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RUNNING HEAD: Attributions in Organizational and Social

Attributions in Organizational and Social E-mail Messages

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Introduction

In the early 1990's, e-mail and other forms of Computer Mediated Communication (CMC) that are low in media richness, including instant messenger and text messaging, became an efficient and popular form of communication. Many speculated that the mode of communication was not a good way for people to form relationships because of reduced cues, such as facial and verbal signals. Walther's (1992) Social Information Processing (SIP) theory was very influential in this field. SIPT theory shows that although people learn about others through e-mail more slowly, it is possible for them to form relationships. Further, Walther (1993) found that these relationships may be more intense than those formed in face-to-face (FtF) relationships.

Understanding that it is possible for people to learn about others and form relationships via e-mail conversations leads to questions about how they learn about others when communicating via e-mail. While many studies have focused on learning about relationship formation by measuring relational knowledge and satisfaction of the CMC interaction, (Ramirez, 2007; Ramirez & Zhang, 2007, Walther 1993) a growing trend is studying the message itself and the impact certain statements have in relationship development (Pentelnic & Rabby 2009; Turnage, 2008; Waldvogel, 2007). Messages are influential as they cause the person reading the message to make assumptions, or attributions about the writer/sender. As people make attributions about others based upon statements in e-mail messages, they attach a valence to the attribution, passing judgment on the writer's character. Pentelnic and Rabby (2009) looked at how people made attributions about their partner's social desirability based upon e-mail messages. These studies demonstrate the possibility of relationship formation occurring through e-mail conversations, and that the content of the messages in the e-mail can influence how the

relationship develops, the satisfaction level of the relationship and the impressions and attributions formed about the sender.

Even though e-mail is a versatile medium, used in both social and professional contexts, the majority of CMC relationship formation studies focus on the use of e-mail in facilitating social relationships and conversation. This is unfortunate as researchers and the communication discipline deserve to have a deeper understanding how people learn about others in an organizational context will add to our current understanding of relationship formation through CMC. Contrasting how people learn about others in an organizational versus a social context will extend current research by helping to determine if there are similarities or differences in the way people form relationships via e-mail in social and professional relationships.

Literature Review

Development of Attributions in CMC Relationships

Walther's (1992) SIP theory was foundational in understanding that relationship formation via e-mail is possible. SIP theory led to a different way of studying CMC by allowing people to move beyond the reduced cues critique of CMC. According to Hoof (2005), "the richness or leanness of electronic mail is an emergent property of the interaction between the technology, the user and their social and organizational context... message content and a medium's appropriateness for conveying such content are socially defined over time." (p134) Hoof's (2005) assertion is that in CMC, social norms play a role in what is understood to be informative communication; it is the user who determines the nature of the relationship. By determining that it is possible for people to learn about others and to establish and maintain relationships via CMC, scholars were able look beyond the reduced cues lens, where they were

limited to studying if using a lean medium was effective for forming relationships, and begin looking deeper into relationships formed through CMC.

Recent research utilizing SIP theory often takes the approach of studying the level of satisfaction in relationships at different times throughout the relationships development. Of particular interest is modality switching, studying the impact on the relationship between the communicators when a CMC relationship switches to an offline relationship where people meet FtF (Ramirez, 2007; Ramirez & Wang, 2008, Ramirez & Zhang, 2007). One of the key findings is that learning about others in a CMC context with less information led people to make assumptions about those with whom they were communicating online.

One of the dangers of spending extensive time in CMC relationship forming process is shown through the hyperpersonal perspective. The theory is used as an explanation of the phenomenon of a person not living up to one's expectations in FtF after significant time was spent developing the relationship in CMC. Gibbs, Ellison and Heino (2006), and Ramirez and Zhang (2007) both found that when people eventually met offline they often felt let down because the other person did not meet their preconceived expectations, built up through prior e-mail conversation. The hyperpersonal perspective is important as it shows that people often form very deep connections that lead to very satisfactory online relationships, even when the FtF encounter is not as satisfying.

In addition to studying the level of satisfaction dyads experienced in a relationship where CMC was used as the means of learning about each other, additional research has taken a different approach to extending SIP theory; looking deeper into how people learn about others via CMC. Regardless of the context, people learn about others in part through making assumptions about other's behavior, and from these assumptions, make judgments about the

people's motives, beliefs and values (Manusov, 2007). Attribution theory offers one viewpoint into the process of assigning meaning and valence. According to Manusov (2007), attribution theory is based on the idea that people naively play scientist in order to make sense of the world around them and to interpret their relationships with others.

It can be presumed that if people make attributions to assign meaning to their experiences, this phenomenon should carry over into the way people understand their CMC relationships. Attribution theory could therefore be used to explain impression formation as people learn about others through CMC, just as they would in an FtF situation (Pentelnik & Rabby, 2009). Walther and Bazarova (2007) give further credence to this assumption by studying how people made misattributions in virtual groups. Although the study primarily focuses on negative attributions in CMC rather than attributions in general, it acknowledges that attributions are influenced by the nature of CMC and also influence how the CMC relationship develops.

According to Booth, Kewley, Edwards and Rosenfeld (1992), people are aware that their words, behaviors and even appearance influence attributions and leads to impression formation. One advantage in using e-mails to form CMC relationships is that participants felt that they were able to share different aspects about themselves in a CMC mediated conversation than they were in FtF interactions (Booth et al, 1992). McKenna, and Bargh (2000) argued that in CMC, the importance of one's physical appearance diminishes. They further found that impressions formed in CMC interactions differed from those formed in FtF interactions as people were not only able to display different aspects of their self identity than they would initially present in FtF interactions but could also create a new or modified identity from the offline personality.

The role of text based messages in creating attributions and forming impressions in CMC situations is supported by Gibbs, et al.'s (2006), finding that people consciously choose the information they share about themselves over e-mail. According to Gibbs, et al. (2006), the type of information-seeking strategies participants use depends upon their goals and their anticipated future interaction (AFI). Gibbs et al.'s (2006) findings show that people make intentional choices about how they present themselves online and what information they choose to disclose based upon their relational goals for future interaction.

It is important to note that the choices people make about self-presentation online often leads to impressions formed about them in CMC relationships (Walther, Van Der Heide, Kim, Westerman & Tong, 2008). According to Hancock and Dunham (2001), although the impressions formed in CMC interactions may be based on less information and be less detailed, they are often more intense impressions than those formed through FtF encounters. Hancock and Dunham's (2001) finding is significant not only as further support that relationships can be formed in e-mail, but also in demonstrating that the connection between participants in a CMC relationship feels just as real, if not deeper, to participants than FtF relationships.

Attributions in Professional E-mails

Understanding how relationships form, and that impressions and attributions are made about people based upon the content of e-mail messages and other CMC communications has primarily been studied in relation to how people form social relationships online. With the exception of Booth-Kewley (1992) who added a task based component to their study, each of the studies cited above looked exclusively at social interactions online to study how CMC relationships are formed. Ramirez and Zhang (2007), conducted one of the larger studies of this nature. In their study, students took part in an experiment where they communicated with other

students online. The interaction between students is a social interaction, studied to learn more about relational satisfaction. While it seems that it should be a logical step to look at how people learn about co-workers or other professionals in an organizational context, few studies currently study professional relationships and their development using CMC.

When looking at how the workplace has changed over the last few decades, Luong, Durgunoglu, Hennek, and Thao (2007) identify women entering into the workplace in increasing numbers and the rising use of e-mail as the two most profound changes that have transformed the face of the modern organization. Additionally, CMC has been found to be particularly beneficial to professionals for its ability to foster collaboration in workgroups (Walsh & Maloney, 2007; Skovholt & Svennevig, 2006). One reason for CMC's utility in organizations is its ability to allow professionals to respond to questions without the same barriers of time and space as they have in FtF interactions or phone calls (Hooff, 2005). Walsh and Maloney (2007) identified e-mail's unique ability to help with coordination between international workgroups, however found that just as in FtF cultural differences still had some impact on the relationship.

Cultural misunderstanding in e-mail can occur both because of language barriers, but also as a result of misattributions of intent brought about by language use (Walsh and Maloney, 2007). Luong et al (2007) studied the perception of gendered communication in professional e-mails and how these influenced effectiveness. While their study addresses effectiveness rather than attributions in relationship formation, it does show the link between impressions and e-mail within organizations. Participants were able to identify gendered language within e-mail. According to Luong et al. (2007), male participants in particular were influenced by gendered language, feeling disconcerted when people with female names used male gendered language and vice versa. Further, male participants also felt that male gendered language used by male

leaders was most effective. The finding shows that in a workplace and in a social context, the text of the message is used to make assumptions about the author. The implication that in organizational e-mails professionals make attribution about others leadership skills based on their language shows that understanding attributions will help understand professional CMC relationship formation.

A feature not entirely unique to organizational e-mails, however certainly a more common feature to professional e-mails, is that of copying. In copying, an e-mail message addressed to one person is simultaneously sent to additional people to be included in the conversation. According to Skovholt and Svennevig (2006), copying additional people in an e-mail message can be used to keep other participants involved in a conversation or as a method of social control by copying influential people who might agree with the sender's position in a controversial message. Interestingly, Skovholt and Svennevig (2006) also found that in its use connecting multiple people, e-mail copies also are used to build identity and alliances. Despite not delving further into how identity is created through copying people in e-mail messages, beyond that multiple people are simultaneously receiving the same identity building messages, the study illustrates another similarity between professional and social CMC messages; in both social and professional contexts, CMC is being used for impression formation to create and share identity.

Waldvogel (2007) addresses the subject of attributions and impression formation in organizational e-mail messages focusing on the uses of greetings and closings in e-mail. Greetings and closings set the tone for how the e-mail overall is perceived. This is related to attributions as the receiver's perception of the e-mail will influence conclusions drawn about the content of the message, and of more long term significance, their impressions about the sender.

When looking at tone across e-mails, it was found that the culture of the organization influenced both the types of greetings and closing used and also the way the e-mail was perceived (Waldvogel, 2007). This is important to note in an organization because it shows that people's perception of others based on CMC can be influenced by factors outside the content of a message.

Social Desirability as a Measure of Attributions

As people communicate, certain behaviors become familiar and therefore seem more acceptable or appropriate than others. This resonates both with Waldvogel's (2007) study that cultural norms influence attributions in e-mail and with Hoof's (2005) assertion that social norms determine how we view an e-mail message. Attributions therefore are shaped by culture, social norms and each person's individual preference. The variance between people's personal preferences is visible in Turnage's (2008) study of flaming behaviors, or hostile or offensive language use in e-mails. Flaming led to conflict within organizations; however each person had a different tolerance for flaming behaviors. As with other types of CMC messages, flaming led the receiver to make attributions about the sender. In the case of flaming behaviors, the attributions, influenced by both social norms and personal preference were primarily negative.

Social desirability describes people's tendency to behave or judge others' behaviors based on beliefs of what is considered to be socially acceptable (Chen, 1994). Social desirability dimensions can be derived from attributions of people's behaviors and statements. Therefore, accepting that attributions are influenced both by personal preference as well as social norms, social desirability will be based on perceived social norms and personal preference.

To understand more about the role of people's attributions in impression formation and e-mail and to understand what type of statements lead to specific attributions there needs to be a

way to measure attributions. As determination of other's social desirability dimension is dependent upon attributions made by others, social desirability will be a useful tool to understanding how people learn about others and form attributions based on e-mail statements.

One common measure of social desirability is the Marlowe-Crowne Social Desirability scale developed in 1960 (Crowne & Marlowe, 1960). This measurement tool is very long in its original form, which has influenced some scholars to claim that the Marlowe-Crowne Social Desirability scale is not a useful measurement (Ballard, 1992). As a result of the lengthiness of the original version of the scale, shorter versions have been created and tested since its conception. According to Fischer and Fick (1993) the commonality of each of these scales is social approval.

In the context of using social desirability and attributions to understand the effect CMC statements have on relationship formation, it is important to note the phenomena of the social desirability bias or positivity bias; where people may try to present themselves in a more favorable light to make a good impression (Booth-Kewley et al., 1992; Chen, 1994). When a positivity bias occurs, it is often a result of either self deception, truly believing the inaccurate presentation, or impression management, intentionally misrepresenting oneself to be more socially appropriate. The reason the positivity bias is so crucial to acknowledge when studying social desirability and attributions in CMC is that anonymity in CMC may influence people to engage in less impression management and behave more like themselves (Connell, Mendelsohn, Robbins and Canny, 2001). Conversely, because of anonymity, people may choose to adopt new persona's that they feel may be more socially desirable. The positivity bias illustrates that people's perceptions, which consequently influence attributions of social desirability, are susceptible to others' impression management.

In their study of attributions in CMC, Pentelnic and Rabby (2009) found that students in a southern university communicating with each other via e-mail and other forms of CMC, that do not include visual representations of the communicators, in the social context of getting to know ones partner and be able to compose a short biography about the partner, most frequently attributed the following two traits to their partners (out of 35 total responses): My partner never hesitates to go out of his/her way to help someone in trouble (9) and my partner is always willing to admit when s/he makes a mistake (7). The significance in the finding of these two social desirability dimensions is that it indicates that in a social context, there was a trend in social desirability dimensions that students felt their partner's displayed. While this could be a trend solely within the university or the parameters of the experiment, the finding may be more significant indicating a trend of general social desirability dimensions that people commonly attribute to others when learning about them through e-mail.

An additional aspect of Pentelnic and Rabby's (2009) study was to qualitatively analyze statements that users felt influenced their attribution of the two key social desirability dimensions. For the social desirability dimension of "my partner never hesitates to go out of his/her way to help someone in trouble" statements "showing interest in the participant and the partner being willing to help or give advice to the participant" (Pentelnic and Rabby, 2009, 12) were found to influence attributions of the dimensions. Statements such as "direct statements about making a mistake and confessions of past or present experiences" (Pentelnic and Rabby, 2009, p12) were found to influence participants to attribute the social desirability dimension of "my partner is always willing to admit when s/he makes a mistake" about their partner. The importance of this finding is that knowing what type of statements in CMC lead to certain attributions of social desirability would greatly enhance knowledge about how CMC relationships are formed. It

would also tell us what cues people are looking for in an interaction to make attributions and form impressions about others in CMC.

In any study focused within a specific locale, it is important to determine if the findings hold true outside of that particular context. Pentelnic and Rabby's (2009) study was based on findings in a southern university and it would be beneficial to substantiate and extend their study. To learning more about the role of specific attributions of social desirability and Pentelnic and Rabby's (2009) research, the following three research questions were developed:

RQ1 a-When presented with statements previously found to influence the two key social desirability dimensions of 'never hesitating to go out of his/her way to help someone in trouble and always willing to admit when s/he makes a mistake, will student participants in a social context make the same attributions of social desirability as students in the southern university?

RQ1 b-How will a varied population of a western city respond to the statements previously found to influence the two key social desirability dimensions of 'never hesitating to go out of his/her way to help someone in trouble' and 'always willing to admit when s/he makes a mistake' and how will these attributions compare with the findings previously identified by Pentelnic and Rabby (2009)?

RQ1 c -Given the scenario that all of the statements emanate from one person, what will participants attribute as the predominate social desirability dimension?

Kim, Kim, Park and Rice (2007) acknowledge that CMC plays a different role for different people. For adolescents, for example, e-mail is primarily used to communicate with people older than them and for sending detailed messages. College students use e-mail in a social context to help them maintain high school relationships while adults used e-mail in both

social and professional context to maintain social relationships and in a professional context to transmit large amounts of detailed information. Kim et al.'s (2007) study shows that e-mail is used in a variety of different contexts. Given that e-mail has been shown to be used in both social and professional contexts and across age groups to achieve multiple relational and task based needs, the second research question is:

RQ2- Will there be any difference in the attributions made by a student in a social context compared to those of a professional in an organizational context?

Method

Participants

Participants in this study consisted of 65 people from a midsized west coast city, with 40 females (62%) and 25 males (38%) with an mean age of 30.45. The participants came from two separate groups of individuals; Group 1 was made up of undergraduates from a small west coast university and the Group 2 contained participants from a west-coast civil engineering company based out of a mid-western city. Although each group participated in identical surveys, the participants were given differing scenarios describing why the research was being completed and their participation elicited. The researcher asked students to complete the survey about their general e-mail usage as part of a study to learn more about social patterns in e-mail usage, while members of the civil engineering group were asked to complete a survey to assist in understanding how organizations use e-mail.

Group 1, the student population, contained 27 respondents (42%) and was made up of 18 females (67%) and 9 males (33%). The age of Group 1's participants ranged from 18 to 22 with a mean age of 18.4. The majority of the participants identified themselves as European American (74%), followed by Other (14.8%), African American and Hispanic/Mexican (both 3.7%), with

the remaining participants not responding. Group 2, the organization's population, contained 38 respondents (58%) and was made up of 22 females (57.9%) and 16 males (42.1%). The age of Group 2's participants ranged from 23 to 64 with a mean age of 39. The majority of the participants identified themselves as European American (78.9%), followed by Pacific Rim and Other (both 7.9%) and African American (2.6%).

Additionally, participants reported the amount of e-mails they typically sent per week and the number of people they e-mailed each week that they have not met FtF. The majority of the participants in Group 1 reported that they sent between 0-50 social e-mails each week (96.2%) the remainder of participants (3.7%) sent between 51-150 social e-mails per week. Of these e-mails, most Group 1 participants indicated that they sent between 0-2 e-mails each week to friends they had not met FtF (92.6%), with the remaining participants (7.4%) sending between 3-6 e-mails to friends they had not met FtF.

Members of Group 2 reported on their professional e-mail habits. Of these, the majority of participants (39.4%) sent 0-50 business e-mails each week, followed by 51 – 150 and 151-300 (both 28.9) work e-mails sent each week and one participant (2.6%) sending over 501 e-mails each week. Of these e-mails, most of the organizational participants (36.8%) indicated that they sent business e-mails to 11+ people each week who they had not met FtF, followed by e-mails sent to 3-6 unknown people each week (26.3%) with the remaining participants sending 0-2 and 7-10 work e-mails to people they had not met FtF (both 18.4%).

Measures

Participants complete an online survey that was based upon the results of the qualitative analysis of Pentelnic and Rabby's (2009) study. Out of respect for the students and professionals, who might otherwise be too busy to consider participating in an extensive study, the survey was

a short measure containing only five items in addition to demographic questions. To create the survey, the researcher used modified statements that had previously been found to influence the two most common social desirability dimensions of ‘never hesitating to go out of his/her way to help someone in trouble’ and ‘always willing to admit when s/he makes a mistake’ from Pentelnic and Rabby’s (2009) study. In the original study by Pentelnic and Rabby (2009), 2 representative statements that participants indicated influenced them to feel that their partner ‘never hesitated to go out of his/her way to help someone in trouble’ were:

If you need to know anything more just drop me and [sic] e-mail and I will be more than willing to give you more info. (Pentelnic & Rabby, 2009, p11)

I took Conflict Management with [Professor X]... Don’t be nervous. I am sure you will do a wonderful job... Also I have all of [Professor X’s] old quizzes and tests, so if you need some help let me [know]. (Pentelnic & Rabby, 2009, p12)

These statements were modified to fit both the organizational and social contexts of the survey to:

Survey Question 1: I think these are all the details you’ll need for the project. If you need anything more, just talk to Sam who is an expert in this area; or drop me an e-mail and I will try to give you more info.

Survey Question 3: I took the licensing exam a few years ago. Don’t be nervous. I am sure you will do a wonderful job. Also I have all of my old practice exams, so if you need them, let me know.

Participants in Pentelnic and Rabby’s (2009) study indicated that confessions of past mistakes influenced them to feel that their partner was ‘always willing to admit when s/he makes a mistake’. A representative example of this type of statement is “...all the lying I did to my

parents while I was in H.S... It was immature of me and I definitely wish I could take it all back. Now I understand that its [sic] hard for my parents to trust me at times and I have to start all over to build their trust back” (Pentelnik and Rabby, 2009, p12). Participants were also influenced to feel that their partner was ‘always willing to admit when s/he makes a mistake’ by statements where participants admitted they did not know something, such as the statement ““LOL, no I didn’t know that” (Pentelnik and Rabby, 2009, p12). These statements were modified to fit both the organizational and social contexts of the survey to:

Survey Question 2: This next week is crazy, I have overbooked myself- really bad planning on my part. I wish I had more time to talk to you about your problem but we are going to have to wait till next week.

Survey Question 4: I will have to get back to you with the answer to that question, I really am not sure of the answer right now.

Participants read each of the statements and attributed a social desirability dimension to the statement to show the attribution they had made about an unknown person writing the statement. Group 1 was instructed to make attributions from a social perspective while Group 2 made attributions from a professional context. The social desirability dimensions were derived from the Strahan and Gerbasi (1972) abridged version of the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) and were identical to the dimensions that participants used in Pentelnik and Rabby’s (2009) study. The dimensions were modified from their original self reflective version of the scale for Pentelnik and Rabby’s (2009). The phrase my partner from Pentelnik and Rabby’s (2009) modification of the scale was changed to the phrase, this person. The modification reflected the shift from a known individual to an unknown correspondent (e.g., original - “I never hesitate to go out of my way to help someone in trouble”

was altered to “*My partner* never hesitates to go out of his/her way to help someone in trouble”; the final iteration became “*This person* never hesitates to go out of his/her way to help someone in trouble”)

At the conclusion of the survey, participants were asked to consider that the author had been one person, rather than 4 individuals and to make an attribution of the person’s overall social desirability dimension.

Results

The overall subsets of RQ1 focus on understanding how attributions made by participants in Group 1, the students e-mailing in a social context and Group 2, the professionals sending e-mail in an organizational context, compared with the attributions made by the participants in the Pentelnic and Rabby (2009) study.

RQ1a focused on directly comparing the students’ attributions with the statements that were influential to the original students’ attributions. Survey questions 1 and 3 were both statements that originally influenced participants to make the attribution that ‘this person never hesitating to go out of his/her way to help someone in trouble’. Using a cross-tabulation analysis, the students in Group 1 overwhelmingly did not make the attribution of helping someone in trouble in relation to survey question 1 (9.5% made the same attribution). The majority of the participants (57%) attributed survey question 1 to the social desirability dimension of ‘when this person doesn't know something, they don’t at all mind admitting it’. The results of survey item 3 was 57% of students influenced by the statement to make the attribution that the original participants made. For RQ1a Group 1’s attributions only matched one of the two attribution statements that influenced the participants in Pentelnic and Rabby’s (2009) study to determine that a person never hesitates to go out of his/her way to help someone in trouble.

The social desirability dimension, this person is always willing to admit when s/he makes a mistake was represented by survey items 2 and 4. In survey item 2, 57% of Group 1 participants were influenced by the statement to make the attribution that the original participants made. As in the social desirability dimension of helping someone in trouble, Group 1's attributions only matched one of the two attribution statements that were influential to the participants in Pentelnic and Rabby's (2009) study in determining that a person is willing to admit that they had made a mistake. The students in Group 1 overwhelmingly did not make the attribution of helping someone in trouble in relation to survey item 1 (9.5% made the same attribution). The majority of the participants (71%) attributed survey item 1 to the social desirability dimension of 'when this person doesn't know something, they don't at all mind admitting it'.

RQ1b adds the comparison of a various population compared to the participants from Pentelnic and Rabby's (2009) study. Using a chi-squared analysis showed that significance was not reached for any of the survey items, indicating that the total population of this study was not influenced to make the same attributions. Survey items 1, 2 and 4 had p values of $p=.335$, $.332$ and $.709$ respectively and do not approach significance. Survey item 3 comes closest to approaching significance with $p=.078$.

RQ1c asked participants to assume all of the survey items emanated from one person to see what participants will attribute as the predominate social desirability dimension. The overall feeling of both groups (42% total) was that the social desirability dimension 'when this person doesn't know something, they don't at all mind admitting it' was most descriptive of a single person who had written all the statements.

RQ2 compared attributions made by members of Group 1 and Group 2. This will indicate if the different uses of e-mail led to different attributions. These results could be compared visually by looking at the results of each survey item to see the social desirability dimension each group felt was representative or by comparing which groups' attributions more closely matched the attributions of social desirability made by the participants of Pentelnic and Rabby's (2009) study. The majority of participants in both groups chose the same responses for each item on the survey. Participants chose the same dimensions as the participants in the Pentelnic and Rabby (2009) study for survey items 2 and 3. Group 1, 57% of participants chose the expected dimension for both survey items; Group 2, 43% and 80%, respectively chose the expected dimension.

Participants in both groups chose different social desirability dimensions than those expected based on the results of the Pentelnic and Rabby (2009) study. Although they did not choose the expected social desirability dimension, the group members did choose the same social desirability dimension as each other, 57% and 64% respectively chose the dimension 'when this person doesn't know something, they don't at all mind admitting it' in response to survey item 1; 71% and 73% respectively again chose the dimension 'when this person doesn't know something, they don't at all mind admitting it' rather than the expected dimension.

Discussion

The goal of this study was both to further test the results of Pentelnic and Rabby's (2009) study to determine if the findings hold true outside of the original context and to understand if there were differences between attributions made by participants with different e-mail usage contexts. To test the results, participants in this study were presented with statements that had influenced specific social desirability dimensions to see if there were similarities between the

responses in each study. The value of this investigation is to extend previous research by understanding more about the two social desirability dimensions of ‘never hesitating to go out of his/her way to help someone in trouble’ and ‘always willing to admit when s/he makes a mistake’ that had been found to be predominately noticed in CMC interactions.

RQ1a compared two similar groups. By holding constant the population as students and only varying location, there were fewer variables to influence the results. The survey used two items for each of the two dimensions. Interestingly, the results showed that the students matched the previous study for one of the two representative examples of each dimension. This is interesting as it shows that some of the same statements were influential. Participants matched on the dimension represented in survey items 2 and 3. These two statements almost directly stated the dimensions which could lead to both groups choosing the same dimension for these types of statements. This finding could indicate that direct statements relating to a social desirability dimension influence participants to choose the corresponding social desirability dimension. The finding about direct statements duplicates the finding in Pentelnic and Rabby’s (2009) study.

The result of the attributions that did not parallel the attributions previously made by participants in Pentelnic and Rabby’s (2009) are considerably more intriguing. Participants attributed survey item 4 to the dimension that the person was willing to admit when they did not know something rather than the anticipated dimension that the person did not mind admitting they had made a mistake. There is a similarity to these two dimensions as there is an admission in each. In the qualitative analysis by Pentelnic and Rabby (2009), statements where a person made a confession influenced the dimension of admitting to making a mistake. A confession of not knowing something is a similar admission of making a mistake as it is tied to the ego. The similarity of these two social desirability dimensions and their relationship to confessions shows

that in e-mail, disclosing something that is tied to ego, either mistakes or lack of knowledge, influence people to make attributions that recognize the person's willingness to acknowledge their own shortcomings.

Survey item 1 led participants to attribute the statement to the dimension that when a person does not know something they are not ashamed to admit it. This result is intriguing, as the statement was designed to be representative of helping someone in trouble, however the predominate attribution participants made was the same dimension that participants selected as the dimension for survey item 4. At first glance this seems very random, however a possible reason for the attribution is that the researcher added an extra level of assistance to the statement to add to the feeling of helpfulness; instead of reading 'let me know if you need more help', the statement added an extra resource to read 'talk to Sam who is an expert in this area; or drop me an e-mail and I will try to give you more info.' By adding Sam as a resource to be helpful it added the aspect that there is someone else who knows more. Modifying the statement may have influenced the participants to choose a different dimension.

Although the influence was unintended, this finding combine with the attribution to survey item 4 help to answer RQ1c. The focus of RQ1c was to understand which, if any of the statements might lead to a stronger attribution or restated, if one of the social desirability dimensions was a more commonly attributed attribute. By pairing the willingness to assist a person, along with the confession that someone might know more than them, the two types of influential statements were combine in one statement. Participants' attribution of the dimension that the person was willing to admit when they did not know something, could indicate that confessions are more influential towards overall impression formation than statements relating to offering assistance to someone in trouble.

An additional reason for asking RQ1c was to see if one of the two social desirability dimensions that Pentelnic and Rabby's (2009) participants identified as influential had a larger impact on the attributions of the applicant. The results indicated that none of the statements caused an overall attribution of either of the two expected dimensions of 'never hesitating to go out of his/her way to help someone in trouble' and 'always willing to admit when s/he makes a mistake'. Instead, participants felt that the survey items that best represented the social desirability dimension 'when this person doesn't know something, they don't at all mind admitting it'. The reason for making the attribution that a person is willing to admit they made a mistake, as discussed above, is probably due to the majority of statements containing some element of an admission or confession. It therefore appears that the characteristic of including a confession statement in an e-mail message could be a greater influence on attributions that people make about the sender than other types of statements included in the same e-mail. This finding has potential application in e-mail communications as people try to influence attributions by controlling the information shared about one's self (Walther et al, 2008). Understanding that confessions may influence the attributions made from an e-mail most strongly, can influence the type of statements a person would want to consider using while formulating an e-mail to someone they did not know via FtF

RQ1b, similar to RQ1 a and 1c, focuses on comparing the total responses from participants in this study with the attributions of the population in Pentelnic and Rabby's (2009) study. The value of this question is that it can further support the overall goal for RQ1, to determine if there were any attributions that could be generalized across a larger population than those of the study. To understand these results the chi-square analysis was used. None of the results approached significance in this study. While this is disappointing in relation to the overall

goals of the study, it is not unexpected. Studies of this limited size rarely approach significance. It will be more important to review this data, understanding its lack of significance, to determine if there are any aspects of the study that could be modified for future iterations to increase significance for future iterations with a larger population. Based on the reactions to the study previously discussed, modifying the statements may be advisable to prevent confusion.

Survey item number 3, offering to give assistance studying for exams was the result most closely approaching significance. Although the result did not approach significance it was unique as it was one of the survey items that most closely approached significance. One reason the results for item number three may have approached significance is that the participants were offered a direct example of offering assistance. In statements that almost directly state the social desirability dimension it is not surprising that attributions were of that dimension. The reason this is important is that it shows that in e-mails, where the text of the e-mail is the only way people can get information to make attributions, direct statements towards social desirability dimensions can have the effect of influencing a person to make attributions towards that dimension. In other words, subtly expressing a social desirability dimension in e-mail, in particular the social desirability dimension of being willing to help someone in trouble should be explicitly stated to be most influential as a method of impression formation.

Based on the work of Kim et al (2007) RQ2 was designed to see if the different uses of e-mail, social and organizational, led participants selecting different social desirability dimensions. The results in relation to participant's attribution in Pentelink and Rabby's (2009) study have already been discussed in relation to RQ1 a and c. What is more interesting is that although the results that did not match the expected social desirability dimensions, they still matched each other. This indicates that participants, despite being asked to focus on the study from differing

contexts, made attributions of the same social desirability dimension. While the results cannot be conclusive due to sample size and lack of significance in the chi-squared analysis, the results potentially indicate that social desirability attributions are not influenced by context, but more by people's deeper internal attributions. This indication is encouraging for continued study along the direction of attributions in e-mail as it indicates that there is a potential for generating predictions about attributions in e-mail in the future if limitations within the study can be resolved.

Limitations and Future Directions

As discussed in Pentelnic and Rabby's (2009) study, social desirability is a measure of positive/desirable behaviors of people. By providing participants with a list of socially desirable characteristics with which to create attributions, the survey confines the attributions that participants can make. While this was necessary based on the scope of the survey, expanding the study to allow participants to write their own attributions could lend more freedom to the nature of the study. Responses were further limited by requiring a positive focus connected to the attributions. Moving away from social desirability towards general attributions would greatly enhance the scope of the study and allow for a deeper understanding of types of attributions that people make in e-mail

This study's largest limitation was the size of the sample and the length of the survey. The small sample size greatly reduced the chances of achieving significance in the results. Further, by having a short measure, items were only able to touch upon surface level answers. Expanding the measure could allow for greater depth and understanding. Based on these two limitations this study can be considered preliminary at best, however based on some of the unique findings, such as the continued influence of confessions and direct statements to attributions in e-mail and the similarity of attributions despite different contexts, shows that the study should be expanded to see if significant results could be achieved and also to gain more depth in the responses.

Although the results of RQ2 show that there are few differences between the attributions made by the social and organizational groups, this difference, particularly attributions within professional CMC interactions where correspondents have not met FtF deserves further study. The reason for this is found in the demographic information collected. 92.6% participants of Group 1, the social context, indicated that they do not know 0-2 people with whom they correspond via e-mail in an average week, while 81.5% of the members of Group 2 reported that they send professional e-mails to over 3 people each week. One way to further study the role of attributions in professional e-mails would be to do a larger scale qualitative analysis based solely on attributions within professional CMC interactions where correspondents have not met FtF.

Works Cited

- Chen, G-M. (1994). Social desirability as a predictor of argumentativeness and communication apprehension. *The Journal of Psychology, 128*, 433-438.
- Crowne, D. P., & Marlowe, D. A. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349–354.
- Connell, J. B., Mendelsohn, G. A., Robins, R. W., & Canny, J. (September, 2001). Effects of communication medium on interpersonal perceptions: Don't hang up on the telephone yet! Proceedings of the 2001 International ACM SIGGROUP Conference on Supporting Group Work, Boulder, CO.
- Booth-Kewley, S. Edwards, J. E., & Rosenfeld, P. (1992). Impression management, social desirability, and computer administration of attitude questionnaires: Does the computer make a difference. *Journal of Applied Psychology, 77*, 562-566.
- Gibbs, J.L., Ellison, N.B., & Heino, R.D. (2006). Self-presentation in online personals: The role of anticipated future interaction, self-disclosure, and perceived success in Internet dating. *Communication Research, 33*, 152-177.
- Hancock, J. T., & Dunham, P. J. (2001). Impression formation in computer-mediated communication revisited: An analysis of the breadth and intensity of impressions. *Communication Research, 28*, 325–347.
- Hooff, B. (2005). A learning process in e-mail use - a longitudinal case study of the interaction between organization and technology. *Behaviour & Information Technology, 24*(2), 131-145

- Kim, H., Kim, G., Park, H., & Rice, R. (2007, July). Configurations of relationships in different media: FtF, e-mail, instant messenger, mobile phone, and SMS. *Journal of Computer-Mediated Communication*, 12(4), 1183-1207.
- Luong, A., Durgunoglu, A., Hennek, J., & Thao, M. (2007, December). Perception of leader effectiveness as a function of gendered language in electronic mail. *Communication Journal of New Zealand*, 8(1), 19-30.
- Manusov, V. (2007). Attributions and interpersonal communication: Out of our heads and into behavior. In D. R. Rosko-Ewoldsen & J. Monahan (Eds.), *Communication and social cognition: Theories and methods* (pp. 141–169). Mahwah, NJ: Lawrence Erlbaum.
- Manusov, V., & Koenig, J. (2001). The content of attributions in couples' communication. In V. Manusov & J. H. Harvey (Eds), *Attribution, communication behavior, and close relationships* (pp. 134-152). Cambridge: Cambridge University Press.
- Pentelnik, L., & Rabby, M. K. (February, 2009). Attribution in Computer Mediated Social Interactions: Influences in Social Desirability. Proceedings of the 2009 Western States Communication Association Meeting, Mesa, AZ.
- Ramirez, A. Jr. (2007). The effect of anticipated future interaction and initial impression valence on relational communication in computer-mediated interaction. *Communication Studies*, 58, 53-70.
- Ramirez, A. Jr., & Wang, Z. (2008). When online meets offline: an expectancy violations theory perspective on modality switching. *Journal of Communication*, 58, 20-39.
- Ramirez, A. Jr., & Zhang, S. (2007). When online meets offline: The effects of modality switching on relational communication. *Communication Monographs*, 74, 287-310.

- Skovholt, K., & Svennevig, J. (2006). E-mail copies in workplace interaction. *Journal of Computer-Mediated Communication*, 12(1), 42-65.
- Strahan, R., & Gerbasi, K.C. (1972). Short, homogeneous versions of the Marlowe Crowne Social Desirability Scale." *Journal of Clinical Psychology*, 28, 191-193.
- Turnage, A. K. (2008). E-mail flaming behaviors and organizational conflict. *International Communication Association*, 13, 43-59.
- Waldvogel, J. (2007). Greetings and closings in workplace e-mails. *Journal of Computer-Mediated Communication*, 12. 122-143.
- Walsh, J., & Maloney, N. (2007, January). Collaboration structure, communication media, and problems in scientific work teams. *Journal of Computer-Mediated Communication*, 12(2), 378-398.
- Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, 19, 52-90.
- Walther, J. B. (1993). Construction and validation of a quantitative measure of impression development. *Southern Communication Journal*, 59, 27-33.
- Walther, J. B., Van Der Heid, B., Kim, S., Westerman, D., & Tong, S. (2008). The role of friends Appearances and behavior on evaluations of individuals on Facebook: are we known by the company we keep? *Human communication Research*, 34, 28-49

Table 1

Survey Question 1: I think these are all the details you'll need for the project. If you need anything more, just talk to Sam who is an expert in this area; or drop me an e-mail and I will try to give you more info.

	Group 1 vs Group 2		
	Group 1: Social	Group 2: Professional	
This person is always willing to admit when s/he makes a mistake.	1	0	
This person always tries to practice what they preach.	1	1	
This person never resents being asked to return a favor.	2	1	
This person has never deliberately said something that hurt someone's feelings.	1	1	
This person never hesitates to go out of his/her way to help someone in trouble.	2	6	Expected Response
This person has never intensely disliked anyone.	1	0	
When this person doesn't know something, they don't at all mind admitting it.	12	20	Majority Response
This person is always courteous, even to people who are disagreeable.	1	1	
This person would never think of letting someone else be punished for their wrong doings.	0	1	

Table 2

Survey Question 2: This next week is crazy, I have overbooked myself- really bad planning on my part. I wish I had more time to talk to you about your problem but we are going to have to wait till next week.

	Group 1 vs Group 2		
	Group 1: Social	Group 2: Professional	
This person is always willing to admit when s/he makes a mistake.	12	13	Expected/Majority Response
This person always tries to practice what they preach.	1	3	
This person never resents being asked to return a favor.	1	1	
This person has never deliberately said something that hurt someone's feelings.	1	3	
This person never hesitates to go out of his/her way to help someone in trouble.	1	4	
This person has never intensely disliked anyone.	1	0	
When this person doesn't know something, they don't at all mind admitting it.	1	1	
This person is always courteous, even to people who are disagreeable.	2	4	
This person would never think of letting someone else be punished for their wrong doings.	1	1	

Table 3

Survey Question 3: I took the licensing exam a few years ago. Don't be nervous. I am sure you will do a wonderful job. Also I have all of my old practice exams, so if you need them, let me know.

	Group 1 vs Group 2		
	Group 1: Social	Group 2: Professional	
This person is always willing to admit when s/he makes a mistake.	1	0	
This person always tries to practice what they preach.	1	1	
This person never resents being asked to return a favor.	3	2	
This person has never deliberately said something that hurt someone's feelings.	0	1	
This person never hesitates to go out of his/her way to help someone in trouble.	12	24	Expected/Majority Response
This person has never intensely disliked anyone.	0	1	
When this person doesn't know something, they don't at all mind admitting it.	1	0	
This person is always courteous, even to people who are disagreeable.	3	1	

Table 4

Survey Question 4: I will have to get back to you with the answer to that question, I really am not sure of the answer right now.

	Group 1 vs Group 2		
	Group 1: Social	Group 1: Professional	
This person is always willing to admit when s/he makes a mistake.	2	2	Expected Response
This person always tries to practice what they preach.	1	1	
This person never resents being asked to return a favor.	1	0	
This person has never been irked when people expressed ideas very different from my own.	1	1	
This person has never deliberately said something that hurt someone's feelings.	0	1	
When this person doesn't know something, they don't at all mind admitting it.	15	22	Majority Response
This person is always courteous, even to people who are disagreeable.	1	1	
This person would never think of letting someone else be punished for their wrong doings.	0	2	