negotiations.

Condition 2. Equal Buyer and Seller Power participants conducted their second and third negotiation tasks using the synchronous medium of face-to-face communication.

The dyads were given two weeks for the second task and one week for the third task to conduct the negotiations and achieve either agreements or decide they has arrived at an impasse. All pairs in this condition reached agreements for their second and third negotiations.

Condition 3. Unequal Buyer and Seller Power participants conducted their second and third negotiation tasks using the asynchronous medium of e-mail. The dyads were given two weeks for the second task and one week for the third task to conduct the negotiations and achieve either agreements or decide they has arrived at an impasse. All pairs in this condition reached agreements for their second and third negotiations.

Condition 4. Unequal Buyer and Seller Power participants conducted their second and third negotiation tasks using the synchronous medium of face-to-face communication. The dyads were given two weeks for the second task and one week for the third task to conduct the negotiations and achieve either agreements or decide they has arrived at an impasse. All pairs in this condition reached agreements for their second and third negotiations.

The amount of time provided to participants to conduct the negotiations in the e-mail and face-to-face conditions was the same. Participants in the face-to-face condition could decide to conduct all of their negotiations in one setting or meet

multiple times over the course of the time allotted. E-mail participants could exchange as many or as few e-mails as they wanted to achieve their goals. This decision of how the negotiation would be conducted was designed to mirror the conditions under which most intra-organizational negotiations would take place. Members of the same organization would not necessarily feel pressure to quickly come quickly to an agreement in one setting; instead, they often are invested in a long term relationship with each other such that they will have to work together in the future. Not providing an artificial time barrier is consistent with the recommendation of Walther (1992; 1994) when conducting long-term studies of CMC.

The dyads were formed by randomly assigning partners to conditions and to the role of buyer or seller. The same partners were maintained for the series of three negotiations. As mentioned above, more than fifteen complete dyads were included in each condition to insure a sufficient amount of data was available for analyses and the necessarily statistical power, even though previous CMC studies have been conducted with ten dyads per condition. This study of ten dyads in each condition was considered to provide sufficient power to complete the analyses (Anderson, 2000).

Participants

Participants were undergraduate students enrolled in an upper-level undergraduate organizational communication course at a large east coast university. The data were collected over the course of three semesters (Spring 2003, Fall 2003, and Spring 2004). Overall, 168 juniors and seniors participated in the negotiations, and 148 individuals (i.e., 74 dyads) agreed to participate in the study and completed

all three negotiation tasks and questionnaires. All 168 students completed all three the negotiation tasks as part of the assigned course work.

Each pair participated in three negotiation exercises. For the first exercise, all dyads negotiated face-to-face using the same case study (Knight Engineering). This negotiation took place during class. This negotiation was used to form the baseline for the dyad's relationship development. The pair was informed that they would be conducting two additional negotiations (Universal Computer I and Universal Computer II) with their partner as part of the course module on negotiation. In addition, students interested in earning extra credit could volunteer as participants for the research study by completing an informed consent form, a questionnaire prior to the first negotiation, and another questionnaire after each of the three negotiations. Any student who did not want to participant in the research study did not suffer any penalty and was provided with an alternative method for earning extra credit in the course. Of the 168 students recruited some of them completed the first in class negotiation, the informed consent form, and related questionnaires, but chose not to complete the subsequent questionnaires. Dyads that did not have complete questionnaires from both parties were dropped from the analysis leaving 74 complete dyads (see Table 1).

For the second and third negotiations, participants were instructed to use their assigned medium and not to discuss the negotiations with others in the class and not to discuss the negotiations with their partner through any other medium. To motivate the students, they were told that their performance on the negotiations would affect their grade on the assignment. The students were also told that they would be

working on future projects with their assigned partner to create the expectation that they would have a future working relationship with their partner. Many of the students did work with their partners in the future as part of work in the course, but no formal pairs were arranged. All students that completed the assignment were given full credit and their performance in the negotiations did not affect their grade. These minor deceptions regarding the impact on their course grades and future working relationships were necessary to insure high involvement in the study and create an expectation of a future working relationship as recommended by Liu (2002). The expectation that their performance would affect their grade on the assignment and that they would work together on a future class assignment was consistent with the course grading policy and the course practice of assigning students to groups to work on exercises, case studies, and other course assignments. This design was used to increase student involvement in the project and reduce communication through other mediums that may have compromised the study. All of the participants had access to free e-mail accounts provided by the university and access to multiple computer labs on campus as well as dial-in access from remote locations to the university mail system. An informal question in each class prior to the start of the assignment indicated that all students had at least one e-mail account and most had at least two e-mail accounts that they used on a regular basis. A copy of the written materials provided to the participants is included in Appendix A.

Task

As described above, all of the participants conducted their first negotiation in a face-to-face dyad, which established a relationship between the two participants in

each dyad. The participants were randomly assigned partners in class, but if the pair reported that they knew each other outside of class they were placed back into the assignment pool and they were matched with another random partner. The situational task for the first negotiation was a dyadic negotiation, Knight Engines/Excalibur Engine Parts, (Lewicki, Litterer, Saunders, & Minton, 1999) that did not involve any power manipulations. The case involved one member playing the role of Knight Engineering (buyer) and the other playing the role of Excalibur Engine Parts (seller). The instructions said the Knight representative contacts the Excalibur representative about purchasing some of its pistons and the negotiation follows a fairly typical buyer-seller negotiation. The dyad was asked to reach a decision on the number of pistons sold, the price of the pistons, the quality control arrangements, and was free to include other items in the settlement. A copy of the case exercise and accompanying instructions can be found in Appendix A. This first negotiation was conducted a third of the way through the course and students were provided three additional weeks for the next two negotiations.

The second and third negotiations were based on modified versions of the Universal Computer Company Case I and the Universal Computer Case II (Lewicki et al., 1999). The second negotiation involved a case in which two division managers are involved in an intra-organizational transfer pricing task that involves integrative potential for task, relationship, and face goals (Wilson & Putnam, 1990). Each participant was asked to take on the role of one of the plant managers at Universal Computer. The Crawley plant manager (seller) was expected to sell modules to the Phillips plant manager (buyer) but they have quality control issues with the modules.

The plant managers both report to the same vice president for manufacturing who they are told is anxious to resolve this disagreement. Half of the participants were told that the vice president for manufacturing typically favors and backs the Crawley Plant Manager in all disputes, whereas the other half were not provided with this information. The cases in which the vice president of manufacturing backed Crawley provided a power imbalance between the two partners in which the seller is given greater power than the buyer. The Crawley plant manager was informed that he or she had the backing of the vice president of manufacturing which gave the negotiator the ability to pressure the Phillips plant manager or evade discussing the problems. The Phillips plant manager also had this information and had to take this information into consideration when negotiating. This power manipulation required the parties to consider relationship goals and affect issues in addition to the actual issue of the defective modules. Half of the participants in the Equal Power and half in the Unequal Power conditions used e-mail and the other half conducted their negotiations face-to-face.

The third negotiation was a continuation of the Universal Computer Company case (Lewicki et al., 1999), which was modified to include some of the relational components from the second negotiation such as the power of the vice president of manufacturing for those participants in the unequal power condition. This third case involved an intra-organizational purchasing agreement in which Phillips was seeking to place a large order for a new chip with Crawley and needed to negotiate a price and quantity. In the equal power condition, Phillips could purchase the parts from Crawley or from an outside supplier. In the unequal power condition, the participants

were informed that the Universal Computer Company preferred that its divisions purchase its chips in-house. Phillips was therefore, not forced to buy from Crawley, but the Phillips representative was informed that the vice president of manufacturing would ask very difficult questions if Phillips did not purchase from Crawley. However, the Crawley representative was informed that if he or she decided not to sell to Phillips that the vice president of manufacturing would back Crawley. The power differences were manipulated so that the unequal and equal power differences established in negotiation number two were continued as were the media used in the second negotiation. Copies of the instructions and roles for the negotiations are contained in Appendix A.

Participants worked with their same partner over the course of the three negotiations based on Walther's recommendation (1992) that relationships take time to develop. All participants took part in the same face-to-face negotiation simulation for the first encounter to allow for relationship development prior to the main treatments.

Requiring that the second and third negotiations took place via e-mail for one half of the dyads and FTF for the other half of the dyads made it possible to examine the effect of the media on the relationship development over the course of the three negotiations. An added dimension in the second and third interaction was the introduction of a power difference in half of the relationships. The term unequal power is used rather than absolute power because the negotiations were housed in an intra-organizational setting in which relational goals related to future working relationships and task goals related to overall company profits needed to be

considered by the participants (Wilson & Putnam, 1990). Pruitt and Carnevale (1993) proposed that absolute power is “the extent to which parties have power *over each other*” (p. 131) and relative power is “the extent to which one party is more powerful than the other” (p. 131). In this study, the roles were designed so that within the equal power condition neither party would appear to have greater control over the outcome; in the unequal power condition, the participants did not have direct control over the other party’s actions but one party had a stronger bargaining position based on the favorable treatment by the vice president of manufacturing.

Procedure

Participants were randomly assigned to pairs for this negotiation and these pairs remained unchanged throughout the three negotiations. Tasks were provided in class with written and verbal instructions that the participants were not to share their role information with their partner nor discuss their negotiation with anyone else in the class. Half of the dyads were randomly assigned to use e-mail and the half to use face-to-face communication for the second and third tasks. The first negotiation task was done in class over a period of 60 minutes with all dyads reaching a settlement and finishing the negotiation before the end of the class. The second negotiation task was completed over a two week time frame for all dyads. The third negotiation task was conducted over a one week time frame for all dyads. These time periods allowed participants ample opportunity to make contact with their partner multiple times if necessary. The time frames also more closely matched the way negotiations are conducted in actual organizations as compared to the numerous single task negotiation studies reported in chapter two in which participants are given sixty

minutes to complete a FTF and e-mail negotiation. The FTF participants could conduct their negotiation in one session or hold multiple FTF sessions as long as they were completed in the allowed time frame. For the third negotiation task, the FTF negotiators reported that they met an average of 1.75 times with a standard deviation of .677 while the e-mail negotiators reported that they sent their partners an average of 3.04 messages with a standard deviation of 1.56.

Prior to the first negotiation task, participants completed a base level questionnaire containing demographic information, questions regarding CMC comfort, and questions about the richness of various media. After the first task, the participants completed an instrument that measured aspects of their relationship with their partner, a rating of their behaviors with respect to their partner, a measure of the power balance between the two parties, outcome satisfaction levels for the negotiation that just occurred, and satisfaction ratings regarding the process for the previous negotiation. After the second negotiation session, the participants completed a questionnaire identical to the one completed after the first negotiation.

Upon completion of the third task, participants again completed a questionnaire that included items measuring the perceived relationship with their partners, a rating of the participant's own behaviors with respect to their partners, a measure of the perceived power balance between the two parties, outcome satisfaction levels for the previous negotiation, process satisfaction ratings for the previous negotiation, as well as questions about CMC comfort levels, the future likelihood of using e-mail for future negotiations with their partners and details about the communications exchanged between the parties. E-mail participants were asked

to provide copies of their e-mail exchanges for the second and third negotiations as a check to insure that the negotiations were completed. Examples of the questionnaires are provided in Appendix B.

Pre-Negotiation Demographics

The pre-negotiation questionnaire consisted of questions requesting demographic information such as gender, age, major, class standing, full-time work experience and part-time work experience. These questions made it possible to check for potential systematic differences between the various conditions and to insure that dyads were comparable in experience. As Table 2 below indicates, the participants were significantly more female than male although there were no significant imbalances of gender make across conditions. A review of the means for the dependent variables used in the analysis did not indicate any significant differences between the male and female responses. None of the hypotheses were expected to differ based on gender.

Table 2: Demographic Variables for Study Participants on the Pre-Negotiation Questionnaire

		<u>Equal Power</u>		<u>Unequal Power</u>	
		<u>Count</u>	<u>Percent</u>	<u>Count</u>	<u>Percent</u>
<u>E-mail</u>	Females*	22	14.9%	23	15.5%
	Males*	18	12.2%	15	10.1%
		<u>Mean</u>	<u>Std Dev</u>	<u>Mean</u>	<u>Std Dev</u>
	Age	20.1 years	1.10	21.4 years	2.05
	Months of Full-Time Work Experience	7.25	10.98	15.24	38.92
	Months of Part-Time Work Experience	26.03	19.38	48.69	133.53
<u>FTF</u>		<u>Count</u>	<u>Percent</u>	<u>Count</u>	<u>Percent</u>
	Females*	29	19.6%	25	16.9%
	Males*	9	6.1%	7	4.7%
		<u>Mean</u>	<u>Std Dev</u>	<u>Mean</u>	<u>Std Dev</u>
	Age	21.6 years	1.65	21.1 years	0.87
	Months of Full-Time Work Experience	10.32	28.03	23.7	22.47
Months of Part-Time Work Experience	6.73	8.58	33.7	31.05	

* Percent of females is statistically different at $p < .05$ level.

The Six Dimensions

The relationship development measures for the study were based on a modified version of Burgoon and Hale's (1987) Relational Communication scale. In this study, only six of the eight scales were used to provide a measure of perceptions about the other party's relational communication behaviors, and the scale was used as a self-report measure to assess one's own relational communication behaviors. The six dimensions selected for use in this study were based on the nature of the expected negotiation relationship and because relationship power was included as one of the conditions. The items that measure equality were included in the questionnaire but were not used in the analysis because power was manipulated as an independent variable in the study. This power manipulation would have reduced the usefulness of the equality measure for measuring the development of the relationship because this power manipulation was introduced at the start of the second negotiation.

The validity of this scale's dimensions has been analyzed several times previously, and many criterion-related validity studies have shown the scale to be highly valid (Rubin et al., 1994). Cronbach's alpha coefficients have been reported between .42 and .88 for the dimensions when the scales have been used by Burgoon and Hale and others (Rubin et al., 1994). The reliability is improved because the scale is constructed of several questions that measure each dimension (Baily, 1994). The scale was used in this study first to establish a baseline relationship after the first negotiation and was then administered again after the second and third negotiation to look at the changes in the six relationship dimensions. A complete list of the items included in each relationship component can be found in the questionnaire in

Appendix B. The Cronbach's alphas ranged from .62 to .82 on the dimensions for the perceptions on one's partner's relational communication behaviors and from .69 to .84 for the self report measures. Table 3 provides the Chronbrach alphas for each of the composites after the negotiations.

For analyses regarding relationships, the study uses the difference between the relationship scores after the Knight Negotiation (Post 1) and Universal Computer II (Post 3). This difference score (Post 3 – Post 1) provides the change measure for the dimensions of the relationship as well as the direction of the change. As discussed in the hypotheses section, some of these relationship dimensions are expected to become stronger and others are not.

For each of the six dimensions of relational communication, one subscale was used to measure the respondent's attempt to convey this relationship dimension to his or her partner and another subscale to measure the negotiator's perception that his or her partner conveyed these relational behaviors in the negotiations.

Dominance: This scale consists of five items to assess both one's own and the partner's dominance behaviors. Dominance is a measure of how much control each of the parties attempted to exert over the other in the negotiation. A high score for one's partner would indicate a strong degree of dominance was perceived in the negotiation whereas a low level would indicate a more submissiveness was perceived. A high score for one's self would be a sign of a concerted attempt to control the negotiation and establish distance between one's self and one's partner. A low score would indicate perceived submission to the other party's desires and the perception that one's negotiation goals are in sync with one's partner's goals. The concept of

dominance is made up of items measuring competitiveness, aggressiveness, and treating one's partner as inferior, along with perceived attempts to control the negotiation. When individuals attempt to dominate the negotiation they attempt to set themselves apart from their partner.

Affection and immediacy: Five items are included in the affection/immediacy scale, which measures the respondent's and partner's attempts at establishing a sense of affection and closeness with the other party. The scale measures the extent to which there is a perception of being involved in the interaction with the other person, finding the exchanges stimulating, showing interest in communicating with each other, and not being bored with one's partner. Affection/immediacy is an indication that one is perceived as trying to establish a sense of closeness with one's partner. In the context of negotiation, portraying a sense of affection and immediacy would be an attempt to seem close to one's partner and to understand his or her goals. Negotiators who perceive affection and immediacy from their partner should feel closer to their partner and are more likely to be concerned about helping their partners achieve their goals (Fisher et al., 1991).

Depth: Five items included in the depth measure. This scale consists of items about the respondent's efforts to deepen the relationship and the extent to which the respondent perceives his or her partner wants a deeper relationship. A deeper relationship is consistent with attempts to make one's partner feel similar to oneself, to move the interaction to a deeper level, to act like the partners are good friends, to indicate a desire to communicate further, and to appear to care if one is liked by his or her partner. Creating a sense of depth during the negotiation results in signs of

wanting to develop an ongoing relationship beyond the immediate interaction. Establishing a sense of depth by looking for similarities between oneself and one's partner in a negotiation can result in more successful appeals to get one's partner to understand one's goals.

Formality: Three items are included in the formality construct. This scale measures respondents' attempts to make the communications formal and their perceptions of their partners' efforts to increase formality in the negotiations. Formality is characterized by making interactions formal, being less casual in communication messages, and avoiding informality in communications. Formal negotiations contribute to a more businesslike setting and a greater reliance on rules and procedures. Negotiations that are more formal are more likely to move through stages in an orderly and precise manner. Formal negotiations are more likely to be driven by issues than by personal characteristics of the negotiators.

Trust: Five items are included in the trust measure. This scale includes measures that assess the respondents' attempt to create a sense of trust with their partners and perceptions that their partners want a trusting relationship. Trust is characterized by efforts to demonstrate sincerity in messages, listen to one's partner, be open to the ideas of others, demonstrate honesty in communication, and display an interest in working with one's partner. Trust contributes to a greater sense of receptivity to one's partner's ideas and the needs. Negotiators who demonstrate a high level of trust may be more likely to use an integrative approach and to share information with one's partner to seek common interests.

Task Orientation: Four items comprise the task orientation measure. This scale includes measures that assess the respondents attempts to minimize the social communications with one's partner and perceptions that their partners focused their messages on completing the negotiation task. A task orientation is characterized by sticking to the main purpose of the interaction, being more interested in the task than socializing with one's partner, being very work oriented in one's demeanor, and not engaging on social conversation. A high task orientation in a negotiation will generally result in keeping messages focused on the topic and reaching a resolution more quickly than with low task orientation. Exchanges of a personal nature tend to be limited and little attempt is made to deepen the personal relationship.

These six dimensions provide a measure of the communication relationship between the two negotiators at the conclusion of each negotiation. A difference of the relationship level at the conclusion of the third negotiation with the level after the first negotiation provides a measure of the relationships' change on each of the six dimensions. This change score provides an effective way to test the relationship hypotheses and theoretical relationship constructs.

Table 3: Reliabilities for Social Relational Communication Subscales for Partner Relational Behaviors and Negotiator Self Report Relational Behaviors

Reliabilities for Social Relational Communication Subscales
for Partner Relational Behaviors *

	Number of Items	Post 1	Post 2	Post 3
Dominance	5	.81	.77	.77
Depth	5	.76	.74	.77
Affection	5	.74	.81	.75
Formality	3	.66	.74	.81
Trust	6	.81	.75	.84
Task Orient	4	.63	.62	.75

Reliabilities for Social Relational Communication Subscales
for Self Relational Behaviors *

	Number of Items	Post 1	Post 2	Post 3
Dominance	5	.69	.70	.74
Depth	5	.75	.80	.79
Affection	5	.73	.81	.81
Formality	3	.78	.83	.84
Trust	6	.81	.80	.84
Task Orient	4	.76	.77	.79

* Cronbach's alpha based on standardized items.

Power

Pruitt and Carnevale (1993) differentiate between relative power, or the extent to which one party is more powerful than the other, and absolute/total power, or the extent to which one party has power over the other. In this study, power refers to the extent to which one party is dependent on the other, or the ability of one party to grant, deny, hinder, or facilitate the other's gratification (Emerson, 1962). In this case the power of Crawley the producer/seller of the chips is manipulated such that in the unequal power situation, Crawley is favored over Phillips by the vice president of

manufacturing. Because both parties in the role play work for the vice president, Crawley is considered to have the greater power than Phillips because the vice president typically favors Crawley when there are disputes. This conceptualization of power being equal or unequal is in keeping with Pruitt and Carnevale's (1993) definition of relative power and Emerson's (1962) view that power is the ability to influence the gratification of the other. In the unequal power situation of this study, the task was designed so that one party has a greater ability to influence the outcome of the negotiation. Both parties work for the same organization and have an expectation that they will be dependent on one another and their boss, the vice president of manufacturing, in the future. Crawley has relatively more power than Phillips because if a dispute arises between the two parties the vice president of manufacturing typically sides with Crawley. This dynamic provides Crawley with relatively more power than Phillips, but not absolute power; the vice president has absolute power over both parties.

Prior to administering the experiment, the case studies were provided to students enrolled in an upper level organizational communication course. These students read the case studies and provided feedback on the relative power of Phillips and Crawley based on their objective reading of the cases. These students reported that Crawley was in a more powerful position because Phillips and Crawley's mutual boss sided with Crawley in past conflicts between the two plant managers. This review technique has been used by other researchers when the possibility exists that the less powerful negotiator may not want to admit his or her weaker relative power position on a questionnaire (Anderson & Thompson, 2004).

In addition to this objective review, a manipulation check of power was conducted by asking the parties to allocate one hundred total power points to illustrate the level of power each party has in the negotiation. Power also was measured by asking about the level of control one's partner had over the final negotiation settlement as well as the level of control the negotiator felt over the outcome. Table 4 presents the results of the distribution of 100 points of power between the two parties, first for the overall study and then for the different power conditions broken down by the buyer and seller roles. This measure did not produce significant differences between the two conditions. In other words, despite this manipulation, this measure did not show a perceived difference in power between the parties.

A second measure of power, the level of control experienced by the two parties, was more useful. Table 5 provides the results of the differences in the perceived level of control over the settlement from after the Knight negotiation (P1) to after Universal Computer II (P3). Control was measured by using two seven-point Likert item. Crawley, the seller, responded to an item assessing his or her control over the final settlement and Phillips, the buyer, responded to an item assessing Crawley's control over the settlement. The changes in these two items were computed by taking the difference between the reported levels after the first and third negotiations. In the case of Crawley (the seller), an ANOVA analysis, $F[2, 71] = 5.54, p < .03$, indicated a significant increase in perceived control developed from the first to the third negotiation in Crawley's perception of having power. For the unequal power condition, Crawley perceived an average increase of power by .63 as compared to an average decrease of .24 for the equal power condition. However, in

the case of Phillips (the buyer), an ANOVA analysis, $F[1, 72] = .379$, n.s., did not indicate an increase in the perception of Crawley's power over the negotiation. Instead, Phillips negotiators reported that Crawley's power had decreased more in the unequal power condition (-.54) than in the equal power condition (-.24). The finding contradicts the power manipulation, but is not completely unexpected based on findings from other studies (Anderson & Thompson, 2004). This lack of measurable difference on the part of Phillips perception of power is partly explained by the results in Table 4: All the participants in the study perceived a greater sense of their power relative to that of their partner in the third negotiation as compared to after the first negotiation. In addition, the buyer (Phillips) may have felt a greater sense of power because he or she had the option of going to another supplier and the effect of the vice president of manufacturing's unhappiness was not a great enough force to alter Phillips perception of Crawley's power given the ongoing dependencies expected in an intra-organizational negotiation (Lawler & Yoon, 1995). Another possible reason that Phillips negotiators did not recognize a significant increase in their partner's power is the unwillingness of parties to admit a weakness of one's interests in a negotiation. Crawley's greater sense of power despite Phillips' lack of reporting a change in the power balance is enough to allow the analysis of the power difference to proceed with close scrutiny. The continuing of this analysis is based on Anderson and Thompson's (2004) work in a previous study where they used the pre-study review by individuals similar to the participants and also reported a reluctance on the part of weaker negotiators to report this weakness on a questionnaire.

Table 4: Power Balance Statistics for Phillips (Buyer) and Crawley (Seller)

Descriptive Statistics for Phillips (Buyer) Perceptions of Power Balance After Negotiations

	N	Minimum	Maximum	Mean	Std. Deviation
Post Knight: Partner Power	74	10	65	48.57	8.935
Post Knight: My Power	74	35	90	51.43	8.935
Post Neg 2: Partner Power	74	10	65	46.53	9.984
Post Neg 2: My Power	74	35	90	53.47	9.984
Post Neg 3: Partner Power	74	25	80	47.82	8.197
Post Neg 3: My Power	74	20	75	52.18	8.197

Descriptive Statistics for Phillips (Buyer) Perceptions of Power Balance After Negotiations for Equal Power Condition

	N	Minimum	Maximum	Mean	Std. Deviation
Post Knight: Partner Power	39	10	60	48.13	8.458
Post Knight: My Power	39	40	90	51.87	8.458
Post Neg 2: Partner Power	39	10	65	46.59	9.583
Post Neg 2: My Power	39	35	90	53.41	9.583
Post Neg 3: Partner Power	39	30	80	48.69	7.760
Post Neg 3: My Power	39	20	70	51.31	7.760

Descriptive Statistics for Phillips (Buyer) Perceptions of Power Balance After Negotiations for Unequal Power Condition

	N	Minimum	Maximum	Mean	Std. Deviation
Post Knight: Partner Power	35	10	65	49.06	9.539
Post Knight: My Power	35	35	90	50.94	9.539
Post Neg 2: Partner Power	35	10	60	46.46	10.553
Post Neg 2: My Power	35	40	90	53.54	10.553
Post Neg 3: Partner Power	35	25	70	46.86	8.668
Post Neg 3: My Power	35	30	75	53.14	8.668

Each participant was asked to distribute 100 points to indicate their power and their partner's power.

Table 4 con't: Power Balance Statistics for Phillips (Buyer) and Crawley (Seller)

Descriptive Statistics for Crawley (Seller) Perceptions of Power Balance After Negotiations

	N	Minimum	Maximum	Mean	Std. Deviation
Post Knight: Partner Power	74	25	75	49.28	8.405
Post Knight: My Power	74	25	75	50.72	8.405
Post Neg 2: Partner Power	74	10	70	47.85	8.634
Post Neg 2: My Power	74	30	90	52.15	8.634
Post Neg 3: Partner Power	73	20	60	47.42	6.610
Post Neg 3: My Power	73	40	80	52.58	6.610

Descriptive Statistics for Crawley (Seller) Perceptions of Power Balance After Negotiations for Equal Power Condition

	N	Minimum	Maximum	Mean	Std. Deviation
Post Knight: Partner Power	39	35	70	50.05	7.312
Post Knight: My Power	39	30	65	49.95	7.312
Post Neg 2: Partner Power	39	25	65	48.03	7.565
Post Neg 2: My Power	39	35	75	51.97	7.565
Post Neg 3: Partner Power	38	30	60	48.47	5.793
Post Neg 3: My Power	38	40	70	51.53	5.793

Descriptive Statistics for Crawley (Seller) Perceptions of Power Balance After Negotiations for Unequal Power Condition

	N	Minimum	Maximum	Mean	Std. Deviation
Post Knight: Partner Power	35	25	75	48.43	9.512
Post Knight: My Power	35	25	75	51.57	9.512
Post Neg 2: Partner Power	35	10	70	47.66	9.798
Post Neg 2: My Power	35	30	90	52.34	9.798
Post Neg 3: Partner Power	35	20	55	46.29	7.311
Post Neg 3: My Power	35	45	80	53.71	7.311

Each participant was asked to distribute 100 points to indicate their power and their partner's power.

Table 5: Crawley (Seller) Perception of Self Control Over the Settlement

Change in Own Control over Settlement Perception by Power Condition from Post Negotiation 1 to Post Negotiation 3

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Equal Power	38	-.24	1.69951	.27570	-4.00	4.00
Unequal Power	35	.63	1.41600	.23935	-2.00	4.00
Total	73	.18	1.61883	.18947	-4.00	4.00

* Statistically significant at $p = .02$ level. Crawley, perceived a greater sense of self power after the third negotiation in the unequal power condition as compared to the equal power condition.

Table 6: Phillips (Buyer) Perceptions of Crawley's Control Over the Settlement

Change in Partner Control over Settlement Perception by Power Condition from Post Negotiation 1 to Post Negotiation 3

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Equal Power	39	-.28	1.80567	.28914	-5.00	4.00
Unequal Power	35	-.54	1.83660	.31044	-6.00	4.00
Total	74	-.4054	1.81258	.21071	-6.00	4.00

** No significant difference exists between the buyer's, Phillip's, perception of the seller's power, Crawley, between the first and third negotiation.

Comfort Level with Computer Mediated Communication

Computer Mediated Communication comfort was measured based on a scale of five questions using a seven-point Likert-type scale. The items asked about the respondent's comfort communicating via e-mail, comfort using a computer, comfort with using e-mail in personal and work situations, ease of e-mail use, as well as comfort using other new communication technologies such as instant messenger. The measure of computer mediated communication comfort is based on social influence theory (Fulk et al., 1990), which argued that the greater the comfort level with a

medium the more likely the medium is to be used. The use of multiple items to measure comfort level increased its reliability and similar measures have been used by Fulk and associates in the past. Cronbach's alpha for the five-item measure was .84, making this measure appropriate for assessing computer mediated communication comfort.

Table 7: Computer Mediated Communication Comfort Statistics

	Mean	Std. Deviation	N
P3 Comfort Using a Computer	6.19	1.190	147
P3 Comfort Using E-mail to Communicate	6.22	1.274	147
P3 Using E-mail to Stay in Touch W/Friends	6.05	1.254	147
P3 Using E-mail to Get Work Done	5.73	1.358	147
P3 Using Computer for Instant Comm	6.41	1.193	147

* Chronbach's $\alpha = .84$ based on standardized items.

Future Use of Media for Negotiations

A measure was administered at the conclusion of all three negotiations to identify the preference for using various media for future negotiations with the negotiator's partner. Lower numbers represent greater likelihood to use the media in the future, with "1" representing most likely to use. Participants were asked to rank e-mail, the telephone, FTF, instant messenger, fax, and letter. All of the participants, ranked FTF as their first choice and the phone as their second choice for future negotiations. The differences are present among the third and fourth ranking by condition, with e-mail negotiators ranking e-mail third and instant messenger fourth and FTF users ranking instant messenger third and e-mail fourth. Table 8 presents the rankings. These rankings are discussed further in the results section.

Table 8: Ranks of Future Use of Media for Negotiations with Partner

Descriptive Statistics for All Participants

Media	N	Minimum	Maximum	Mean	Std. Deviation
FTF	69	1	6	1.94	1.327
Telephone	68	1	5	2.57	.951
Instant Messenger	68	1	6	2.84	1.288
E-mail	68	1	6	2.99	1.240
Fax	68	3	6	5.26	.725
Letter	68	2	6	5.38	.773

Descriptive Statistics for E-mail Participants

Media	N	Minimum	Maximum	Mean	Std. Deviation
FTF	72	1	6	2.10	1.493
Telephone	71	1	5	2.69	.855
E-mail	71	1	6	2.83	1.331
Instant Messenger	71	1	6	2.87	1.414
Fax	71	3	6	5.06	.674
Letter	71	2	6	5.44	.906

Descriptive Statistics for FTF Participants

Media	N	Minimum	Maximum	Mean	Std. Deviation
FTF	64	1	4	1.78	1.133
Telephone	63	1	5	2.37	.921
Instant Messenger	62	1	6	2.66	1.070
E-mail	63	1	4	3.22	.991
Fax	62	4	6	5.42	.560
Letter	62	4	6	5.48	.565

Pre-Study Cognitive Interviewing

Cognitive interviewing is a process whereby a participant is asked to explain the thought processes he or she had as they read each part of the questionnaire. The interviews were conducted with undergraduate students in an organizational communication course (the same course from which the study participants were

eventually drawn). Interviewees were provided with copies of the questionnaires to review and were asked to comment on the ease of use and the clarity of the questions. The interviewees also reviewed the negotiation cases and scenarios and provided comments on their clarity as well as the relative power of Crawley and Phillips for the unequal power condition. This feedback was used to improve the clarity of the case, improve the phrasing of the questions, and the organization of the instruments. The reviewers found little confusion regarding the questionnaires. The interviewees were able to detect the power difference between Phillips and Crawley in the unequal and equal power conditions as discussed above providing support for the continued use of the power difference as a variable in the analysis. This interviewing technique to detect power differences in case studies has been used by Anderson and Thompson (2004) in their studies of power relationships and has produced acceptable results for their studies.

Analyses

Analyses of data involving dyads present some unique statistical challenges that must be taken into consideration. At the basis of many commonly used statistical analyses (e.g., ANOVA, regression) is the assumption of independent observations of the dependant variables (Cook & Kenny, 2005). Violating this assumption can produce inaccurate results, misleading degrees of freedom, and biased statistical significance (Cook & Kenny, 2005; Kenny, Kashy, & Cook 2006). One way of managing such analyses has been to treat the dyad as the unit of measurement and ignore the individual perceptions of the relationship. However, in negotiation, in which there are distinct roles of buyers and sellers in the dyads along with different

levels of relationship power in two of the four conditions, using the dyad as the unit of analysis would result in overlooking the perceptions and behaviors affected by those roles. In contrast, assuming the dependent relationship measures and future desire to use e-mail were independent for the buyers and sellers may produce results that miss the interdependence of the buyers and sellers within each dyad.

As recommended by Kenny and his associates (2006), for studies involving fewer than 35 dyads, the dyads should be assumed to be nonindependent, and in studies involving more than 35 dyads and where the members are distinguishable the Pearson product-moment correlation should be studied for each of the variables. Cook and Kenny (2005) have recommended using the more liberal test of $p < .20$ for the two-tailed correlation test when examining nonindependence. Using the .20 level with this technique minimizes the mistake of assuming the dyads are independent when they are not. Assuming independence could produce Type I and Type II errors. Using this criterion, a review of the intra class correlations between the partners for the 12 relationship dimensions and the *future use of e-mail* rank variable resulted in 7 of the 13 correlations being significant at the $p < .20$ level. The results for the correlations are provided in Appendix C. These results indicate that it would be an error to treat individual participants as independent by performing standard ANOVAs. Instead participants must be treated based on their interdependent roles of buyers and sellers or the dyad must be used as the unit of analysis. A recommended approach is to continue to use the individual scores but to consider each buyer and seller to be nested within the dyad. This technique is referred to as the Actor-Partner Interdependence Model (APIM) (Cook & Kenny, 2005; Kenny et al., 2006).

APIM has been used in this study as a specialized type of multilevel modeling as proposed by Kenny and colleagues (Cook & Kenny, 2005; Kenny et al., 2006). The model is designed to account for and consider the effect each partner has on the other. APIM allows for the separation of each actor's relational communication behaviors from those of his or her partner. This approach, therefore, can take into consideration that the Crawley negotiator's report of his or her relationship behavior (an actor effect) was influenced by the Phillips negotiator's report of his or her relationship behavior on the same relationship communication behavior (partner effect). For example, if the Crawley negotiator established a very task oriented approach to the negotiation, the Phillips negotiator was likely to have responded in a similar way by matching the Crawley negotiator's behavior or at least modified his or her approach to some extent. APIM was especially useful for this analysis because it allowed for the study of mixed independent variable where variability was both between dyads and within dyads (Kenny et al., 2006).

All of the hypotheses and four research questions were tested using APIM. The differences between the first and third negotiation for the six self and six partner relationship communication behaviors (dependent variables) were analyzed in a 2 (FTF & e-mail) X 2 (equal power & unequal power) X 2 (seller/Crawley & buyer/Phillips) design. Mixed Linear Model was performed to examine the effects of the media, the power relationship, the bargaining role, as well as interactions between these independent variables. The model was run with the assumption of heterogeneous compound symmetry, which allows the error variances of the partners to differ (Kenny et al., 2006). This assumption is appropriate based on Kenny and his

colleagues APIM model (2006) because the members of the dyad are distinguishable from one another. In other words, there was a buyer and a seller in the dyad that each had different roles to play, and it would be inaccurate to assume that the buyer and seller were interchangeable in their attitudes, beliefs, or behaviors.

The data file was organized so the each dyad was assigned a unique ID and each person within the dyad was assigned a person role of 1 or 2. The file consisted of one line of data for each dyad with each variable associated either with person role 1 or person role 2 (Cook & Kenny, 2005). For example, the difference between the dominance dimension score after the first negotiation and the third negotiation was designated Domin_P1P3.1.00 for the first member of the dyad and Domin_P1P3.2.00 for the second member of the dyad. The independent variables of bargaining power, bargaining role, and media used to negotiate were organized so that each dichotomous condition was assigned a value of +1 or -1. This dichotomous coding is advisable because each independent variable in an APIM model must have a meaningful zero or be grand mean centered. This file structure resulted in 148 records because each dyad was entered twice, first as person “1” in the dyad where they were the primary participant in the negotiation and then again at person “2” as part of a second dyad where he or she was a secondary member of the dyad.

This procedure uses “Satterthwaite degrees of freedom that represent a complicated weighted average of the between and within degrees of freedom” (Kenny et al., p. 161). This degree of freedom computation is produced by most multilevel modeling computer programs by using the standard errors associated with the within and between coefficients and the degrees of freedom for the within and between

variables. The number of degrees of freedom is some number between the number of dyads less one and the number of individuals in the study minus 2. The degrees of freedom produced are often fractional and should be interpreted when using a *t*-table by rounding downward (Kenny et al., 2006).

APIM is similar to a regression model in that the independent variable (i.e., the change in the relationship dimension between the first and third negotiation) is entered into the model along with dependent variables of media, power, and bargaining role along with the interactions between each of these dependent variables. The model produces unstandardized coefficients (*b*) that are interpreted like regression coefficients. The significance of the *b* value is determined by using a *t*-test with the Satterthwaite degrees of freedom. The coding the dependent variables as -1 or 1 provides an accessible interpretation of the effect on the independent variable by using the *b* value and changing the sign of the coefficient based on the dependent variable. The APIM procedure is different from a standard regression in that it takes into account the variance both within and between the dyad members as a correlation variable in the model, whereas regression would treat it as an independent variance.

Significant differences at the $p < .05$ level were required before *b* coefficients for main effects or interactions were considered statistically significant. Interactions between the power variable, the communication medium, and the role were analyzed for all hypotheses and research questions. APIM allows for the inclusion of these interactions without the need to create new variables. However, APIM requires that the main effects be included in any model in which the interaction effects are studied.

When interactions were detected, a filter was used and the APIM analyses were run for one of the two interaction conditions to determine the effects of the interaction.

The set of hypotheses related to future e-mail use for negotiation, were also tested by using APIM. The level of significance was also set at the $p < .05$ level. For this analysis the dependent variable was the rank assigned to e-mail by each respondent for desire to use for future negotiations with their partner. The independent variables were either dichotomous resulting in a meaningful zero or the variables that were transformed by centering them around the grand mean (Cook & Kenny, 2005; Kenny et al., 2006). The results are interpreted in a similar manner as that used for the previous relationship dimension results.

The use of the APIM model allows for the study of the dyad members as individuals while adjusting and correcting for the effect of the partner on the actor. This approach creates a powerful tool for the study of relationships and the development of relationships such as those found in this study and in negotiation studies in general. Additional explanation of this technique can be found in Kenny and colleagues's (2006) *Dyadic data analysis*.

Chapter 5: Results

This chapter presents the results of the tested hypotheses and the four research questions. These results look at the effect of the media, the bargaining power, and the bargaining role on the six aspects of interpersonal communication relationship development. They also explore the effect of various factors on the selection to use electronic mail for future negotiations with a negotiator's partner.

Relationship Dimensions

Means and standard deviations for the perception of the negotiator's partner's behavior for the six dimensions of dominance, depth of relationship, affect/immediacy, formality, trust, and task orientation are provided in Table 9. Means and standard deviations for the negotiator's own behaviors for the six dimensions are provided in Table 10. The changes in perception of the partner's behaviors are found in Table 11. The changes in perceptions for the one's own behaviors are in Table 12.

Table 9: Sample Size, Means, and Standard Deviations of Negotiator's Perceptions of Partner's Behaviors for the Six Relationship Dimensions for E-mail and FTF Negotiations after the Three Negotiations.

	E-mail											
	Equal Power						Unequal Power					
	Crawley (Seller)			Phillips (Buyer)			Crawley (Seller)			Phillips (Buyer)		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Dominance Post 1	20	2.99	0.983	20	2.82	0.863	19	3.07	1.279	19	2.69	0.793
Dominance Post 2	20	2.97	0.637	20	2.61	0.916	19	3.34	0.887	19	2.86	1.041
Dominance Post 3	20	3.03	0.987	20	2.74	1.098	19	2.95	1.056	19	3.12	0.703
Depth Post 1	20	3.96	0.736	20	4.36	1.263	19	3.54	0.792	19	4.44	0.732
Depth Post 2	20	3.58	0.982	20	3.73	0.886	19	3.88	1.134	19	4.02	0.745
Depth Post 3	20	3.70	0.874	20	3.87	1.088	19	3.86	0.998	19	3.93	0.931
Affection Post 1	20	4.91	0.749	20	5.16	0.961	19	4.93	1.017	19	5.13	0.714
Affection Post 2	20	4.49	1.040	20	4.76	0.912	19	4.68	1.139	19	4.58	0.834
Affection Post 3	20	4.45	0.837	20	4.74	1.220	19	5.00	1.093	19	4.67	0.795
Formality Post 1	20	2.92	0.948	20	2.83	1.057	19	2.63	0.881	19	3.26	1.040
Formality Post 2	20	3.27	1.111	20	3.25	1.031	19	3.67	1.622	19	3.63	1.196
Formality Post 3	20	3.50	1.226	20	2.78	0.938	19	3.30	1.252	19	3.49	0.834
Trust Post 1	20	5.25	0.502	20	5.77	0.785	19	5.42	0.705	19	5.51	0.514
Trust Post 2	20	5.31	0.505	20	5.65	0.665	19	5.35	0.635	19	5.12	0.857
Trust Post 3	20	5.19	0.647	20	5.62	0.731	19	5.51	0.731	19	5.17	0.804
Task Orientation Post 1	20	4.98	0.555	20	5.23	1.085	19	5.45	0.715	19	4.93	0.666
Task Orientation Post 2	20	5.29	0.871	20	5.54	0.608	19	5.71	0.689	19	4.79	0.620
Task Orientation Post 3	20	5.24	0.890	20	5.53	0.858	19	5.70	0.610	19	5.14	0.704

Table 9 Continued												
	Face-To-Face											
	Equal Power						UnEqual Power					
	Crawley (Seller)			Phillips (Buyer)			Crawley (Seller)			Phillips (Buyer)		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Dominance Post 1	19	2.28	0.684	19	2.77	1.071	16	3.20	0.829	16	3.26	1.037
Dominance Post 2	19	2.64	0.898	19	2.41	0.918	16	2.86	0.812	16	2.98	1.025
Dominance Post 3	18	2.37	0.780	19	2.53	1.009	16	2.90	0.961	16	2.48	0.826
Depth Post 1	19	4.27	0.769	19	4.34	1.126	16	3.90	0.589	16	3.75	0.899
Depth Post 2	19	4.32	1.104	19	4.55	1.172	16	4.29	0.645	16	3.86	0.809
Depth Post 3	18	4.29	1.109	19	4.35	1.280	16	4.14	0.792	16	4.03	0.921
Affection Post 1	19	5.22	0.565	19	5.08	0.862	16	4.75	0.695	16	4.88	0.801
Affection Post 2	19	5.20	0.919	19	5.21	0.751	16	4.88	0.606	16	4.89	0.935
Affection Post 3	18	5.29	1.016	19	5.21	0.976	16	4.94	0.887	16	4.89	1.133
Formality Post 1	19	2.61	0.818	19	3.25	1.356	16	3.65	0.898	16	3.50	0.919
Formality Post 2	19	2.42	0.888	19	2.91	1.059	16	2.88	0.902	16	2.63	0.902
Formality Post 3	18	2.20	0.923	19	2.96	1.374	16	2.90	1.094	16	2.15	0.750
Trust Post 1	19	5.83	0.647	19	5.55	0.610	16	4.83	0.786	16	5.08	0.963
Trust Post 2	19	5.73	0.619	19	5.75	0.507	16	5.30	0.551	16	5.33	0.915
Trust Post 3	18	5.93	0.669	19	5.78	0.600	16	5.48	0.593	16	5.65	0.771
Task Orientation Post 1	19	5.37	0.887	19	5.36	0.830	16	5.22	0.730	16	5.34	0.926
Task Orientation Post 2	19	5.07	0.824	19	5.01	1.091	16	4.88	0.645	16	5.31	0.981
Task Orientation Post 3	18	4.92	0.879	19	5.30	1.114	16	5.03	0.718	16	5.47	0.826

Table 10: Sample Size, Means, and Standard Deviations of Negotiator's Behaviors for the Six Relationship Dimensions for E-mail and FTF Negotiations After the Three Negotiations.

	Email											
	Equal Power						UnEqual Power					
	Crawley (Seller)			Phillips (Buyer)			Crawley (Seller)			Phillips (Buyer)		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Self Dominance Post 1	20	3.39	0.912	20	3.14	1.024	19	3.36	0.944	19	3.08	0.746
Self Dominance Post 2	20	3.45	0.792	20	3.20	1.122	19	3.62	1.071	19	3.31	0.900
Self Dominance Post 3	20	3.62	1.161	20	3.33	1.192	19	3.38	0.822	19	3.25	0.945
Self Depth Post 1	20	4.18	0.945	20	4.12	1.330	19	4.12	0.694	19	4.38	0.686
Self Depth Post 2	20	3.55	0.885	20	3.68	0.798	19	3.88	1.080	19	4.22	0.961
Self Depth Post 3	20	3.84	0.852	20	3.94	1.137	19	3.91	1.171	19	3.99	1.047
Self Affection Post 1	20	5.28	0.823	20	5.26	0.905	19	5.28	0.768	19	5.36	0.723
Self Affection Post 2	20	4.45	0.880	20	4.74	1.034	19	5.07	0.992	19	4.89	0.822
Self Affection Post 3	20	4.78	1.000	20	4.89	1.114	19	5.08	1.103	19	4.83	0.692
Self Formality Post 1	20	2.98	1.286	20	2.70	1.293	19	2.40	0.774	19	3.21	1.238
Self Formality Post 2	20	3.30	1.251	20	3.15	1.226	19	3.30	1.636	19	3.44	1.315
Self Formality Post 3	20	3.47	1.313	20	2.85	1.273	19	3.04	1.523	19	3.53	1.085
Self Trust Post 1	20	5.48	0.684	20	5.75	0.769	19	5.47	0.583	19	5.54	0.616
Self Trust Post 2	20	5.37	0.664	20	5.58	0.734	19	5.48	0.762	19	5.45	0.601
Self Trust Post 3	20	5.28	0.678	20	5.63	0.793	19	5.61	0.596	19	5.30	0.666
Self Task Orientation Post 1	20	4.80	1.025	20	5.50	0.973	19	5.51	0.819	19	4.89	0.647
Self Task Orientation Post 2	20	5.39	1.050	20	5.70	0.868	19	5.76	0.685	19	5.29	0.619
Self Task Orientation Post 3	20	5.29	1.080	20	5.40	1.027	19	5.57	0.939	19	5.29	0.567

Table 10 Continued

	Face-To-Face											
	Equal Power						UnEqual Power					
	Crawley (Seller)			Phillips (Buyer)			Crawley (Seller)			Phillips (Buyer)		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Self Dominance Post 1	19	2.61	0.767	19	2.89	1.027	16	3.43	0.489	16	3.46	0.765
Self Dominance Post 2	19	2.57	0.690	19	2.88	0.960	16	3.09	0.921	16	3.10	0.766
Self Dominance Post 3	18	2.70	0.801	19	2.73	0.880	16	3.36	0.865	16	2.86	0.779
Self Depth Post 1	19	4.09	0.795	19	4.16	1.292	16	4.09	0.566	16	3.69	1.048
Self Depth Post 2	19	4.49	1.061	19	4.19	1.339	16	4.26	0.722	16	3.66	1.065
Self Depth Post 3	18	4.29	1.150	19	4.33	1.386	16	4.35	0.757	16	3.90	0.952
Self Affection Post 1	19	5.24	0.779	19	5.16	1.158	16	5.05	0.647	16	4.80	0.963
Self Affection Post 2	19	5.22	0.946	19	5.38	0.883	16	4.95	0.621	16	4.75	0.966
Self Affection Post 3	18	5.21	0.810	19	5.29	0.929	16	5.09	0.618	16	4.81	1.250
Self Formality Post 1	19	2.33	0.943	19	3.09	1.241	16	3.23	1.114	16	2.98	0.821
Self Formality Post 2	19	2.07	0.836	19	2.81	1.193	16	2.85	0.966	16	2.38	1.039
Self Formality Post 3	18	2.02	0.932	19	2.89	1.419	16	2.90	1.059	16	2.25	0.931
Self Trust Post 1	19	5.95	0.462	19	5.75	0.771	16	5.35	0.666	16	5.63	0.582
Self Trust Post 2	19	6.03	0.604	19	5.94	0.553	16	5.52	0.486	16	5.66	0.595
Self Trust Post 3	18	6.02	0.671	19	5.90	0.519	16	5.60	0.586	16	5.63	0.676
Self Task Orientation Post 1	19	5.34	0.891	19	5.42	1.044	16	5.45	0.818	16	5.44	0.722
Self Task Orientation Post 2	19	5.29	0.765	19	5.36	1.137	16	5.13	0.683	16	5.52	0.868
Self Task Orientation Post 3	18	5.13	1.007	19	5.29	1.125	16	5.06	0.766	16	5.56	0.629

Table 11: Sample Sizes, Means, and Standard Deviations for Changes in Perceptions from Post Negotiation 1 (P1) to Post Negotiation 3 (P3) for Perceptions of Partner’s Relational Behaviors for E-mail and FTF across Power Conditions.

	Email											
	Equal Power						Unequal Power					
	Crawley (Seller)			Phillips (Buyer)			Crawley (Seller)			Phillips (Buyer)		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Domin P1 to P3 Change	20	0.04	1.452	20	-0.08	1.092	19	-0.13	0.955	19	0.42	0.914
Depth P1 to P3 Change	20	-0.26	1.055	20	-0.49	1.156	19	0.33	1.077	19	-0.52	0.860
Affect P1 to P3 Change	20	-0.46	1.011	20	-0.43	0.824	19	0.07	1.210	19	-0.46	1.140
Form P1 to P3 Change	20	0.58	1.237	20	-0.05	1.234	19	0.67	1.077	19	0.23	1.049
Trust P1 to P3 Change	20	-0.06	0.763	20	-0.15	0.776	19	0.08	0.713	19	-0.34	1.022
Task P1 to P3 Change	20	0.26	1.105	20	0.30	0.872	19	0.25	0.745	19	0.21	0.800
	Face-To-Face											
	Equal Power						Unequal Power					
	Crawley (Seller)			Phillips (Buyer)			Crawley (Seller)			Phillips (Buyer)		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Domin P1 to P3 Change	18	0.07	0.788	19	-0.24	1.030	16	-0.30	1.220	16	-0.79	1.021
Depth P1 to P3 Change	18	-0.01	0.919	19	0.01	0.839	16	0.24	0.967	16	0.28	0.776
Affect P1 to P3 Change	18	0.06	0.926	19	0.13	0.733	16	0.19	0.942	16	0.02	0.964
Form P1 to P3 Change	18	-0.35	0.973	19	-0.28	1.596	16	-0.75	1.072	16	-1.35	1.043
Trust P1 to P3 Change	18	0.16	0.656	19	0.23	0.770	16	0.65	0.919	16	0.58	0.952
Task P1 to P3 Change	18	-0.40	0.879	19	-0.05	1.009	16	-0.19	1.124	16	0.13	1.294

Table 12: Sample Sizes, Means, and Standard Deviations for Changes in Perceptions from Post Negotiation 1 (P1) to Post Negotiation 3 (P3) for Negotiators Self Reported Relational Behaviors for E-mail and FTF across Power Conditions.

	E-mail											
	Equal Power						Unequal Power					
	Crawley (Seller)			Phillips (Buyer)			Crawley (Seller)			Phillips (Buyer)		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Self Domin P1 to P3 Change	20	0.23	1.460	20	0.19	0.998	19	0.021	0.832	19	0.17	0.828
Self Depth P1 to P3 Change	20	-0.34	0.803	20	-0.18	1.229	19	-0.211	1.210	19	-0.39	0.821
Self Affect P1 to P3 Change	20	-0.50	1.173	20	-0.38	0.681	19	-0.197	0.945	19	-0.53	0.878
Self Form P1 to P3 Change	20	0.48	1.263	20	0.15	1.211	19	0.632	1.351	19	0.32	1.194
Self Trust P1 to P3 Change	20	-0.20	0.880	20	-0.13	0.549	19	0.140	0.428	19	-0.25	0.537
Self Task P1 to P3 Change	20	0.49	1.281	20	-0.10	0.676	19	0.053	0.720	19	0.40	0.694

	Face-To-Face											
	Equal Power						Unequal Power					
	Crawley			Phillips			Crawley			Phillips		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
Self Domin P1 to P3 Change	18	0.12	0.938	19	-0.17	0.734	16	-0.06	0.934	16	-0.60	0.611
Self Depth P1 to P3 Change	18	0.14	0.972	19	0.17	1.046	16	0.26	0.819	16	0.21	0.778
Self Affect P1 to P3 Change	18	0.01	0.929	19	0.13	0.860	16	0.05	0.720	16	0.02	0.602
Self Form P1 to P3 Change	18	-0.33	1.242	19	-0.19	1.146	16	-0.33	0.860	16	-0.73	1.124
Self Trust P1 to P3 Change	18	0.07	0.543	19	0.16	0.769	16	0.25	0.755	16	0.00	0.524
Self Task P1 to P3 Change	18	-0.16	0.850	19	-0.13	0.669	16	-0.39	0.975	16	0.13	0.753

Dominance

H1a: In e-mail negotiations, the perception of one's dominance will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H1b: In e-mail negotiations, the perception of the partner's level of dominance will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H1a was tested by examining the change in the negotiator's self reported change in dominant communication behaviors between the first negotiation (Knight) and the third negotiation (Universal Computer II). Media was included in the APIM model as an independent variable along with bargaining power, bargaining role, and interaction effects between the variables. Change in the reported level of dominance was the dependent variable. The level of dominance was significantly higher for the e-mail condition, providing supporting for H1a. Table 13 presents the findings that the parameter estimate for media was $b = .166$ with $t(69.729) = 2.292$, $p < .03$. No other significant main effects or interactions were found regarding changes in negotiator's own dominance.

Table 13: Estimates of Fixed Effects for Partner’s Own Dominance Change from Negotiation 1 (P1) to Negotiation 3 (P3)^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	-.0133	.072	69.729	-.185	.854
Bargaining Role	.089	.086	70.129	1.037	.303
Media Condition	.166	.072	69.729	2.292	.025
Bargaining Power	-.105	.072	69.729	-1.451	.151
Barrole * Media	-.116	.086	70.129	-1.349	.182
Barrole * Barpower	.008	.086	70.129	.097	.923
Media * Barpower	.047	.072	69.729	.654	.515
Barrole * Media * Barpower	-.055	.086	70.129	-.642	.523

^a Dependent variable: Domin Self P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

H1b was tested with a model that examined the change in the perception of dominance regarding one’s negotiation partner from after the first negotiation to the third negotiation. Media was included in the model as an independent variable along with bargaining role, bargaining power, and interactions effects between the variables. The perceived change in partner’s level of dominance was significantly higher for the e-mail condition than the FTF condition; see Table 14 for results. Hypothesis H1b was supported, with $b = .190$, $t(70.251) = 2.066$, $p < .05$. No other main effects or interactions were significant.

Table 14: Estimates of Fixed Effects for Negotiator’s Perceptions of Partner’s Dominance Change from Negotiation 1 (P1) to Negotiation 3 (P3)^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	-.126	.092	70.371	-1.372	.174
Bargaining Role	.046	.087	70.251	.531	.597
Media Condition	.190	.092	70.371	2.066	.043
Bargaining Power	-.072	.092	70.371	-.785	.435
Barrole * Media	-.153	.087	70.251	-1.762	.082
Barrole * Barpower	-.061	.087	70.251	-.703	.484
Media * Barpower	.156	.092	70.371	1.695	.094
Barrole * Media * Barpower	-.106	.087	70.251	-1.220	.227

^a Dependent variable: Domin P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

Depth

H2a: In FTF negotiations, the perception of the depth of one’s relationship increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H2b: In FTF negotiations, the perception of the partner’s depth of the relationship will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H2a was tested by examining the change in the negotiator’s self reported change in depth of one’s communication behaviors between the first negotiation (Knight) and the third negotiation (Universal Computer II). Media was included in the APIM model as an independent variable along with bargaining power, bargaining role, and interaction effects between the variables. Change in the reported level of depth was the dependent variable. The change in perceived depth was significantly

higher for the FTF condition than the e-mail condition, providing supporting for H2a.

Table 15 presents the findings that the parameter estimate for media was $b = -.238$,

$t(68.740) = -2.807, p < .01$. No other significant main effects or interactions

were found regarding changes in negotiator's own depth.

Table 15: Estimates of Fixed Effects for Partner's Own Depth Change from Negotiation 1 (P1) to Negotiation 3 (P3) ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	-.042	.085	68.741	-.501	.618
Bargaining Role	.005	.078	68.720	.061	.952
Media Condition	-.238	.085	68.741	-2.807	.007
Bargaining Power	.011	.085	68.741	.132	.896
Barrole * Media	.000	.078	68.720	.000	1.000
Barrole * Barpower	.052	.078	68.720	.674	.503
Media * Barpower	-.031	.085	68.741	-.368	.714
Barrole * Media * Barpower	.032	.078	68.720	.414	.680

^a Dependent variable: Depth Self P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

H2b was tested with a model that examined the change in the perception of the depth of the relationship regarding one's negotiation partner from after the first negotiation to the third negotiation. Media was included in the model as an independent variable along with bargaining role, bargaining power, and interactions effects between the variables. The perceived change in partner's depth level was significantly higher for the FTF condition than the e-mail condition; See Table 16 for results. Hypothesis H2b was supported with $b = -.182, t(70.001) = -2.297, p < .05$. No other main effects or interactions were significant.

Table 16: Estimates of Fixed Effects for Negotiator’s Perception of Partner’s Depth Change from Negotiation 1 (P1) to Negotiation 3 (P^a)

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	-.053	.079	70.001	-.674	.502
Bargaining Role	.127	.082	70.052	1.553	.125
Media Condition	-.182	.079	70.001	-2.297	.025
Bargaining Power	.134	.079	70.001	1.696	.094
Barrole * Media	.141	.082	70.052	1.731	.088
Barrole * Barpower	.074	.082	70.052	.911	.365
Media * Barpower	.006	.079	70.001	.077	.939
Barrole * Media * Barpower	.079	.082	70.052	.964	.339

^a Dependent variable: Depth P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

Affect

H3a: In FTF negotiations, the perception of one’s affect/immediacy will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H3b: In FTF negotiations, the perception of the partner’s level of affect/immediacy will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H3a was tested by examining the change in the negotiator’s self report of affect/immediate communication behaviors between the first negotiation (Knight) and the third negotiation (Universal Computer II). Media was included in the APIM model as an independent variable along with bargaining power, bargaining role, and interaction effects between the variables. Change in the reported level of affect/immediacy was the dependent variable. The level of affect/immediacy was significantly higher for the FTF condition as compared to the e-mail condition,

providing support for H3a. Table 17 presents the findings that the parameter estimate for media was $b = -.224$, $t(68.590) = -2.888$, $p < .01$. No other significant main effects or interactions were found regarding changes in negotiator's own affect/immediacy.

Table 17: Estimates of Fixed Effects for Negotiator's Affect/Immediacy Change from Negotiation 1 (P1) to Negotiation 3 (P3) ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	-.175	.078	68.590	-2.258	.027
Bargaining Role	.013	.067	68.627	.197	.844
Media Condition	-.224	.078	68.590	-2.888	.005
Bargaining Power	.010	.078	68.590	.130	.897
Barrole * Media	.038	.067	68.627	.567	.573
Barrole * Barpower	.077	.067	68.627	1.152	.253
Media * Barpower	.028	.078	68.590	.357	.722
Barrole * Media *					
Barpower	.037	.067	68.627	.548	.585

^a Dependent variable: Affect Self P1 to P3 Change. . Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

H3b was tested with a model that examined the change in the perception of the affect/immediacy of the relationship regarding one's negotiation partner from after the first negotiation to the third negotiation. Media was included in the model as an independent variable along with bargaining role, bargaining power, and interactions effects between the variables. The perceived change in partner's affect/immediacy level was significantly higher for the FTF condition than the e-mail condition; see Table 18 for results. Hypothesis H3b was supported, with $b = .284$, $t(67.636) = -2.451$, $p < .02$. No other main effects or interactions were significant.

Table 18: Estimates of Fixed Effects for Negotiator’s Perception of Partner’s Affect/Immediacy Change from Negotiation 1 (P1) to Negotiation 3 (P3) ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	-.112	.084	68.723	-1.331	.188
Bargaining Role	.072	.078	68.721	.928	.357
Media Condition	-.208	.084	68.723	-2.465	.016
Bargaining Power	.064	.084	68.723	.763	.448
Barrole * Media	.050	.078	68.721	.643	.522
Barrole * Barpower	.102	.078	68.721	1.316	.193
Media * Barpower	.059	.084	68.723	.695	.489
Barrole * Media * Barpower	.039	.078	68.721	.496	.621

^a Dependent variable: Affect P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

Formality

H4a: In e-mail negotiations, the perception of one’s formality will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H4b: In e-mail negotiations, the perception of the partner’s level of formality will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H4a was tested by examining the change in the negotiator’s self report of formality between the first negotiation (Knight) and the third negotiation (Universal Computer II). Media was included in the APIM model as an independent variable along with bargaining power, bargaining role, and interaction effects between the variables. Change in the reported level of formality was the dependent variable. The level of formality increased from the first to the third negotiation for the e-mail condition and decreased for the FTF negotiation. Table 19 presents the findings, which demonstrate support for H4a. E-mail negotiations resulted in increased

formality over the three negotiations more than in the FTF negotiations, $b = .396$, $t(70.293) = 4.090$, $p < .001$. No other significant main effects or interactions were significant.

Table 19: Estimates of Fixed Effects for Negotiator’s Formality Change from Negotiation 1 (P1) to Negotiation 3 (P3) ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	-.001	.097	70.293	-.010	.992
Bargaining Role	.113	.100	70.347	1.131	.262
Media Condition	.396	.097	70.293	4.090	.000
Bargaining Power	-.028	.097	70.293	-.287	.775
Barrole * Media	.049	.100	70.347	.491	.625
Barrole * Barpower	.065	.100	70.347	.648	.519
Media * Barpower	.106	.097	70.293	1.098	.276
Barrole * Media * Barpower	-.069	.100	70.347	-.691	.492

^a Dependent Variable: Form Self P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

H4b was tested with a model that examined the change in the perception of the formality of the relationship with one’s negotiation partner from after the first negotiation to the third negotiation. Media was included in the model as an independent variable along with bargaining role, bargaining power, and interactions effects between the variables. The level of formality was significantly higher when e-mail was used than when FTF was used. As Table 20 illustrates, the partner was perceived as displaying a higher level of formality in the third as opposed to the first negotiation in the e-mail condition than in the FTF condition, with $b = .520$, $t(70.196) = 5.810$, $p < .001$. Hypotheses H4b was supported. In addition, a significant interaction was found between media type and bargaining power that is explored below in the research question section.

Table 20: Estimates of Fixed Effects for Negotiator’s Perception of Partner’s Formality Change from Negotiation 1 (P1) to Negotiation (P3) ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	-.163	.090	70.196	-1.823	.073
Bargaining Role	.201	.105	70.342	1.909	.060
Media Condition	.520	.090	70.196	5.810	.000
Bargaining Power	-.139	.090	70.196	-1.554	.125
Barrole * Media	.067	.105	70.342	.636	.527
Barrole * Barpower	.060	.105	70.342	.567	.573
Media * Barpower	.230	.090	70.196	2.563	.013
Barrole * Media *					
Barpower	-.108	.105	70.342	-1.029	.307

^a Dependent variable: Form P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

Trust

H5a: In FTF negotiations, the perception of one’s trust will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H5b: In FTF negotiations, the perception of the partner’s level of trust will increase more than it does in e-mail negotiations from after the first negotiation to after the third negotiation.

H5a was tested by examining the change in the negotiator’s self reported of trust between the first negotiation (Knight) and the third negotiation (Universal Computer II). Media was included in the APIM model as an independent variable along with bargaining power, bargaining role, and interaction effects between the variables. Change in the reported level of trust was the dependent variable. The level of trust increased from the first to the third negotiation for the FTF condition, but was not significantly different from the e-mail condition. Table 21 presents the findings for H5a, $b = -.111$, $t(67.568) = -1.848$, $p = n.s.$ The only significant effect was an

interaction between role and power that is explored further in the power section below.

Table 21: Estimates of Fixed Effects for Negotiator’s Trust Change from Negotiation 1 (P1) to Negotiation 3 (P3) ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	.004	.060	67.568	.064	.949
Bargaining Role	.057	.045	67.961	1.269	.209
Media Condition	-.111	.060	67.568	-1.848	.069
Bargaining Power	.032	.060	67.568	.536	.594
Barrole * Media	.020	.045	67.961	.461	.646
Barrole * Barpower	.102	.045	67.961	2.269	.026
Media * Barpower	.023	.060	67.568	.375	.709
Barrole * Media * Barpower	.013	.045	67.961	.296	.768

^a. Dependent variable: Trust Self P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

H5b was tested with a model that examined the change in the perception of the trust in the relationship with one’s negotiation partner from after the first negotiation to the third negotiation. Media was included in the model as an independent variable along with bargaining role, bargaining power, and interactions effects between the variables. The level of trust was significantly higher when FTF was used than when e-mail was used. As Table 22 illustrates, the partner was perceived as displaying a higher level of trust in the third as opposed to the first negotiation for the FTF condition when compared to the e-mail condition, indicating a more trusting relationship developing over time, with $b = -2.58$, $t(68.322) = -3.549$, $p < .01$. No other main effects or interactions were significant. Hypotheses H5b was supported.

Table 22: Estimates of Fixed Effects of Negotiator’s Perceptions of Partner’s Trust Change from Negotiation 1 (P1) to Negotiation 3 (P3) ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	.142	.073	68.322	1.958	.054
Bargaining Role	.062	.063	68.269	.983	.329
Media Condition	-.258	.073	68.322	-3.549	.001
Bargaining Power	.101	.073	68.322	1.386	.170
Barrole * Media	.065	.063	68.269	1.029	.307
Barrole * Barpower	.062	.063	68.269	.970	.335
Media * Barpower	-.111	.073	68.322	-1.532	.130
Barrole * Media * Barpower	.021	.063	68.269	.333	.740

^a Dependent variable: Trust P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

Task Orientation

H6a: In e-mail negotiations, the perception of one’s task orientation will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H6b: In e-mail negotiations, the perception of the partner’s level of task orientation will increase more than it does in FTF negotiations from after the first negotiation to after the third negotiation.

H6a was tested by examining the change in the negotiator’s self report of task orientation between the first negotiation (Knight) and the third negotiation (Universal Computer II). Media was included in the APIM model as an independent variable along with bargaining power, bargaining role, and interaction effects between the variables. Change in the reported level of task orientation was the dependent variable. Table 23 presents the findings for this hypothesis. E-mail negotiations increased more in task orientation than FTF negotiations, $b= .173, t(70.433) = 2.184,$

$p < .04$. In addition, an interaction was found between bargaining role and power that is explored below in the research questions.

Table 23: Estimates of Fixed Effects for Negotiator’s Task Orientation Change from Negotiation 1 (P1) to Negotiation 3 (P3) ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	.036	.079	70.433	.456	.650
Bargaining Role	-.036	.061	69.702	-.589	.558
Media Condition	.173	.079	70.433	2.184	.032
Bargaining Power	.009	.079	70.433	.119	.906
Barrole * Media	.097	.061	69.702	1.594	.116
Barrole * Barpower	-.178	.061	69.702	-2.921	.005
Media * Barpower	.006	.079	70.433	.071	.944
Barrole * Media * Barpower	-.054	.061	69.702	-.883	.380

^a Dependent variable: Task Self P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

H6b was tested with a model that examined the change in the perception of the task orientation in the relationship with one’s negotiation partner from after the first negotiation to the third negotiation. Media was included in the model as an independent variable along with bargaining role, bargaining power, and interactions effects between the variables. The level of task orientation was significantly higher when the negotiation took place via e-mail. As Table 24 illustrates, in the e-mail condition more than the FTF condition, the partner was perceived as displaying a higher level of task orientation in the third as opposed to the first negotiation indicating a more task orientated relationship developing over time, $b = .193$, $t(70.258) = 2.445$, $p < .02$. No other main effects or significant interactions were found. Hypotheses H6b was supported.

Table 24: Estimates of Fixed Effects of Negotiator’s Perception of Partner’s Task Orientation Change from Negotiation 1 (P1) to Negotiation 3 (P3)^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	.063	.079	70.258	.803	.425
Bargaining Role	-.082	.084	70.350	-.981	.330
Media Condition	.193	.079	70.258	2.445	.017
Bargaining Power	.036	.079	70.258	.461	.646
Barrole * Media	.083	.084	70.350	.987	.327
Barrole * Barpower	.014	.084	70.350	.169	.866
Media * Barpower	-.062	.079	70.258	-.785	.435
Barrole * Media * Barpower	.005	.084	70.350	.060	.953

^a Dependent variable: Task P1 to P3 Change. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

Cues Filtered Out and Social Information Processing

H7_{cues}: In FTF negotiations, the relationship between the parties will show a greater change than in e-mail negotiations.

H7_{SIP}: In e-mail negotiations, the relationship between the parties will show a greater change than in the FTF condition.

Hypotheses 7_{cues} and 7_{SIP} predict changes in the perceptions that a negotiator has regarding the relationship with his or her partner between the first and third negotiation. Means and standard deviations for the perception of the partner’s behavior for the six dimensions of dominance, depth of relationship, affect/immediacy, formality, trust, and task orientation are provided in Table 9. Means and standard deviations for the negotiator’s own behaviors for the six dimensions are provided in Table 10. The changes in perception of the partner’s behaviors are found in Table 11. The changes in perceptions for the one’s own behaviors are in Table 12.

If H7_{cues} hypothesis was supported, no changes would have been found in the e-mail condition between the first and third negotiations because it predicts that relationships do not develop over a narrow, lean media such as e-mail negotiations. If H7_{SIP} hypothesis was supported then relationships should have shown development in both the FTF and e-mail conditions.

The APIM analysis (Cook & Kenny, 2005; Kenny et al., 2006) was used to test the effect of media, bargaining role, bargaining power, and their interactions on the perception of partner's change in communication on the six dimensions over the three negotiations. These analyses control for bargaining role and relative power.

For all six dimensions, significant differences in the perception of the partner's behaviors depended on the media used. For e-mail, the degree of dominance perceived, the degree of formality, and the degree of task orientation all increased significantly more than in the FTF condition. For FTF, the degree of partner's affect, the depth of the relationship, and the level of trust all increased significantly more than in the e-mail condition. The individual test statistics are reported above in Tables 13-24 where each relational dimension was discussed.

The APIM also tested the effect of media, bargaining role, bargaining power, and the interactions on the negotiator's own report of change in relational communication behaviors. For five of the six aspects, significant differences were found between the two media. For e-mail, the degree of dominant behavior, the formality, and task orientation communication behaviors all increased, whereas individuals who used FTF increased in their affect and the depth of their communications to their partner. No significant difference in the change in trust was

found when controlling for bargaining power and bargaining role. These findings are reported in the odd numbered tables 13-23 above. In five of the six relationship variables the individual's behaviors and their partner's tracked each other. The lone exception was self demonstration of trust which only changed for the partner over time.

H7_{SIP} hypothesis was supported because media had a significant effect on all the aspects of relational communication tested with the lone exception of self reported trust behaviors. The H7_{cues} hypothesis was not supported because the six measures of relational communication for one's partner changed and five of the six self-reported measures changed with the use of e-mail. The relationships were not unchanged, contrary to what the *cues filtered out* theories predict. Although the relational behaviors that may appear to be more affected by nonverbal cues like dominance, task orientation, and formality increased more in the e-mail condition than the FTF condition, these differences still do not lend support to the *cues filtered out* perspective. This approach suggests that e-mail should be too narrow to detect changes in the level of dominance, task orientation, and formality. From the *cues filtered out* perspective, one's partner would not detect any relationship changes from the first negotiation (Knight) that was conducted using FTF. Individuals would also not attempt to alter their own relationship behaviors because they would perceive the media as too lean to even attempt to alter their behaviors.

Effect of Power on Relational Communication

RQ1: What effect does the power difference between the negotiators have on the change in the six dimensions of relational communication over time as reported by the negotiators themselves?

Research Question 1 asks what effect the different power conditions had on the change in the six dimensions of relational communication. To examine this research question, previous analyses were reviewed for the effect of power on the six relational dimensions. No main effects were found for any of the six dimensions related to the power condition, however, two interactions were found that are worth noting.

Table 21, which provides the results of examining the perceived change in trust as reported by the negotiators, showed an interaction for the perceived level of trust behaviors exhibited by the negotiator between bargaining role and bargaining power. In the unequal power condition, the level of trust displayed by the negotiator was affected by role such that the buyer was perceived to decrease trusting communication behaviors over time, whereas the seller increased trusting communication behaviors. No significant effect for the change in the level of trust behaviors was found for the equal power condition. Table 25 presents the means and standard deviations for the negotiator's perceived change in trusting communication behaviors, and Table 26 reports the APIM estimates for the unequal power condition for self trusting behaviors, $b = .159$, $t(33) = 2.963$, $p < .01$.

Table 25: Means and Standard Deviations for Negotiators Reported Trust Change from Negotiation 1 (P1) to Negotiation 3 (P3)

	Phillips (Buyer)		Crawley (Seller)	
	Equal	Unequal	Equal	Unequal
Mean	0.01	-0.13	-0.07	0.19
Std. Deviation	0.671	0.537	0.743	0.593

Table 26: Estimates of Fixed Effects of Own Trust Communication Changes from Negotiation 1 (P1) to Negotiation 3 (P3) for the Unequal Power Condition ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	.036	.079	33.000	.456	.651
Media Condition	-.088	.079	33.000	-1.120	.271
Bargaining Role	.158	.054	33.000	2.936	.006
Media * Barrole	.033	.054	33.000	.628	.535

^a Dependent variable: Trust Self P1 to P3 Change. Media: FTF= -1 & E-mail= 1 and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

Another interaction that was observed was for the effects of bargaining role and bargaining power on the change in the perceived level of task orientation exhibited by the negotiator. Table 23 presents the results of the previous analysis related to the negotiators' self report task orientation behaviors. In the unequal power condition, the level of task oriented behaviors increased from the first negotiation to the third negotiation for the buyer, Phillips, and decreased for the seller, Crawley. The means and standard deviations for the bargaining roles in each of the power conditions is reported in Table 27 and the level of change in task oriented behaviors was significant as indicated in Table 28, $b = -.214$, $t(33) = -2.308$, $p < .03$. No significant effect was found for role or change in the perceived level of task orientation for the equal power condition.

Table 27: Means and Standard Deviations for Negotiator’s Reported Task Orientation Behaviors from Negotiation 1 (P1) to Negotiation 3 (P3) for Bargaining Roles within Power Conditions

	Phillips (Buyer)		Crawley (Seller)	
	Equal	Unequal	Equal	Unequal
Mean	-0.12	0.27	0.18	-0.15
Std. Deviation	0.664	0.723	1.132	0.862

Table 28 Estimates of Fixed Effects of Own Task Orientation Change from Negotiation 1 (P1) to Negotiation 3 (P3) for the Unequal Power Condition ^a

Parameter	Estimate	Std. Error	df	t	Sig.
Intercept	.045	.095	33.000	.475	.638
Media Condition	.178	.095	33.000	1.865	.071
Bargaining Role	-.214	.092	33.000	-2.308	.027
Media * Barrole	.043	.092	33.000	.467	.644

^a Dependent variable: Task Self P1 to P3 Change. Media: FTF= -1 & E-mail= 1. Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

RQ2: What effect does the power difference between the negotiators have on the change in the six dimensions of relational communication over time in a negotiation as perceived by negotiators?

Research Question 2 asks what effect the different power conditions had on the change in the negotiator’s perception of his or her partner’s six dimensions of relational communication. To examine this research question, previous analyses were specifically reviewed for the effect of power on the perceived changes in the partner’s six relational dimensions over the three negotiations.

No main effect was found for the different power conditions on any of the six dimensions, although some interactions were found that are worthy of further examination. As indicated in Table 20, which reports the results of the previous analysis related to the negotiator’s perceptions of the change in their partner’s

formality, an interaction was found between media and power condition. In the FTF condition, the change in partner's formality was affected by power such that it decreased over time whereas in the e-mail condition the power difference had no significant effect. In the FTF condition, both the equal and unequal power conditions decreased in the perceived level of formality exhibited by their partner over time, but in the unequal power condition, the level of formality decline was significantly greater. Table 29 reports the means and standard deviations for perceived changes in partner formality by media used and power condition. Table 30 provides the APIM analysis indicating that perceptions of partner's formality increased significantly more in the unequal power condition than in the equal power condition for FTF negotiators, $b = -.368$, $t(33.238) = -2.533$, $p < .02$.

Table 29: Means and Standard Deviations for Negotiators Perception of Partner's Change in Formality from Negotiation 1 (P1) to Negotiation 3 (P3) for Media within Power Conditions

	FTF		E-mail	
	Equal	Unequal	Equal	Unequal
Mean	-0.32	-1.05	0.27	0.45
Std. Deviation	1.312	1.085	1.261	1.072

Table 30: Estimates of Fixed Effects for Negotiators Perception of Partner's Change in Formality from Negotiation 1 (P1) to Negotiation 3 (P3) in the FTF Condition ^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	-.684	.145	33.238	-4.711	.000
Bargaining Role	.133	.146	33.241	.911	.369
Bargaining Power	-.367	.145	33.238	-2.533	.016
Barrole * Barpower	.168	.146	33.241	1.154	.257

^a Dependent variable: Form P1 to P3 Change. Bargaining Power: Equal = -1 & Unequal=1; and Bargaining Role: Phillips/Buyer= -1 & Crawley/Seller = 1.

Effect of Role on Relational Communication

RQ3: What effect does negotiation role (i.e., buyer/seller) have on the change in the six dimensions of relational communication in a negotiation over time as reported by the negotiators themselves?

Research Question 3 asks what effect the negotiation role (i.e., buyer or seller) had on the change in the negotiator's six dimensions of relational communication. To examine this research question, previous analyses were reviewed for the effect of bargaining role on the negotiator's reported changes in their relational dimensions over the three negotiations.

No main effect was found for negotiation role on any of the six dimensions, although two interactions between role and bargaining power were examined more closely as part of Research Question 1 and 2 above.

As indicated in Table 21, which presents the results for the change in the negotiator's perceived level of trust, an interaction was found between bargaining role and bargaining power. In the unequal power condition, the perceived level of trust displayed by the negotiator was affected by their role: Phillips, the buyer, was perceived to decrease the use of trusting communication behaviors whereas Crawley, the seller, was perceived to increase use of trusting communication behaviors. There was no effect on the perceived level of trust behaviors for either role in the equal power condition. Table 25 reports the means and standard deviations, and Table 26 presents the APIM results for the unequal power condition that were discussed as part of Research Question 1.

The change in the level of negotiator reported task orientation behaviors was also affected by an interaction between bargaining role and bargaining power as indicated by Table 23, which presents the results for testing Hypothesis H6a. This interaction was examined as part of Research Question 1 above. In the unequal power condition, the perceived level of task oriented behaviors reported by the negotiators increased from the first negotiation to the third negotiation for the buyers and decreased for the sellers. This interaction was significant, as indicated in Table 28 and Table 27 provides the means and standard deviations for negotiator change in task oriented behaviors from the first to the third negotiaiton. In the equal power condition, no effect was found for bargaining role on negotiator reported change in task orientation.

RQ4: What effect does the negotiation role (i.e., buyer/seller) have on the change in the six dimensions of relational communication over time in a negotiation as perceived by negotiators?

No main effects or interactions were found for bargaining role on any of the negotiator's perceptions of his or her partner's change in behavior on the six dimensions of relational communication.

Effects on Future E-mail Use

H8: The preference to use e-mail for future negotiations (i.e., after the third negotiation) with their same partner will be greater for individuals with higher levels of computer mediated communication comfort.

H9: The preference to use e-mail for future negotiations (i.e., after the third negotiation) with their same partner will be greater for individuals who used e-mail to negotiate with their partner in the past.

H10: The preference to use e-mail for future negotiations with their partner (i.e., after the third negotiation) will be greater for individuals that perceive higher levels of trust in their relationship.

H11: The preference to use e-mail for future negotiations with their partner (i.e., after the third negotiation) will be greater for individuals with perceive lower levels of dominance in their relationship.

H12: The preference to use e-mail for future negotiations with one's partner (i.e., after the third negotiation) will be greater for individuals that perceive their partner to have a higher task focus in their previous negotiations.

H8 through H12 were tested using an APIM procedure that tested the negotiators' preference for using e-mail for future negotiations with their partners. As described in Chapter 4, participants were asked to rank order their preferences for future media use when negotiating with their partner. Participants were provided the following options to rank order: e-mail, telephone, FTF, instant messenger, fax, and letter. Table 31 provides the means and standard deviations for the rank ordering of each media displayed by media condition and bargaining power. The APIM model included independent variables of media used, bargaining power, dominance experienced by partner in the third negotiation, trust exhibited by partner in the third

negotiation, level of task orientation exhibited by partner in the third negotiation, and the level of computer mediated communication comfort after the conclusion of the third negotiation. Interactions for the relationship variables with media and bargaining power were also explored in the model. The score for e-mail was the dependent variable. The lower the rank assigned to e-mail, the greater the preference to use it for future negotiations with the partner.

Table 31: Rank Ordering of Media for Future Use to Negotiate with Partner, by Media and Power Conditions ^a

	E-mail						FTF					
	Equal			Unequal			Equal			Unequal		
	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation	N	Mean	Std. Deviation
E-mail Rank	37	2.51	1.216	34	3.18	1.381	33	3.15	.972	30	3.30	1.022
Telephone Rank	37	2.81	.877	34	2.56	.824	33	2.42	1.091	30	2.30	.702
FTF Rank	38	2.39	1.569	34	1.76	1.350	34	1.94	1.153	30	1.60	1.102
Instant Messenger Rank	37	2.73	1.503	34	3.03	1.314	32	2.47	1.077	30	2.87	1.042
Fax Rank	37	5.05	.705	34	5.06	.649	32	5.50	.568	30	5.33	.547
Letter Rank	37	5.46	.900	34	5.41	.925	32	5.38	.609	30	5.60	.498

^a The lower the mean the more likely to use that media for future negotiations with one's partner.

For H8, comfort using computer mediated communication was significantly related to a greater preference to use e-mail for future negotiations, $b = -.432$, $t(112.541) = -3.912$, $p < .001$. Table 32 provides the results of this analysis. The

greater level of comfort with computer mediated communication the more likely the participant was to report a preference to use e-mail in the future.

For H9, the media that was used for the second and third negotiations significantly affected the preference to use e-mail for future negotiations, $b = -.302$, $t(56.664) = -2.640$, $p < .05$ (Table 32 provides the results for the APIM procedure. Individuals who used e-mail for the second and third negotiations were more likely to prefer to use e-mail for future negotiations than negotiators who interacted FTF. Therefore, H9 was supported.

The test of H10, which predicted that the perceived level of their partner's level of dominance in the previous negotiation would effect their preference for using e-mail for future negotiations with their partners, resulted in no main effects. Table 32 provides the results for the analysis, $b = .035$, $t(91.702) = .264$, n.s. However an interaction was found between partner's dominance level in the last negotiation and the media used that is worth noted and explored below.

H11 examined the effect of the negotiator's perceived level of trust in the final negotiation their partners demonstrated on preference for future using e-mail to negotiate in the future. H11 was not supported, as indicated by the results in Table 32, $b = -.107$, $t(106.356) = -.603$, n.s.

H12 examined the negotiators' perception of their partner's task orientation in the final negotiation and its effect on the preference for using e-mail for future negotiations. No main effect was found for perception of task orientation in the last negotiation, $b = -.0511$, $t(110.124) = -.413$, n.s. as reported in Table 32. An interaction was found between bargaining power and task orientation in the third

negotiation that was significant, as can be seen in Table 32. This interaction is explored below.

Table 32: Estimates of Fixed Effects for Preference to Use E-mail in the Future to Negotiate with Partner^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	2.991	.114	55.986	26.037	.000
Media Condition	-.296	.114	55.986	-2.580	.013
Bargaining Power	.147	.114	55.986	1.282	.205
Partner Dominance Post Neg 3	.034	.131	91.702	.264	.792
Partner Trust Post Neg 3	-.107	.177	106.356	-.603	.548
Partner Task Oriented Post Neg 3	-.051	.123	110.124	-.413	.680
CMC Comfort	-.423	.110	112.108	-3.822	.000
Media * Barpower	.112	.114	55.986	.977	.333
Media * Part Domin 3	.462	.131	91.702	3.502	.001
Media * Part Trust 3	.139	.177	106.356	.785	.434
Media * Part Task 3	-.154	.123	110.124	-1.247	.215
Media * CMC Comfort	-.024	.110	112.108	-.225	.822
Barpower * Part Domin 3	.134	.131	91.702	1.020	.310
Barpower * Part Trust 3	.004	.177	106.356	.027	.978
Barpower * Part Task 3	-.260	.123	110.124	-2.106	.037
Barpower * CMC Comfort	.051	.110	112.108	.466	.642
Media * Barpower * Part Domin 3	-.105	.131	91.702	-.796	.428
Media * Barpower * Part Trust 3	-.171	.177	106.356	-.967	.336
Media * Barpower * Part Task 3	-.105	.123	110.124	-.853	.395
Media * Barpower * CMC Comfort	-.108	.110	112.108	-.982	.328

^aDependent variable: E-mail Rank. Media: FTF= -1 & E-mail= 1; Bargaining Power: Equal = -1 & Unequal=1. Partner Dominance Post Neg 3, Partner Trust Post Neg 3, Partner Task Orientation Post Neg 3, and CMC Comfort are all grand mean centered. The grand means were 2.77, 5.53, 5.30, and 6.12, respectively.

The media and partner's perceived dominance in the third negotiation interaction was significant, $b = -.470$, $t(91.535) = 3.564$, $p < .001$. This finding indicates that the preference to use e-mail for future negotiations was influenced by a combination of media used and the level of dominance perceived in one's partner

behavior during the third negotiation. This interaction was explored by dividing the data into e-mail condition only and FTF condition only, then repeating the APIM analysis without the media variable.

In the e-mail only analysis, the results indicated that the less dominant the partner was perceived to be in the third negotiation the greater the likelihood that a negotiator preferred to use e-mail in the future, $b = -.471$, $t(50.056) = 2.040$, $p < .05$, as shown in Table 33. Hypothesis H11 was supported for the e-mail condition.

In the FTF only analysis, the results indicated that a perception of working with a lower dominant partner in the third negotiation resulted in lower likelihood to prefer to use e-mail in the future. This finding is the opposite of the e-mail condition, so H11 was not supported for the FTF condition, $b = -.392$, $t(31.000) = -3.096$, $p < .01$, as shown in Table 34.

Table 33: Estimates of Fixed Effects for Future E-mail Use to Negotiate with Partner for E-mail Only Group^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	2.709	.1701	26.582	15.862	.000
Bargaining Power	.263	.171	26.582	1.538	.136
Partner Dominance Post Neg 3	.471	.231	50.056	2.040	.047
Partner Trust Post Neg 3	.031	.303	54.191	.101	.920
Partner Task Oriented Post Neg 3	-.240	.202	57.943	-1.188	.240
CMC Comfort	-.419	.124	37.351	-3.392	.002
Barpower * Part Domin 3	.100	.231	50.056	.434	.666
Barpower * Part Trust 3	-.078	.303	54.191	-.258	.798
Barpower * Part Task 3	-.351	.202	57.943	-1.742	.087
Barpower * CMC Comfort	-.076	.124	37.351	-.619	.540

^a Dependent variable: E-mail Rank. Bargaining Power: Equal = -1 & Unequal=1. Partner Dominance Post Neg 3, Partner Trust Post Neg 3, Partner Task Orientation Post Neg 3, and CMC Comfort are all grand mean centered. The grand means were 2.77, 5.53, 5.30, and 6.12, respectively.

Table 34: Estimates of Fixed Effects for Future E-mail Use to Negotiate with Partner for FTF Only Group^a

Parameter	Estimate	Std. Error	<i>df</i>	<i>t</i>	Sig.
Intercept	3.311	.145	29.186	22.912	.000
Bargaining Power	.032	.145	29.186	.219	.828
Partner Dominance Post Neg 3	-.392	.126	31.000	-3.096	.004
Partner Trust Post Neg 3	-.225	.190	49.691	-1.184	.242
Partner Task Oriented Post Neg 3	.137	.141	49.501	.972	.336
CMC Comfort	-.406	.154	46.185	-2.628	.012
Barpower * Part Domin 3	.287	.126	31.000	2.266	.031
Barpower * Part Trust 3	.210	.190	49.691	1.102	.276
Barpower * Part Task 3	-.138	.141	49.501	-.981	.331
Barpower * CMC Comfort	.204	.154	46.185	1.323	.192

^a Dependent Variable: ae-mailr.1.00: Final E-mail Rank. Bargaining Power: Equal = -1 & Unequal=1. Partner Dominance Post Neg 3, Partner Trust Post Neg 3, Partner Task Orientation Post Neg 3, and CMC Comfort are all grand mean centered. The grand means were 2.77, 5.53, 5.30, and 6.12, respectively.

The further exploration of the bargaining power and partner's task orientation interaction was accomplished by splitting the data set into the unequal and equal power groups and running the APIM model without bargaining power as an independent variable. Although the interaction was significant previously, the analyses separating equal and unequal power did not produce significant findings for task orientation in the third negotiation. The results were not significant for task orientation in the equal power condition were: $b = .220$, $t(57.571) = 1.564$, n.s. or in the unequal power condition, $b = -.303$, $t(51.817) = -1.461$, n.s. Therefore, H12 was not supported.

Summary of Results

In summary, all of the relational communication behavior hypotheses were affected by the media used with the lone exception of negotiator self-reported trusting behaviors. In total, these findings provide support for the SIP theory and did not support the *cues filtered out* approach, as discussed in greater detail in H8. However, these findings also indicate that the channel seems to have an effect on relationship development when negotiating because the FTF and e-mail conditions did not converge to the same relationship levels for the six dimensions. These findings and implications for future studies are discussed in the next chapter.

The test of the preference for using e-mail in the future use for negotiating supported the effect of CMC comfort and prior e-mail negotiating experience on future preference for using e-mail. E-mail negotiators who perceived their partner as highly dominant were significantly more likely to express a preference for not using e-mail to negotiate in the future, whereas FTF negotiators who perceived their partner as being more dominant were more likely to prefer using e-mail for future negotiations. Perceptions of task orientation and trusting behaviors did not appear to significantly effect preference for e-mail use when negotiating in the future. These findings are discussed in the next chapter.

Chapter 6: Discussion

This chapter presents a summary of the study, discusses the results and their implications, and identifies limitations of the research. In addition, contributions to theory and organizational application are presented along with directions for future research.

Summary of the Study

The dissertation examined the *cues filtered out* and Social Information Processing (SIP) approaches to relationship development in an intra-organizational dyadic negotiation by comparing the use of face-to-face (FTF) and e-mail channels. The study further examined the effect of power differences on relationship development. Individuals in organizations use technology based tools such as e-mail to perform a variety of communication tasks. The results of this research point to the importance of understanding the effect of communication experiences under a variety of settings on the development of relationships in organizations. An organization's profitability, efficiency, and reputation are all affected by the internal relationships of their employees.

In summary, this study produced results in three areas related to negotiation and computer mediated communication: (1) interpersonal relationships develop over lean media like e-mail; (2) the characteristics of e-mail affect relationship development when compared to FTF; and (3) the preference to use e-mail for future negotiations is affected by prior e-mail negotiation experience with one's partner, computer mediated communication comfort, and the level of dominance one's partner

exhibits in e-mail negotiations. With regard to interpersonal relationships and negotiation, the study suggests that individuals learn how to manage their interpersonal relationships via e-mail because it can be a useful tool for managing one's persona. The finding in this study that e-mail users who perceive their partner as dominant were more likely to want to use FTF with their partner in future negotiations was a significant finding. Traditional CMC thinking has considered e-mail to be a great relationship equalizer and a means for power differences to be minimized, but this study did not support this view of CMC. This study also found that greater organizational bargaining power and bargaining role were only of limited influence on the development of interpersonal relationships.

Cues Filtered Out and Social Information Processing

Competing Hypotheses, $H7_{\text{cues}}$ and $H7_{\text{SIP}}$, addressed the differences between the *cues filtered out* approach and SIP approach to relationship development in computer mediated communication. The *cues filtered out* perspective holds that e-mail is too narrow a channel for the development of relationships to occur when conducting a communication task like a negotiation. SIP posits that individuals are driven to establish connections with others and that despite the limited bandwidth of e-mail people adapt their communications to manage their interpersonal relationships. SIP asserts that given enough time, regardless of the channel used to negotiate, relationship development will eventually reach the same levels. This dissertation found that for the six relationship dimensions that were examined – trust, depth,

affect, formality, dominance, and task orientation – they all changed from after the first negotiation (Knight) to after the third negotiation (Universal Computer II).

For some of the dimensions, such as perceived trust, depth, and affect, the FTF condition produced significantly higher increases when compared to e-mail, whereas for the dimensions of perceived dominance, task orientation, and formality, the increases were greater for the e-mail condition. This study found that relationships do develop when a lean channel such as e-mail is used to negotiate, therefore H7_{cues} was not supported. The *cues filtered out* theories support the idea that e-mail is too narrow a channel to allow individuals to detect changes in relationship aspects such as dominance, task orientation, and formality. If this view had been supported, then the relationship dimensions should have remained at the same level after the third negotiation as measured after the first negotiation, which was conducted FTF (Knight).

The H7_{SIP} hypothesis was supported because the negotiators used e-mail to manage their personas and develop their relationships. The relationship dimensions did not converge as Walther's (1992, 1994) SIP theory would have expected, but the relationships did change and evolve. There are several possible reasons for this result. First, there may not have been enough time for the relationships to achieve equal levels between the first and third negotiations because the e-mail group only conducted two negotiations via e-mail. Beginning the negotiation relationship with the FTF channel and then only providing two negotiation interactions with e-mail may not have allowed negotiators to adapt their communication messages to this new medium. Second, the communication and relational processes necessary for parties to

successfully negotiation may require more time to equalize. In other words, the communication and message creation skills necessary for a negotiation interaction may take longer to develop and master than those required for a decision making task or simple brainstorming exercise. Third, negotiators may have learned to use the unique characteristics of e-mail to manage their relationships to produce more dominant, task-oriented, and formal negotiations because these relationship characteristics were perceived as useful to achieving their task and relationship goals. Many of the participants were not experienced negotiators and may have focused on using distributive bargaining techniques. If the participants adopted this approach, they may have used the limited bandwidth of e-mail to become more dominant, task-oriented, and formal in the belief that this is how a *good* manager negotiates. In other words, they used the characteristics of e-mail to manage their persona in a way they perceived as necessary.

The research adds to the body of knowledge on e-mail negotiations because almost all theoretical-based studies have been based on single negotiations tasks conducted using either FTF or e-mail. In situations where longer term or multiple interactions were studied (Hollingshead & McGrath, 1995; Poole, et al., 1992; Tidwell & Walther, 2002; Walter, 1994), mixed channel designs were not used or the researchers did not explore the effect of creating a baseline relationship development measure after an initial FTF negotiation.

The establishment of a prior FTF relationship and subsequent study of the relationship development not only mirrors what is likely to occur in many intra-organizational negotiations, but also provides support for the need to establish a

relationship before engaging in a CMC negotiation. Moore and his associates' (1999) research into the effect of intra-organizational membership provided support for the idea that shared membership in the same organization along with some personal information about the other party positively affected the outcome of an e-mail negotiation. Morris and colleagues (2002) did additional work in this area by exploring the effect of a simple five minute phone conversation between strangers prior to a negotiation. However, these two studies did not look at the long term effects of relationship development by having the parties engage in subsequent negotiations to see if this initial rapport had long term effects. The current study found high levels of rapport between the negotiators and positive negotiation relationships for the e-mail negotiators, as evidence the perceived levels of trust and affect reported by the negotiators regarding their own behaviors and their partners. The levels of trust and affect perceived by e-mail negotiators were all above the middle of the scale indicating that most negotiators characterized their relationship as trusting and positive. This study's design of having the participants conduct a negotiation FTF to establish a prior relationship as a baseline is a unique approach. The study provides further supportive evidence that relationships can develop over e-mail and that people use the characteristics of the medium to manage their persona.

Walter's SIP theory (Walther, 1992, 1994, 1995; Walther & Burgoon, 1992), suggests that CMC relationships will develop to the same degree as FTF relationship but that they will take longer when using CMC because individuals need longer to decode the textual clues to form impressions. Walther has also stated that in CMC *hyperpersonal* communication occurs whereby individuals engage in selective self-

presentation and take small textual clues from partners and magnify them to create full impression (Walther, 1997). Although this study used a series of three negotiations, the first one was conducted via FTF, which helped to develop an initial impression, which is unique among previous tests of SIP.

In this study, individuals detected greater increases over time in their partner's behavior in three of the six dimensions studied when e-mail was used: dominance, task orientation, and formality whereas in the FTF condition individuals perceived significantly greater changes in the affect, depth, and trust communication behavior of their partners. These negotiations were structured so that the negotiators were members of the same organization and had already formed initial impressions of one another. As Walther predicted, over time the relationships continued to evolve. Even though increasing levels of perceived trust, depth, and affect/immediacy were not reported for the negotiator's self presentation or perceived in the partner, the relationships continued to develop, as discussed for each of the six areas below. What does seem clear is that individuals took the opportunity in their self presentation to use the textual, asynchronous aspects of e-mail to manage both their impressions and the negotiation. The e-mail negotiators reported being more focused on the task, more formal, and more dominant in their communications, while decreasing their levels of trust, depth, and immediacy between the first and third negotiations. However, individuals who used e-mail did not report a straight decline from the first to the third negotiation in their relationships but adapted their behaviors. This adaptation is evidenced by the nonlinear nature observed in some of the reported

relationship dimensions in Tables 9 and 10, which report the perceptions from the first, second, and third negotiations.

Dominance

Negotiators who used e-mail reported becoming more dominant over the course of the negotiations and perceived that their partner's level of dominance also increased. This finding supported Hypotheses 1a and 1b. Individuals who negotiated FTF with a dominant partner reported being more willing to use e-mail in the future, whereas individuals who negotiated with a dominant partner via e-mail were less likely to use it in the future. Individuals without prior e-mail negotiation experience (the FTF condition), perceived e-mail as an effective way to counter act a dominant partner, whereas experienced e-mail negotiators in this study preferred using e-mail with a less dominant partner and FTF with a more dominant partner. Based on the preference expressed by experienced e-mail negotiators, individuals who expect to be negotiating with a dominant partner may be better served by scheduling a face-to-face meeting. This difference in understanding the perception of dominant messages between FTF and e-mail negotiators highlights a key finding in this dissertation that e-mail is not that great power equalizer that it is often considered to be by inexperienced e-mail negotiators. The final decision on media use should be determined after weighing one's own preferred level of dominance and experience with using e-mail to manage a dominant negotiation partner. Being cognizant of the capabilities of e-mail for increasingly perceptions of dominance and its ability to help manage one's impression is useful because negotiators are more likely to be successful if they attend to the relationships between the parties as well as the task

issues (Pruitt & Carnevale, 1993; Lawler & Yoon, 1995; Walther, 1996). These findings also relate to the work of Woodworth and associates (2005) who found that deceptions are more difficult to detect in CMC communication at least in the case when the parties are relatively unknown to each other: e-mail may be better used once a relationship has been established with the other party (McGinn & Croson, 2004).

This research provides some evidence that e-mail should only be used to negotiate when an individual realizes its potential to enhance one's perceived level of dominance, but that e-mail also heightens the perception of the partner's dominance. Organizational members who understand this dynamic increase the likelihood that they can use e-mail effectively to interact with others. The ability to effectively navigate power dynamics in an organization is a managerial skill that separates an effective manager from an ineffective one. Media richness theory is based on the expectation that effective managers would never use e-mail to negotiate because the level of equivocality and uncertainty reduction required for negotiation cannot be met (Daft & Lengel, 1986). This study finds that e-mail can be an effective tool for negotiating if an individual understand the dyads' power dynamic and the media characteristics and how to use these features effectively.

Depth

FTF negotiations resulted in a greater perception of growing depth in the relationship both by one's partner and on the part of oneself as compared to e-mail negotiations. This finding supports Hypotheses 2a and 2b. When dealing with a colleague with whom one has a relatively new relationship, using FTF has advantages for laying the foundation for greater understanding of one's own and the partner's

interests. Helping a partner develop a better understanding of one's own interests can be an advantage when using an integrative bargaining approach. It can also be an advantage when working with a partner who is using a distributive bargaining approach that a negotiator wants to convert to an integrative bargaining style. Increasing the depth of the relationship can develop a sense of caring about the other person and may lead to a more positive negotiation experience whereby one's partner joins in searching for mutually beneficial outcomes. Negotiators who care about their partner's needs are more likely to find solutions that meet both parties' needs (Fisher, et al., 1991).

In contrast, situations in which a negotiator expects the partner to use emotional appeals or to attempt to persuade the negotiator to decide based on the relationship rather than information, e-mail may provide a useful alternative to FTF. Negotiating with e-mail can be advantageous in that it can help separate the emotional aspects of a situation from the objective aspects (Fisher et al., 1991; Nadler & Shestowsky, 2006; Morley & Stephenson, 1979). In this study, participants in the e-mail condition reported a decline in the level of caring they portrayed to their partners once they switched to e-mail. The partners detected this decline indicating that the limited bandwidth of e-mail may not solely account for this perceived decline in the depth of the relationship, but rather their partner intended to create distance between the parties. This ability that negotiators showed in detecting this decreased depth may indicate that e-mail offers the ability to make a relationship less close while still allowing for negotiations to proceed focusing on the issues. Because e-mail has the reputation of not being able to convey feelings of emotion

knowledgeable e-mail negotiators may be able to distance themselves from their partners by communicating with e-mail and have their partners attribute this distance to the medium rather than an intentional shift by the partner.

Although negotiating via e-mail in this study resulted in a decrease in the level of closeness between the negotiators, what remains unknown is how the relational depth would develop over a longer period of time using a variety of media. In this case, negotiators worked together once FTF and twice via e-mail; the initial negotiation may not have been a long enough time period to establish a baseline relationship and the subsequent negotiations may have been too limited to determine the long term implications of e-mail use. In studies of intra-organizational negotiations, it would not be unexpected that managers with long standing, closer relationships may negotiate with each other more frequently. What is still unknown is whether e-mail would result in a decrease in the depth of these long established relationships? A study on the effect of e-mail within long term relationships would be beneficially for understanding intra-organizational relationship development as would a study that examines the process negotiators use to select the communication media mix they will use (e.g., FTF, e-mail, phone call, e-mail, FTF, e-mail).

Affect

Perceived changes in the display of affect by both the negotiator and the partner decreased in e-mail negotiations when compared to FTF negotiations, supporting Hypotheses 3a and 3b. Higher reported affect would mean that the parties perceived greater closeness with each other and, in the case of negotiation, demonstrated an understanding of one another's goals and interests. When dealing

with cooperative bargainers, a higher level of affect can lead to greater concern for mutual gain and integrative solutions. As was the case in this study, negotiators with a more competitive orientation may have preferred to use e-mail because it can decrease the role of emotion in the negotiation and make it easier to ignore the needs of the other party.

Anderson and Thompson (2004) found that among negotiators with unequal levels of power, the positive affect of the more powerful negotiator was a better predictor of the negotiation outcome than the positive affect of the less powerful partner. In this study, in the unequal power condition, Crawley (the buyer with greater power) reported an increase in the level of affect displayed by the partner, Phillips. Although this increase was not statistically significant from the equal power condition, further research should examine the effect of affect on the outcome of the negotiation and on the satisfaction with the negotiation process at a later date. The difficulty those in the Phillips role had recognizing the greater power role of Crawley when directly asked in the questionnaire may have affected the ability of these negotiators to be aware of this power difference. However, some relationship changes were statistically effected in the unequal power condition: the seller (Phillips) was perceived as less trusting and more task oriented over time whereas the buyer (Crawley) was perceived as more trusting and less task oriented. It would seem that Crawley's role resulted in having the upper hand in the intra-organizational negotiation so that Crawley could afford to increase trust and become more integrative. Phillips, on the other hand, seems to have been focusing more on the task at hand and on the merits of the positions rather than on relational issues such as

power differences. If this is the case, Phillips would be expected to make more appeals on the merits of the task rather than on relational aspects. Future research should examine the tactics used in these conditions to examine whether this difference is evident. Nevertheless, using a medium like e-mail may be preferable for Phillips because this negotiator may prefer to downplay the power differences.

Formality

Individuals who used e-mail to negotiate increased their perceived level of formality significantly from the Knight negotiation, but the mean level was still below four on the seven-point Likert scale. E-mail negotiators also perceived that their partners increased their level of formality significantly more when compared to the FTF group. Hypotheses 4a and 4b were supported. Overall the FTF group perceived decreases in formality over time. One of the advantages that e-mail provides for negotiators is a more formal process by forcing negotiators to create text messages. E-mail creates a written record on the various offers, counter offers, arguments made, and interests expressed. The increased formality can be a positive tool for both sides by allowing the negotiators to focus on the topic of discussion and move through the stages of negotiation. E-mail imposes a structure to the negotiation by its ability to include previous messages in the negotiation communications and makes it a virtual necessity that one respond to all of ones partner's points. The partner can easily review the message history and track whether or not all of their concerns and issues have been addressed. This characteristic of e-mail messages should make the process more formal by creating a structure and enforcing a turn-taking pattern. This increased formality in negotiations may lead to saving time,

energy, and money for organizations while still allowing the overall context of the long term relationships to be considered. Individuals in this study appear to have used e-mail to focus discussions and thereby establishing a more formal impression of themselves than negotiators interacting FTF. This finding is in keeping with Clark and Brennan's (1991) theory of grounding and keeping the cost of collaboration low. Using the characteristics of e-mail to be more formal may have made it possible for the parties to focus more on the issues at hand and ground their understanding of the issues. The study seems to indicate that experienced e-mail negotiators are more likely to review their partner's messages and revise their own messages before sending thereby creating an advantage for the e-mail negotiator.

For e-mail negotiators, neither the power difference nor the bargaining role affected the change in perceived or self projected formality in the negotiations. However, negotiators in the unequal power condition who negotiated FTF perceived that their partner was attempting to be more formal over the course of the negotiations. The negotiators themselves did not report significantly higher levels of formality over time. It would appear that the power difference may have resulted in a heightened sense of awareness to the use of language to structure the negotiation to mitigate the relational power differences given that the partner's perceived an increase by the senders did not report any intentional increase in these levels over time. As Clark and Brennan's (1991) grounding theory implies, the FTF negotiators in the unequal power condition could have perceived the messages as more formal because they faced higher costs associated with grounding and collaboration.

E-mail users in the equal power and the unequal power group, both reported significant increases in the level of formality in their messages over time as compared to the FTF groups. There is some evidence that e-mail could mitigate the relational power differences and create a way to overcome relational power differences. For example, because e-mail produces a written record that can be shared with other people it makes the negotiation record a virtual public document rather than a private communication. Attempts by parties to exploit a relational power advantage like the one in this case where the vice president for manufacturing likes one party better than the other are more difficult to express in an e-mail. In FTF discussions, negotiators can make more casual references to their relationship with their mutual boss or other advantages that they possess. Managers found trying to argue in an e-mail that they should get what they want because the boss likes them more may not have a bright future in the organization even if the boss does like them. In this case, a negotiator sending an e-mail message saying that the vice president of manufacturing prefers your plant and will support that plant manager no matter may not be a wise move: This message is reviewable by other members of the organization and may be passed on. There is always a president and other managers who like to know that business decisions are based on business not personal feelings or pets. E-mail negotiators are more likely to be forced into sending formal messages and make arguments based on manufacturing, technical, and economic issues.

Trust

Trust in a relationship can contribute to an environment in which negotiators can feel free to share their interests with their negotiation partners. In this study, no

differences were found in the perceived expressions of trust by the negotiators between the FTF and e-mail condition. Hypothesis 5a was not supported. However, H5b was supported in that e-mail negotiators reported that the perceived level of trust displayed by their partner decreased over the course of the negotiations as compared to the FTF negotiators.

The finding of no differences in self expressions of trust between the two channels is consistent with recent studies (McGinn & Keros, 2004; Morris et al., 2002; Wilson et al., 2006), which have indicated that the establishment of rapport or a feeling of friendliness prior to negotiating with e-mail resulted in higher levels of trust as opposed to e-mail negotiators who did not establish rapport. In this study, the e-mail participants had established a rapport during the first FTF negotiation and this rapport appears to have carried through in that the e-mail negotiators reported no difference in their level of trust behaviors exhibited between the first FTF negotiation and the third e-mail negotiation. The switch to e-mail with its limited bandwidth did not impact the level of trust communicated by the negotiators. On the other hand, the e-mail negotiators perceived that their partners showed less trust in them over time. Wilson and colleagues (2006) reported lower levels of perceived trust among their three person groups engaged in a decision making task when they moved from a FTF channel to a synchronous chat channel. This perceived lower level of trust could have been associated with the higher cost of collaborating and maintaining common grounding associated with e-mail communication (Clark & Brennan, 1991). In order to continue the common grounding established in the FTF negotiation, e-mail negotiators need to focus more on the text of the messages since they no longer have

all of the nonverbal cues of the FTF channel available to exhibit feelings of trust. This greater focus on the text caused by the shift in the media may heighten the negotiators awareness to their usual reliance on nonverbal cues for establishing a trusting relationship (Woodworth et al., 2005). When faced with the limited bandwidth of e-mail after having used FTF, it is possible that it will take longer than two e-mail negotiations for the negotiators to perceive the same level of trust from their partner that they perceived in the FTF negotiation.

Task Orientation

Negotiators in the e-mail condition reported that they increased their task orientation from the first FTF negotiation to the third negotiation and that they perceived that the partner also became more task oriented over time. Hypotheses 6a and 6b were both supported. This increased task orientation was expected based on e-mail's ability to focus on the task aspects of the negotiation scenario as opposed to the social aspects such as the vice president of manufacturing supporting the Crawley manager. Once rapport was established in the first FTF negotiation, e-mail negotiators exploited the limited bandwidth of e-mail to focus their discussions on the task aspect of the negotiation and did not have to spend a lot of time deepening the social relationship. Whereas, in the FTF negotiation, the increased bandwidth and co-presence make the exchange for social information and the perception that one is more social likely (Clark & Brennan, 1991). This ability that e-mail offers to focus on the task once a social relationship has been established could create significant time and financial savings for organizations and their managers who learn to effectively maintain and manage their CMC relationships. The travel costs and time

out of the office spent negotiating FTF could be saved if managers understand how to use CMC channels to convey their interests, make proposals, respond to proposals, and pay enough attention to the relationship issues to maintain the rapport.

Bargaining Role and Bargaining Power

Relative power between parties has been shown to significantly affect the negotiation process in previous research (Cai et al., 2000; Lawler & Yoon, 1993; Mannix & Neale, 1993). Research questions 1, 2, 3, and 4 examined the effects of bargaining power and bargaining role on the development of relationships. No main effects were found for bargaining power or bargaining role on relationship development. However, there were a few significant interactions that are discussed below.

The first relationship variable that was effected by bargaining power and the role (buyer or seller) was trust. In the unequal power condition, Crawley, the seller, reported increased use of trusting behaviors whereas Phillips reported decreased use of trusting behaviors over time. One possible explanation for this finding is that Crawley, the party with the higher power, was in a position of control and could afford to display higher levels of trust in this intra-organizational setting. The parties were all part of the same organizational and other researchers (Anderson & Thompson, 2004) have indicated that in these situations the higher power figure may display greater concern for the other party. They found that in cases of unequal power the more powerful party has a greater effect on the overall tone of the negotiation especially with regard to trust (Anderson & Thompson, 2004). Phillips,

the lower power member, may have decreased the level of trust and felt a loss of control over the negotiation. Phillips negotiators may have held back in sharing their interests because they perceived this approach as a way to regain some level of power. This pattern was apparent in both the FTF and e-mail groups.

In the unequal power condition, the change in the level of task orientation exhibited by Phillips, the buyer, increased, whereas for Crawley, the seller, it decreased. Much like with trust, Crawley's position of higher power may have made it possible for this negotiator to be less task focused. This finding is consistent with Anderson and Thompson's (2004) research in that the member of the party with higher power in an intra-organizational negotiation may feel a need to make the lower power member feel at ease. The increase in the task orientation on the part of Phillips can be viewed as an attempt to maintain some level of control over the negotiation by making interests known and crafting arguments that are based on the merits of the negotiation rather than on Crawley's special relationship with the vice president of manufacturing.

A third interaction occurred with formality in the FTF condition in that the equal power group experienced a significantly greater decrease in formality when compared with the unequal power group. The equal power group had been together for three negotiation tasks with no change in the channel or in their power relationship. This level of stability in the relationship may account for the perceived decrease in formality. SIP theory would predict that given increased time the e-mail users in the equal power condition would experience a similar decrease, but the advantages associated with e-mail's ability to focus the negotiation on the merits of

the discussion may have kept the formality high. This higher formality may be a benefit to the organization because the negotiators may be more efficient in their message exchanges and not waste time or organizational resources.

Overall, the effects of power on the development of relationships were minimal. This study was the first to look at the long term effects of power differences on e-mail negotiations. The results provide support for the SIP perspective: The channel does not appear to significantly effect the ability to detect or use power. If anything, e-mail's ability to support a formal, task oriented negotiation could create an advantage when negotiating with someone who has more power in the organization. Learning to use e-mail to maintain one's persona and manage the relationship could produce a better outcome for the lower power member, but if a negotiator is not aware of the special skills necessary to effectively negotiate via e-mail these power differences may be magnified to create a worse outcome.

Future Use of E-mail

The preference of negotiators to use e-mail for future negotiations with their partner was significantly affected by CMC comfort (H8) and whether the negotiator had previously negotiated with one's partner using e-mail (H9). As was predicted, previous experience using e-mail to negotiate and CMC comfort increased the likelihood that a negotiator would choose to use e-mail to negotiate in the future. As users experience the unique qualities of the media, gain experience in grounding and collaboration (Clark & Brennan, 1991), and have time to master the relationship communication skills required of e-mail (Tidwell & Walther, 2002; Walther, 1992, 1994, 1996; Walther & Burgoon, 1992) they may become more open to using the

medium for negotiating. These findings directly challenge the tenets of the *cues filtered out* approach which concludes rational communicators should not use e-mail to negotiate.

An examination of the effects of trust, dominance, and task orientation after the third negotiation indicated no direct effect on preference for e-mail use. However, there was a significant interaction between dominance and media that was explored.

For e-mail users, H11 was supported in that e-mail users who perceived that they were negotiating with a less dominant partner during their third negotiation reported an increased preference for using e-mail for future negotiations as compared to e-mail users who perceived their partner to be more dominant. The study seems to suggest that negotiating with a dominant partner may make one less likely to use e-mail in the future because once the partner has established his or her ability to dominant in e-mail the user may want to increase the nonverbal cues in the channel to mitigate the dominance. When negotiating with someone perceived to be low in dominance, e-mail becomes viable because it can contribute to more integrative negotiations because it focuses the interaction on the merits of the task. Negotiators can interact and continue to develop their relationship when parties are not trying to dominant each other but are working together.

For FTF users, the more dominant the partner was perceived to be the greater the preference to use e-mail to negotiate in the future. This result supports previous research in negotiation and CMC that e-mail's lack of nonverbal cues makes it more difficult to dominant one's partner. These contradictory findings between the e-mail

and FTF users highlights the difference in perceptions about using e-mail and the effect of experience in using e-mail to negotiate has on making a realistic assessment of its abilities to maintain and develop relationships. Experienced e-mail users may be more realistic about the ability to use e-mail to develop relationships than inexperienced users.

Contributions to Theoretical Constructs

This dissertation makes several significant contributions in the theoretical arena by testing current theories, extending them into new areas, and providing the basis for the development of future theories that considers the unique characteristics of media on relationship development in an intra-organizational setting when negotiating. This dissertation provides a direct test of the *cues filtered out* theories with regard to whether e-mail is too lean of a channel to use for negotiation and the development of relationships. The study provides results that contradict the *cues filtered out* theory and instead support the alternative SIP theory. The continued development of relationships and the ability of users to manage and create personas detected via e-mail supports the SIP assertion that communicators are driven to establish relationships regardless of the media and find ways to include relational communication messages in all media exchanges. Although the relationship measures provided by Burgoon and Hale (1987) did not converge for e-mail and FTF as SIP theory purports, they did continue to change and develop throughout the negotiation.

Overall, the relationships developed in the direction and manner predicted by the work of Clark and Brennan (1991) on finding common ground, expending the

least effort when collaborating, and the unique characteristics of e-mail that allow for revisability and reviewability. Clark and Brennan's work posited that when e-mail was used that individuals would become task orientation and formal due to the limited bandwidth and the extra effort required to achieve common ground. When establishing common ground, individuals try to expend the least effort therefore e-mail users would be expected to reduce their relational messages thereby decreasing perceptions of trust, depth, and affect and increasing perceptions of dominance. Clark and Brennan's work would have expected e-mail to be a viable negotiation medium for individuals experienced with using e-mail to achieve common ground with minimal effort and for individuals who understand the benefits of the revisability and reviewability properties of e-mail for negotiators.

Implications for Negotiators

Over half of a manager's time is involved in dyadic communication using a variety of media (Panko, 1992). Given this inevitable requirement, gaining a greater understanding of how communication medium affect the development of interpersonal relationships in a work place is extremely valuable. Of equal importance is providing research-based advice to managers on using e-mail to conduct negotiations. This dissertation provides advice to organizational members regarding the effects of using e-mail to negotiate with co-workers and the effect on the future relationship.

A key finding of this dissertation is the importance of negotiators understanding the unique characteristics of e-mail and using it to actively manage one's persona and understanding how one's partner is using e-mail to manager his or

her own persona. Developing a comfort level in using CMC and having prior experience with using e-mail to negotiate will make one more successful in future interactions and negotiations that use e-mail. Using e-mail for negotiations is a skill that needs to be developed along with paying attention to relational cues when using CMC.

In this study, negotiating with e-mail after having established a FTF relationship led to perceptions of being more dominant, more task oriented, and more formal by the individual and the same perceptions about one's partner. It also resulted in a perception of less trust in communications from one's partner, decreased affect in the relationship, and a less depth in the relationship. The study also indicated that the negotiators themselves attempted to create a less deep relationship, decrease the affect of the relationship, but not alter the level of trust they exhibited when using e-mail as opposed to using FTF to negotiate. These all have implications for negotiators as discussed below.

Negotiators can use e-mail to create distance between themselves by using e-mail, can focus the discussion on the facts of the topic by using e-mail to make the negotiation more formal and task oriented, they can use the reviewability function of e-mail to look at past messages and analyze them for cues to interests and positions, they can use the revisability function of e-mail to carefully craft strategic messages that attend to the task aspects of the negotiation and the social aspects, and they can actively include relationship and social information in the messages to maintain rapport and trust. When dealing with a dominant intra-organizational negotiator, the individual may consider changing the medium to FTF to move the negotiation to a

more integrative style or may consider creating messages that do not respond with increased dominance but respond with a factual, formal, task oriented messages that move the negotiation to be more integrative. The ability to review messages could lead a negotiator to focus or obsess over a negative or hurtful comment, but skilled and practiced e-mail users should know that unskilled users include such messages out of ignorance and time should be used to process the message and craft a message that responds to the task but not the affective part of the message.

Negotiators can use e-mail effectively to manage their relationships, but they need to be aware of the messages they are sending and receiving. They also need to know that relationships need to be attended to even when using e-mail. Finally, effective e-mail users know that sometimes a personal visit or phone call is needed when trust, affect, or the depth of the relationship seems to be suffering.

Limitations and Future Directions

There are several limitations to this study, the greatest of which is the use of undergraduate students to play the role of intra-organizational members. These students may not have taken on all of the characteristics described in the role play and are thus limited in their ability to interact as organizational members who are negotiating good and services. Attempts were made to mitigate for this short coming by having the students negotiate for three negotiations and by creating an expectation that a future relationship would exist between the partners. Despite these attempts, three interactions may not have been enough.

Another concern is that although the sample size was large enough to detect main effects that there were some interactions in the individual 2 X 2 X 2 cells that could

not be tested due to the small samples in individual cells. The large percentage of women in the sample may have also had some unknown effect on the analyses since men and women sometimes approach conflict in different ways. Differences in approaches to conflict were not assessed in the study and thus are not controlled for in this study. On the positive side, the use of the APIM model corrected for the effect of a partner's response on a negotiator's own response and strengthened the analysis by reducing the probability of statistical error. The use of the APIM technique with CMC dyadic communication is a significant improvement over the previous tests that were used in that buyer and seller interactions could be studied.

Another limitation is the perceived power difference between the Crawley, the seller, and Phillips, the buyer, for half of the negotiators. Those in the role of Crawley were the only ones to recognize their greater power in the scenario. Phillips negotiators reported no lower level in their power despite the clear instructions in the role play. Subsequent review of other studies indicate: that lower power individuals often times do not recognize this lower power position especially in intra-organizational settings. The power difference also was produced out of a relationship with the vice president of manufacturing rather than an economic role that may have been more tangible. The relational power difference based on the vice president's preference may have been something difficult to articulate in e-mail because it would leave a written record of an advantage that is considered somewhat suspect.

Another limitation of the study could be the use of difference scores between the first and third negotiation to analyze the change in the relationship. The difference

scores do not capture the development of the relationships between the first and second negotiations or the relationship changes between the second and third negotiations. It is possible that there is an immediate effect on the relationship after the second negotiation that is not captured in the study. Future studies could increase reliability by treating the measures as longitudinal and using additional APIM analysis techniques to include relationship variables for all three negotiations.

Finally, the study did not include a review of the actual messages and behaviors exhibited by the parties by reviewing video tapes of the FTF negotiators or studying the e-mail transcripts. This review would have moved the study beyond self report measures and perceptions to include a neutral party assessment of the relationship behaviors observed. An additional behavior that may have affected the parties' relationship development may have been the breaks between the negotiation sessions for FTF participants. These breaks may have allowed a cooling off period or an opportunity for negotiators to reflect on their own interests and the interests of their partner. Further research should examine the messages and behaviors by the negotiators to relate these behaviors to changes in relationships over time.

In terms of future directions, expanding this project to include a review of video recordings of the FTF negotiations and e-mail transcripts would provide insight into the process of negotiating associated with these channels. A consideration of the media's effect on the negotiation's economic outcome, negotiator satisfaction with the outcome, and negotiator satisfaction with the process would also add to the body of negotiation knowledge. Additional measures to collect and detect difference in bargaining techniques could also provide insight in to the development of a CMC

negotiation theory based on SIP, media characteristics, personality, and situation constraints.

Expanding this study to look not just at e-mail, but also at instant messenger and chat would provide a service to negotiators because instant messenger is becoming more prevalent for negotiations. It is a CMC media, that is synchronous in nature which makes it function in vastly different ways and removes many of the advantages for negotiation that e-mail provides such as revisability and reviewability. As negotiators continue to expand their use of these media, relying only on e-mail negotiation studies will be ill-advised in the same way that relying on studies with novice e-mail users from the early 1990s would be a mistake when making judgments about e-mail use today.

Conclusion

This dissertation answers the call Walther (2004) made in his introduction to a special issue of *The Journal of Language and Social Psychology* where he called for more research that moved beyond media selection to take into account mixed channel usage and channel switching. This dissertation does respond to this call in that all the negotiators conducted their first negotiation FTF and baseline relationship measures were established. The participants were then randomly assigned to conduct their next two negotiations either FTF or via e-mail. The dissertation addresses how the relationships develop over time, but also provides information on preferred channel use for future negotiations. Although some studies have been conducted research regarding CMC and negotiation, none of them have specifically looked at the development of relationships, used mixed channels, or studied the effect of these

experiences on future media use with a continuing partner. Finally, this work provides a further test of Walther's (1996) study that found support for the idea that CMC relationship development in organizational settings is affected by prior technology experience and prior relationships.

This study explored the social awareness of the negotiators by not only asking about their own communication behaviors but by collecting perceptions of their partner's behaviors. These measures explored different dimensions of relationship development such as dominance, trust, affect, depth, formality, and task/social orientation (Burgoon & Hale, 1987). This dissertation also examined some of the newest and most recent trends in relationship development and media usage in CMC negotiation while at the same testing long standing theories, like the *cues filtered out* ones. The dissertation provides a further test and expansion of Walther's work (1992, 1994) on the effects of time on relationship development by testing his theory within a highly social process like organizational negotiation where there is mixed channel use. Finally this dissertation has provided a test of e-mail's unique characteristics and their effects on the development of relationships in an intra-organizational environment.

Appendix A: Negotiation Instructions

Knight Engines/Excalibur Engine Parts

(adapted from exercise developed by Lewicki, Saunder, and Minton in Negotiation. McGraw-Hill, 1999.)

INTRODUCTION

The process of negotiation combines economic transactions with verbal persuasion. A great deal of what transpires during a negotiation is the verbal persuasion -- people arguing for and supporting their own preferred position, and resisting similar arguments from the other party. At the same time, underlying this layer of persuasive messages is a set of economic transactions -- bids and counter bids -- that are at the economic core of the negotiation process.

The purpose of this exercise is to provide some experience with combining the economic transactions and the persuasive messages to support preferred economic outcomes.

ADVANCE PREPARATION

If assigned by the instructor, read the role-play briefing information (provided by the instructor) in advance.

PROCEDURE

Step 1

If your instructor has not already done so, you will be assigned the role of Knight Engines or Excalibur Engine Parts for this exercise. You will be told how to locate the appropriate information for your side. Read this information. You will also be assigned a partner (other party) for this exercise.

Step 2

Meet with the opposite side to negotiate a settlement to the issues in this scenario. Your objective is to negotiate a deal that is most advantageous to you and your company. During this negotiation, you may observe the following guidelines:

1. Use any plan or strategy that will help you achieve your objectives.
2. Call a break at any time to evaluate your strategy or the other party's strategy.
3. Reach an agreement by the end of the specified time period, or conclude that you are not able to agree.

Step 3

Be prepared to discuss your settlement with the other party, and with other groups in the large-group setting. If you are participating in the research project, complete the post Knight Negotiation Questionnaire and return it at the next class to your instructor along with a copy of your final settlement with your partner.

ROLE INFORMATION FOR EXCALIBUR ENGINE PARTS EXERCISE 4: KNIGHT ENGINES - EXCALIBUR ENGINE PARTS

The Excalibur Engine Parts Company has been involved in the production of advanced engine parts for little over a year. It seems that the demand for their specialized pistons has not been as great as anticipated, and some shareholders are beginning to become concerned about the company's disappointing revenues. It appeared that the situation was about to improve six months ago, when the government of Switzerland placed an order for 20,000 of their Series 2.1 Intensaflux (Class "A") pistons. This contract with Switzerland was considered a real coup, because there are several other more established companies that produce the same type of piston. Unfortunately, the contract in question was not approved by the Swiss legislature and was therefore considered to be null and void under Swiss law. By the time that Excalibur learned of the contract's imperfections, 10,000 pistons had already been produced and packaged. Since Excalibur had no legal way to enforce the contract, it was stuck with an extra 10,000 pistons in a market that already had a very dissatisfying demand. Financial analysts were predicting that this latest setback would lead to a major loss in this quarter unless Excalibur's management acted quickly.

As fate would have it, a representative from Knight Engines Inc., contacted Excalibur recently and asked whether it would be possible for them to process a rush order for 8,000 of their Series 2.1 Intensaflux (Class "A") pistons within two weeks. Representatives of Excalibur stated that this might be possible, but that certain conditions would have to be attached to such a rush order. First, in order to get some free advertising, Knight would have to agree to indicate on the chassis that their engines were fitted with Excalibur pistons. Second, a rush fee of at least 5% over the selling price would be charged for the extra costs involved for the processing of such an order.

Excalibur's random testing program ensures the maintenance of the high quality of their products. However, even with their strict standards, tests have revealed that 4 to 5% of pistons manufactured contain some sort of defect. Excalibur does offer an excellent quality-control insurance program that guarantees that all pistons delivered will be free from defects. Under the conditions of this guarantee, all pistons are individually tested before delivery. Due to the extra costs involved, Excalibur charges an extra 10% over the selling price for this service. If this particular guarantee is not purchased, defects in the products delivered are the responsibility of the purchaser. As well, prospective customers are usually asked whether they require additional units, in order to provide for situations where replacements are required urgently.

You are the VP of Sales for Excalibur, and it is your responsibility to negotiate a contract with Knight for the sale of the pistons that they desire. In order to determine the contract price, the following should be kept in mind:

1. The Swiss government was willing to pay \$600 per piston before that particular contract was annulled. If the Swiss thought that this was a fair price, shouldn't Knight find it reasonable as well?

2. The total cost to produce this type of piston at Excalibur is \$480 per piston.
Excalibur's list price for this type of piston is \$560.

3. You are aware that some of your competitors sell inferior pistons of the same size for as low as \$400 per piston. You believe that Excalibur's prices are justified due to the higher standards of quality that are maintained at your plants. However, there is a rumor that Knight will be using your company's pistons in order to build engines that will be sold to the government under government contract. If the government could be made aware of the high quality of your pistons, it might work to your advantage the next time the government requests submissions for the supply of engine parts. Obtaining such contracts would certainly stop the complaints of Excalibur's rather nervous shareholders. This goal could certainly be achieved if Knight were to indicate that their engines were fitted with quality Excalibur parts. It is likely that Knight will not to do this without some sort of concession on the part of Excalibur. Perhaps a cut in the profit margin today would reap greater benefits in the future.

4. As mentioned before, the market for this type of piston does not seem to be as large as originally projected. If this Knight deal falls through, Excalibur might be forced to sell it's pistons to the only other prospective customer who has shown any interest. Hank's Super Monster Tractors Inc., has offered to take all the Intensaflux pistons off Excalibur's hands for a paltry \$100 per piston.

Your success during the negotiation process will be determined by the total score that you achieve. The score is determined by multiplying the number of pistons sold by the price per piston that was negotiated.

$$\begin{array}{r}
 \text{_____} \quad \# \text{ of pistons} \\
 \times \\
 \text{_____} \quad \text{Price per piston} \\
 \hline
 = \quad \text{_____} \quad \text{Total Value (Score)}
 \end{array}$$

Other Settlement Items:

ROLE INFORMATION FOR KNIGHT ENGINES KNIGHT ENGINES - EXCALIBUR ENGINE PARTS

The government has recently invited submissions from the private sector for the supply of one thousand V-16Z (Class A) automobile engines. Although these particular engines only have eight cylinders, they can easily duplicate the speed and performance of a sixteen cylinder engine. Their compact size and durability make them ideal for military operations and it is for this reason that the military has decided to incorporate them into their new line of All Terrain Vehicles (ATV's). For reasons that cannot be exposed without jeopardizing national security, the engines must be delivered within 60 days.

Knight Engines Inc., has been involved in the manufacture of a wide variety of engines for nearly five years. Although Knight has managed to turn a healthy profit every year, sales for it's V-16Z engines has been lagging somewhat. It is for this reason that Knight is quite excited by the government's request for V-16Z engines. Knight has dealt with the government before and their established reputation would certainly be a bonus in their favor if per chance another company were to submit an equally low bid. There is, however, one problem: Although Knight does have the capacity to build one thousand V-16Z automobile engines, they do not have the pistons required to make the Class "A" engines. Their regular piston supplier only manufactures inferior "Class C" pistons, which would be unacceptable to the government. Since one thousand engines are to be produced, eight thousand Class "A" pistons are required. If the Class "A" pistons could be acquired within two weeks, the two-month government deadline could be met.

Knight made inquiries at several companies and only one showed any interest in supplying Knight with all the class "A" pistons that it needs on such short notice. The Excalibur Engine Parts Company stated that it would be possible to process such a rush order but that it would do so only on two conditions: First, that the chassis of any engine constructed with their pistons clearly states that it is fitted with Excalibur brand pistons. Second, that a 5% mark-up be applied due to the extra costs of processing such an order on short notice.

Although the technical aspect of fitting these pistons into the engines presents no problems, the people in manufacturing are rather concerned about using a new type of piston from a company with which Knight has no previous experience. They stated that on the average, about 3 to 4% of the "Class C" pistons ordered in the past (from other suppliers) contained various structural flaws that rendered them unusable. There is no reason to believe that the "Class A" pistons should fare any differently. It is therefore essential that Excalibur provide some sort of guarantee in order to ensure that Knight does not have to pay for defective pistons. Even with such a guarantee, the inevitable delays for the delivery of and placement could hinder Knight's ability to complete its engines before the government deadline. In order to cushion against such a problem, it might be advisable to order extra pistons. Ideally, Excalibur would agree to take back all unused pistons as part of a guarantee package.

You are Knight's Director of Purchasing and it is your responsibility to negotiate a contract with Excalibur for their Class "A" pistons, the Series 2.1 Intensaflux pistons. Since the price paid for the piston will raise the overall cost of the

engine and therefore affect the bid submitted to the government, it is paramount that the lowest possible price be paid. In order to strike a good deal, you must pay careful attention to the following points:

1. You have never before purchased Class "A" pistons. Your knowledge of the market for other pistons (for instance, the Class "C" pistons sell for \$250 each) suggests that they should sell for about \$500 per piston. The absolute maximum that could be paid per piston and still enable the submission of a competitive bid would be \$600 per piston.
2. There is rumor that Excalibur has been trying to get its foot in the door with respect to government contracts. Many of your colleagues find it somewhat unreasonable that Excalibur should have a free ride on Knight's coattails by having their company name mentioned on all the Knight engines fitted with Excalibur pistons, especially when you consider that they are charging a 5% "rush" fee. Perhaps Excalibur should deduct 5% from their price in return for this advertising service. Still, you do not want to press this issue too far because your company president has told you that it might be in the interests of Knight to develop a good relationship with Excalibur's management since Knight may one day be in a position to acquire this smaller company.
3. A competitor of Excalibur's, Mordred Technologies Inc., has stated emphatically that it would in no way be able to fulfill such a rush order for a similar piston in 2 weeks time. However, they did state that if Knight was willing to wait 4 weeks for shipment, they would gladly supply all the pistons required for \$470 per piston. Although a 4 week delivery date would certainly not allow enough time to meet the government deadline, Knight could use these pistons to upgrade some engines in stock and await another government or private contract.

Your success during the negotiation process will be determined by two factors: 1) the average price per piston agreed upon; and, 2) the type of quality-control guarantee obtained.

_____ # of pistons

_____ Average price per piston

Quality Control Agreement:

Other settlement items: _____

Sample of FTF Instructions provided to Negotiators

COMM 424

Universal Computer I & II Negotiation Exercises

Here are the materials that you will need to complete the next two Negotiations with your partner listed below. Please schedule a time outside of class to meet with you partner **IN PERSON** to conduct the Universal Computer I Negotiation -- you may need to schedule additional meetings if you need more time to reach a conclusion or you may find that you are unable to come to a settlement. The Universal Computer I Negotiation should be completed by Oct. 29th. Once you have completed the Negotiation, complete the Post Negotiation Questionnaire and place all the materials back into the folder. You will also need to respond the questions on the attached sheet -- the completion of the questionnaires is only required if you want to participate in the extra credit research, but the responses to the questions will be graded and included in your class participation grade.

You are then ready to complete the Universal Computer II Negotiation -- the materials are on the other side of your folder. Please once again schedule an IN PERSON meeting with your partner to conduct this negotiation, once again you may find it necessary to schedule additional meetings to conclude the negotiation or you may find that you can not come to an agreement. The Universal Computer II Negotiation should be completed by Nov. 7th. Once you have completed the Negotiation, complete the Post Negotiation Questionnaire and place all the materials back into the folder. You will also need to respond the questions on the attached sheet -- the completion of the questionnaires is only required if you want to participate in the extra credit research, but the responses to the questions will be graded and included in your class participation grade.

All of your materials should be returned in the folder at our Nov. 12th class. Please remember that you must conduct this negotiation in person -- failure to do so would violate the goals of the assignment and create a possible violation of the Code of Academic Integrity. I realize that you all have busy lives and that meeting outside class can be difficult, but several classes have been cancelled this semester to make up for these out of class exercises.

<i>Student's Name</i>	<i>Email</i>	<i>Phone</i>	<i>Group</i>	<i>Role</i>	<i>Power</i>	<i>Method</i>

Sample of Instructions Provided to E-mail Negotiators

COMM 424

Universal Computer I & II Negotiation Exercises

Here are the materials that you will need to complete the next two Negotiations with your partner listed below. Please schedule a time outside of class to work with your partner **VIA E-MAIL** to conduct the Universal Computer I Negotiation -- you may need to email several times if you need more time to reach a conclusion or you may find that you are unable to come to a settlement. The Universal Computer I Negotiation should be completed by Oct. 29th. Once you have completed the Negotiation, complete the Post Negotiation Questionnaire and place all the materials back into the folder. You will also need to respond the questions on the attached sheet -- the completion of the questionnaires is only required if you want to participate in the extra credit research, but the responses to the questions will be graded and included in your class participation grade.

You are then ready to complete the Universal Computer II Negotiation -- the materials are on the other side of your folder. Please once again work with your partner via E-MAIL to conduct this negotiation, once again you may find it necessary to email several times to conclude the negotiation or you may find that you can not come to an agreement. The Universal Computer II Negotiation should be completed by Nov. 7th. Once you have completed the Negotiation, complete the Post Negotiation Questionnaire and place all the materials back into the folder. You will also need to respond the questions on the attached sheet -- the completion of the questionnaires is only required if you want to participate in the extra credit research, but the responses to the questions will be graded and included in your class participation grade.

All of your materials should be returned in the folder at our Nov. 12th class. Please remember that you must conduct this negotiation via e-mail -- failure to do so would violate the goals of the assignment and create a possible violation of the Code of Academic Integrity. I realize that you all have busy lives and that meeting outside class can be difficult, but several classes have been cancelled this semester to make up for these out of class exercises.

<i>Student's Name</i>	<i>Email</i>	<i>Phone</i>	<i>Group</i>	<i>Role</i>	<i>Power</i>	<i>Method</i>

Universal Computer Company I

(Adapted from exercise developed by Lewicki, Saunder, and Minton in Negotiation. McGraw-Hill, 1999.)

Introduction:

In this exercise, you will play the role of a plant manager who has to negotiate some arrangements with another plant manager. You and the plant manager are both too busy to meet and have decided to conduct your negotiations via electronic mail.

Advance Preparation:

Prior to negotiating, read the Universal Computer Company Background Information section and the role information that the instructor has provided. Do not discuss your role with other class members. Plan how you will handle the forthcoming email exchange with the other plant manager.

Procedure:

The class will be divided into teams of two, with one person in each dyad representing the Crawley plant and the other representing the Phillips plant. Each dyad of plant managers will conduct its email interactions and try to reach a solution. When an agreement is reached, both parties will record the outcome on the Final Settlement Agreement form. Those of you involved in the research program should complete the survey and printout copies of your email messages generated by you and those sent to you from your partner.

Background Information

The Universal Computer Company is one of the nation's major producers of computers. Plants in the company tend to specialize in producing a single line of products or, at the most, a limited range of products. The company has considerable vertical integration - parts made at the one plant are assembled into components at another, which in turn are assembled into final products at still another plant. Each plant operates on a profit center basis (each plant is evaluated on its ability to make money independent of the other plants in the company.)

The Crawley plant produces computer chips, modules, cable harnesses, and terminal boards which in turn are shipped to other company plants. In addition to numerous computer chips, the Crawley plant makes more than 40 different modules for the Phillips plant. The two plants are about five miles apart.

The Quality Program

Production at the Phillips plant has been plagued by poor quality. Upon examination it has been found that a considerable portion of this problem can be traced to the quality of the modules received from the Crawley plant.

The Crawley plant maintains a final inspection operation. There has been considerable dispute between the two plants as to whether the Crawley plant was to maintain a 95 percent overall acceptance level for all modules shipped to the Phillips plant, or to maintain that standard for each of the 42 individual modules produced. The Phillips plant manager has insisted that the standard had to be maintained for each of the 42 individual modules produced. The Crawley plant manager maintains that the requirements mean that the 95 percent acceptance level has to be maintained overall for the sum of module types were consistently well above the 95 percent acceptance level, 12 types of modules had erratic quality and would often fall far below the 95 percent level. As a result, while individual types of modules might fall below standard, the quality level for all modules was at or above the 95 percent level. This raised serious problems at the Phillips plant, since the quality of its products is controlled by the quality of the poorest modules.

The Interplant Dispute

The management of the Phillips plant felt that the quality problem of the modules received from the Crawley plant was causing them great difficulty. It caused problems with the customers, who complained of improper operation of the products that contained the Crawley modules. As a result, the Phillips plant operation had earlier added a secondary final inspection of its completed products. More recently it had added an incoming inspection of 12 poor-quality modules received from the Crawley plant. There were times when the number of modules rejected was large enough to slow or even temporarily stop production. At those times, to maintain production schedules, the Phillips plant had to work overtime. In addition, the Phillips plant had the expense of correcting all the faulty units received from the Crawley plant.

Ideally the management of the Phillips plant would like to receive all modules free of defects. While this was recognized as impossible, they felt that the Crawley plant should at least accept the expense of repairs, extra inspections, and overtime required by the poor quality of the parts.

Since installing incoming inspection procedures on the 12 modules, the Phillips plant had been rejecting about \$8,000 of modules a week. For the most part, these had been put into storage pending settlement of the dispute as to which plant should handle repairing them. Occasionally, when the supply of good modules had been depleted, repairs were made on some of the rejected units to keep production going. The Phillips plant had continued to make repairs on the remaining 30 types of modules as the need for repairs was discovered in assembly of final inspection.

From its perspective, the Crawley plant management felt that it was living up to its obligation by maintaining a 95 percent or better quality level on all its modules shipped to the Phillips plant. Further, they pointed out that using sampling methods on inspection (only testing a small percentage of modules produced each time) meant that some below-standard units were bound to get through, and that the expense of dealing with these was a normal business expense which the Phillips plant would have to accept as would any other plant. They pointed out that when buying its parts from outside suppliers it was common practice in the company to absorb expenses from handling the normal level of faulty parts.

The Phillips plant management argued that the Crawley plant management was ignoring its responsibility to the company by forcing the cost of repairs on to their plant, where only repairs could be made- rather than to have the cost borne by the Crawley plant, where corrections of faulty processes could be made.

Discussion Questions

1. What differences in strategy and tactics were followed in groups that reached negotiated settlements versus those that did not? Were the relationships competitive or cooperative, conflicted, or problem solving?
2. What factors contributed most to the outcomes that various dyads reached?
3. Did the members of dyads change their feelings about the settlement after they learned how well they did relative to their initial goals for the negotiation? Why? What does this say about how we evaluate “good” and “bad” actions in a negotiation?

Role Information for Phillips Plant Manager Universal Computer I – [E-mail Equal Condition]

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. The quality problem on the modules coming from the Crawley plant has been the most frustrating problem you have had for some time. Not only has the expense of rework and repairs, overtime and additional inspections increased the cost of operation of your plant, but complaints from customers and occasionally failing to meet production schedules have gotten you a lot of unfavorable attention from higher management. What is particularly frustrating is the fact that the difficulty comes from a single area, and also that there is so little you can do directly about the matter.

You would like the additional expense resulting from these problems to be transferred to the Crawley plant. The plant manager at the Crawley plant has been very stubborn about this matter and has refused to accept any of the costs. While Crawley has been working on the problem and quality has improved somewhat, you have doubts that it will ever be of a desired level for all modules that you receive from their plant. They have made the argument that expenses incurred because of faulty modules should be considered a regular business expense the way they are for all products purchased outside. While it is true that Phillips has repaired some poor quality items received from other vendors, this is usually done to avoid interrupting production by sending them back to the supplier. You do not know why the company does not charge the supplier for these costs, but assume that it is because it is difficult to write into a purchasing agreement. In any event, when the materials received from an outside supplier do occasionally get bad enough, a shipment will be rejected and sent back. You do not think it is to the company's benefit to accept these costs on items made in its own plants. If the supplying plant had to absorb the costs, pressure would be created within that plant to reduce, if not eliminate, these expenses.

Because the company does not have this practice, however, you are not sure you can get the other plant to accept the repair expenses for all poor quality modules. You are determined, however, that they will have to absorb the expenses on the cost of repairing faulty items of the twelve types of modules where quality has been found to be below the 95% level. You feel strongly that the plant manager of the Crawley plant is making an inaccurate and unfair interpretation of the way the 95% level of quality is to be applied. You are also troubled by the delays in production (often requiring overtime) when large numbers of rejects occur on the twelve types of modules often found with poor quality. You are not too optimistic about getting the Crawley plant manager to accept overtime costs for production, but you are going to insist that either they accept the faulty parts back to replace or repair them quickly, or that they pay you to put repair staff to work on them, even if overtime is necessary.

Unfortunately, while this dispute has gone on, modules have been rejected in incoming inspection at a rate of about \$8,000 a week. You have refused to work on these, arguing

that they should be handled by the Crawley plant. They have refused to accept any responsibility for them. Before long this will come to the attention of the Vice President of Manufacturing and you feel quite sure that both you and the Crawley plant manager will be called on the carpet for not having solved this problem. You have set aside time this afternoon to email the Crawley plant manager to try to settle this matter.

Role Information for the Crawley Plant Manager Universal Computer Case [E-mail, Equal Condition]

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. You have been quite concerned about the quality problems on some of the modules your plant sends to the Phillips plant. Over the last several months considerable progress has been made and you intend to keep pushing on the matter and expect some further improvement, although it will probably not be as great as that realized before. Some poor quality items are bound to occur with a product as complicated as a module. Given the volume at which these are produced, 100% inspection is impossible and sampling, especially at the 95% level of acceptance, is an accepted practice, even though it means that some faulty items will get through.

You feel that the position taken by the Phillips plant manager that your plant accept the costs of repairing all faulty parts is ridiculous. You have to bear the expense on repairing items from your outside vendors when faulty pieces are not returned to them, and you do not see why the same practice should not apply to within-company vendors too. Of course, if shipments were refused because of poor quality they could be shipped back to your plant - just as faulty shipments are returned to outside suppliers occasionally. You would like to avoid having the faulty shipments returned to you since you would also have to pick up transportation expenses. If you had to repair a rejected lot of modules it might be cheaper to send a repair person to the Phillips plant.

You are particularly puzzled and troubled that twelve types of modules are found to be below the desired quality level when they arrive at the Phillips plant even though they were apparently at the desired level when they left your plant. It is a company policy that plants are responsible to see that products shipped meet stated quality levels, regardless of whether they go to an outside or a within-company buyer. Overall, all modules shipped to the Phillips plant are above the 95% level, so you think that you are complying with company policy but you are nonetheless concerned about the twelve modules that at times do not measure up to the standard, first because you want to get the plant output to a high standard, and secondly because you fear that if this matter gets to higher management, they may revise the interpretation of how the 95% level of quality is to be applied, making it applicable to each individual type of product line rather than to the overall output of a plant.

If you had to accept any of these expenses, you would like to charge part of them to the department in the plant that makes the faulty modules and part to the final inspection department, to give them feedback on their performance and to put pressure on both of them to improve. In addition, the Phillips plant manager has been urging that you absorb overtime costs that come from delayed production, caused by shortages of modules when a great number of them have to be rejected. You think Phillips is way out of line on this matter and would never accept any arrangement like that. Unfortunately, while this dispute has gone on, modules have been rejected at incoming inspection at the Phillips

plant at a rate of about \$8,000 a week. The plant manager at the Phillips plant is just letting them sit there while trying to get you to accept responsibility for them. Before long, this will come to the attention of the Vice President of Manufacturing, and when it does you feel that both you and the Phillips plant manager will be called on the carpet for not having solved the problem.

The Phillips plant manager has said that you will receive an email this afternoon in one last attempt to settle the matter.

Role Information for Phillips Plant Manager Universal Computer I [E-mail, Unequal Condition]

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. The quality problem on the modules coming from the Crawley plant has been the most frustrating problem you have had for some time. Not only has the expense of rework and repairs, overtime and additional inspections increased the cost of operation of your plant, but complaints from customers and occasionally failing to meet production schedules have gotten you a lot of unfavorable attention from higher management. What is particularly frustrating is the fact that the difficulty comes from a single area, and also that there is so little you can do directly about the matter.

You would like the additional expense resulting from these problems to be transferred to the Crawley plant. The plant manager at the Crawley plant has been very stubborn about this matter and has refused to accept any of the costs. While Crawley has been working on the problem and quality has improved somewhat, you have doubts that it will ever be of a desired level for all modules that you receive from their plant. They have made the argument that expenses incurred because of faulty modules should be considered a regular business expense the way they are for all products purchased outside. While it is true that Phillips has repaired some poor quality items received from other vendors, this is usually done to avoid interrupting production by sending them back to the supplier. You do not know why the company does not charge the supplier for these costs, but assume that it is because it is difficult to write into a purchasing agreement. In any event, when the materials received from an outside supplier do occasionally get bad enough, a shipment will be rejected and sent back. You do not think it is to the company's benefit to accept these costs on items made in its own plants. If the supplying plant had to absorb the costs, pressure would be created within that plant to reduce, if not eliminate, these expenses.

Because the company does not have this practice, however, you are not sure you can get the other plant to accept the repair expenses for all poor quality modules. You are determined, however, that they will have to absorb the expenses on the cost of repairing faulty items of the twelve types of modules where quality has been found to be below the 95% level. You feel strongly that the plant manager of the Crawley plant is making an inaccurate and unfair interpretation of the way the 95% level of quality is to be applied. You are also troubled by the delays in production (often requiring overtime) when large numbers of rejects occur on the twelve types of modules often found with poor quality. You are not too optimistic about getting the Crawley plant manager to accept overtime costs for production, but you are going to insist that either they accept the faulty parts back to replace or repair them quickly, or that they pay you to put repair staff to work on them, even if overtime is necessary.

Unfortunately, while this dispute has gone on, modules have been rejected in incoming inspection at a rate of about \$8,000 a week. You have refused to work on these, arguing

that they should be handled by the Crawley plant. They have refused to accept any responsibility for them. Before long this will come to the attention of the Vice President of Manufacturing and you feel quite sure that both you and the Crawley plant manager will be called on the carpet for not having solved this problem. However, you are concerned that the VP of Manufacturing typically has backed Crawley in any dispute that you have had. You believe that her past experiences have led her to favor the supplier rather than the purchaser in most disagreements. The Crawley manager knows this and may use this to create an advantage. You have set aside time this afternoon to email the Crawley plant manager to try to settle this matter.

Role Information for the Crawley Plant Manager Universal Computer Case [E-mail, Unequal Condition]

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. You have been quite concerned about the quality problems on some of the modules your plant sends to the Phillips plant. Over the last several months considerable progress has been made and you intend to keep pushing on the matter and expect some further improvement, although it will probably not be as great as that realized before. Some poor quality items are bound to occur with a product as complicated as a module. Given the volume at which these are produced, 100% inspection is impossible and sampling, especially at the 95% level of acceptance, is an accepted practice, even though it means that some faulty items will get through.

You feel that the position taken by the Phillips plant manager that your plant accept the costs of repairing all faulty parts is ridiculous. You have to bear the expense on repairing items from your outside vendors when faulty pieces are not returned to them, and you do not see why the same practice should not apply to within-company vendors too. Of course, if shipments were refused because of poor quality they could be shipped back to your plant - just as faulty shipments are returned to outside suppliers occasionally. You would like to avoid having the faulty shipments returned to you since you would also have to pick up transportation expenses. If you had to repair a rejected lot of modules it might be cheaper to send a repair person to the Phillips plant.

You are particularly puzzled and troubled that twelve types of modules are found to be below the desired quality level when they arrive at the Phillips plant even though they were apparently at the desired level when they left your plant. It is a company policy that plants are responsible to see that products shipped meet stated quality levels, regardless of whether they go to an outside or a within-company buyer. Overall, all modules shipped to the Phillips plant are above the 95% level, so you think that you are complying with company policy but you are nonetheless concerned about the twelve modules that at times do not measure up to the standard, first because you want to get the plant output to a high standard, and secondly because you fear that if this matter gets to higher management, they may revise the interpretation of how the 95% level of quality is to be applied, making it applicable to each individual type of product line rather than to the overall output of a plant.

If you had to accept any of these expenses, you would like to charge part of them to the department in the plant that makes the faulty modules and part to the final inspection department, to give them feedback on their performance and to put pressure on both of them to improve. In addition, the Phillips plant manager has been urging that you absorb overtime costs that come from delayed production, caused by shortages of modules when a great number of them have to be rejected. You think Phillips is way out of line on this matter and would never accept any arrangement like that. Unfortunately, while this dispute has gone on, modules have been rejected at incoming inspection at the Phillips

plant at a rate of about \$8,000 a week. The plant manager at the Phillips plant is just letting them sit there while trying to get you to accept responsibility for them. Before long, this will come to the attention of the Vice President of Manufacturing, and when it does you feel that both you and the Phillips plant manager will be called on the carpet for not having solved the problem. However, the VP of Manufacturing typically has backed Crawley in any dispute that you have had. Her past experiences have led her to favor the supplier rather than the purchaser in most disagreements and this practice is an advantage that the Phillips plant manager will have to recognize.

The Phillips plant manager has said that you will receive an email this afternoon in one last attempt to settle the matter.

Role Information for Phillips Plant Manager Universal Computer I [FTF, Equal Condition]

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. The quality problem on the modules coming from the Crawley plant has been the most frustrating problem you have had for some time. Not only has the expense of rework and repairs, overtime and additional inspections increased the cost of operation of your plant, but complaints from customers and occasionally failing to meet production schedules have gotten you a lot of unfavorable attention from higher management. What is particularly frustrating is the fact that the difficulty comes from a single area, and also that there is so little you can do directly about the matter.

You would like the additional expense resulting from these problems to be transferred to the Crawley plant. The plant manager at the Crawley plant has been very stubborn about this matter and has refused to accept any of the costs. While Crawley has been working on the problem and quality has improved somewhat, you have doubts that it will ever be of a desired level for all modules that you receive from their plant. They have made the argument that expenses incurred because of faulty modules should be considered a regular business expense the way they are for all products purchased outside. While it is true that Phillips has repaired some poor quality items received from other vendors, this is usually done to avoid interrupting production by sending them back to the supplier. You do not know why the company does not charge the supplier for these costs, but assume that it is because it is difficult to write into a purchasing agreement. In any event, when the materials received from an outside supplier do occasionally get bad enough, a shipment will be rejected and sent back. You do not think it is to the company's benefit to accept these costs on items made in its own plants. If the supplying plant had to absorb the costs, pressure would be created within that plant to reduce, if not eliminate, these expenses.

Because the company does not have this practice, however, you are not sure you can get the other plant to accept the repair expenses for all poor quality modules. You are determined, however, that they will have to absorb the expenses on the cost of repairing faulty items of the twelve types of modules where quality has been found to be below the 95% level. You feel strongly that the plant manager of the Crawley plant is making an inaccurate and unfair interpretation of the way the 95% level of quality is to be applied. You are also troubled by the delays in production (often requiring overtime) when large numbers of rejects occur on the twelve types of modules often found with poor quality. You are not too optimistic about getting the Crawley plant manager to accept overtime costs for production, but you are going to insist that either they accept the faulty parts back to replace or repair them quickly, or that they pay you to put repair staff to work on them, even if overtime is necessary.

Unfortunately, while this dispute has gone on, modules have been rejected in incoming inspection at a rate of about \$8,000 a week. You have refused to work on these, arguing that they should be handled by the Crawley plant. They have refused to accept any responsibility for them. Before long this will come to the attention of the Vice President of Manufacturing and you feel quite sure that both you and the Crawley plant manager will be called on the carpet for not having solved this problem. You have set up a meeting with the Crawley plant manager at his plant for one last effort to try to settle this matter.

Role Information for the Crawley Plant Manager Universal Computer Case [FTF, Equal Condition]

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. You have been quite concerned about the quality problems on some of the modules your plant sends to the Phillips plant. Over the last several months considerable progress has been made and you intend to keep pushing on the matter and expect some further improvement, although it will probably not be as great as that realized before. Some poor quality items are bound to occur with a product as complicated as a module. Given the volume at which these are produced, 100% inspection is impossible and sampling, especially at the 95% level of acceptance, is an accepted practice, even though it means that some faulty items will get through.

You feel that the position taken by the Phillips plant manager that your plant accept the costs of repairing all faulty parts is ridiculous. You have to bear the expense on repairing items from your outside vendors when faulty pieces are not returned to them, and you do not see why the same practice should not apply to within-company vendors too. Of course, if shipments were refused because of poor quality they could be shipped back to your plant - just as faulty shipments are returned to outside suppliers occasionally. You would like to avoid having the faulty shipments returned to you since you would also have to pick up transportation expenses. If you had to repair a rejected lot of modules it might be cheaper to send a repair person to the Phillips plant.

You are particularly puzzled and troubled that twelve types of modules are found to be below the desired quality level when they arrive at the Phillips plant even though they were apparently at the desired level when they left your plant. It is a company policy that plants are responsible to see that products shipped meet stated quality levels, regardless of whether they go to an outside or a within-company buyer. Overall, all modules shipped to the Phillips plant are above the 95% level, so you think that you are complying with company policy but you are nonetheless concerned about the twelve modules that at times do not measure up to the standard, first because you want to get the plant output to a high standard, and secondly because you fear that if this matter gets to higher management, they may revise the interpretation of how the 95% level of quality is to be applied, making it applicable to each individual type of product line rather than to the overall output of a plant.

If you had to accept any of these expenses, you would like to charge part of them to the department in the plant that makes the faulty modules and part to the final inspection department, to give them feedback on their performance and to put pressure on both of them to improve. In addition, the Phillips plant manager has been urging that you absorb overtime costs that come from delayed production, caused by shortages of modules when a great number of them have to be rejected. You think Phillips is way out of line on this matter and would never accept any arrangement like that. Unfortunately, while this dispute has gone on, modules have been rejected at incoming inspection at the Phillips

plant at a rate of about \$8,000 a week. The plant manager at the Phillips plant is just letting them sit there while trying to get you to accept responsibility for them. Before long, this will come to the attention of the Vice President of Manufacturing, and when it does you feel that both you and the Phillips plant manager will be called on the carpet for not having solved the problem.

The Phillips plant manager has set an appointment with you this afternoon at your plant, on what is said to be one last try to settle the matter.

Role Information for Phillips Plant Manager Universal Computer I [FTF, Unequal Condition]

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. The quality problem on the modules coming from the Crawley plant has been the most frustrating problem you have had for some time. Not only has the expense of rework and repairs, overtime and additional inspections increased the cost of operation of your plant, but complaints from customers and occasionally failing to meet production schedules have gotten you a lot of unfavorable attention from higher management. What is particularly frustrating is the fact that the difficulty comes from a single area, and also that there is so little you can do directly about the matter.

You would like the additional expense resulting from these problems to be transferred to the Crawley plant. The plant manager at the Crawley plant has been very stubborn about this matter and has refused to accept any of the costs. While Crawley has been working on the problem and quality has improved somewhat, you have doubts that it will ever be of a desired level for all modules that you receive from their plant. They have made the argument that expenses incurred because of faulty modules should be considered a regular business expense the way they are for all products purchased outside. While it is true that Phillips has repaired some poor quality items received from other vendors, this is usually done to avoid interrupting production by sending them back to the supplier. You do not know why the company does not charge the supplier for these costs, but assume that it is because it is difficult to write into a purchasing agreement. In any event, when the materials received from an outside supplier do occasionally get bad enough, a shipment will be rejected and sent back. You do not think it is to the company's benefit to accept these costs on items made in its own plants. If the supplying plant had to absorb the costs, pressure would be created within that plant to reduce, if not eliminate, these expenses.

Because the company does not have this practice, however, you are not sure you can get the other plant to accept the repair expenses for all poor quality modules. You are determined, however, that they will have to absorb the expenses on the cost of repairing faulty items of the twelve types of modules where quality has been found to be below the 95% level. You feel strongly that the plant manager of the Crawley plant is making an inaccurate and unfair interpretation of the way the 95% level of quality is to be applied. You are also troubled by the delays in production (often requiring overtime) when large numbers of rejects occur on the twelve types of modules often found with poor quality. You are not too optimistic about getting the Crawley plant manager to accept overtime costs for production, but you are going to insist that either they accept the faulty parts back to replace or repair them quickly, or that they pay you to put repair staff to work on them, even if overtime is necessary.

Unfortunately, while this dispute has gone on, modules have been rejected in incoming inspection at a rate of about \$8,000 a week. You have refused to work on these, arguing

that they should be handled by the Crawley plant. They have refused to accept any responsibility for them. Before long this will come to the attention of the Vice President of Manufacturing and you feel quite sure that both you and the Crawley plant manager will be called on the carpet for not having solved this problem. However, you are concerned that the VP of Manufacturing typically has backed Crawley in any dispute that you have had. You believe that her past experiences have led her to favor the supplier rather than the purchaser in most disagreements. The Crawley manager knows this and may use this to create an advantage. You have set up a meeting with the Crawley plant manager at his plant for one last effort to try to settle this matter.

Role Information for the Crawley Plant Manager Universal Computer Case [FTF, Unequal Condition]

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. You have been quite concerned about the quality problems on some of the modules your plant sends to the Phillips plant. Over the last several months considerable progress has been made and you intend to keep pushing on the matter and expect some further improvement, although it will probably not be as great as that realized before. Some poor quality items are bound to occur with a product as complicated as a module. Given the volume at which these are produced, 100% inspection is impossible and sampling, especially at the 95% level of acceptance, is an accepted practice, even though it means that some faulty items will get through.

You feel that the position taken by the Phillips plant manager that your plant accept the costs of repairing all faulty parts is ridiculous. You have to bear the expense on repairing items from your outside vendors when faulty pieces are not returned to them, and you do not see why the same practice should not apply to within-company vendors too. Of course, if shipments were refused because of poor quality they could be shipped back to your plant - just as faulty shipments are returned to outside suppliers occasionally. You would like to avoid having the faulty shipments returned to you since you would also have to pick up transportation expenses. If you had to repair a rejected lot of modules it might be cheaper to send a repair person to the Phillips plant.

You are particularly puzzled and troubled that twelve types of modules are found to be below the desired quality level when they arrive at the Phillips plant even though they were apparently at the desired level when they left your plant. It is a company policy that plants are responsible to see that products shipped meet stated quality levels, regardless of whether they go to an outside or a within-company buyer. Overall, all modules shipped to the Phillips plant are above the 95% level, so you think that you are complying with company policy but you are nonetheless concerned about the twelve modules that at times do not measure up to the standard, first because you want to get the plant output to a high standard, and secondly because you fear that if this matter gets to higher management, they may revise the interpretation of how the 95% level of quality is to be applied, making it applicable to each individual type of product line rather than to the overall output of a plant.

If you had to accept any of these expenses, you would like to charge part of them to the department in the plant that makes the faulty modules and part to the final inspection department, to give them feedback on their performance and to put pressure on both of them to improve. In addition, the Phillips plant manager has been urging that you absorb overtime costs that come from delayed production, caused by shortages of modules when a great number of them have to be rejected. You think Phillips is way out of line on this matter and would never accept any arrangement like that. Unfortunately, while this dispute has gone on, modules have been rejected at incoming inspection at the Phillips plant at a rate of about \$8,000 a week. The plant

manager at the Phillips plant is just letting them sit there while trying to get you to accept responsibility for them. Before long, this will come to the attention of the Vice President of Manufacturing, and when it does you feel that both you and the Phillips plant manager will be called on the carpet for not having solved the problem. However, the VP of Manufacturing typically has backed Crawley in any dispute that you have had. Her past experiences have led her to favor the supplier rather than the purchaser in most disagreements and this practice is an advantage that the Phillips plant manager will have to recognize.

The Phillips plant manager has set an appointment with you this afternoon at your plant, on what is said to be one last try to settle the matter.

Universal Computer Company II

INTRODUCTION

In this exercise you will play the role of a plant manager who has to negotiate the price of a new A25 computer chip. You will be in a potentially competitive situation where cooperation is clearly desirable. Your task is to find some way to cooperate, when to do so might seem to put you at a disadvantage.

ADVANCE PREPARATION

Prior to class, read the Universal Computer Company Background Information section and the role information that the instructor has provided. Do not discuss your role with other class members. Plan how you will handle the forthcoming meeting with the other plant manager.

PROCEDURE

Step 1: 5 Minutes

The class will be divided into teams of two, with one person in each dyad representing the Crawley plant and the other representing the Phillips plant.

Step 2: 20-30 Minutes

Each dyad of plant managers will conduct its meeting and try to reach a solution. When an agreement is reached, both parties should record the final outcome.

Step 3: 15-20 Minutes

The instructor will poll each dyad for the value of their final agreement. The instructor will also ask any groups who have not reached an agreement where they were at the time negotiations were halted, and what might have prevented their reaching an agreement.

BACKGROUND INFORMATION

The Universal Computer Company is one of the nation's major producers of computers. Plants in the company tend to specialize in producing a single line of products or, at the most, a limited range of products. The company has considerable vertical integration. Parts made at one plant are

assembled into components at another, which in turn are assembled into final products at still another plant. Each plant operates on a profit-center basis.

The Crawley plant produces computer chips, modules, cable harnesses, and terminal boards, which in turn are shipped to other company plants. In addition to numerous computer chips, the Crawley plant makes more than 40 different modules for the Phillips plant. The two plants are about five miles apart.

The A25 Computer Chip

Phillips purchases over 30 different computer chips from Crawley. Computer chip A25 represents the most advanced engineering and manufacturing technologies available at the Crawley plant, and is an important advance in multimedia hardware design for personal computers. Phillips will integrate the A25 chip into its mother boards, and in turn will sell the mother boards to Universal Computer (the parent company) and to other computer companies. Since the prices on all purchases between Phillips and Crawley have been previously negotiated, the price of the A25 chip is currently the only computer chip up for negotiation.

DISCUSSION QUESTIONS

1. What differences in strategy and tactics were followed in groups that reached negotiated settlements versus those that did not? Were relationships competitive or co-operative, conflicted, or problem solving?
2. What factors contributed most to the outcomes that various dyads reached?
3. Did the members of dyads change their feelings about the settlement after they learned how well they did relative to their initial goals for the negotiation? Why? What does this say about how we evaluate "good" and "bad" actions in negotiation?

**ROLE INFORMATION FOR THE PHILLIPS PLANT
MANAGER UNIVERSAL COMPUTER (II)
[E-mail, Equal Condition]**

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. As Manager of the Phillips Plant, you are charged with negotiating the price of the new A25 computer chips. You will meet with a representative of the Crawley Plant to negotiate the unit price for the A25 chip.

Your accountants have assessed the price of the mother boards in which these computer chips will be located, and determined that you must fully absorb the price of these new chips -- that is, you cannot pass additional costs for the A25 chip along to the customer. In previous negotiations you have felt that Crawley inflates their prices significantly, but you have no way to prove this. The prices of computers chips vary greatly, from pennies to well over \$20 per chip. Your best estimate is that the value of the A25 is in the \$5-\$15 range.

The accountants have determined that you can spend up to \$11.30 per A25 chip, and you need one for each mother board where you decide to use it. You have no idea how much Crawley will ask for this chip. It is possible to use other chips instead of the A25, but they are not as good for multi-media applications. At this price, you do not make any "profit" on this particular item in the mother board. A price over \$11.30 means that you will be purchasing the chip at a loss; any price under \$11.30 means that the difference will be an additional contribution to your overall profit on the sale of the mother board.

You believe that you will require approximately 100,000 chips in the next 12 months. Although Crawley has never agreed to do so, it is not uncommon for other suppliers to discount the price from 10-30 percent for all purchases over 50,000 chips. Thus, you may also wish to encourage Crawley to give you an additional discount for all chips purchased over the first 50,000.

Finally, since you are entering the high season for your mother boards, you need almost immediate delivery of approximately 50,000 chips. Crawley may or may not have these in stock, and it is not uncommon for companies to charge extra for high priority deliveries. You want to ensure that this delivery is guaranteed, and that there are minimal rush charges.

In this negotiation, your primary objective is to purchase the chips at the lowest possible price in order to maximize the contribution to profit made to the mother boards by the A25 chip.

**ROLE INFORMATION FOR THE CRAWLEY PLANT
MANAGER UNIVERSAL COMPUTER (II)
[E-mail, Equal Condition]**

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. As Manager of the Crawley Plant, you are charged with the responsibility of negotiating the price of the new A25 computer chips. You will meet with a representative of the Phillips Plant to negotiate the unit price for the A25 chip.

Your accountants have thoroughly assessed the material and labor costs associated with producing the A25 computer chip. They have determined that each chip costs you \$7.00 to produce. Any negotiated price above \$7.00 will produce a profit for you, while any negotiated price below that will produce a loss. There will be a 5% cost savings to you if Phillips agrees to purchase more than 50,000 chips in the next 12 months.

You have recently learned that another computer manufacturer has published specifications for a computer using a computer chip similar to the A25. They have contacted you and are willing to purchase between 50,000 and 100,000 chips at a price of \$8.00 per chip, and indicated that the price is "not negotiable". Your maximum capacity for producing the A25 chip over the next year is 100,000 units and you have none currently in stock. If everything works the way that it is supposed to, you can produce up to 50,000 A25 chips within a month by delaying the production of other products. In the spirit of your Universal Computer's policy, you would prefer to sell to Phillips if an agreement can be reached, but you may sell outside the company if necessary.

In this negotiation, your objective is to sell the A25 chips at the highest possible price so that you can maximize your profits. You may not sell more than 100,000 chips, and you can only negotiate a one year contract.

**ROLE INFORMATION FOR THE PHILLIPS PLANT
MANAGER UNIVERSAL COMPUTER (II)
[E-mail, Unequal Condition]**

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. As Manager of the Phillips Plant, you are charged with negotiating the price of the new A25 computer chips. You will meet with a representative of the Crawley Plant to negotiate the unit price for the A25 chip.

Your accountants have assessed the price of the mother boards in which these computer chips will be located, and determined that you must fully absorb the price of these new chips -- that is, you cannot pass additional costs for the A25 chip along to the customer. In previous negotiations you have felt that Crawley inflates their prices significantly, but you have no way to prove this. Unfortunately, even if you could prove this, the Vice President of Manufacturing who oversees the operations of both plants has always backed the Crawley plant whenever a problem gets to her level. The prices of computers chips vary greatly, from pennies to well over \$20 per chip. Your best estimate is that the value of the A25 is in the \$5-\$15 range.

The accountants have determined that you can spend up to \$11.30 per A25 chip, and you need one for each mother board where you decide to use it. You have no idea how much Crawley will ask for this chip. It is possible to use other chips instead of the A25, but they are not as good for multi-media applications. At this price, you do not make any "profit" on this particular item in the mother board. A price over \$11.30 means that you will be purchasing the chip at a loss; any price under \$11.30 means that the difference will be an additional contribution to your overall profit on the sale of the mother board.

You believe that you will require approximately 100,000 chips in the next 12 months. Although Crawley has never agreed to do so, it is not uncommon for other suppliers to discount the price from 10-30 percent for all purchases over 50,000 chips. Thus, you may also wish to encourage Crawley to give you an additional discount for all chips purchased over the first 50,000.

Finally, since you are entering the high season for your mother boards, you need almost immediate delivery of approximately 50,000 chips. Crawley may or may not have these in stock, and it is not uncommon for companies to charge extra for high priority deliveries. You want to ensure that this delivery is guaranteed, and that there are minimal rush charges.

In this negotiation, your primary objective is to purchase the chips at the lowest possible price in order to maximize the contribution to profit made to the mother boards by the A25 chip. However, the VP of Manufacturing has made it clear that given the currently purchasing environment that she will carefully review any order that purchases supplies from outside the company when there is an "in-house" option regardless of the price. You know that if you can not work out a successful deal with Crawley that you will have to answer the "tough" questions.

**ROLE INFORMATION FOR THE CRAWLEY PLANT
MANAGER UNIVERSAL COMPUTER (II)
[E-mail, Unequal Condition]**

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. As Manager of the Crawley Plant, you are charged with the responsibility of negotiating the price of the new A25 computer chips. You will meet with a representative of the Phillips Plant to negotiate the unit price for the A25 chip.

Your accountants have thoroughly assessed the material and labor costs associated with producing the A25 computer chip. They have determined that each chip costs you \$7.00 to produce. Any negotiated price above \$7.00 will produce a profit for you, while any negotiated price below that will produce a loss. There will be a 5% cost savings to you if Phillips agrees to purchase more than 50,000 chips in the next 12 months.

You have recently learned that another computer manufacturer has published specifications for a computer using a computer chip similar to the A25. They have contacted you and are willing to purchase between 50,000 and 100,000 chips at a price of \$8.00 per chip, and indicated that the price is "not negotiable". Your maximum capacity for producing the A25 chip over the next year is 100,000 units and you have none currently in stock. If everything works the way that it is supposed to, you can produce up to 50,000 A25 chips within a month by delaying the production of other products. In the spirit of your Universal Computer's policy, you would prefer to sell to Phillips if an agreement can be reached, but you may sell outside the company if necessary. Typically the VP for Manufacturing who oversees the operations of both the Crawley and Phillips plant prefers that supplies be purchased in-house when possible. She will ask the tough questions if an agreement can not be reached, but she has always favored the supplier (Crawley in this case) and you are confident that she would support your decision to sell outside the company if it is in the best interest of Crawley.

In this negotiation, your objective is to sell the A25 chips at the highest possible price so that you can maximize your profits. You may not sell more than 100,000 chips, and you can only negotiate a one year contract.

**ROLE INFORMATION FOR THE PHILLIPS PLANT
MANAGER UNIVERSAL COMPUTER (II)
[FTF, Equal Condition]**

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. As Manager of the Phillips Plant, you are charged with negotiating the price of the new A25 computer chips. You will meet with a representative of the Crawley Plant to negotiate the unit price for the A25 chip.

Your accountants have assessed the price of the mother boards in which these computer chips will be located, and determined that you must fully absorb the price of these new chips -- that is, you cannot pass additional costs for the A25 chip along to the customer. In previous negotiations you have felt that Crawley inflates their prices significantly, but you have no way to prove this. The prices of computers chips vary greatly, from pennies to well over \$20 per chip. Your best estimate is that the value of the A25 is in the \$5-\$15 range.

The accountants have determined that you can spend up to \$11.30 per A25 chip, and you need one for each mother board where you decide to use it. You have no idea how much Crawley will ask for this chip. It is possible to use other chips instead of the A25, but they are not as good for multi-media applications. At this price, you do not make any "profit" on this particular item in the mother board. A price over \$11.30 means that you will be purchasing the chip at a loss; any price under \$11.30 means that the difference will be an additional contribution to your overall profit on the sale of the mother board.

You believe that you will require approximately 100,000 chips in the next 12 months. Although Crawley has never agreed to do so, it is not uncommon for other suppliers to discount the price from 10-30 percent for all purchases over 50,000 chips. Thus, you may also wish to encourage Crawley to give you an additional discount for all chips purchased over the first 50,000.

Finally, since you are entering the high season for your mother boards, you need almost immediate delivery of approximately 50,000 chips. Crawley may or may not have these in stock, and it is not uncommon for companies to charge extra for high priority deliveries. You want to ensure that this delivery is guaranteed, and that there are minimal rush charges.

In this negotiation, your primary objective is to purchase the chips at the lowest possible price in order to maximize the contribution to profit made to the mother boards by the A25 chip.

**ROLE INFORMATION FOR THE CRAWLEY PLANT
MANAGER UNIVERSAL COMPUTER (II)
[FTF, Equal Condition]**

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. As Manager of the Crawley Plant, you are charged with the responsibility of negotiating the price of the new A25 computer chips. You will meet with a representative of the Phillips Plant to negotiate the unit price for the A25 chip.

Your accountants have thoroughly assessed the material and labor costs associated with producing the A25 computer chip. They have determined that each chip costs you \$7.00 to produce. Any negotiated price above \$7.00 will produce a profit for you, while any negotiated price below that will produce a loss. There will be a 5% cost savings to you if Phillips agrees to purchase more than 50,000 chips in the next 12 months.

You have recently learned that another computer manufacturer has published specifications for a computer using a computer chip similar to the A25. They have contacted you and are willing to purchase between 50,000 and 100,000 chips at a price of \$8.00 per chip, and indicated that the price is "not negotiable". Your maximum capacity for producing the A25 chip over the next year is 100,000 units and you have none currently in stock. If everything works the way that it is supposed to, you can produce up to 50,000 A25 chips within a month by delaying the production of other products. In the spirit of your Universal Computer's policy, you would prefer to sell to Phillips if an agreement can be reached, but you may sell outside the company if necessary.

In this negotiation, your objective is to sell the A25 chips at the highest possible price so that you can maximize your profits. You may not sell more than 100,000 chips, and you can only negotiate a one year contract.

**ROLE INFORMATION FOR THE PHILLIPS PLANT
MANAGER UNIVERSAL COMPUTER (II)
[FTF, Unequal Condition]**

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. As Manager of the Phillips Plant, you are charged with negotiating the price of the new A25 computer chips. You will meet with a representative of the Crawley Plant to negotiate the unit price for the A25 chip.

Your accountants have assessed the price of the mother boards in which these computer chips will be located, and determined that you must fully absorb the price of these new chips -- that is, you cannot pass additional costs for the A25 chip along to the customer. In previous negotiations you have felt that Crawley inflates their prices significantly, but you have no way to prove this. Unfortunately, even if you could prove this, the Vice President of Manufacturing who oversees the operations of both plants has always backed the Crawley plant whenever a problem gets to her level. The prices of computers chips vary greatly, from pennies to well over \$20 per chip. Your best estimate is that the value of the A25 is in the \$5-\$15 range.

The accountants have determined that you can spend up to \$11.30 per A25 chip, and you need one for each mother board where you decide to use it. You have no idea how much Crawley will ask for this chip. It is possible to use other chips instead of the A25, but they are not as good for multi-media applications. At this price, you do not make any "profit" on this particular item in the mother board. A price over \$11.30 means that you will be purchasing the chip at a loss; any price under \$11.30 means that the difference will be an additional contribution to your overall profit on the sale of the mother board.

You believe that you will require approximately 100,000 chips in the next 12 months. Although Crawley has never agreed to do so, it is not uncommon for other suppliers to discount the price from 10-30 percent for all purchases over 50,000 chips. Thus, you may also wish to encourage Crawley to give you an additional discount for all chips purchased over the first 50,000.

Finally, since you are entering the high season for your mother boards, you need almost immediate delivery of approximately 50,000 chips. Crawley may or may not have these in stock, and it is not uncommon for companies to charge extra for high priority deliveries. You want to ensure that this delivery is guaranteed, and that there are minimal rush charges.

In this negotiation, your primary objective is to purchase the chips at the lowest possible price in order to maximize the contribution to profit made to the mother boards by the A25 chip. However, the VP of Manufacturing has made it clear that given the currently purchasing environment that she will carefully review any order that purchases supplies from outside the company when there is an "in-house" option regardless of the price. You know that if you can not work out a successful deal with Crawley that you will have to answer the "tough" questions.

**ROLE INFORMATION FOR THE CRAWLEY PLANT
MANAGER UNIVERSAL COMPUTER (II)
[FTF, Unequal Condition]**

Phillips and Crawley are two separate plants and profit centers owned by Universal Computer. As Manager of the Crawley Plant, you are charged with the responsibility of negotiating the price of the new A25 computer chips. You will meet with a representative of the Phillips Plant to negotiate the unit price for the A25 chip.

Your accountants have thoroughly assessed the material and labor costs associated with producing the A25 computer chip. They have determined that each chip costs you \$7.00 to produce. Any negotiated price above \$7.00 will produce a profit for you, while any negotiated price below that will produce a loss. There will be a 5% cost savings to you if Phillips agrees to purchase more than 50,000 chips in the next 12 months.

You have recently learned that another computer manufacturer has published specifications for a computer using a computer chip similar to the A25. They have contacted you and are willing to purchase between 50,000 and 100,000 chips at a price of \$8.00 per chip, and indicated that the price is "not negotiable". Your maximum capacity for producing the A25 chip over the next year is 100,000 units and you have none currently in stock. If everything works the way that it is supposed to, you can produce up to 50,000 A25 chips within a month by delaying the production of other products. In the spirit of your Universal Computer's policy, you would prefer to sell to Phillips if an agreement can be reached, but you may sell outside the company if necessary. Typically the VP for Manufacturing who oversees the operations of both the Crawley and Phillips plant prefers that supplies be purchased in-house when possible. She will ask the tough questions if an agreement can not be reached, but she has always favored the supplier (Crawley in this case) and you are confident that she would support your decision to sell outside the company if it is in the best interest of Crawley.

In this negotiation, your objective is to sell the A25 chips at the highest possible price so that you can maximize your profits. You may not sell more than 100,000 chips, and you can only negotiate a one year contract.

Appendix B: Questionnaires

Informed Consent Form

Identification Negotiation and Media

Statement of Age I state that I am over the age of 18 years of age, in good physical health, and wish to participate in a program of research being conducted by Dr. Deborah A. Cai and Mr. Daniel A. Cronin in the Department of Communication at the University of Maryland, College Park, MD 20742-7635.

Purpose The purpose of this research is to explore the development of relationships over the course of three negotiation scenarios.

Procedures The procedure involves completing four questionnaires - one prior to the first negotiation (10 minute completion time) and one at the conclusion of each negotiation exercise (20 minute completion time each) and returning them to your course instructor. Participants who use electronic mail will be asked to provide hard copies of their email exchanges.

Confidentiality All information collected in the study will remain confidential, and my name and my responses will not be made public. The data I provide will not be linked to my name. I understand that, if applicable, the email copies of my exchanges will be kept by the investigators for up to five years before they will be destroyed.

Risks I understand that there are minimal risks associated with completing the questionnaires and providing copies of any email exchanges.

Benefits I understand that the questionnaires are not designed to help me personally, but that the investigators wish to learn more about negotiation and relationship development.

Freedom to withdrawal and to ask questions I understand that I am free to ask questions and/or to withdrawal my participation at any time without penalty and/or decline to answer certain questions. In exchange for participating in this project, I will have the opportunity to earn extra credit in my course. If I choose not to participate, I will be given an alternative extra credit opportunity. However, I am clear that other than the extra credit, my grade will not be impacted positively or negatively by my decision.

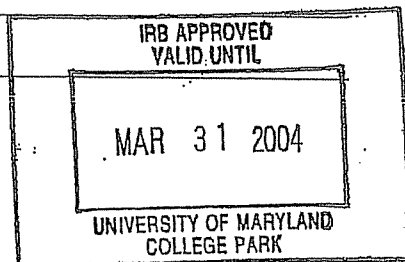
Name, Address, Phone Number of Principal Investigator Dr. Deborah A. Cai
Department of Communication, 2110 Skinner Building
University of Maryland, College Park, MD 20742-7635
Phone: (301) 405-6524; Email: debcai@wam.umd.edu

Obtaining a copy of Research Results I understand that I may obtain a copy of the results of this research once the research is complete (May 2004) by contacting the Principal Investigator listed above or Daniel Cronin (Student Investigator) in Undergraduate Studies, 2130 Mitchell Building, University of Maryland, College Park, MD 20742. (301) 314-8282 or dcronin@umd.edu.

Printed Name of Participant _____

Signature of Participant _____

Date _____



Not Useful

Very Useful

The ability to tailor messages to personal circumstances:

1 2 3 4 5 6 7
Not Useful Very Useful

The ability to use rich and varied language:

1 2 3 4 5 6 7
Not Useful Very Useful

6b. How would you rate a face-to-face encounter for negotiating on the following items:

The ability to give and receive timely feedback:

1 2 3 4 5 6 7
Not Useful Very Useful

The transmission of non-verbal cues:

1 2 3 4 5 6 7
Not Useful Very Useful

The ability to tailor messages to personal circumstances:

1 2 3 4 5 6 7
Not Useful Very Useful

The ability to use rich and varied language:

1 2 3 4 5 6 7
Not Useful Very Useful

7. How many emails do you usually send in an average week? _____

8. Excluding SPAM, how many emails do you usually receive in an average week? _____

9. Please rate your comfort level on the following activities:

Using a computer

1 2 3 4 5 6 7
Very Uncomfortable Very Comfortable

Using email to communicate with others

1 2 3 4 5 6 7
Very Uncomfortable Very Comfortable

Using email to stay in touch with friends

1 2 3 4 5 6 7
Very
Uncomfortable Very
Comfortable

Using email to communicate with others

1 2 3 4 5 6 7
Very
Uncomfortable Very
Comfortable

Using email to get work done

1 2 3 4 5 6 7
Very
Uncomfortable Very
Comfortable

Using a computer to communicate instantly with others (Instant Messenger, Chat, etc...)

1 2 3 4 5 6 7
Very
Uncomfortable Very
Comfortable

Using the telephone to communicate with others

1 2 3 4 5 6 7
Very
Uncomfortable Very
Comfortable

Using the telephone to stay in touch with friends

1 2 3 4 5 6 7
Very
Uncomfortable Very
Comfortable

Using the telephone to communicate with others

1 2 3 4 5 6 7
Very
Uncomfortable Very
Comfortable

Having a face-to-face conversation with business associate you have just met

1 2 3 4 5 6 7
Very
Uncomfortable Very
Comfortable

Having a face-to-face discussion with friends

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Having a personal conversation with friends

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Having a face-to-face business discussion on the spur of the moment (i.e., without planning)

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Having a face-to-face discussion to accomplish a goal in a work setting

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Having a face-to-face personal discussion on the spur of the moment (i.e., without planning)

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Post Knight/Excalibur Negotiation Questionnaire

Name: _____

Partner's Name: _____

In this negotiation, my role was: _____

Please attach a copy of your final settlement or last offer if you did not reach an agreement.

- A. Please provide information on the following items related to your negotiations with your partner using the following scale:

	1	2	3	4	5	6	7		
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree		
The final terms of our agreements were fair.	1	2	3	4	5	6	7		
The agreements my partner and I reached treated us both equally.	1	2	3	4	5	6	7		
The agreements my partner and I reached were better as a result of us working together.	1	2	3	4	5	6	7		
I was satisfied with the final agreements I reached with my partner.	1	2	3	4	5	6	7		
The negotiation processes were rational.	1	2	3	4	5	6	7		
We tried to understand one another even though we may not have agreed.	1	2	3	4	5	6	7		
My partner was honest with me regarding his/her goals.	1	2	3	4	5	6	7		
My partner was open to my arguments.	1	2	3	4	5	6	7		
The communication process remained open throughout our negotiations.	1	2	3	4	5	6	7		
My partner was open to using a problem solving approach.	1	2	3	4	5	6	7		
I did not feel coerced by my partner.	1	2	3	4	5	6	7		
I felt strongly dependent on my partner to achieve my goals.	1	2	3	4	5	6	7		

I felt a great deal of interdependence in deciding in the final agreements.	1	2	3	4	5	6	7
My partner had greater control over the settlements than I did.	1	2	3	4	5	6	7
When compared to my partner, I had greater control over the settlements.	1	2	3	4	5	6	7
My partner had greater control over the the communication process than I did.	1	2	3	4	5	6	7
I had more control over the communication process than my partner.	1	2	3	4	5	6	7

- B. Allocate 100 points between you and your partner as an indication of the balance of power between the two of you during your negotiation. For example, if you feel that the power was exactly equal you would assign 50 points to your partner and keep 50 points for yourself.

My Partner _____ points

Me _____ points

C. Please provide information on the following items related to your perceptions about the negotiations with your partner using the following scale:

	1	2	3	4	5	6	7			
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree			
He/she attempted to persuade me.				1	2	3	4	5	6	7
He/she was intensely involved in our interactions.				1	2	3	4	5	6	7
He/she did not want a deeper relationship.				1	2	3	4	5	6	7
He/she was not attracted to me.				1	2	3	4	5	6	7
He/she seemed to find exchanges stimulating.				1	2	3	4	5	6	7
He/she did not attempt to influence me.				1	2	3	4	5	6	7
He/she communicated coldness rather than warmth.				1	2	3	4	5	6	7
He/she did not try to win my favor.				1	2	3	4	5	6	7
He/she wanted the interactions to be casual.				1	2	3	4	5	6	7
He/she tried to control the interactions.				1	2	3	4	5	6	7
He/she created a sense of distance between us.				1	2	3	4	5	6	7
He/she had the upper hand in the conversations.				1	2	3	4	5	6	7
He/she wanted the interactions to be informal.				1	2	3	4	5	6	7
He/she wanted me to trust him/her.				1	2	3	4	5	6	7
He/she wanted to cooperate.				1	2	3	4	5	6	7
He/she did not treat me as an equal.				1	2	3	4	5	6	7
He/she tried to gain my approval.				1	2	3	4	5	6	7
He/she seemed bored by our interactions.				1	2	3	4	5	6	7
He/she seemed interested in working with me.				1	2	3	4	5	6	7
He/she showed enthusiasm while communicating with me.				1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
He/she made me feel similar to him/her.	1	2	3	4	5	6	7
He/she tried to move the interactions to a deeper level.	1	2	3	4	5	6	7
He/she was sincere.	1	2	3	4	5	6	7
He/she was interested in communicating with me.	1	2	3	4	5	6	7
He/she acted like we were good friends.	1	2	3	4	5	6	7
He/she desired to communicate further.	1	2	3	4	5	6	7
He/she was willing to listen to me.	1	2	3	4	5	6	7
He/she seemed to care if I liked him/her.	1	2	3	4	5	6	7
He/she was open to my ideas.	1	2	3	4	5	6	7
He/she was honest in communicating with me.	1	2	3	4	5	6	7
He/she wanted to stick to the main purpose of the interactions.	1	2	3	4	5	6	7
He/she was more interested in social conversation than in the tasks at hand.	1	2	3	4	5	6	7
He/she made the interactions formal.	1	2	3	4	5	6	7
He/she was very work oriented.	1	2	3	4	5	6	7
He/she was more interested in working on the tasks at hand than having a social exchange.	1	2	3	4	5	6	7
He/she considered us equals.	1	2	3	4	5	6	7

D. Please provide information on the following items related to your negotiation with your partner using the following scale:

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I attempted to persuade him/her.	1	2	3	4	5	6	7
I was intensely involved in our interactions.	1	2	3	4	5	6	7
I did not want a deeper relationship.	1	2	3	4	5	6	7
I was not attracted to him/her.	1	2	3	4	5	6	7
I found our exchanges stimulating.	1	2	3	4	5	6	7
I did not attempt to influence him/her.	1	2	3	4	5	6	7
I communicated coldness rather than warmth.	1	2	3	4	5	6	7
I did not try to win his/her favor.	1	2	3	4	5	6	7
I wanted the interactions to be casual.	1	2	3	4	5	6	7
I tried to control the interactions.	1	2	3	4	5	6	7
I tried to create a sense of distance between us.	1	2	3	4	5	6	7
I had the upper hand in the negotiations.	1	2	3	4	5	6	7
I wanted the interactions to be informal.	1	2	3	4	5	6	7
I wanted him/her to trust me.	1	2	3	4	5	6	7
I wanted to be cooperative.	1	2	3	4	5	6	7
I did not treat him/her as an equal.	1	2	3	4	5	6	7
I tried to gain his/her approval.	1	2	3	4	5	6	7
I was bored by our interactions.	1	2	3	4	5	6	7
I was interested in working with him/her.	1	2	3	4	5	6	7
I was enthusiastic while interacting with my partner.	1	2	3	4	5	6	7
I tried to make him/her feel similar to me.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I tried to move the interactions to a deeper level.	1	2	3	4	5	6	7
I was sincere.	1	2	3	4	5	6	7
I was interested in communicating with my partner.	1	2	3	4	5	6	7
I acted like we were good friends.	1	2	3	4	5	6	7
I wanted to communicate further.	1	2	3	4	5	6	7
I was willing to listen to him/her.	1	2	3	4	5	6	7
I cared whether he/she liked me.	1	2	3	4	5	6	7
I was open to his/her ideas.	1	2	3	4	5	6	7
I was honest in communicating with him/her.	1	2	3	4	5	6	7
I wanted to stick to the main purpose of the interactions.	1	2	3	4	5	6	7
I was more interested in social conversation than in the tasks at hand.	1	2	3	4	5	6	7
I made the interactions formal.	1	2	3	4	5	6	7
I was very work oriented.	1	2	3	4	5	6	7
I was more interested in working on the tasks at hand than having a social exchange.	1	2	3	4	5	6	7
I considered us equals.	1	2	3	4	5	6	7

Post Universal Computer I Negotiation Questionnaire

Name: _____

Partner's Name: _____

In this negotiation, I played the role of: _____

Please attach a copy of your final settlement or last offer if you did not reach an agreement.

- A. Please provide information on the following items related to your negotiations with your partner using the following scale:

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Neither Agree nor Disagree	5 Somewhat Agree	6 Agree	7 Strongly Agree			
			1	2	3	4	5	6	7
The final terms of our agreements were fair.									
			1	2	3	4	5	6	7
The agreements my partner and I reached treated us both equally.									
			1	2	3	4	5	6	7
The agreements my partner and I reached were better as a result of us working together.									
			1	2	3	4	5	6	7
I was satisfied with the final agreements I reached with my partner.									
			1	2	3	4	5	6	7
The negotiation processes were rational.									
			1	2	3	4	5	6	7
We tried to understand one another even though we may not have agreed.									
			1	2	3	4	5	6	7
My partner was honest with me regarding his/her goals.									
			1	2	3	4	5	6	7
My partner was open to my arguments.									
			1	2	3	4	5	6	7
The communication process remained open throughout our negotiations.									
			1	2	3	4	5	6	7
My partner was open to using a problem solving approach.									
			1	2	3	4	5	6	7
I did not feel coerced by my partner.									
			1	2	3	4	5	6	7
I felt strongly dependent on my partner to achieve my goals.									

I felt a great deal of interdependence in deciding in the final agreements.	1	2	3	4	5	6	7
My partner had greater control over the settlements than I did.	1	2	3	4	5	6	7
When compared to my partner, I had greater control over the settlements.	1	2	3	4	5	6	7
My partner had greater control over the the communication process than I did.	1	2	3	4	5	6	7
I had more control over the communication process than my partner.	1	2	3	4	5	6	7

- B. Allocate 100 points between you and your partner as an indication of the balance of power between the two of you during the Universal Computer negotiation. For example, if you feel that the power was exactly equal you would assign 50 points to your partner and keep 50 points for yourself.

My Partner _____ points

Me _____ points

C. Please provide information on the following items related to your perceptions about the negotiations with your partner using the following scale:

	1	2	3	4	5	6	7
Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree	
He/she attempted to persuade me.	1	2	3	4	5	6	7
He/she was intensely involved in our interactions.	1	2	3	4	5	6	7
He/she did not want a deeper relationship.	1	2	3	4	5	6	7
He/she was not attracted to me.	1	2	3	4	5	6	7
He/she seemed to find exchanges stimulating.	1	2	3	4	5	6	7
He/she did not attempt to influence me.	1	2	3	4	5	6	7
He/she communicated coldness rather than warmth.	1	2	3	4	5	6	7
He/she did not try to win my favor.	1	2	3	4	5	6	7
He/she wanted the interactions to be casual.	1	2	3	4	5	6	7
He/she tried to control the interactions.	1	2	3	4	5	6	7
He/she created a sense of distance between us.	1	2	3	4	5	6	7
He/she had the upper hand in the conversations.	1	2	3	4	5	6	7
He/she wanted the interactions to be informal.	1	2	3	4	5	6	7
He/she wanted me to trust him/her.	1	2	3	4	5	6	7
He/she wanted to cooperate.	1	2	3	4	5	6	7
He/she did not treat me as an equal.	1	2	3	4	5	6	7
He/she tried to gain my approval.	1	2	3	4	5	6	7
He/she seemed bored by our interactions.	1	2	3	4	5	6	7
He/she seemed interested in working with me.	1	2	3	4	5	6	7
He/she showed enthusiasm while communicating with me.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
He/she made me feel similar to him/her.	1	2	3	4	5	6	7
He/she tried to move the interactions to a deeper level.	1	2	3	4	5	6	7
He/she was sincere.	1	2	3	4	5	6	7
He/she was interested in communicating with me.	1	2	3	4	5	6	7
He/she acted like we were good friends.	1	2	3	4	5	6	7
He/she desired to communicate further.	1	2	3	4	5	6	7
He/she was willing to listen to me.	1	2	3	4	5	6	7
He/she seemed to care if I liked him/her.	1	2	3	4	5	6	7
He/she was open to my ideas.	1	2	3	4	5	6	7
He/she was honest in communicating with me.	1	2	3	4	5	6	7
He/she wanted to stick to the main purpose of the interactions.	1	2	3	4	5	6	7
He/she was more interested in social conversation than in the tasks at hand.	1	2	3	4	5	6	7
He/she made the interactions formal.	1	2	3	4	5	6	7
He/she was very work oriented.	1	2	3	4	5	6	7
He/she was more interested in working on the tasks at hand than having a social exchange.	1	2	3	4	5	6	7
He/she considered us equals.	1	2	3	4	5	6	7

D. Please provide information on the following items related to your negotiation with your partner using the following scale:

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I attempted to persuade him/her.	1	2	3	4	5	6	7
I was intensely involved in our interactions.	1	2	3	4	5	6	7
I did not want a deeper relationship.	1	2	3	4	5	6	7
I was not attracted to him/her.	1	2	3	4	5	6	7
I found our exchanges stimulating.	1	2	3	4	5	6	7
I did not attempt to influence him/her.	1	2	3	4	5	6	7
I communicated coldness rather than warmth.	1	2	3	4	5	6	7
I did not try to win his/her favor.	1	2	3	4	5	6	7
I wanted the interactions to be casual.	1	2	3	4	5	6	7
I tried to control the interactions.	1	2	3	4	5	6	7
I tried to create a sense of distance between us.	1	2	3	4	5	6	7
I had the upper hand in the negotiations.	1	2	3	4	5	6	7
I wanted the interactions to be informal.	1	2	3	4	5	6	7
I wanted him/her to trust me.	1	2	3	4	5	6	7
I wanted to be cooperative.	1	2	3	4	5	6	7
I did not treat him/her as an equal.	1	2	3	4	5	6	7
I tried to gain his/her approval.	1	2	3	4	5	6	7
I was bored by our interactions.	1	2	3	4	5	6	7
I was interested in working with him/her.	1	2	3	4	5	6	7
I was enthusiastic while interacting with my partner.	1	2	3	4	5	6	7
I tried to make him/her feel similar to me.	1	2	3	4	5	6	7

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I tried to move the interactions to a deeper level.	1	2	3	4	5	6	7
I was sincere.	1	2	3	4	5	6	7
I was interested in communicating with my partner.	1	2	3	4	5	6	7
I acted like we were good friends.	1	2	3	4	5	6	7
I wanted to communicate further.	1	2	3	4	5	6	7
I was willing to listen to him/her.	1	2	3	4	5	6	7
I cared whether he/she liked me.	1	2	3	4	5	6	7
I was open to his/her ideas.	1	2	3	4	5	6	7
I was honest in communicating with him/her.	1	2	3	4	5	6	7
I wanted to stick to the main purpose of the interactions.	1	2	3	4	5	6	7
I was more interested in social conversation than in the tasks at hand.	1	2	3	4	5	6	7
I made the interactions formal.	1	2	3	4	5	6	7
I was very work oriented.	1	2	3	4	5	6	7
I was more interested in working on the tasks at hand than having a social exchange.	1	2	3	4	5	6	7
I considered us equals.	1	2	3	4	5	6	7

Post Universal Computer II Negotiation Questionnaire

Name : _____ Partner's Name: _____

In this negotiation, I played the role of: _____

Please attach a copy of your final settlement or last offer if you did not reach an agreement.

A. Please provide information on the following items related to your negotiation with your partner in the Universal Computer II negotiation using the following scale:

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Neither Agree nor Disagree	5 Somewhat Agree	6 Agree	7 Strongly Agree
The final terms of our agreements were fair.	1	2	3	4	5	6 7
The agreements my partner and I reached treated us both equally.	1	2	3	4	5	6 7
The agreements my partner and I reached were better as a result of us working together.	1	2	3	4	5	6 7
I was satisfied with the final agreements I reached with my partner.	1	2	3	4	5	6 7
The negotiation processes were rational.	1	2	3	4	5	6 7
We tried to understand one another even though we may not have agreed.	1	2	3	4	5	6 7
My partner was honest with me regarding his/her goals.	1	2	3	4	5	6 7
My partner was open to my arguments.	1	2	3	4	5	6 7
The communication process remained open throughout our negotiations.	1	2	3	4	5	6 7
My partner was open to using a problem solving approach.	1	2	3	4	5	6 7
I did not feel coerced by my partner.	1	2	3	4	5	6 7
I felt strongly dependent on my partner to achieve my goals.	1	2	3	4	5	6 7

I felt a great deal of interdependence in deciding in the final agreements.	1	2	3	4	5	6	7
My partner had greater control over the settlements than I did.	1	2	3	4	5	6	7
When compared to my partner, I had greater control over the settlements.	1	2	3	4	5	6	7
My partner had greater control over the the communication process than I did.	1	2	3	4	5	6	7
I had more control over the communication process than my partner.	1	2	3	4	5	6	7

II. Allocate 100 points between you and your partner as an indication of the balance of power between the two of you during the Universal Computer II negotiation. For example, if you feel that the power was exactly equal you would assign 50 points to your partner and keep 50 points for yourself.

My Partner _____ points

Me _____ points

C. Please provide information on the following items related to your perceptions about the negotiations with your partner using the following scale:

	1	2	3	4	5	6	7			
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree			
He/she attempted to persuade me.				1	2	3	4	5	6	7
He/she was intensely involved in our interactions.				1	2	3	4	5	6	7
He/she did not want a deeper relationship.				1	2	3	4	5	6	7
He/she was not attracted to me.				1	2	3	4	5	6	7
He/she seemed to find exchanges stimulating.				1	2	3	4	5	6	7
He/she did not attempt to influence me.				1	2	3	4	5	6	7
He/she communicated coldness rather than warmth.				1	2	3	4	5	6	7
He/she did not try to win my favor.				1	2	3	4	5	6	7
He/she wanted the interactions to be casual.				1	2	3	4	5	6	7
He/she tried to control the interactions.				1	2	3	4	5	6	7
He/she created a sense of distance between us.				1	2	3	4	5	6	7
He/she had the upper hand in the conversations.				1	2	3	4	5	6	7
He/she wanted the interactions to be informal.				1	2	3	4	5	6	7
He/she wanted me to trust him/her.				1	2	3	4	5	6	7
He/she wanted to cooperate.				1	2	3	4	5	6	7
He/she did not treat me as an equal.				1	2	3	4	5	6	7
He/she tried to gain my approval.				1	2	3	4	5	6	7
He/she seemed bored by our interactions.				1	2	3	4	5	6	7
He/she seemed interested in working with me.				1	2	3	4	5	6	7
He/she showed enthusiasm while communicating with me.				1	2	3	4	5	6	7

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Neither Agree nor Disagree	5 Somewhat Agree	6 Agree	7 Strongly Agree			
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7
			1	2	3	4	5	6	7

D. Please provide information on the following items related to your negotiation with your partner using the following scale:

	1	2	3	4	5	6	7
	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I attempted to persuade him/her.	1	2	3	4	5	6	7
I was intensely involved in our interactions.	1	2	3	4	5	6	7
I did not want a deeper relationship.	1	2	3	4	5	6	7
I was not attracted to him/her.	1	2	3	4	5	6	7
I found our exchanges stimulating.	1	2	3	4	5	6	7
I did not attempt to influence him/her.	1	2	3	4	5	6	7
I communicated coldness rather than warmth.	1	2	3	4	5	6	7
I did not try to win his/her favor.	1	2	3	4	5	6	7
I wanted the interactions to be casual.	1	2	3	4	5	6	7
I tried to control the interactions.	1	2	3	4	5	6	7
I tried to create a sense of distance between us.	1	2	3	4	5	6	7
I had the upper hand in the negotiations.	1	2	3	4	5	6	7
I wanted the interactions to be informal.	1	2	3	4	5	6	7
I wanted him/her to trust me.	1	2	3	4	5	6	7
I wanted to be cooperative.	1	2	3	4	5	6	7
I did not treat him/her as an equal.	1	2	3	4	5	6	7
I tried to gain his/her approval.	1	2	3	4	5	6	7
I was bored by our interactions.	1	2	3	4	5	6	7
I was interested in working with him/her.	1	2	3	4	5	6	7
I was enthusiastic while interacting with my partner.	1	2	3	4	5	6	7
I tried to make him/her feel similar to me.	1	2	3	4	5	6	7

1 Strongly Disagree	2 Disagree	3 Somewhat Disagree	4 Neither Agree nor Disagree	5 Somewhat Agree	6 Agree	7 Strongly Agree				
			I tried to move the interactions to a deeper level.	1	2	3	4	5	6	7
			I was sincere.	1	2	3	4	5	6	7
			I was interested in communicating with my partner.	1	2	3	4	5	6	7
			I acted like we were good friends.	1	2	3	4	5	6	7
			I wanted to communicate further.	1	2	3	4	5	6	7
			I was willing to listen to him/her.	1	2	3	4	5	6	7
			I cared whether he/she liked me.	1	2	3	4	5	6	7
			I was open to his/her ideas.	1	2	3	4	5	6	7
			I was honest in communicating with him/her.	1	2	3	4	5	6	7
			I wanted to stick to the main purpose of the interactions.	1	2	3	4	5	6	7
			I was more interested in social conversation than in the tasks at hand.	1	2	3	4	5	6	7
			I made the interactions formal.	1	2	3	4	5	6	7
			I was very work oriented.	1	2	3	4	5	6	7
			I was more interested in working on the tasks at hand than having a social exchange.	1	2	3	4	5	6	7
			I considered us equals.	1	2	3	4	5	6	7

E. Please rate your comfort level on the following activities:

Using a computer

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Using email to communicate with others

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Using email to stay in touch with friends

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Using email to communicate with others

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Using email to get work done

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Using a computer to communicate instantly with others (Instant Messenger, Chat, etc...)

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Using the telephone to communicate with others

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Using the telephone to stay in touch with friends

1	2	3	4	5	6	7
Very						Very
Uncomfortable						Comfortable

Using the telephone to communicate with others

1 2 3 4 5 6 7
Very Uncomfortable Very Comfortable

Having a face-to-face conversation with business associate you have just met

1 2 3 4 5 6 7
Very Uncomfortable Very Comfortable

Having a face-to-face discussion with friends

1 2 3 4 5 6 7
Very Uncomfortable Very Comfortable

Having a personal conversation with friends

1 2 3 4 5 6 7
Very Uncomfortable Very Comfortable

Having a face-to-face business discussion on the spur of the moment (i.e., without planning)

1 2 3 4 5 6 7
Very Uncomfortable Very Comfortable

Having a face-to-face discussion to accomplish a goal in a work setting

1 2 3 4 5 6 7
Very Uncomfortable Very Comfortable

Having a face-to-face personal discussion on the spur of the moment (i.e., without planning)

1 2 3 4 5 6 7
Very Uncomfortable Very Comfortable

F. How many emails do you usually send in an average week? _____

G. Excluding SPAM, how many emails do you usually receive in an average week? _____

H. Considering the role that you played and the various other responsibilities in your position,

How important do you think this negotiation was?

1	2	3	4	5	6	7
Very Unimportant			Average Importance			Very Important

How would you rate the amount of time you had to complete the negotiation?

1	2	3	4	5	6	7
Needed a Lot More Time			Just the Right Amount of Time			More Than Enough Time

I. How many emails did you send to your partner for this negotiation? _____ (Email)

In total, how long did your negotiation take? _____ minutes _____ sessions (FTF)

K. How many emails did you receive from your partner in this negotiation? _____ (Email)

What percentage of time: _____ (FTF)

Did You Speak _____% Did Your partner _____% Spent in Silence _____%
(Percentages should add up to 100%)

L. Allocate 100 points between you and your partner as an indication of the balance of power between the two of you over the course of the THREE negotiation interactions. For example, if you feel that the power was exactly equal you would assign 50 points to your partner and keep 50 points for yourself.

My Partner _____ points

Me _____ points

M. If you had a choice of communication media (Face-to-Face meeting, telephone, email, Instant Messenger, letter, fax, etc...) for future negotiations with your partner, how would you rank order your preferences. Please Assign the Rank of "1" to the media that would be your first preference.

Email _____

Telephone _____

Face to Face _____

Instant Messenger _____

Fax _____

Letter _____

Appendix C: Supplemental Tables

Reliability Statistics for Negotiator's Perceptions of Partner's Relational Communication Behaviors

Negotiator's Perception of Partner's Dominance Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.805	.806	5

Item Statistics

	Mean	Std. Deviation	N
He/She tried to control the interactions.	3.51	1.291	148
He/She had the upper hand in the conversations.	3.05	1.285	148
He/She communicated coldness rather than warmth.	2.61	1.302	148
He/She created a sense of distance between us.	2.86	1.283	148
He/she did not treat me as an equal.	2.34	1.378	148

Inter-Item Correlation Matrix

	He/She tried to control the interactions.	He/She had the upper hand in the conversations.	He/She communicated coldness rather than warmth.	He/She created a sense of distance between us.	He/she did not treat me as an equal.
He/She tried to control the interactions.	1.000	.486	.347	.389	.353
He/She had the upper hand in the conversations.	.486	1.000	.532	.466	.440
He/She communicated coldness rather than warmth.	.347	.532	1.000	.573	.495
He/She created a sense of distance between us.	.389	.466	.573	1.000	.454
He/she did not treat me as an equal.	.353	.440	.495	.454	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/She tried to control the interactions.	10.85	17.066	.499	.280	.795
He/She had the upper hand in the conversations.	11.32	15.919	.633	.414	.755
He/She communicated coldness rather than warmth.	11.76	15.723	.643	.452	.751
He/She created a sense of distance between us.	11.51	16.061	.617	.403	.760
He/she did not treat me as an equal.	12.03	15.958	.563	.325	.777

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
14.36	24.056	4.905	5

Negotiator's Perception of Partner's Depth Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.761	.759	5

Item Statistics

	Mean	Std. Deviation	N
He/she made me feel similar to him/her.	4.82	1.113	148
He/she tried to move our interactions to a deeper level.	3.28	1.380	148
He/she acted like we were good friends.	4.03	1.372	148
He/she desired to communicate further.	3.97	1.360	148
He/she seemed to care if I liked him/her.	4.30	1.242	148

Inter-Item Correlation Matrix

	He/she made me feel similar to him/her.	He/she tried to move our interactions to a deeper level.	He/she acted like we were good friends.	He/she desired to communicate further.	He/she seemed to care if I liked him/her.
He/she made me feel similar to him/her.	1.000	.295	.454	.302	.241
He/she tried to move our interactions to a deeper level.	.295	1.000	.311	.424	.355
He/she acted like we were good friends.	.454	.311	1.000	.573	.433
He/she desired to communicate further.	.302	.424	.573	1.000	.476
He/she seemed to care if I liked him/her.	.241	.355	.433	.476	1.000

Inter-Item Covariance Matrix

	He/she made me feel similar to him/her.	He/she tried to move our interactions to a deeper level.	He/she acted like we were good friends.	He/she desired to communicate further.	He/she seemed to care if I liked him/her.
He/she made me feel similar to him/her.	1.239	.453	.693	.458	.334
He/she tried to move our interactions to a deeper level.	.453	1.905	.589	.797	.609
He/she acted like we were good friends.	.693	.589	1.883	1.069	.738
He/she desired to communicate further.	.458	.797	1.069	1.850	.804
He/she seemed to care if I liked him/her.	.334	.609	.738	.804	1.544

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she made me feel similar to him/her.	15.59	16.394	.430	.232	.749
He/she tried to move our interactions to a deeper level.	17.12	14.706	.463	.235	.743
He/she acted like we were good friends.	16.37	13.446	.614	.437	.685
He/she desired to communicate further.	16.43	13.404	.628	.432	.680
He/she seemed to care if I liked him/her.	16.11	14.995	.516	.288	.722

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.41	21.508	4.638	5

Negotiator's Perception of Partner's Affect & Immediacy Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.728	.740	5

Item Statistics

	Mean	Std. Deviation	N
He/she was intensely involved in our interactions.	5.1351	1.13478	148
He/she seemed to find exchanges stimulating.	4.4527	1.26348	148
He/she showed enthusiasm while communicating with me.	5.1284	1.11441	148
He/she showed interested in working with me.	5.3514	.94664	148
He/she seemed bored by our interactions. (reverse coded)	5.2770	1.35436	148

Inter-Item Correlation Matrix

	He/she was intensely involved in our interactions.	He/she seemed to find exchanges stimulating.	He/she showed enthusiasm while communicating with me.	He/she showed interested in working with me.	He/she seemed bored by our interactions . (reverse coded)
He/she was intensely involved in our interactions.	1.000	.313	.282	.228	.206
He/she seemed to find exchanges stimulating.	.313	1.000	.422	.298	.181
He/she showed enthusiasm while communicating with me.	.282	.422	1.000	.640	.544
He/she showed interested in working with me.	.228	.298	.640	1.000	.518
He/she seemed bored by our interactions. (reverse coded)	.206	.181	.544	.518	1.000

Inter-Item Covariance Matrix

	He/she was intensely involved in our interactions.	He/she seemed to find exchanges stimulating.	He/she showed enthusiasm while communicating with me.	He/she showed interested in working with me.	He/she seemed bored by our interactions . (reverse coded)
He/she was intensely involved in our interactions.	1.288	.449	.357	.245	.316
He/she seemed to find exchanges stimulating.	.449	1.596	.595	.357	.309
He/she showed enthusiasm while communicating with me.	.357	.595	1.242	.676	.821
He/she showed interested in working with me.	.245	.357	.676	.896	.664
He/she seemed bored by our interactions. (reverse coded)	.316	.309	.821	.664	1.834

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she was intensely involved in our interactions.	20.2095	12.412	.342	.132	.735
He/she seemed to find exchanges stimulating.	20.8919	11.417	.400	.226	.719
He/she showed enthusiasm while communicating with me.	20.2162	10.293	.685	.530	.606
He/she showed interested in working with me.	19.9932	11.653	.601	.454	.651
He/she seemed bored by our interactions. (reverse coded)	20.0676	10.376	.484	.352	.688

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.3446	16.431	4.05357	5

Negotiator's Perception of Partner's Formality Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.649	.661	3

Item Statistics

	Mean	Std. Deviation	N
He/she made the interactions formal.	3.1959	1.57212	148
He/she wanted the interactions to be casual. (reverse code)	2.7635	1.12099	148
He/she wanted the interactions to be informal. (reverse code)	3.2162	1.35797	148

Inter-Item Correlation Matrix

	He/she made the interactions formal.	He/she wanted the interactions to be casual. (reverse code)	He/she wanted the interactions to be informal. (reverse code)
He/she made the interactions formal.	1.000	.246	.436
He/she wanted the interactions to be casual. (reverse code)	.246	1.000	.499
He/she wanted the interactions to be informal. (reverse code)	.436	.499	1.000

Inter-Item Covariance Matrix

	He/she made the interactions formal.	He/she wanted the interactions to be casual. (reverse code)	He/she wanted the interactions to be informal. (reverse code)
He/she made the interactions formal.	2.472	.434	.930
He/she wanted the interactions to be casual. (reverse code)	.434	1.257	.759
He/she wanted the interactions to be informal. (reverse code)	.930	.759	1.844

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she made the interactions formal.	5.9797	4.619	.404	.191	.657
He/she wanted the interactions to be casual. (reverse code)	6.4122	6.176	.428	.250	.602
He/she wanted the interactions to be informal. (reverse code)	5.9595	4.597	.580	.353	.378

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
9.1757	9.819	3.13357	3

Negotiator's Perception of Partner's Trust Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.796	.805	5

Item Statistics

	Mean	Std. Deviation	N
He/she seemed interested in working with me.	5.20	1.170	148
He/she was sincere.	5.25	1.068	148
He/she was willing to listen to me.	5.68	.841	148
P1 Partner Open to My Ideas	5.57	.920	148
P1 Partner Honest in Communicating	5.42	.997	148

Inter-Item Correlation Matrix

	He/she seemed interested in working with me.	He/she was sincere.	He/she was willing to listen to me.	P1 Partner Open to My Ideas	P1 Partner Honest in Communicating
He/she seemed interested in working with me.	1.000	.407	.513	.440	.232
He/she was sincere.	.407	1.000	.452	.492	.565
He/she was willing to listen to me.	.513	.452	1.000	.683	.346
He/she was open to my ideas.	.440	.492	.683	1.000	.399
He/she was honest in communicating with me.	.232	.565	.346	.399	1.000

Inter-Item Covariance Matrix

	He/she seemed interested in working with me.	He/she was sincere.	He/she was willing to listen to me.	He/she was open to my ideas.	He/she was honest in communicating with me.
He/she seemed interested in working with me.	1.370	.509	.505	.473	.271
He/she was sincere.	.509	1.141	.406	.483	.602
He/she was willing to listen to me.	.505	.406	.708	.528	.290
He/she was open to my ideas.	.473	.483	.528	.846	.366
He/she was honest in communicating with me.	.271	.602	.290	.366	.993

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she seemed interested in working with me.	21.92	9.041	.499	.309	.789
He/she was sincere.	21.86	8.784	.632	.442	.739
He/she was willing to listen to me.	21.43	9.757	.658	.529	.739
He/she was open to my ideas.	21.55	9.379	.657	.519	.735
He/she was honest in communicating with me.	21.70	9.873	.488	.342	.784

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
27.11	13.925	3.732	5

Negotiator's Perception of Partner's Task Orientation Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.620	.627	4

Item Statistics

	Mean	Std. Deviation	N
He/she wanted to stick to the main purpose of the interactions.	5.5270	1.02649	148
He/she was very work oriented.	4.8716	1.19682	148
He/she was more interested in working on the tasks at hand than having a social exchange.	4.9797	1.19790	148
He/she was more interested in social conversation than in the task at hand. (reverse coded)	5.5405	1.32674	148

Inter-Item Correlation Matrix

	He/she wanted to stick to the main purpose of the interactions.	He/she was very work oriented.	He/she was more interested in working on the tasks at hand than having a social exchange.	He/she was more interested in social conversation than in the task at hand. (reverse coded)
He/she wanted to stick to the main purpose of the interactions.	1.000	.205	.407	.349
He/she was very work oriented.	.205	1.000	.354	.078
He/she was more interested in working on the tasks at hand than having a social exchange.	.407	.354	1.000	.384
He/she was more interested in social conversation than in the task at hand. (reverse coded)	.349	.078	.384	1.000

Inter-Item Covariance Matrix

	He/she wanted to stick to the main purpose of the interactions.	He/she was very work oriented.	He/she was more interested in working on the tasks at hand than having a social exchange.	He/she was more interested in social conversation than in the task at hand. (reverse coded)
He/she wanted to stick to the main purpose of the interactions.	1.054	.252	.501	.475
He/she was very work oriented.	.252	1.432	.508	.124
He/she was more interested in working on the tasks at hand than having a social exchange.	.501	.508	1.435	.610
He/she was more interested in social conversation than in the task at hand. (reverse coded)	.475	.124	.610	1.760

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she wanted to stick to the main purpose of the interactions.	15.3919	7.111	.448	.216	.524
He/she was very work oriented.	16.0473	7.420	.271	.136	.641
He/she was more interested in working on the tasks at hand than having a social exchange.	15.9392	5.949	.554	.308	.429
He/she was more interested in social conversation than in the task at hand. (reverse coded)	15.3784	6.441	.359	.198	.587

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.9189	10.619	3.25872	4

Negotiator's Perception of Partner's Dominance Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.764	.766	5

Item Statistics

	Mean	Std. Deviation	N
He/She tried to control the interactions.	3.40	1.344	148
He/She had the upper hand in the conversations.	2.96	1.266	148
He/She communicated coldness rather than warmth.	2.64	1.294	148
He/She created a sense of distance between us.	2.91	1.201	148
He/she did not treat me as an equal.	2.24	1.276	148

Inter-Item Correlation Matrix

	He/She tried to control the interactions.	He/She had the upper hand in the conversations.	He/She communicated coldness rather than warmth.	He/She created a sense of distance between us.	He/she did not treat me as an equal.
He/She tried to control the interactions.	1.000	.465	.260	.469	.245
He/She had the upper hand in the conversations.	.465	1.000	.340	.432	.305
He/She communicated coldness rather than warmth.	.260	.340	1.000	.548	.532
He/She created a sense of distance between us.	.469	.432	.548	1.000	.361
He/she did not treat me as an equal.	.245	.305	.532	.361	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/She tried to control the interactions.	10.75	14.325	.476	.308	.742
He/She had the upper hand in the conversations.	11.19	14.372	.520	.298	.726
He/She communicated coldness rather than warmth.	11.51	13.816	.569	.434	.708
He/She created a sense of distance between us.	11.24	13.896	.629	.433	.689
He/she did not treat me as an equal.	11.91	14.658	.480	.305	.740

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
14.15	20.971	4.579	5

Negotiator's Perception of Partner's Depth Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.739	.736	5

Item Statistics

	Mean	Std. Deviation	N
He/she made me feel similar to him/her.	4.79	1.300	148
He/she tried to move our interactions to a deeper level.	3.18	1.480	148
He/she acted like we were good friends.	4.07	1.395	148
He/she desired to communicate further.	3.82	1.508	148
He/she seemed to care if I liked him/her.	4.24	1.368	148

Inter-Item Correlation Matrix

	He/she made me feel similar to him/her.	He/she tried to move our interactions to a deeper level.	He/she acted like we were good friends.	He/she desired to communicate further.	He/she seemed to care if I liked him/her.
He/she made me feel similar to him/her.	1.000	.296	.219	.105	.224
He/she tried to move our interactions to a deeper level.	.296	1.000	.372	.497	.314
He/she acted like we were good friends.	.219	.372	1.000	.466	.561
He/she desired to communicate further.	.105	.497	.466	1.000	.523
He/she seemed to care if I liked him/her.	.224	.314	.561	.523	1.000

Inter-Item Covariance Matrix

	He/she made me feel similar to him/her.	He/she tried to move our interactions to a deeper level.	He/she acted like we were good friends.	He/she desired to communicate further.	He/she seemed to care if I liked him/her.
He/she made me feel similar to him/her.	1.691	.569	.397	.206	.398
He/she tried to move our interactions to a deeper level.	.569	2.191	.769	1.108	.636
He/she acted like we were good friends.	.397	.769	1.947	.980	1.070
He/she desired to communicate further.	.206	1.108	.980	2.273	1.079
He/she seemed to care if I liked him/her.	.398	.636	1.070	1.079	1.872

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she made me feel similar to him/her.	15.32	19.565	.273	.127	.769
He/she tried to move our interactions to a deeper level.	16.93	16.042	.520	.321	.687
He/she acted like we were good friends.	16.03	16.019	.576	.378	.665
He/she desired to communicate further.	16.29	15.378	.571	.423	.666
He/she seemed to care if I liked him/her.	15.86	16.158	.579	.413	.665

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.11	24.396	4.939	5

Negotiator's Perception of Partner's Affect/Immediacy Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.808	.814	5

Item Statistics

	Mean	Std. Deviation	N
He/she was intensely involved in our interactions.	4.9459	1.23323	148
He/she seemed to find exchanges stimulating.	4.2568	1.23510	148
He/she showed enthusiasm while communicating with me.	4.8919	1.21854	148
He/she showed interested in working with me.	5.2297	.96253	148
He/she seemed bored by our interactions. (reverse coded)	4.9324	1.20465	148

Inter-Item Correlation Matrix

	He/she was intensely involved in our interactions.	He/she seemed to find exchanges stimulating.	He/she showed enthusiasm while communicating with me.	He/she showed interested in working with me.	He/she seemed bored by our interactions . (reverse coded)
He/she was intensely involved in our interactions.	1.000	.447	.517	.544	.391
He/she seemed to find exchanges stimulating.	.447	1.000	.498	.391	.268
He/she showed enthusiasm while communicating with me.	.517	.498	1.000	.677	.477
He/she showed interested in working with me.	.544	.391	.677	1.000	.453
He/she seemed bored by our interactions. (reverse coded)	.391	.268	.477	.453	1.000

Inter-Item Covariance Matrix

	He/she was intensely involved in our interactions.	He/she seemed to find exchanges stimulating.	He/she showed enthusiasm while communicating with me.	He/she showed interested in working with me.	He/she seemed bored by our interactions . (reverse coded)
He/she was intensely involved in our interactions.	1.521	.681	.776	.645	.581
He/she seemed to find exchanges stimulating.	.681	1.525	.749	.464	.398
He/she showed enthusiasm while communicating with me.	.776	.749	1.485	.794	.700
He/she showed interested in working with me.	.645	.464	.794	.926	.526
He/she seemed bored by our interactions. (reverse coded)	.581	.398	.700	.526	1.451

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she was intensely involved in our interactions.	19.3108	12.651	.612	.387	.765
He/she seemed to find exchanges stimulating.	20.0000	13.429	.507	.297	.799
He/she showed enthusiasm while communicating with me.	19.3649	12.016	.715	.555	.731
He/she showed interested in working with me.	19.0270	13.754	.680	.521	.753
He/she seemed bored by our interactions. (reverse coded)	19.3243	13.676	.495	.274	.801

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
24.2568	19.539	4.42030	5

Negotiator's Perception of Partner's Formality Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.726	.744	3

Item Statistics

	Mean	Std. Deviation	N
He/she made the interactions formal.	3.3514	1.64488	148
He/she wanted the interactions to be casual. (reverse code)	2.8378	1.32508	148
He/she wanted the interactions to be informal. (reverse code)	3.1014	1.38377	148

Inter-Item Correlation Matrix

	He/she made the interactions formal.	He/she wanted the interactions to be casual. (reverse code)	He/she wanted the interactions to be informal. (reverse code)
He/she made the interactions formal.	1.000	.357	.370
He/she wanted the interactions to be casual. (reverse code)	.357	1.000	.747
He/she wanted the interactions to be informal. (reverse code)	.370	.747	1.000

Inter-Item Covariance Matrix

	He/she made the interactions formal.	He/she wanted the interactions to be casual. (reverse code)	He/she wanted the interactions to be informal. (reverse code)
He/she made the interactions formal.	2.706	.778	.842
He/she wanted the interactions to be casual. (reverse code)	.778	1.756	1.370
He/she wanted the interactions to be informal. (reverse code)	.842	1.370	1.915

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she made the interactions formal.	5.9392	6.411	.389	.152	.855
He/she wanted the interactions to be casual. (reverse code)	6.4527	6.304	.646	.566	.534
He/she wanted the interactions to be informal. (reverse code)	6.1892	6.018	.652	.571	.517

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
9.2905	12.357	3.51528	3

Negotiator's Perception of Partner's Trust Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.752	.751	5

Item Statistics

	Mean	Std. Deviation	N
He/she seemed interested in working with me.	5.14	1.037	148
He/she was sincere.	5.30	1.053	148
He/she was willing to listen to me.	5.65	.925	148
He/she was open to my ideas.	5.59	1.002	148
He/she was honest in communicating with me.	5.55	.819	148

Inter-Item Correlation Matrix

	He/she seemed interested in working with me.	He/she was sincere.	He/she was willing to listen to me.	He/she was open to my ideas.	He/she was honest in communicating with me.
He/she seemed interested in working with me.	1.000	.404	.372	.311	.156
He/she was sincere.	.404	1.000	.506	.392	.346
He/she was willing to listen to me.	.372	.506	1.000	.719	.247
He/she was open to my ideas.	.311	.392	.719	1.000	.305
He/she was honest in communicating with me.	.156	.346	.247	.305	1.000

Inter-Item Covariance Matrix

	He/she seemed interested in working with me.	He/she was sincere.	He/she was willing to listen to me.	He/she was open to my ideas.	He/she was honest in communicating with me.
He/she seemed interested in working with me.	1.075	.441	.356	.323	.133
He/she was sincere.	.441	1.108	.493	.414	.299
He/she was willing to listen to me.	.356	.493	.855	.666	.187
He/she was open to my ideas.	.323	.414	.666	1.005	.251
He/she was honest in communicating with me.	.133	.299	.187	.251	.671

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she seemed interested in working with me.	22.09	8.258	.420	.203	.746
He/she was sincere.	21.93	7.438	.573	.356	.687
He/she was willing to listen to me.	21.58	7.578	.669	.584	.654
He/she was open to my ideas.	21.64	7.526	.601	.535	.676
He/she was honest in communicating with me.	21.68	9.429	.345	.157	.762

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
27.23	11.838	3.441	5

Negotiator's Perception of Partner's Task Orientation Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.609	.622	4

Item Statistics

	Mean	Std. Deviation	N
He/she wanted to stick to the main purpose of the interactions.	5.5405	1.07145	148
He/she was very work oriented.	4.9324	1.12281	148
He/she was more interested in working on the tasks at hand than having a social exchange.	5.0000	1.28836	148
He/she was more interested in social conversation than in the task at hand. (reverse coded)	5.3514	1.45623	148

Inter-Item Correlation Matrix

	He/she wanted to stick to the main purpose of the interactions.	He/she was very work oriented.	He/she was more interested in working on the tasks at hand than having a social exchange.	He/she was more interested in social conversation than in the task at hand. (reverse coded)
He/she wanted to stick to the main purpose of the interactions.	1.000	.183	.419	.361
He/she was very work oriented.	.183	1.000	.475	.102
He/she was more interested in working on the tasks at hand than having a social exchange.	.419	.475	1.000	.207
He/she was more interested in social conversation than in the task at hand. (reverse coded)	.361	.102	.207	1.000

Inter-Item Covariance Matrix

	He/she wanted to stick to the main purpose of the interactions.	He/she was very work oriented.	He/she was more interested in working on the tasks at hand than having a social exchange.	He/she was more interested in social conversation than in the task at hand. (reverse coded)
He/she wanted to stick to the main purpose of the interactions.	1.148	.220	.578	.564
He/she was very work oriented.	.220	1.261	.687	.167
He/she was more interested in working on the tasks at hand than having a social exchange.	.578	.687	1.660	.388
He/she was more interested in social conversation than in the task at hand. (reverse coded)	.564	.167	.388	2.121

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she wanted to stick to the main purpose of the interactions.	15.2838	7.524	.464	.255	.495
He/she was very work oriented.	15.8919	7.988	.339	.226	.575
He/she was more interested in working on the tasks at hand than having a social exchange.	15.8243	6.432	.506	.341	.444
He/she was more interested in social conversation than in the task at hand. (reverse coded)	15.4730	7.040	.289	.134	.633

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.8243	11.397	3.37602	4

Negotiator's Perception of Partner's Dominance Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.763	.767	5

Item Statistics

	Mean	Std. Deviation	N
He/She tried to control the interactions.	3.29	1.299	147
He/She had the upper hand in the conversations.	2.82	1.255	147
He/She communicated coldness rather than warmth.	2.46	1.289	147
He/She created a sense of distance between us.	2.90	1.369	147
He/she did not treat me as an equal.	2.38	1.440	147

Inter-Item Correlation Matrix

	He/She tried to control the interactions.	He/She had the upper hand in the conversations.	He/She communicated coldness rather than warmth.	He/She created a sense of distance between us.	He/she did not treat me as an equal.
He/She tried to control the interactions.	1.000	.621	.266	.337	.244
He/She had the upper hand in the conversations.	.621	1.000	.408	.499	.323
He/She communicated coldness rather than warmth.	.266	.408	1.000	.528	.451
He/She created a sense of distance between us.	.337	.499	.528	1.000	.291
He/she did not treat me as an equal.	.244	.323	.451	.291	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/She tried to control the interactions.	10.56	16.070	.483	.389	.737
He/She had the upper hand in the conversations.	11.03	14.978	.641	.500	.684
He/She communicated coldness rather than warmth.	11.39	15.376	.569	.386	.708
He/She created a sense of distance between us.	10.95	14.991	.559	.376	.711
He/she did not treat me as an equal.	11.47	15.812	.428	.229	.760

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
13.85	22.786	4.773	5

Negotiator's Perception of Partner's Depth Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.783	.774	5

Item Statistics

	Mean	Std. Deviation	N
He/she made me feel similar to him/her.	4.87	1.184	147
He/she tried to move our interactions to a deeper level.	3.14	1.345	147
He/she acted like we were good friends.	4.10	1.445	147
He/she desired to communicate further.	3.71	1.544	147
P3 Partner Cared If I Liked	4.24	1.377	147

Inter-Item Correlation Matrix

	He/she made me feel similar to him/her.	He/she tried to move our interactions to a deeper level.	He/she acted like we were good friends.	He/she desired to communicate further.	P3 Partner Cared If I Liked
He/she made me feel similar to him/her.	1.000	.270	.171	.152	.221
He/she tried to move our interactions to a deeper level.	.270	1.000	.501	.657	.392
He/she acted like we were good friends.	.171	.501	1.000	.627	.560
He/she desired to communicate further.	.152	.657	.627	1.000	.519
P3 Partner Cared If I Liked	.221	.392	.560	.519	1.000

Inter-Item Covariance Matrix

	He/she made me feel similar to him/her.	He/she tried to move our interactions to a deeper level.	He/she acted like we were good friends.	He/she desired to communicate further.	P3 Partner Cared If I Liked
He/she made me feel similar to him/her.	1.401	.430	.293	.278	.360
He/she tried to move our interactions to a deeper level.	.430	1.808	.973	1.363	.726
He/she acted like we were good friends.	.293	.973	2.087	1.397	1.114
He/she desired to communicate further.	.278	1.363	1.397	2.384	1.103
P3 Partner Cared If I Liked	.360	.726	1.114	1.103	1.895

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she made me feel similar to him/her.	15.19	21.525	.248	.096	.827
He/she tried to move our interactions to a deeper level.	16.92	16.856	.632	.470	.719
He/she acted like we were good friends.	15.97	16.006	.654	.478	.710
He/she desired to communicate further.	16.35	14.982	.693	.573	.693
P3 Partner Cared If I Liked	15.82	17.147	.579	.373	.736

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.06	25.647	5.064	5

Negotiator's Perception of Partner's Affect/Immediacy Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.513	.750	5

Item Statistics

	Mean	Std. Deviation	N
He/she was intensely involved in our interactions.	4.8231	1.31743	147
He/she seemed to find exchanges stimulating.	4.4694	1.21241	147
He/she showed enthusiasm while communicating with me.	4.9796	1.24124	147
P3 Partner Interested In Comm W/me	5.5918	4.16238	147
He/she seemed bored by our interactions. (reverse coded)	5.0952	1.19550	147

Inter-Item Correlation Matrix

	He/she was intensely involved in our interactions.	He/she seemed to find exchanges stimulating.	He/she showed enthusiasm while communicating with me.	P3 Partner Interested In Comm W/me	He/she seemed bored by our interactions . (reverse coded)
He/she was intensely involved in our interactions.	1.000	.554	.513	.165	.489
He/she seemed to find exchanges stimulating.	.554	1.000	.562	.201	.423
He/she showed enthusiasm while communicating with me.	.513	.562	1.000	.184	.546
P3 Partner Interested In Comm W/me	.165	.201	.184	1.000	.110
He/she seemed bored by our interactions. (reverse coded)	.489	.423	.546	.110	1.000

Inter-Item Covariance Matrix

	He/she was intensely involved in our interactions.	He/she seemed to find exchanges stimulating.	He/she showed enthusiasm while communicating with me.	P3 Partner Interested In Comm W/me	He/she seemed bored by our interactions . (reverse coded)
He/she was intensely involved in our interactions.	1.736	.885	.839	.907	.770
He/she seemed to find exchanges stimulating.	.885	1.470	.845	1.015	.613
He/she showed enthusiasm while communicating with me.	.839	.845	1.541	.951	.810
P3 Partner Interested In Comm W/me	.907	1.015	.951	17.325	.546
He/she seemed bored by our interactions. (reverse coded)	.770	.613	.810	.546	1.429

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she was intensely involved in our interactions.	20.1361	31.324	.461	.407	.407
He/she seemed to find exchanges stimulating.	20.4898	31.676	.492	.420	.406
He/she showed enthusiasm while communicating with me.	19.9796	31.431	.495	.453	.402
P3 Partner Interested In Comm W/me	19.3673	15.700	.207	.050	.809
He/she seemed bored by our interactions. (reverse coded)	19.8639	32.954	.399	.360	.440

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
24.9592	39.861	6.31358	5

Negotiator's Perception of Partner's Formality Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.798	.813	3

Item Statistics

	Mean	Std. Deviation	N
He/she made the interactions formal.	3.1361	1.60751	147
He/she wanted the interactions to be casual. (reverse code)	2.8027	1.21430	147
He/she wanted the interactions to be informal. (reverse code)	2.8639	1.25861	147

Inter-Item Correlation Matrix

	He/she made the interactions formal.	He/she wanted the interactions to be casual. (reverse code)	He/she wanted the interactions to be informal. (reverse code)
He/she made the interactions formal.	1.000	.463	.605
He/she wanted the interactions to be casual. (reverse code)	.463	1.000	.708
He/she wanted the interactions to be informal. (reverse code)	.605	.708	1.000

Inter-Item Covariance Matrix

	He/she made the interactions formal.	He/she wanted the interactions to be casual. (reverse code)	He/she wanted the interactions to be informal. (reverse code)
He/she made the interactions formal.	2.584	.904	1.224
He/she wanted the interactions to be casual. (reverse code)	.904	1.475	1.083
He/she wanted the interactions to be informal. (reverse code)	1.224	1.083	1.584

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she made the interactions formal.	5.6667	5.224	.579	.368	.829
He/she wanted the interactions to be casual. (reverse code)	6.0000	6.616	.636	.504	.740
He/she wanted the interactions to be informal. (reverse code)	5.9388	5.866	.757	.599	.616

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
8.8027	12.064	3.47326	3

Negotiator's Perception of Partner's Trust Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.830	.838	5

Item Statistics

	Mean	Std. Deviation	N
He/she seemed interested in working with me.	5.14	1.120	147
He/she was sincere.	5.46	1.015	147
He/she was willing to listen to me.	5.67	.886	147
He/she was open to my ideas.	5.74	.803	147
He/she was honest in communicating with me.	5.67	.847	147

Inter-Item Correlation Matrix

	He/she seemed interested in working with me.	He/she was sincere.	He/she was willing to listen to me.	He/she was open to my ideas.	He/she was honest in communicating with me.
He/she seemed interested in working with me.	1.000	.504	.515	.389	.294
He/she was sincere.	.504	1.000	.622	.475	.547
He/she was willing to listen to me.	.515	.622	1.000	.638	.526
He/she was open to my ideas.	.389	.475	.638	1.000	.577
He/she was honest in communicating with me.	.294	.547	.526	.577	1.000

Inter-Item Covariance Matrix

	He/she seemed interested in working with me.	He/she was sincere.	He/she was willing to listen to me.	He/she was open to my ideas.	He/she was honest in communicating with me.
He/she seemed interested in working with me.	1.255	.574	.511	.350	.279
He/she was sincere.	.574	1.031	.559	.388	.470
He/she was willing to listen to me.	.511	.559	.785	.454	.395
He/she was open to my ideas.	.350	.388	.454	.645	.393
He/she was honest in communicating with me.	.279	.470	.395	.393	.717

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she seemed interested in working with me.	22.54	8.497	.525	.329	.835
He/she was sincere.	22.21	8.168	.686	.496	.778
He/she was willing to listen to me.	22.01	8.555	.741	.569	.765
He/she was open to my ideas.	21.93	9.365	.645	.492	.794
He/she was honest in communicating with me.	22.01	9.390	.592	.439	.806

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
27.67	13.180	3.630	5

Negotiator's Perception of Partner's Task Orientation Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.747	.753	4

Item Statistics

	Mean	Std. Deviation	N
He/she wanted to stick to the main purpose of the interactions.	5.4966	.96069	147
He/she was very work oriented.	5.0816	1.13783	147
He/she was more interested in working on the tasks at hand than having a social exchange.	5.1973	1.15058	147
He/she was more interested in social conversation than in the task at hand. (reverse coded)	5.4082	1.27007	147

Inter-Item Correlation Matrix

	He/she wanted to stick to the main purpose of the interactions.	He/she was very work oriented.	He/she was more interested in working on the tasks at hand than having a social exchange.	He/she was more interested in social conversation than in the task at hand. (reverse coded)
He/she wanted to stick to the main purpose of the interactions.	1.000	.357	.617	.344
He/she was very work oriented.	.357	1.000	.506	.266
He/she was more interested in working on the tasks at hand than having a social exchange.	.617	.506	1.000	.507
He/she was more interested in social conversation than in the task at hand. (reverse coded)	.344	.266	.507	1.000

Inter-Item Covariance Matrix

	He/she wanted to stick to the main purpose of the interactions.	He/she was very work oriented.	He/she was more interested in working on the tasks at hand than having a social exchange.	He/she was more interested in social conversation than in the task at hand. (reverse coded)
He/she wanted to stick to the main purpose of the interactions.	.923	.391	.682	.419
He/she was very work oriented.	.391	1.295	.662	.384
He/she was more interested in working on the tasks at hand than having a social exchange.	.682	.662	1.324	.741
He/she was more interested in social conversation than in the task at hand. (reverse coded)	.419	.384	.741	1.613

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
He/she wanted to stick to the main purpose of the interactions.	15.6871	7.806	.556	.385	.687
He/she was very work oriented.	16.1020	7.544	.460	.259	.733
He/she was more interested in working on the tasks at hand than having a social exchange.	15.9864	6.219	.727	.546	.576
He/she was more interested in social conversation than in the task at hand. (reverse coded)	15.7755	7.011	.459	.259	.742

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.1837	11.713	3.42237	4

Reliability Statistics for Negotiator's Self-Reported Relational Communication Behaviors

Negotiator Dominance Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^(a) Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.691	.691	5

Item Statistics

	Mean	Std. Deviation	N
I tried to control the interactions.	4.54	1.362	148
I had the upper hand in the negotiations.	3.96	1.394	148
I communicated coldness rather than warmth.	2.20	1.159	148
I tried to create a sense of distance between us.	2.93	1.341	148
I did not treat him/her as an equal.	2.18	1.355	148

Inter-Item Correlation Matrix

	I tried to control the interactions.	I had the upper hand in the negotiations.	I communicated coldness rather than warmth.	I tried to create a sense of distance between us.	I did not treat him/her as an equal.
I tried to control the interactions.	1.000	.592	.187	.328	.289
I had the upper hand in the negotiations.	.592	1.000	.085	.159	.188
I communicated coldness rather than warmth.	.187	.085	1.000	.373	.510
I tried to create a sense of distance between us.	.328	.159	.373	1.000	.386
I did not treat him/her as an equal.	.289	.188	.510	.386	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I tried to control the interactions.	11.26	12.658	.526	.417	.604
I had the upper hand in the negotiations.	11.84	13.846	.369	.354	.675
I communicated coldness rather than warmth.	13.61	14.648	.409	.298	.657
I tried to create a sense of distance between us.	12.88	13.468	.442	.239	.642
I did not treat him/her as an equal.	13.62	12.999	.489	.327	.622

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
15.80	19.614	4.429	5

Negotiator Depth Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.753	.750	5

Item Statistics

	Mean	Std. Deviation	N
I tried to make him/her feel similar to me.	5.16	1.117	148
I tried to move the interactions to a deeper level.	2.84	1.369	148
I acted like we were good friends.	4.10	1.384	148
I wanted to communicate further.	4.09	1.409	148
I cared whether he/she liked me.	4.37	1.444	148

Inter-Item Correlation Matrix

	I tried to make him/her feel similar to me.	I tried to move the interactions to a deeper level.	I acted like we were good friends.	I wanted to communicate further.	I cared whether he/she liked me.
I tried to make him/her feel similar to me.	1.000	.194	.386	.246	.390
I tried to move the interactions to a deeper level.	.194	1.000	.281	.473	.322
I acted like we were good friends.	.386	.281	1.000	.494	.481
I wanted to communicate further.	.246	.473	.494	1.000	.489
I cared whether he/she liked me.	.390	.322	.481	.489	1.000

Inter-Item Covariance Matrix

	I tried to make him/her feel similar to me.	I tried to move the interactions to a deeper level.	I acted like we were good friends.	I wanted to communicate further.	I cared whether he/she liked me.
I tried to make him/her feel similar to me.	1.248	.296	.596	.388	.629
I tried to move the interactions to a deeper level.	.296	1.874	.533	.912	.636
I acted like we were good friends.	.596	.533	1.915	.964	.962
I wanted to communicate further.	.388	.912	.964	1.985	.994
I cared whether he/she liked me.	.629	.636	.962	.994	2.085

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I tried to make him/her feel similar to me.	15.41	17.862	.404	.205	.747
I tried to move the interactions to a deeper level.	17.72	16.300	.430	.237	.742
I acted like we were good friends.	16.46	14.903	.572	.358	.690
I wanted to communicate further.	16.47	14.428	.609	.412	.675
I cared whether he/she liked me.	16.19	14.399	.588	.361	.683

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.56	22.928	4.788	5

Negotiator Affect/Immediacy Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a.)	1	.7
	Total	148	100.0

^{a.} Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.728	.734	5

Item Statistics

	Mean	Std. Deviation	N
I was intensely involved in our interactions.	5.1769	1.18032	147
I found our exchanges stimulating.	4.7211	1.29161	147
I was enthusiastic while interacting with my partner.	5.2721	1.03737	147
I was interested in communicating with my partner.	5.5578	.98710	147
I was bored by our interactions. (reverse coded)	5.0952	1.19550	147

Inter-Item Correlation Matrix

	I was intensely involved in our interactions.	I found our exchanges stimulating.	I was enthusiastic while interacting with my partner.	I was interested in communicating with my partner.	I was bored by our interactions . (reverse coded)
I was intensely involved in our interactions.	1.000	.419	.531	.385	.177
I found our exchanges stimulating.	.419	1.000	.461	.461	.221
I was enthusiastic while interacting with my partner.	.531	.461	1.000	.346	.200
I was interested in communicating with my partner.	.385	.461	.346	1.000	.355
I was bored by our interactions. (reverse coded)	.177	.221	.200	.355	1.000

Inter-Item Covariance Matrix

	I was intensely involved in our interactions.	I found our exchanges stimulating.	I was enthusiastic while interacting with my partner.	I was interested in communicating with my partner.	I was bored by our interactions . (reverse coded)
I was intensely involved in our interactions.	1.393	.639	.650	.449	.250
I found our exchanges stimulating.	.639	1.668	.618	.588	.342
I was enthusiastic while interacting with my partner.	.650	.618	1.076	.354	.248
I was interested in communicating with my partner.	.449	.588	.354	.974	.419
I was bored by our interactions. (reverse coded)	.250	.342	.248	.419	1.429

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I was intensely involved in our interactions.	20.6463	10.285	.525	.344	.666
I found our exchanges stimulating.	21.1020	9.613	.546	.333	.657
I was enthusiastic while interacting with my partner.	20.5510	10.838	.547	.357	.661
I was interested in communicating with my partner.	20.2653	11.059	.551	.318	.662
I was bored by our interactions. (reverse coded)	20.7279	11.706	.308	.134	.751

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.8231	15.653	3.95644	5

Negotiator Formality Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a.)	0	.0
	Total	148	100.0

^{a.} Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.763	.779	3

Item Statistics

	Mean	Std. Deviation	N
I made the interactions formal.	3.0541	1.60265	148
I wanted the interactions to be casual. (reverse code)	2.6081	1.07940	148
I wanted the interactions to be informal. (reverse code)	2.9054	1.40620	148

Inter-Item Correlation Matrix

	I made the interactions formal.	I wanted the interactions to be casual. (reverse code)	I wanted the interactions to be informal. (reverse code)
I made the interactions formal.	1.000	.417	.552
I wanted the interactions to be casual. (reverse code)	.417	1.000	.652
I wanted the interactions to be informal. (reverse code)	.552	.652	1.000

Inter-Item Covariance Matrix

	I made the interactions formal.	I wanted the interactions to be casual. (reverse code)	I wanted the interactions to be informal. (reverse code)
I made the interactions formal.	2.568	.722	1.243
I wanted the interactions to be casual. (reverse code)	.722	1.165	.990
I wanted the interactions to be informal. (reverse code)	1.243	.990	1.977

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I made the interactions formal.	5.5135	5.122	.542	.310	.773
I wanted the interactions to be casual. (reverse code)	5.9595	7.032	.598	.430	.707
I wanted the interactions to be informal. (reverse code)	5.6622	5.178	.698	.520	.558

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
8.5676	11.621	3.40900	3

Negotiator Trust Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.796	.806	6

Item Statistics

	Mean	Std. Deviation	N
I was interested in working with him/her.	5.32	1.012	148
I was sincere.	5.59	.910	148
I was willing to listen to him/her.	5.88	.807	148
I was open to his/her ideas.	5.72	.815	148
I was honest in communicating with him/her.	5.59	1.148	148
I wanted him/her to trust me.	5.61	.892	148

Inter-Item Correlation Matrix

	I was interested in working with him/her.	I was sincere.	I was willing to listen to him/her.	I was open to his/her ideas.	I was honest in communicating with him/her.	I wanted him/her to trust me.
I was interested in working with him/her.	1.000	.316	.299	.316	.085	.380
I was sincere.	.316	1.000	.459	.450	.575	.498
I was willing to listen to him/her.	.299	.459	1.000	.620	.402	.359
I was open to his/her ideas.	.316	.450	.620	1.000	.541	.404
I was honest in communicating with him/her.	.085	.575	.402	.541	1.000	.438
I wanted him/her to trust me.	.380	.498	.359	.404	.438	1.000

Inter-Item Covariance Matrix

	I was interested in working with him/her.	I was sincere.	I was willing to listen to him/her.	I was open to his/her ideas.	I was honest in communicating with him/her.	I wanted him/her to trust me.
I was interested in working with him/her.	1.023	.291	.244	.261	.098	.343
I was sincere.	.291	.829	.337	.334	.600	.405
I was willing to listen to him/her.	.244	.337	.652	.408	.372	.259
I was open to his/her ideas.	.261	.334	.408	.664	.506	.294
I was honest in communicating with him/her.	.098	.600	.372	.506	1.318	.448
I wanted him/her to trust me.	.343	.405	.259	.294	.448	.796

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I was interested in working with him/her.	28.40	12.187	.350	.248	.813
I was sincere.	28.14	10.920	.654	.461	.740
I was willing to listen to him/her.	27.84	11.792	.585	.431	.759
I was open to his/her ideas.	28.00	11.415	.655	.511	.744
I was honest in communicating with him/her.	28.13	10.317	.549	.481	.770
I wanted him/her to trust me.	28.11	11.390	.581	.356	.758

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
33.72	15.685	3.960	6

Negotiator Task Orientation Scale Post Knight Negotiation (P1)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.759	.760	4

Item Statistics

	Mean	Std. Deviation	N
I wanted to stick to the main purpose of the interactions.	5.5270	1.02649	148
I was very work oriented.	5.0203	1.16333	148
I was more interested in working on the tasks at hand than having a social exchange.	5.1081	1.28378	148
I was more interested in social conversations than in the tasks at hand. (reverse code)	5.4932	1.25355	148

Inter-Item Correlation Matrix

	I wanted to stick to the main purpose of the interactions.	I was very work oriented.	I was more interested in working on the tasks at hand than having a social exchange.	I was more interested in social conversations than in the tasks at hand. (reverse code)
I wanted to stick to the main purpose of the interactions.	1.000	.338	.416	.500
I was very work oriented.	.338	1.000	.531	.394
I was more interested in working on the tasks at hand than having a social exchange.	.416	.531	1.000	.470
I was more interested in social conversations than in the tasks at hand. (reverse code)	.500	.394	.470	1.000

Inter-Item Covariance Matrix

	I wanted to stick to the main purpose of the interactions.	I was very work oriented.	I was more interested in working on the tasks at hand than having a social exchange.	I was more interested in social conversations than in the tasks at hand. (reverse code)
I wanted to stick to the main purpose of the interactions.	1.054	.404	.548	.643
I was very work oriented.	.404	1.353	.794	.575
I was more interested in working on the tasks at hand than having a social exchange.	.548	.794	1.648	.756
I was more interested in social conversations than in the tasks at hand. (reverse code)	.643	.575	.756	1.571

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I wanted to stick to the main purpose of the interactions.	15.6216	8.822	.523	.297	.722
I was very work oriented.	16.1284	8.167	.533	.315	.715
I was more interested in working on the tasks at hand than having a social exchange.	16.0405	7.223	.608	.383	.674
I was more interested in social conversations than in the tasks at hand. (reverse code)	15.6554	7.547	.573	.347	.694

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.1486	13.066	3.61472	4

Negotiator Dominance Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.700	.703	5

Item Statistics

	Mean	Std. Deviation	N
I tried to control the interactions.	4.29	1.508	148
I had the upper hand in the negotiations.	3.95	1.416	148
I communicated coldness rather than warmth.	2.51	1.487	148
I tried to create a sense of distance between us.	2.88	1.340	148
I did not treat him/her as an equal.	2.19	1.306	148

Inter-Item Correlation Matrix

	I tried to control the interactions.	I had the upper hand in the negotiations.	I communicated coldness rather than warmth.	I tried to create a sense of distance between us.	I did not treat him/her as an equal.
I tried to control the interactions.	1.000	.593	.116	.280	.155
I had the upper hand in the negotiations.	.593	1.000	.170	.291	.226
I communicated coldness rather than warmth.	.116	.170	1.000	.540	.465
I tried to create a sense of distance between us.	.280	.291	.540	1.000	.379
I did not treat him/her as an equal.	.155	.226	.465	.379	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I tried to control the interactions.	11.53	15.652	.402	.366	.676
I had the upper hand in the negotiations.	11.86	15.533	.465	.377	.648
I communicated coldness rather than warmth.	13.31	15.318	.446	.374	.656
I tried to create a sense of distance between us.	12.94	15.214	.547	.360	.615
I did not treat him/her as an equal.	13.63	16.439	.432	.253	.661

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
15.82	22.722	4.767	5

Negotiator Depth Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.797	.795	5

Item Statistics

	Mean	Std. Deviation	N
I tried to make him/her feel similar to me.	5.08	1.128	148
I tried to move the interactions to a deeper level.	2.91	1.475	148
I acted like we were good friends.	4.01	1.375	148
I wanted to communicate further.	3.78	1.470	148
I cared whether he/she liked me.	4.16	1.485	148

Inter-Item Correlation Matrix

	I tried to make him/her feel similar to me.	I tried to move the interactions to a deeper level.	I acted like we were good friends.	I wanted to communicate further.	I cared whether he/she liked me.
I tried to make him/her feel similar to me.	1.000	.319	.284	.327	.463
I tried to move the interactions to a deeper level.	.319	1.000	.376	.631	.348
I acted like we were good friends.	.284	.376	1.000	.651	.425
I wanted to communicate further.	.327	.631	.651	1.000	.537
I cared whether he/she liked me.	.463	.348	.425	.537	1.000

Inter-Item Covariance Matrix

	I tried to make him/her feel similar to me.	I tried to move the interactions to a deeper level.	I acted like we were good friends.	I wanted to communicate further.	I cared whether he/she liked me.
I tried to make him/her feel similar to me.	1.272	.531	.441	.542	.776
I tried to move the interactions to a deeper level.	.531	2.176	.763	1.368	.763
I acted like we were good friends.	.441	.763	1.891	1.316	.869
I wanted to communicate further.	.542	1.368	1.316	2.161	1.172
I cared whether he/she liked me.	.776	.763	.869	1.172	2.205

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I tried to make him/her feel similar to me.	14.86	20.934	.444	.247	.796
I tried to move the interactions to a deeper level.	17.03	17.761	.551	.417	.768
I acted like we were good friends.	15.93	18.118	.579	.437	.758
I wanted to communicate further.	16.17	15.828	.752	.638	.698
I cared whether he/she liked me.	15.78	17.422	.578	.387	.759

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
19.95	26.786	5.176	5

Negotiator Affect/Immediacy Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	146	98.6
	Excluded ^(a)	2	1.4
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.802	.810	5

Item Statistics

	Mean	Std. Deviation	N
I was intensely involved in our interactions.	5.0685	1.16060	146
I found our exchanges stimulating.	4.4521	1.40973	146
I was enthusiastic while interacting with my partner.	4.8562	1.22609	146
I was interested in communicating with my partner.	5.3425	.89780	146
I was bored by our interactions. (reverse coded)	5.0822	1.18907	146

Inter-Item Correlation Matrix

	I was intensely involved in our interactions.	I found our exchanges stimulating.	I was enthusiastic while interacting with my partner.	I was interested in communicating with my partner.	I was bored by our interactions . (reverse coded)
I was intensely involved in our interactions.	1.000	.474	.477	.474	.396
I found our exchanges stimulating.	.474	1.000	.561	.449	.344
I was enthusiastic while interacting with my partner.	.477	.561	1.000	.515	.420
I was interested in communicating with my partner.	.474	.449	.515	1.000	.497
I was bored by our interactions. (reverse coded)	.396	.344	.420	.497	1.000

Inter-Item Covariance Matrix

	I was intensely involved in our interactions.	I found our exchanges stimulating.	I was enthusiastic while interacting with my partner.	I was interested in communicating with my partner.	I was bored by our interactions . (reverse coded)
I was intensely involved in our interactions.	1.347	.776	.679	.494	.546
I found our exchanges stimulating.	.776	1.987	.969	.568	.576
I was enthusiastic while interacting with my partner.	.679	.969	1.503	.567	.612
I was interested in communicating with my partner.	.494	.568	.567	.806	.530
I was bored by our interactions. (reverse coded)	.546	.576	.612	.530	1.414

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I was intensely involved in our interactions.	19.7329	13.356	.588	.349	.763
I found our exchanges stimulating.	20.3493	11.925	.593	.385	.766
I was enthusiastic while interacting with my partner.	19.9452	12.535	.651	.436	.743
I was interested in communicating with my partner.	19.4589	14.567	.630	.408	.761
I was bored by our interactions. (reverse coded)	19.7192	13.748	.514	.301	.786

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
24.8014	19.691	4.43749	5

Negotiator Formality Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.817	.829	3

Item Statistics

	Mean	Std. Deviation	N
I made the interactions formal.	3.1622	1.66621	148
I wanted the interactions to be casual. (reverse code)	2.7973	1.40436	148
I wanted the interactions to be informal. (reverse code)	2.8243	1.35885	148

Inter-Item Correlation Matrix

	I made the interactions formal.	I wanted the interactions to be casual. (reverse code)	I wanted the interactions to be informal. (reverse code)
I made the interactions formal.	1.000	.511	.523
I wanted the interactions to be casual. (reverse code)	.511	1.000	.819
I wanted the interactions to be informal. (reverse code)	.523	.819	1.000

Inter-Item Covariance Matrix

	I made the interactions formal.	I wanted the interactions to be casual. (reverse code)	I wanted the interactions to be informal. (reverse code)
I made the interactions formal.	2.776	1.196	1.185
I wanted the interactions to be casual. (reverse code)	1.196	1.972	1.563
I wanted the interactions to be informal. (reverse code)	1.185	1.563	1.846

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I made the interactions formal.	5.6216	6.944	.542	.295	.900
I wanted the interactions to be casual. (reverse code)	5.9865	6.993	.743	.680	.678
I wanted the interactions to be informal. (reverse code)	5.9595	7.141	.757	.686	.670

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
8.7838	14.484	3.80573	3

Negotiator Trust Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.793	.798	6

Item Statistics

	Mean	Std. Deviation	N
I was interested in working with him/her.	5.17	1.006	148
I was sincere.	5.63	.921	148
I was willing to listen to him/her.	5.77	.919	148
I was open to his/her ideas.	5.78	.895	148
I was honest in communicating with him/her.	5.78	.908	148
I wanted him/her to trust me.	5.64	.991	148

Inter-Item Correlation Matrix

	I was interested in working with him/her.	I was sincere.	I was willing to listen to him/her.	I was open to his/her ideas.	I was honest in communicating with him/her.	I wanted him/her to trust me.
I was interested in working with him/her.	1.000	.208	.344	.269	.234	.369
I was sincere.	.208	1.000	.614	.493	.457	.261
I was willing to listen to him/her.	.344	.614	1.000	.682	.446	.333
I was open to his/her ideas.	.269	.493	.682	1.000	.493	.399
I was honest in communicating with him/her.	.234	.457	.446	.493	1.000	.343
I wanted him/her to trust me.	.369	.261	.333	.399	.343	1.000

Inter-Item Covariance Matrix

	I was interested in working with him/her.	I was sincere.	I was willing to listen to him/her.	I was open to his/her ideas.	I was honest in communicating with him/her.	I wanted him/her to trust me.
I was interested in working with him/her.	1.012	.192	.318	.242	.214	.368
I was sincere.	.192	.847	.519	.406	.382	.238
I was willing to listen to him/her.	.318	.519	.845	.561	.372	.303
I was open to his/her ideas.	.242	.406	.561	.800	.400	.353
I was honest in communicating with him/her.	.214	.382	.372	.400	.824	.308
I wanted him/her to trust me.	.368	.238	.303	.353	.308	.982

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I was interested in working with him/her.	28.59	11.984	.383	.194	.802
I was sincere.	28.14	11.342	.561	.422	.758
I was willing to listen to him/her.	27.99	10.673	.690	.587	.727
I was open to his/her ideas.	27.99	10.939	.663	.530	.735
I was honest in communicating with him/her.	27.98	11.489	.545	.326	.762
I wanted him/her to trust me.	28.13	11.541	.467	.252	.781

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
33.76	15.665	3.958	6

Negotiator Task Orientation Scale Post Universal Computer I Negotiation (P2)

Case Processing Summary

		N	%
Cases	Valid	148	100.0
	Excluded ^(a)	0	.0
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.762	.766	4

Item Statistics

	Mean	Std. Deviation	N
I wanted to stick to the main purpose of the interactions.	5.6351	.99076	148
I was very work oriented.	5.2027	1.12461	148
I was more interested in working on the tasks at hand than having a social exchange.	5.3446	1.12916	148
I was more interested in social conversations than in the tasks at hand. (reverse code)	5.5541	1.24695	148

Inter-Item Correlation Matrix

	I wanted to stick to the main purpose of the interactions.	I was very work oriented.	I was more interested in working on the tasks at hand than having a social exchange.	I was more interested in social conversations than in the tasks at hand. (reverse code)
I wanted to stick to the main purpose of the interactions.	1.000	.500	.399	.462
I was very work oriented.	.500	1.000	.523	.419
I was more interested in working on the tasks at hand than having a social exchange.	.399	.523	1.000	.395
I was more interested in social conversations than in the tasks at hand. (reverse code)	.462	.419	.395	1.000

Inter-Item Covariance Matrix

	I wanted to stick to the main purpose of the interactions.	I was very work oriented.	I was more interested in working on the tasks at hand than having a social exchange.	I was more interested in social conversations than in the tasks at hand. (reverse code)
I wanted to stick to the main purpose of the interactions.	.982	.557	.446	.571
I was very work oriented.	.557	1.265	.664	.588
I was more interested in working on the tasks at hand than having a social exchange.	.446	.664	1.275	.556
I was more interested in social conversations than in the tasks at hand. (reverse code)	.571	.588	.556	1.555

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I wanted to stick to the main purpose of the interactions.	16.1014	7.711	.572	.338	.703
I was very work oriented.	16.5338	6.958	.610	.390	.678
I was more interested in working on the tasks at hand than having a social exchange.	16.3919	7.233	.549	.322	.712
I was more interested in social conversations than in the tasks at hand. (reverse code)	16.1824	6.858	.525	.285	.730

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.7365	11.842	3.44117	4

Negotiator Dominance Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.737	.744	5

Item Statistics

	Mean	Std. Deviation	N
I tried to control the interactions.	4.35	1.569	147
I had the upper hand in the negotiations.	3.95	1.512	147
I communicated coldness rather than warmth.	2.37	1.278	147
I tried to create a sense of distance between us.	2.82	1.255	147
I did not treat him/her as an equal.	2.28	1.333	147

Inter-Item Correlation Matrix

	I tried to control the interactions.	I had the upper hand in the negotiations.	I communicated coldness rather than warmth.	I tried to create a sense of distance between us.	I did not treat him/her as an equal.
I tried to control the interactions.	1.000	.626	.214	.280	.159
I had the upper hand in the negotiations.	.626	1.000	.255	.276	.245
I communicated coldness rather than warmth.	.214	.255	1.000	.603	.557
I tried to create a sense of distance between us.	.280	.276	.603	1.000	.456
I did not treat him/her as an equal.	.159	.245	.557	.456	1.000

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I tried to control the interactions.	11.41	15.655	.450	.406	.714
I had the upper hand in the negotiations.	11.82	15.434	.505	.417	.690
I communicated coldness rather than warmth.	13.39	16.405	.548	.466	.675
I tried to create a sense of distance between us.	12.95	16.525	.550	.407	.675
I did not treat him/her as an equal.	13.49	16.854	.464	.343	.704

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
15.77	23.713	4.870	5

Negotiator Depth Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.798	.790	5

Item Statistics

	Mean	Std. Deviation	N
I tried to make him/her feel similar to me.	5.10	1.213	147
I tried to move the interactions to a deeper level.	2.97	1.521	147
I acted like we were good friends.	4.13	1.416	147
I wanted to communicate further.	3.82	1.479	147
I cared whether he/she liked me.	4.29	1.553	147

Inter-Item Correlation Matrix

	I tried to make him/her feel similar to me.	I tried to move the interactions to a deeper level.	I acted like we were good friends.	I wanted to communicate further.	I cared whether he/she liked me.
I tried to make him/her feel similar to me.	1.000	.202	.232	.155	.251
I tried to move the interactions to a deeper level.	.202	1.000	.498	.634	.412
I acted like we were good friends.	.232	.498	1.000	.721	.581
I wanted to communicate further.	.155	.634	.721	1.000	.610
I cared whether he/she liked me.	.251	.412	.581	.610	1.000

Inter-Item Covariance Matrix

	I tried to make him/her feel similar to me.	I tried to move the interactions to a deeper level.	I acted like we were good friends.	I wanted to communicate further.	I cared whether he/she liked me.
I tried to make him/her feel similar to me.	1.470	.372	.399	.277	.473
I tried to move the interactions to a deeper level.	.372	2.314	1.072	1.427	.974
I acted like we were good friends.	.399	1.072	2.004	1.509	1.278
I wanted to communicate further.	.277	1.427	1.509	2.188	1.400
I cared whether he/she liked me.	.473	.974	1.278	1.400	2.411

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I tried to make him/her feel similar to me.	15.21	24.236	.255	.093	.843
I tried to move the interactions to a deeper level.	17.33	18.744	.584	.415	.759
I acted like we were good friends.	16.18	18.229	.705	.561	.720
I wanted to communicate further.	16.48	17.334	.749	.658	.703
I cared whether he/she liked me.	16.02	18.089	.625	.429	.745

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
20.31	28.748	5.362	5

Negotiator Affect/Immediacy Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.802	.806	5

Item Statistics

	Mean	Std. Deviation	N
I was intensely involved in our interactions.	4.9932	1.30067	147
I found our exchanges stimulating.	4.5714	1.39471	147
I was enthusiastic while interacting with my partner.	5.0272	1.17009	147
I was interested in communicating with my partner.	5.3878	1.01664	147
I was bored by our interactions. (reverse coded)	5.0952	1.19550	147

Inter-Item Correlation Matrix

	I was intensely involved in our interactions.	I found our exchanges stimulating.	I was enthusiastic while interacting with my partner.	I was interested in communicating with my partner.	I was bored by our interactions . (reverse coded)
I was intensely involved in our interactions.	1.000	.429	.563	.365	.366
I found our exchanges stimulating.	.429	1.000	.607	.413	.382
I was enthusiastic while interacting with my partner.	.563	.607	1.000	.527	.429
I was interested in communicating with my partner.	.365	.413	.527	1.000	.460
I was bored by our interactions. (reverse coded)	.366	.382	.429	.460	1.000

Inter-Item Covariance Matrix

	I was intensely involved in our interactions.	I found our exchanges stimulating.	I was enthusiastic while interacting with my partner.	I was interested in communicating with my partner.	I was bored by our interactions . (reverse coded)
I was intensely involved in our interactions.	1.692	.778	.856	.482	.569
I found our exchanges stimulating.	.778	1.945	.991	.585	.637
I was enthusiastic while interacting with my partner.	.856	.991	1.369	.626	.600
I was interested in communicating with my partner.	.482	.585	.626	1.034	.559
I was bored by our interactions. (reverse coded)	.569	.637	.600	.559	1.429

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I was intensely involved in our interactions.	20.0816	13.774	.556	.344	.774
I found our exchanges stimulating.	20.5034	12.909	.597	.399	.763
I was enthusiastic while interacting with my partner.	20.0476	13.320	.720	.539	.723
I was interested in communicating with my partner.	19.6871	15.299	.566	.351	.772
I was bored by our interactions. (reverse coded)	19.9796	14.678	.516	.286	.785

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
25.0748	20.837	4.56474	5

Negotiator Formality Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.835	.840	3

Item Statistics

	Mean	Std. Deviation	N
I made the interactions formal.	3.0068	1.61541	147
I wanted the interactions to be casual. (reverse code)	2.7415	1.39514	147
I wanted the interactions to be informal. (reverse code)	2.9184	1.43589	147

Inter-Item Correlation Matrix

	I made the interactions formal.	I wanted the interactions to be casual. (reverse code)	I wanted the interactions to be informal. (reverse code)
I made the interactions formal.	1.000	.548	.626
I wanted the interactions to be casual. (reverse code)	.548	1.000	.735
I wanted the interactions to be informal. (reverse code)	.626	.735	1.000

Inter-Item Covariance Matrix

	I made the interactions formal.	I wanted the interactions to be casual. (reverse code)	I wanted the interactions to be informal. (reverse code)
I made the interactions formal.	2.610	1.235	1.453
I wanted the interactions to be casual. (reverse code)	1.235	1.946	1.472
I wanted the interactions to be informal. (reverse code)	1.453	1.472	2.062

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I made the interactions formal.	5.6599	6.952	.631	.409	.847
I wanted the interactions to be casual. (reverse code)	5.9252	7.577	.705	.553	.767
I wanted the interactions to be informal. (reverse code)	5.7483	7.025	.768	.611	.703

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
8.6667	14.936	3.86472	3

Negotiator Trust Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	147	99.3
	Excluded ^(a)	1	.7
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.835	.843	6

Item Statistics

	Mean	Std. Deviation	N
I was interested in working with him/her.	5.18	1.060	147
I was sincere.	5.66	.895	147
I was willing to listen to him/her.	5.76	.911	147
I was open to his/her ideas.	5.79	.796	147
I was honest in communicating with him/her.	5.70	.989	147
I wanted him/her to trust me.	5.61	.864	147

Inter-Item Correlation Matrix

	I was interested in working with him/her.	I was sincere.	I was willing to listen to him/her.	I was open to his/her ideas.	I was honest in communicating with him/her.	I wanted him/her to trust me.
I was interested in working with him/her.	1.000	.384	.352	.493	.197	.423
I was sincere.	.384	1.000	.586	.600	.681	.475
I was willing to listen to him/her.	.352	.586	1.000	.646	.458	.409
I was open to his/her ideas.	.493	.600	.646	1.000	.572	.508
I was honest in communicating with him/her.	.197	.681	.458	.572	1.000	.304
I wanted him/her to trust me.	.423	.475	.409	.508	.304	1.000

Inter-Item Covariance Matrix

	I was interested in working with him/her.	I was sincere.	I was willing to listen to him/her.	I was open to his/her ideas.	I was honest in communicating with him/her.	I wanted him/her to trust me.
I was interested in working with him/her.	1.124	.364	.340	.416	.206	.387
I was sincere.	.364	.801	.478	.428	.603	.367
I was willing to listen to him/her.	.340	.478	.830	.469	.412	.322
I was open to his/her ideas.	.416	.428	.469	.633	.450	.349
I was honest in communicating with him/her.	.206	.603	.412	.450	.978	.260
I wanted him/her to trust me.	.387	.367	.322	.349	.260	.746

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I was interested in working with him/her.	28.52	12.265	.461	.314	.843
I was sincere.	28.04	11.533	.737	.609	.783
I was willing to listen to him/her.	27.95	11.942	.642	.480	.802
I was open to his/her ideas.	27.91	11.958	.767	.608	.782
I was honest in communicating with him/her.	28.00	11.973	.564	.533	.818
I wanted him/her to trust me.	28.09	12.698	.548	.339	.820

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
33.70	16.814	4.100	6

Negotiator Task Orientation Scale Post Universal Computer II Negotiation (P3)

Case Processing Summary

		N	%
Cases	Valid	146	98.6
	Excluded ^(a)	2	1.4
	Total	148	100.0

^a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.779	.791	4

Item Statistics

	Mean	Std. Deviation	N
I wanted to stick to the main purpose of the interactions.	5.5548	1.06370	146
I was very work oriented.	5.1370	1.09941	146
I was more interested in working on the tasks at hand than having a social exchange.	5.2877	1.12009	146
I was more interested in social conversations than in the tasks at hand. (reverse code)	5.3425	1.41635	146

Inter-Item Correlation Matrix

	I wanted to stick to the main purpose of the interactions.	I was very work oriented.	I was more interested in working on the tasks at hand than having a social exchange.	I was more interested in social conversations than in the tasks at hand. (reverse code)
I wanted to stick to the main purpose of the interactions.	1.000	.577	.566	.413
I was very work oriented.	.577	1.000	.500	.311
I was more interested in working on the tasks at hand than having a social exchange.	.566	.500	1.000	.546
I was more interested in social conversations than in the tasks at hand. (reverse code)	.413	.311	.546	1.000

Inter-Item Covariance Matrix

	I wanted to stick to the main purpose of the interactions.	I was very work oriented.	I was more interested in working on the tasks at hand than having a social exchange.	I was more interested in social conversations than in the tasks at hand. (reverse code)
I wanted to stick to the main purpose of the interactions.	1.131	.675	.674	.622
I was very work oriented.	.675	1.209	.615	.484
I was more interested in working on the tasks at hand than having a social exchange.	.674	.615	1.255	.866
I was more interested in social conversations than in the tasks at hand. (reverse code)	.622	.484	.866	2.006

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I wanted to stick to the main purpose of the interactions.	15.7671	8.401	.639	.447	.702
I was very work oriented.	16.1849	8.717	.547	.378	.744
I was more interested in working on the tasks at hand than having a social exchange.	16.0342	7.909	.684	.470	.676
I was more interested in social conversations than in the tasks at hand. (reverse code)	15.9795	7.524	.508	.314	.783

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
21.3219	13.475	3.67083	4

Correlations of Negotiator and Their Partner's Change in Relational Behavior Variables and E-mail Rank

Variable	Correlation	Significance
Dominance Change	.071	.392
Depth Change	-.028	.735
Affect/Immediacy Change	.129	.121*
Formality Change	.028	.741
Trust Change	.214	.010*
Task Orientation Change	-.034	.685
Self Dominance Change	-.137	.098*
Self Depth Change	.135	.105*
Self Affect/Immediacy Change	.196	.018*
Self Formality Change	.062	.458
Self Trust Change	.265	.001*
Self Task Orientation Change	.211	.010*
E-mail Rank	.071	.437

* Significant at $p > .20$ level as recommended by Cook and Kenny (2005) for treating individuals as interdependent for analyses.

References

- Adkins, M., & Brashers, D. E. (1995). The power of language in computer-mediated groups. *Management Communication Quarterly*, 8, 289-322.
- Anderson, W. N. (2000). Cultural values and communication mode: A study of culturally homogeneous and culturally heterogeneous groups. *Dissertation Abstracts International*, 61(10), 4074, Apr 2001. (UMI No. AAT 9991105)
- Anderson, C., & Thompson, L. L. (2004). Affect from the top down: How powerful individuals' positive affect shapes negotiations. *Organizational Behavior and Human Decision Processes*, 95, 125-139.
- Arunachalam, V., & Dilla, W. N. (1992). Computer mediated communication and structured interaction in transfer price negotiation. *Journal of Information Systems*, 6(2), 149-170.
- Arunachalam, V., & Dilla, W. N. (1995). Judgement accuracy and outcomes in negotiation: A causal modeling analysis of decision aiding effects. *Organizational Behavioral and Human Decision Processes*, 61(3), 289-304.
- Baily, K. D. (1994). *Methods of social research*. New York: The Free Press.
- Bacharach, S. B., & Lawler, E. J. (1981). *Bargaining: Power, tactics, and outcomes*. Greenwich, CT: JAI Press.
- Blake, R., & Mouton, J. (1964). *The Managerial Grid*. Houston: Gulf.
- Burgoon, J. K., Bonito, J. A., Ramirez, A., Dunbar, N. E., Kam, K., & Fischer, J. (2002). Testing the interactivity principle: Effects of mediation, propinquity, and verbal and nonverbal modalities in interpersonal interaction. *Journal of Communication*, 52, 657-677.

Burgoon, J. K. & J. L. Hale (1987). Validation and measurement of the fundamental themes of relational communication. *Communication Monographs*, 54, 19-41.

Burgoon, J. K., & Saine, T. (1978). *The unspoken dialogue: An introduction to nonverbal communication*. Boston: Houghton Mifflin.

Cai, D. A., Wilson, S. R., & Drake, L. E. (2000). Culture in the context of intercultural negotiation: Individualism-collectivism and paths to integrative agreements. *Human Communication Research*, 26, 591-617.

Clark, H. & Brennan, S. (1991). Grounding in communication. In L. B. Resnick, J. Levine, & S. Teasley (Eds.), *Perspectives on socially shared cognition*. Washington, DC: APA Press.

Cook, W. L., & Kenny, D. A. (2005). The actor-partner interdependence model: A model of bidirectional effects in development studies. *International Journal of Behavioral Development*, 29 (2), 101-109.

Croson, R. T. A. (1999). Look at me when you say that: An electronic negotiation simulation. *Simulating and Gaming*, 30(1), 23-37.

Culnum, M. J., & Markus, M. L. (1987). Information technologies. In F. Jablin, L. L. Putnam, K. Roberts, & L. Porter (Eds.), *Handbook of organizational communication* (pp. 420-443). Newbury Park, CA: Sage.

Dabbish, L. A., Kraut, R. E., Fussell, S., & Kiesler, S. (2005). Understanding email use: Predicting action on a message. *Proceedings of the SIGCHI conference on human factors in computing systems, April 02-07, 2005, Portland, Oregon*. Retrieved on April 14, 2007 from: <http://doi.acm.org/10.1145/1054972.1055068>

Daft, R. L., & Lengel, R. H. (1984). Information richness: A new approach to managerial behavior and organizational design. In B. Straw & L. L. Cummings (Eds.), *Research in organizational behavior* (Vol. 6, pp. 191-233). Greenwich, CT: JAI.

Daft, R. L., & Lengel, R. H. (1986). Organizational information requirements, media richness and structural design. *Management Science*, 32, 554-571.

Deutsch, M. (2002). Social psychology's contributions to the study of conflict resolution. *Negotiation Journal*, 18, 307-320.

Dorado, M. A., Medina, F. J., Munduate, L., Cisnerso, I. F. J., & Euwema, M. (2002) Computer-mediated negotiation of an escalated conflict. *Small Group Research*, 33, 509-524.

Dubrovsky, V. J., Kiesler, S., & Sethna, B. N. (1991). The equalization phenomenon: status effects in computer-mediated and face-to-face decision-making groups. *Human-Computer Interaction*, 6(2), 119-146.

Emerson, R. M. (1962). Power dependence relations. *American Sociological Review*, 62, 31-41.

Fisher, R., & Brown, S. (1988). *Getting together: Building a relationship that gets to yes*. Boston: Houghton Mifflin.

Fisher, R., Ury, W. & Patton, B. (1991). *Getting to yes: Negotiating agreement without giving in*. New York: Penguin Books.

Friedman, R. A., & Currall, S. C. (2003). Conflict escalation: Dispute exacerbating elements of e-mail communication. *Human Relations*, 56, 1325-1347.

Fulk, J. (1993). Social construction of communication technology. *Academy of Management Journal*, 36, 921-950.

Fulk, J., Schmitz, J. A., & Ryu, D. (1995). Cognitive elements in the social construction of communication technology. *Management Communication Quarterly*, 8, 259-288.

Fulk, J., Schmitz, J. A., & Steinfield, C. W. (1990). A social influence model of technology use. In J. Fulk & C. Steinfield (Eds.), *Organizations and communication technology* (pp. 117-142). Newbury Park, CA: Sage.

Fulk, J., Steinfield, C. W., Schmitz, J. A., & Power, J. G. (1987). A social information processing model of media use in organizations. *Communication Research*, 14, 529-552.

Grice, H. P. (1998). Logic and conversation. In G. Mather, F. Verstraten, & S. Anstis (Eds.), *The motion aftereffect* (pp. 719-732). Boston: MIT Press.

Hancock, J. T., & Dunham, P. J. (2001). Language use in computer-mediated communication: The role of coordinating devices. *Discourse Processes*, 31(1), 91-110.

Hiltz, S. R., Johnson, K., & Turoff, M. (1986). Experiments in group decision making: Communication process and outcome in face-to-face versus computerized conferences. *Human Communication Research*, 13, 225-252.

Hiltz, S. R., & Turoff, M. (1978). *The network nation: Human communication via computer*. Reading, MA: Addison-Wesley.

Hollingshead, A. B., McGrath, J. E., & O'Connor, K. M. (1993). Group task performance and communication technology: A longitudinal study of computer-mediated versus face-to-face groups. *Small Group Research, 24*, 307-333.

Hollingshead, A. B., & McGrath, J. E. (1995). Computer assisted groups: a critical review of the empirical research. In R. A. Guzzo, E. Salas, & Associates (Eds.), *Team effectiveness and decision making in organization* (pp. 46-78). San Francisco: Jossey-Bass.

Huselid, M. A. (1995). The impact of human resource management practices on turnover, productivity, and corporate financial performance. *Academy of Management Journal, 38*, 635-674.

Jarvenpaa, S. L., Rao, V. S., & Huber, G. P. (1988). Computer support for meetings of groups working on unstructured problems: A field experiment. *MIS Quarterly, 12*, 625-644.

Johananen, R., Vallee, J., & Vivian, K. (1979). *Electronic meetings*. Reading, MA: Addison-Wesley.

Kenny, D. A., & Kashy, D. A. (1991). Analyzing interdependence in dyads. In B. M. Montgomery & S. Duck (Eds.), *Studying interpersonal interaction* (pp. 275-285). New York: Guilford Press.

Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: Guilford Press.

Kerr, E. B., & Hiltz, S. R. (1982). *Computer mediated communication systems*. New York: Academic Press.

- Kiesler, S. (1997). Preface. In S. Kiesler (Ed.), *Culture of the Internet* (pp. ix-xvi. Mahwah, NJ: Erlbaum.
- Kiesler, S., Siegel, J., & McGuire, T. W. (1984). Social psychological aspects of computer-mediated communication. *American Psychologist*, 39, 1123-1134.
- Kiesler, S., & Sproull, L. (1992). Group decision making and communication technology. *Organizational Behavior and Human Decision Processes*, 52, 96–123.
- Lawler, E. J., & Yoon, J. (1993). Power and the emergence of commitment behavior in negotiated exchange. *American Sociological Review*, 58, 465-481.
- Lawler, E. J., & Yoon, J. (1995). Structural power and emotional processes in negotiation. In R.M. Kramer & D. M. Messick (Eds.), *Negotiation as a social process* (pp. 143-165). Thousand Oaks, CA: Sage.
- Lea, M., & Spears, R. (1992). Paralanguage and social perception in computer-mediated communication. *Journal of Organizational Computing*, 2, 321-342.
- Lewicki, R. J., Litterer, J. A., Saunders, D. M., & Minton, J. W. (1999). *Negotiation: Readings, exercises, and cases*. Burr Ridge, IL: Irwin.
- Likert, R. (1961). *New patterns of management*. New York: McGraw-Hill.
- Likert, R. (1967). *The human organization: Its management and value*. New York: McGraw-Hill.
- Liu, Y. (2002). What does research say about the nature of computer-mediated communication: Task-oriented, social-emotion-oriented, or both?. *Electronic Journal of Sociology*: [iucode: <http://www.icaap.org/iucode?1.6.1.1>]

Liu, Y. L., Ginther, D., & Zelhart, P. (2002). An exploratory study of the effects of frequency and duration of messaging on impression development in computer-mediated communication. *Social Science Computer Review*, 20(1), 73-80.

Lomax, R. G. (2001). *An introduction to statistics for the educational and behavioral sciences*. Mahwah, NJ: Lawrence Erlbaum.

Mantovani, G. (1994). Is computer-mediated communication intrinsically apt to enhance democracy in organizations? *Human Relations*, 47(1), 45-62.

McGinn, K. L., & Croson, R. (2004). What do communication media mean for negotiators? A question of social awareness. In M. J. Gefland & J. M. Brett (Eds.), *The handbook of negotiation and culture* (pp. 334-349). Stanford, CA: Stanford University Press.

McGinn, K. L., & Keros, A. T. (2002). Improvisations and logic of exchange in socially embedded transactions. *Administrative Science Quarterly*, 47, 442-473.

McGrath, J. E. (1984). *Groups: Interaction and performance*. Englewood Cliffs, NJ: Prentice-Hall.

McGrath, J. E., & Hollingshead, A. B. (1994). *Groups interacting with technology*. Thousand Oaks, CA: Sage.

Millar, F. E., & Rogers, L. E. (1976). A relational approach to interpersonal communication. In G. R. Miller (Ed.), *Explorations in interpersonal communication* (pp. 87-104). Beverly Hills, CA: Sage.

Miller, K. (2006) *Organizational communication: Approaches and processes* (4th ed.). Belmont, CA: Thomson Wadsworth.

Miller, K. I., & Monge, P. R. (1986). Participation, satisfaction, and productivity: A meta-analytic review. *Academy of Management Journal*, 29, 727-753.

Moore, D.A., Kurtzber, T.R., Thompson, L., & Morris, M.W. (1999). Long and short routes to success in electronically-mediated negotiations: Groups affiliations and good vibrations. *Organizational Behavior and Human Decision Process*, 77, 22-43.

Morley, I. E., & Stephenson, G. (1979). *The social psychology of bargaining*. London: George Allen & Unwin.

Morris, M., Nadler, J., Kurtzberg, T. R., & Thompson, L. (2002). Schmooze or lose: Social friction and lubrication in e-mail negotiations. *Group Dynamics Theory, Research, and Practice*, 6(1), 89-100.

Nadler, J., & Shestowsky, D. (2006). Negotiation, Information Technology, and the Problem of the Faceless Other. In L. L. Thompson (Ed.), *Frontiers of Social Psychology: Negotiations* (pp. 145-172). New York: Psychology Press.

Nadler, J., Thompson, L., & Boven, L. V. (2003). Learning negotiation skills: four models of knowledge creation and transfer source. *Management Science*, 49, 529-534.

Naquin, C. E., & Paulson, G. D. (2003). Online bargaining and interpersonal trust. *Journal of Applied Psychology*, 88(1), 113-120.

Nardi, B. A., & Whittaker, S. (2002). The place of face-to-face communication in distributed work. In P. J. Hinds & S. Kiesler (Eds.), *Distributed work* (pp. 83-112). Cambridge, MA: MIT.

O'Sullivan, P. B. (2000). What you don't know won't hurt me: Impression management functions of communication channels in relationships. *Human Communication Research*, 26, 403-431.

Panko, R. (1992). Managerial communication patterns. *Journal of Organizational Computing*, 2, 95-122.

Parks, M. R. (1977). Relational communication: theory and research. *Human Communication Research*, 3, 372-381.

Parks, M. R., & Floyd, K. (1996). Making friends in cyberspace. *Journal of Communication*, 46(1), 80-97.

Polzer, J. T., Mannix, E. A., & Neale, M. A. (1995) Multiparty negotiation in its social context. In R. M. Kramer & D. M. Messick (Eds.), *Negotiation as a social process* (pp. 123-142). Thousand Oaks, CA: Sage.

Poole, M. S., Shannon, D. L., & DeSanctis, G. (1992). Communication media and negotiation processes. In L. L. Putnam & M. E. Roloff (Eds.), *Communication and negotiation* (pp. 46-66). Newbury Park, CA: Sage.

Pruitt, D. G., & Carnevale, P. J. (1993). *Negotiation in social conflict*. Pacific Grove, CA: Brooks/Cole Publishing Company.

Pruitt, D. G., & Rubin, J. Z. (1986). *Social conflict: Escalation, stalemate, and settlement*. New York: McGraw-Hill.

Rice, R. E. (1992). Contexts of research on organizational computer-mediated communication: A recursive review. In M. Lea (Ed.), *Contexts of computer-mediated communication* (pp. 113-143). United Kingdom: Harvester-Wheatsheaf.

Rice, R. E. (1993). Media appropriateness: Using social presence theory to compare traditional and new organizational media. *Human Communication Research, 19*, 451-484.

Rice, R. E., & Love, G. (1987). Electronic emotion: Socioemotional content in a computer-mediated communication network. *Communication Research, 14*, 85-108.

Rosette, A. S., Brett, J. M., Barsness, Z. I., & Lytle, A. L., (2006). *When cultures clash electronically: The impact of e-mail and culture on negotiation behavior*. Retrieved April 14, 2007, from SSRN web site:
<http://ssrn.com/abstract=959034>

Rubin, R. B., Palmgreen, P., & Sypher, H. E. (1994). *Communication research measures*. New York: Guilford.

Schmitz, J. A., & Fulk, J. (1991). Organizational colleagues, information richness, and electronic mail: A test of the social influence model of technology use. *Communication Research, 18*, 487-523.

Sheffield, J. (1995). The effect of communication medium on negotiation performance. *Group Decision & Negotiation, 4*, 159-179.

Shell, G. R. (2001). Bargaining on the internet: The perils of e-mail and other computer-assisted negotiations. In H. Kunreuther & S. Hochs (Eds.), *Wharton on making decisions* (pp. 201-222). New York: Wiley.

Short, J., Williams, E., & Christie, B. (1976). *The social psychology of telecommunications*. London: Wiley.

Siegel, J., Dubrovsky, V., Kiesler, S., & McGuire, T. W. (1986). Group processes in computer-mediated communication. *Organizational Behavior and Human Decision Processes*, 37, 157-187.

Sproull, L., & Kiesler, S. (1986). Reducing social context cues: Electronic mail in organizational communication. *Management Science*, 32, 1492-1512.

Sproull, L., & Kiesler, S. (1991). A two level perspective on electronic mail in organizations. *Journal of Organizational Computing*, 2(1), 125-134.

Sudman, S., Bradburn, N. M., & Schwarz, N. (1996). *Thinking about answers: The application of cognitive processes to survey methodology*. San Francisco: Josey-Bass.

Suh, K. (1999). Impact of communication medium on task performance and satisfaction: An examination of media-richness theory. *Information & Management*, 35, 295-312.

Tapscott, D., & Caston, A. (1993). *Paradigm shift: The new promise of information technology*. New York: McGraw-Hill.

Thompson, L., & Nadler, J. (2002). Negotiation via information technology: Theory and application. *Journal of Social Issues*, 58, 109-124.

Tidwell, L. C., & Walter, J. B. (2002). Computer-mediated communication effects on disclosure, impressions, and interpersonal evaluations. *Human Communication Research*, 28, 317-348.

Topi, H., Valacich, J. S., & Rao, M. T. (2002). The effects of personality and media differences on the performance of dyads addressing as cognitive conflict task. *Small Group Research*, 33(6), 667-701.

Trevino, L. K., Lengel, R. H., & Daft, R. L. (1987). Media symbolism, media richness, and media choice in organizations: A symbolic interactionist perspective.

Communication Research, 14, 553-574.

Trevino, L. K., Webster, J., & Stein, E. (2000). Making connections: Complementary influences on communication media choices, attitudes, and use.

Organization Science, 11(2), 163-182.

Turoff, M., & Hiltz, S. R. (1982). Computer support for group versus individual decisions. *IEEE Transactions on Communications, 30*, 82-90.

Ulijn, J. M., & Linke, A. (2004). The effect of CMC and FTF on negotiation outcomes between R&D and manufacturing partners in the supply chain: An Anglo/Nordic/Latin comparison. *International Negotiation, 9*, 111-140.

Valacich, J. S., Paranka, D., George, J. F., & Nunamaker, J. F., Jr. (1993). Communication currency and the new media. *Communication Research, 20*, 249-276.

Valley, K.J., Moag, J., & Bazerman, M.H. (1998). A matter of trust: Effects of communication on the efficiency and distribution of outcomes. *Economic Behavior and Organization, 34*, 211-238.

Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective, *Communication Research, 19*, 52-90.

Walther, J. B. (1994). Anticipated ongoing interaction versus channel effects on relational communication in computer-mediated interaction. *Human Communication Research, 20*, 473-501.

Walther, J. B. (1995). Relational aspects of computer-mediated communication: Experimental observations over time. *Organizational Science*, 6, 186-203.

Walther, J. B. (1996). Computer-mediated communication: Impersonal, interpersonal and hyperpersonal interaction. *Communication Research*, 23, 1-43.

Walther, J. B. (1997). Group and interpersonal effects in interpersonal computer-mediated communication. *Human Communication Research*, 23, 342-369.

Walther, J. B. (2002). Time effects in computer-mediated groups: Past, present, and future. In P. Hinds & S. Kiesler (Eds.), *Distributed work* (pp. 235-257). Cambridge, MA: MIT Press.

Walther, J. B. (2004). Language and communication technology: Introduction to the special issue. *Journal of Language and Social Psychology*, 23, 384-396.

Walther, J. B., Anderson, J. F., & Park, D. (1994). Interpersonal effects in computer-mediated interaction: A meta-analysis of social and anti-social communication. *Communication Research*, 21, 460-487.

Walther, J. B., & Boyd, S. (2002). Attraction to computer-mediated social support. In C. A. Lin & D. Atkin (Eds.), *Communication technology and society: Audience adoption and uses* (pp. 153-188). Cresskill, NJ: Hampton.

Walther, J. B., & Burgoon, J. K. (1992). Relational communication in computer-mediated interaction. *Human Communication Research*, 19, 50-88.

Walther, J. B., Loh, T., & Granka, L. (2005). Let me count the ways: The interchange of verbal and nonverbal cues in computer-mediated and face-to-face affinity. *Journal of Language & Social Psychology*, 24, 36-65.

Walther, J. B., & Parks, M. R. (2002). Cues filtered out, cues filtered in: Computer-mediated communication and relationships. In M. L. Knapp & J. A. Daly (Eds.), *Handbook of interpersonal communication* (3rd ed., pp. 529-563). Thousand Oaks, CA: Sage.

Wiley, J. W. & Brooks, S. M. (2000). The high-performance organizational climate: How workers describe top-performing units. In N. M. Askanasy, C. P. M. Wilderon, & M. F. Peterson (Eds.), *Handbook of organizational culture and climate* (pp. 177-191). Thousand Oaks, CA: Sage.

Wilson, J. M., Staus, S. G., & McEvily, B. (2006). All in due time: The development of trust in computer-mediated and face-to-face teams. *Organizational Behavior and Human Decision Processes*, 99, 16–33.

Wilson, S. R., & Putnam, L. L. (1990). Interaction goals in negotiation. In J. Anderson (Ed.), *Communication yearbook 13* (pp. 374-406). Newbury Park, CA: Sage.

Woodworth, M., Hancock, J., & Goorha, S. (2005) *The motivational enhancement effect: Implications for our chosen modes of communication in the 21st century*. Paper presented at the Hawaii Conference on International Social Systems. Retrieved April 14, 2007, from <http://cucmc.comm.cornell.edu/jth34/publications.php>

Yellen, R. E., Winniford, M. A., & Sanford, C. C. (1995). Extraversion and introversion in electronically-supported meetings. *Information & Management*, 28, 63-74.

Zigurs, I., Poole, M. S., & DeSanctis, G. (1988). A study of influence in computer-mediated group decision making. *MIS Quarterly*, Dec, 625–44.