Handbook of Research on Computer Mediated Communication

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Volume I

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Chapter XXXV
Social Influence and Computer Mediated Communication

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ABSTRACT

This chapter examines contemporary research in computer-mediated communication (CMC) with regard to a specific question: How does attempting to influence individuals via CMC affect the social influence process? Over the past 15 years, the use of the Internet has shifted from an exhaustive information store, to another means with which to create and maintain group and individual social relationships (Postmes, Spears, & Lea, 2002). As a result, individuals engage in social influence via CMC. This chapter focuses on persuasion via instant messaging (synchronous text-based CMC) and e-mail (asynchronous text-based CMC) from two theoretical perspectives: dynamic social impact theory (Latané, 1996) and social role theory (Eagly, 1987). The findings of these two lines of research speak to the differences in the persuasion process when using CMC as well as individual differences such as gender of the interactants. Implications for research on computer mediated communication and social influence are discussed. .

INTRODUCTION

Social Influence and Computer Mediated Communication

Social scientists have spent years examining how people reciprocally influence one another on a daily basis. This research has taught us much about several social influence processes such as attitude change (Tesser & Shaffer, 1990), persuasion (Petty & Cacioppo, 1984), and compliance (Cialdini, 2001). However, most of the accumulated research examining social influence has been done using traditional face-to-face (FTF) communication. Because computer mediated communication (CMC) differs from FTF in many ways (absence of social cues, latency of response, etc.), it stands to reason that differing mediums have differing effects on interpersonal processes such as social influence.

With recent trends in Internet usage for building and maintaining social connections, researchers have started to turn their attention to the nature

of social interaction in computer-mediated contexts (see Bargh & McKenna, 2004; McKenna & Bargh, 2000 for reviews). This growing interest is evidenced by the increasing number of researchers examining the different interpersonal outcomes that appear to be a function of the interaction medium (Bargh & McKenna, 2004). In order to understand and predict how communication mode differences impact social influence processes, we must first understand how these communication modes differ from each other.

The objectives of this chapter are twofold. First, we plan to examine the reasons behind some of the reported differences in instant messaging and e-mail communication. Second, we will explore some current research that tests the differences between FTF and CMC. To accomplish this second objective, we will review the literature on differences between CMC and FTF and how those differences impact social interaction. Then, we will explore two current lines of research that have applied social psychological theories to understanding social influence processes in CMC. Finally, we will conclude with a discussion of future trends in the area.

BACKGROUND

The Internet as a Source of Social Influence

An estimated 73 percent of the nation's population is connected to the Internet (Pew Internet and American Life Project, 2006), and this number is increasing every day. Social interaction via the Internet is also rapidly growing. Nearly 80 percent of people who go online in a given day do so to send e-mail (Pew Internet Report, 2000) and four in 10 Americans who are online use an instant message program (Pew Internet and American Life Project, 2004). The use of the Internet has now shifted from an exhaustive information store, to another means with which to create and

maintain group and individual social relationships (Postmes, Spears, & Lea, 2002). The proliferation of chat rooms on the Internet has created opportunities for individuals to engage in social influence attempts 24 hours a day, 7 days a week, and 365 days a year. Owing to the unique properties cyberspace affords its users, social influence attempts over this new medium may not be similar to that of face-to-face interaction.

Computer Mediated Communication vs. Face-to-Face.

A review of the existing literature on CMC indicates that there are marked differences between face-to-face and computer-mediated communication (see Bargh & McKenna, 2004; McKenna & Bargh, 2000 for review). For instance, McKenna and Bargh (2000) proposed four domains in which social interaction via computer mediated communication (CMC) differs from other more conventional interaction mediums: relative anonymity, reduced importance of physical appearance, attenuation of physical distance, and greater control over the time and pace of interactions.

Anonymity. Perhaps the most attractive and unique traits the Internet has to offer are that of relative anonymity and social interaction opportunities (see discussion in Postmes et al., 2002). The Internet offers its users relatively anonymous social interactions, if they so choose, in instant messaging chat rooms, message boards, games, and personal Web sites. Specifically, the ability to be relatively anonymous in a social interaction reduces accountability leading to the depersonalization and deindividuation of its users (Postmes et al., 2002).

Depersonalization is defined as a state in which a normal sense of personal identity and reality is lost. Deindividuation is also heightened when interacting on the Internet due to anonymity and group salience (Postmes et al., 2002). Both deindividuation and depersonalization lead to elevated group salience and polarization between groups

thus increasing adherence to group, rather than individual, norms which then become predictive of behavior (Postmes et al., 2002). Anonymity may have major consequences on interpersonal group participation, and the nature of that participation. Individuals may be more likely to participate and interact differently in general based on the anonymous nature of the communication medium.

It is important to note that, the property of anonymity is not present in all forms of CMC. E-mail is one of the most common forms of CMC, yet the majority of those using e-mail intend for the recipient to be aware of who sent the e-mail. Moreover, most individuals have explicit clues to their identity in their e-mail addresses that identify them as the sender of an e-mail. For instance, an e-mail from Tom.Smith@ automobiles.com provides a recipient with information on the name and corporation of the sender (also see discussion in Guadagno & Cialdini, 2005 for expanded details on this issue).

Physical Appearance and Distance Online. Along with increased anonymity, McKenna and Bargh (2000) also note that the importance of physical appearance is reduced for individuals interacting over CMC. If interacting via CMC (e.g., instant messaging or e-mailing), interactants need not worry about physical appearance issues that are normally associated with FTF social interactions (e.g., owing to the textual nature of most forms of CMC, race, ethnicity, gender are not salient). This reduced salience of the physical appearance of interactants may produce positive effects, such as decreased discrimination. This has been illustrated in research that has found that African Americans and Hispanics pay more for the same car than Caucasians when purchasing the automobile FTF, whereas that difference disappears when purchasing an automobile online (Morton et al., 2003).

In addition to physical appearance, McKenna and Bargh (2000) also state that the question of physical proximity is not an issue while interacting with CMC. Owing to the fact that one need

not be physically near another to engage in social interaction. The users of certain kinds of CMC, such as e-mail and chat rooms, can occupy the same virtual space bringing about similar feelings of physical closeness while still being thousands of miles from one another. A distinction between physical and social distance may be warranted when discussing proximity over the Internet. We define physical distance as the measurable amount of space between two individuals. We define social distance as the perception of remoteness or closeness between two individuals. It may be the case then that when examining social interaction in CMC, researchers must not only take into account physical distance, but must also consider how social distance and accessibility affects individuals interacting using CMC modalities. For example, individuals who live relatively close to one another may be unlikely to interact with one another due to opposite work schedules, whereas individuals who live thousands of miles apart may be likely to interact with one another due to the frequency with which they both enter the same chat room. This is contrary to classic empirical work on physical proximity which indicates that people are most likely to interact with those near than far (Brockner & Swap, 1976; Festinger, Schachter, & Back, 1950). However most, if not all, of the work relating to proximity and likelihood of interaction has been conducted using physical distance as a metric. Thus, the generalizability of these results to CMC is questionable.

Greater Control Over Time and Pace of Interactions. Finally, McKenna and Bargh (2000) suggest that the time and pace of interactions differ when interacting via CMC. Specifically, they indicate that individuals using CMC have greater control over the duration of their social interactions. Individuals communicating via most forms of CMC (video mediated chat excluded) have an increased time period with which to think about, formulate, and re-formulate their responses during the interaction (e.g., it is not the norm for individuals to reply immediately to e-mail). In

addition, McKenna and Bargh (2000) also note that individuals using CMC modalities such as e-mail have the ability to send messages without the intended recipient being ready to receive them at that moment in time. Thus, individuals using e-mail are not constrained by some of the traditional norms of social interaction such as the hours in which traditional communication takes place.

Nonverbal Cues. Another difference between CMC and face-to-face (FTF) communication is the impact of the absence of visual cues from communication partners. Computer mediated communication is perceived by some as a severely limited environment due to a lack of non-verbal cues such as hand waiving, eye gaze, voice inflection, and others. Researchers even distinguish CMC from other methods of communication that lack non-verbal communication such as the telephone, citing that telephone users have real time communication and still receive some verbal cues, such as voice inflection. This lack of non-verbal cues leads to an even greater sense of anonymity when using CMC (Sproull & Kiesler, 1985). Anonymous online social interaction has been described as limited, depleted, less rich, and impoverished (Hiltz, Turoff, & Johnson, 1989; Siegel, Dubrovsky, Kiesler, & McGuire, 1986; Sproull & Kiesler, 1985) due to its absence of nonverbal cues. This lack of nonverbal cues has been the focus of much research since the adoption of e-mail for interpersonal communication.

There are many other theoretical perspectives about the qualities of CMC. For example, Daft and Lengel (1984) proposed that the absence or presence of nonverbal cues (e.g., variability in richness) is a useful tool in understanding the differences seen across various mediums of communication. Media richness theory (MRT), proposed by Daft and Lengel (1984), states that various mediums differ in the number of cue systems inherent in them. They propose that media differ in richness or the ability of information to change understanding within a time interval. A communication medium should reduce ambiguity and be considered a more "rich" medium to the extent that it has more cue systems within it. Face-to-face communication is seen as the richest form of communication (i.e., it caries the most cue systems within it) while communication mediums such as e-mail are deemed less rich (i.e., they carry very few cue systems within them) (Dennis & Kinney, 1998). Moreover, the presence or absence of non-verbal cues may lead individuals to engage in cognitively different processes when confronted with a persuasive attempt (Chaiken, 1980).

MAIN FOCUS

This chapter examines how communication via instant messaging (real time communication modality in which messages are sent and received instantly) and e-mail (asynchronous message based communication modality) affects the social influence processes. Because of the differences between FTF and the two different types of CMC reviewed above, we have reason to expect that social influence may operate differently depending on the communication mode. The two types of CMC examined in the research we will review have some similarities as well as some differences. In terms of similarities, both instant messing and e-mail have the characteristics of CMC presented by McKenna and Bargh (2000). The feature most relevant to the present research is the lack non-verbal communication behaviors. In terms of differences between instant messaging and e-mail, the two communication methods differ on their levels of anonymity. When interacting with another through an instant messaging program, ones ability to be relatively anonymous is much greater than if that same individual was interacting with another through e-mail (see previous discussion). While there are differences in the level of formality and the latency of response between

e-mail and instant messaging, these aspects will not be addressed, as they are not relevant to the present research.

A Dynamic Social Impact Theory and Catastrophe Theory of Attitudes Perspective on Group Influence

The first line of research to be reviewed compared social influence in CMC and FTF with predictions derived from two theories: dynamic social impact theory and catastrophe theory of attitude change.

Dynamic Social Impact Theory. Dynamic social impact theory predicts that social influence will occur as a multiplicative function of three factors: strength (how important the influencing group of people are to an individual), immediacy (how close the group is to the individual, in space and time, at the time of the influence attempt), and number (number of people in the group) (DSIT; Latané, 1996; see discussion in Harton & Bougious, 2004). Thus, if the topic at hand concerns a medical opinion, presumably a doctor should wield more influence than a gardener and should subsequently be judged to possess more strength. In addition, if an individual is more social, accessible, or immediate than another, that individual should wield more influence due to his or her greater level of social or physical proximity. Dynamic social impact theory also posits that the greater the number of individuals that hold or share a particular attitude or opinion the greater the influence they will yield on an individual.

Dynamic social impact theory predicts that communication in spatially distributed groups will lead to four phenomena: clustering (spatial clustering of attributes), consolidation (a reduction in minority viewpoints), correlation (associations among previously unrelated responses), and continuing diversity (the persistence of minority opinions). These four phenomena, clustering, correlation, consolidation, and continuing diversity (Latané, 1996), form the basis of DSIT and

have received considerable empirical support (Bowen & Bourgeois, 2001; Cullum & Harton, 2007; Harton, Green, Jackson, & Latané, 1998; Huguet, Latané & Bourgeois, 1998; Latané & Bourgeois, 1996; Latané & L' Herrou, 1996; Latané & Nowak, 1997).

Although DSIT explains how individual level influence can result in group-level phenomena, the theory does not explain which attitudes are more likely to change and how those attitudes will change. To test this, Okdie and Harton (2007) chose to combine it with another theory, the catastrophe theory of attitudes (Latané & Nowak, 1994) which offers insight into how attributes might change, and when this change is more likely to occur.

Catastrophe Theory of Attitude Change. The catastrophe theory of attitudes (CTA; Latané & Nowak, 1994) predicts how and when attitudes are likely to change. It attempts to address some of the inconsistent findings in the attitude literature by allowing for nonlinear attitude change. The catastrophe theory of attitudes predicts that attitudes are a function of information and importance[a]. That is, as involvement increases, attitudes tend to be more appropriately represented as categories ("for" or "against") rather than continua. The theory also predicts that the more important an attitude is to the individual, the more extreme and resistant that attitude will be to change (Gleick, 1987; Nowak, Latané, & Lewenstein, 1994) and if the attitude does change, CTA predicts a nonlinear attitude change. In contrast, attitudes of low importance are predicted to be normally distributed, and represented as points on a continuum. In addition, the catastrophe theory of attitudes predicts that low-importance attitudes will change in a more linear or incremental fashion (Latané & Nowak, 1994). Many studies have shown strong support for the predictions derived from CTA (Harton & Latané, 1997; Harton & Latané, 2002; Krosnick & Petty, 1985; Liu & Latané, 1998; Sherif, Sherif, & Nebergall, 1965; Sherif, Kelley, Rodgers, Sarup, & Tittler, 1973).

Okdie and Harton (2007) examined social influence in face-to-face and computer-mediated communication using the theoretical framework of DSIT (Latané, 1996) along with the catastrophe theory of attitudes (CTA; Latané & Nowak, 1994). Participants discussed eight issues, differing in their level of involvement, in three-to-four person groups, in one of three ways. Issues were pre-tested for levels of importance and were specific to each group[b]. They consisted of items that ranged from very controversial (e.g., *"If both people are drunk, it is not rape even if someone does not remember consenting"*) to not very controversial (e.g., *"Dogs are much better pets than cats"*). Conditions varied in their level of immediacy, yet participants in every condition discussed eight issues for four minutes each. Upon entry to the lab, participants were randomly assigned to groups of three or four. In the anonymous instant messaging condition (ACC), participants were anonymous, did not know the location of their partners, and communicated via computer. In the non-anonymous instant messaging condition (NAC) participants were introduced (first name only) to their partners and communicated via computer. Participants in the face-to-face condition (FTF) communicated verbally. Predictions derived from and integration of DSIT and CTA were that clustering, consolidation, and correlation would emerge and differ based on the level of involvement. They also hypothesized that the same three phenomena would occur more in the FTF condition than the two CMC conditions.

Consistent with previous research (DSIT; Latané, 1996) in all conditions (CMC and FTF) attitudes became more similar and decreased in variability after discussion. Further analyses revealed that FTF communication groups showed the greatest increases in clustering lending support to the interpretation that FTF communication may be more persuasive than CMC due to the lack of anonymity and addition of nonverbal cues. Finally, both clustering and consolidation increased more for highly importance issues

than for low important issues. Overall, predictions of DSIT were partially supported. Okdie and Harton (2007) reported finding clustering and consolidation. However, they reported no evidence of correlation. Predictions derived from DSIT involving differing levels immediacy were partially supported. The intermediate condition (NAC) had the greatest increases in clustering and consolidation.

This study provides further support that attitudes that are discussed face-to-face, or over the computer, in an identifiable fashion, and are personally important to the group may be the most likely to change and become part of that societies culture. Okdie and Hartons' (2007) results also support the notion that FTF, or identifiable CMC communication, may be more effective in the spread of shared beliefs than anonymous computer-mediated communication.

Additionally, the results of the Okdie and Harton (2007) study provides social scientists a window into how social influence differs between FTF and instant message based CMC. However, the Pew Internet and American Life Project (2006) reports that while 22 percent of those connected to the Internet have used an instant messaging program, 91 percent of those connected to the Internet have sent or received an e-mail. Thus, while social influence is happening over instant messaging, it does not appear to be happening with the frequency of e-mail. More social influence may be taking place over e-mail than over instant messaging programs[c]. The second line of research reviewed investigated the how social influence processes operate when the communication mode is e-mail and the group was reduced to a dyad.

A Social Role Theory Perspective on Online Interpersonal Persuasion

What about when dyads use CMC to interact? Do the features of online communication impact the persuasion process? And does the gender

and prior relationship of the interactants matter? Using a social role theory perspective (Eagly, 1987), three studies conducted by Guadagno and Cialdini (2002, 2005, 2007) sought to answer these questions.

Social role theory concerns the different roles in society that men and women occupy (i.e., provider, caregiver). Through these roles, men and women learn different skills and beliefs that relate to social behavior. Men and women are also subject to different normative expectations for behavior (e.g., women are expected to be cooperative and men are expected to be assertive). These factors lead to different behavior on the part of men and women. Thus, according to Eagly's (1987) Social Role theory, men are expected to be more *agentic* (e.g., assertive, controlling, independent) and women are expected to be more *communal* (e.g., concerned for the welfare of others, interpersonally sensitive, emotionally expressive).

The implication of this theory of computer mediated social influence attempts is that men and women may both behave differently and be expected to behave differently in this context. Specifically, we might expect the absence of verbal and non-verbal cues to affect men and women differently (e.g., men may not attend to these cues because they wish to establish independence and women may experience discomfort during a persuasive interaction because the lack of these cues makes it difficult to form a communal bond with another woman). Thus, men may not respond differently to FTF vs. CMC persuasive communication, where as women may be less open to persuasion in a CMC appeal.

In the general paradigm of the three studies conducted by Guadagno and Cialdini (2002, 2007), a same-sex confederate attempted to persuade a research participant in either a face-to-face discussion or via a non-anonymous e-mail discussion. The confederate presented a set of persuasive arguments adopted from Petty, Harkins, and Williams (1980) to persuade research participants that a comprehensive exam as a new

graduation requirement was a good idea (pre-testing indicated that participants were not in favor of this idea).

In study one, Guadagno and Cialdini (2002) manipulated gender of the dyad, communication mode for the persuasive interaction, and argument strength. As would be expected based on dual process models of persuasion (Chaiken & Eagly, 1976; Petty & Cacioppo, 1984), results indicated that strong arguments were more persuasive than the weak arguments. More interestingly, there was an interaction between communication mode and gender. Specifically, women who discussed the topic via e-mail with a same-sex confederate reported less agreement with the message than did women in a comparable face-to-face condition, whereas there was no communication mode difference for the men.

These results were interpreted in terms of the social role theory and gender-based expectations for behavior (Carli, 1989; Eagly, 1987). Specifically, women were oriented towards forming a bond with the confederate, whereas men were oriented towards the task and maintaining their independence. Because the e-mail condition did not allow for bonding with ease, women were less inclined to change their attitude in the direction expressed by the confederate. However, this was not the case in the face-to-face discussion condition, which did lend itself to the formation of a bond between the women in the study. Because men were focused on maintaining their independence and focused on the task, the communication mode was not relevant to meeting these goals.

In support of the social role theory interpretation, Guadagno and Cialdini (2002) reported that participants' ratings of the likeability, knowledge, and trustworthiness of the confederate were correlated with attitude toward the comprehensive exam only for women in the face-to-face condition. In contrast, men made their decisions based primarily on the arguments. Regardless of communication modality, proximity and personality characteristics of the confederate did not have an

impact on their opinions. Additionally, analysis of the content of the unscripted comments in the sessions revealed that men were oriented toward competition and establishing a hierarchy (e.g., saying things such as "I am the president of my mountain biking club." or "I am a manager at the store I work in. What do you do for a living?"). Women, on the other hand, were oriented toward finding commonalities (e.g., saying things like "Do we have the same psychology class?" or "How do you like our psychology professor?").

To replicate and extend these findings, Guadagno and Cialdini (2002) conducted a second study in which participants engaged in an interaction with the confederate prior to the comprehensive exam discussion. This prior interaction was competitive, cooperative, or independent in nature and was always a FTF interaction. Next, half of the participants received the persuasive communication from the confederate in a FTF interaction while the other half received the same set of messages from the confederate via e-mail. This time, the confederate presented only strong, well-reasoned arguments.

Consistent with predictions derived from the social role theory (Eagly, 1987), once women had an opportunity to interact with the confederate during the prior interaction, the mode of communication did not impact the level of favorability toward the message. Additionally, the same pattern of data was revealed in the ratings of confederate likeability. Only women who had no interaction with the confederate—those who were in the independent prior interaction condition and who then communicated via e-mail—reported the least favorability towards the message and reported lower levels of liking for the confederate as compared to the other conditions. For men, only those who competed with the confederate during the prior interaction and then took part in a face-to-face discussion exhibited less favorability toward the message as compared to men in all other conditions. For men, the likeability of the confederate did not differ by condition.

For women, it was the lack of social interaction with the communicator (in the independent prior interaction condition) coupled with the lack of social cues (in the e-mail communication condition) that led to the least willingness to adopt the communicator's sound arguments. For men, on the other hand, it was the presence of a competitive social interaction (in the competitive prior interaction condition) coupled with the presence of social cues (in the face-to-face communication condition) that most impeded acceptance of the communicator's position.

Finally, Guadagno and Cialdini (2007) conducted a third study to further examine these issues. In this study, the authors sought to replicate the basic finding that women report less favorability towards a topic after a persuasive attempt occurs in an e-mail interaction as compared to face-to-face interaction. They additionally sought to expand on this topic by investigating the extent to which perceived similarity impacts the social influence process. As in the first two studies, men and women engaged in the same discussion of comprehensive exams with a same-sex confederate. This time, however, prior to the interaction, participants received feedback as to their similarity with the confederate in terms of their personality and the way they perceived the world. This false feedback was intended to induce a perception of oneness. Oneness refers to a sense of merged or interconnected identity and has been previously demonstrated to be a predictor of prosocial behavior (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997).

Participants were randomly assigned to one of three oneness conditions: High, none, or low. In the high-oneness condition, participants were told that they were so similar to the confederate that they could be siblings. Participants in the low-oneness condition were given the opposite feedback: They were told that they were so dissimilar from the confederate that it was unlikely that two people would ever be so different. Finally, the no oneness condition, which was designed to

replicate the basic finding of the Guadagno and Cialdini (2002) studies, some participants were given no oneness information. As with the second study in Guadagno and Cialdini (2002), only strong persuasive arguments were used.

The results indicated that, regardless of communication mode, there was an overall main affect for oneness—the higher the level of oneness, the more favorable the attitude towards the position on the comprehensive exams espoused by the confederate. Across communication modality and gender, the amount of oneness reported predicted attitude toward the comprehensive exam proposal. Thus, the more the participants felt a sense of oneness or merged identity, the more likely they were to change their attitude to match the attitude expressed by the confederate.

As in the two Guadagno and Cialdini (2002) studies, in the absence of the oneness manipulation, women reported more unfavorable attitudes towards the message in the e-mail condition as compared to the face-to-face condition, while there was no communication mode difference for men. In terms of the oneness conditions, oneness eliminated communication mode difference for women. They either had very positive opinions or very negative opinions depending on the oneness condition, regardless of whether they received the persuasive communication in an e-mail or face-to-face context.

Specifically, women in the low-oneness condition, regardless of communication mode, reported the least favorability toward the exam. In the low-oneness condition, the confederate was a person from an outgroup, a person so dissimilar that participants did not attempt to cross group boundaries to bond with her. Given that research on adolescent friendships indicates that girls tend to strengthen their friendship groups in part through the exclusion of others (Henrich, Kupermine, Sack, Blatt & Leadbeater, 2000), it may be that the women in this study chose to reject the confederate and her message regardless of communication mode because there was no

possibility of bringing her into their group.

For men, there was no communication mode difference for high oneness, but there was a difference for low oneness. Similar to Guadagno and Cialdini's (2002) second study, when faced with someone who they might categorize as a competitor or outgroup member who wants to convince them to adopt an unpopular position, men reported the least favorability towards the message in the low oneness FTF condition as compared to any other condition. However, in the low-oneness e-mail condition, the decreased salience of the confederate appeared to neutralize this effect. Men in this condition reported levels of favorability toward the message that were equivalent to the other oneness conditions. The men may have felt competitive toward the dissimilar other. When he was salient in the face-to-face condition, they rejected his message. However, when he was not present in the same room and the competitive social cues were not salient, they were more open to his arguments delivered by e-mail. There is no doubt that men in this condition did project a competitive orientation onto the confederate: Collapsed across communication modality, men in the low-oneness condition rated the confederate as more competitive than did participants in the no- and high-oneness conditions.

Taken together these studies indicated that, at least in same-sex interactions with non-anonymous strangers, women may have a hard time persuading other women via e-mail unless they are able to discover some sort of similarity or commonality. Whereas, for men, the mode of communication is less important except in the case of a competitor or out-group member. In this case, men are likely to reject even the sound arguments of such a person in a face-to-face interaction. Fortunately, the decreased salience of the interaction partner's social cues in e-mail appears to alleviate the competitive aspects of the interaction.

FUTURE TRENDS

Throughout this chapter, research on two different types of CMC has been reviewed. Results from this discussion have shown that differences can be found when varying the level of immediacy created by the communication medium and when examining individual differences such as gender. However, the impact of many emerging new technologies on social interaction has yet to be thoroughly investigated by social scientists. Technologies such as podcasting (a digital recording of a radio broadcast or similar program, made available on the Internet for downloading to a personal audio player; The New Oxford Dictionary, 2005), text messaging (the sending of short messages between mobile phones or other hand held devices), and Web logging, also known as blogging (user generated Web site where entries are made in journal style and displayed in a reverse chronological order) are becoming increasingly popular and each may have a unique ability to affect the social influence process. Thus, social scientists may benefit from the empirical study of these new communication mediums. Investigation of these new mediums may not only yield important results on how CMC affects social influence, but also (by virtue of some of the modalities interpersonal constraints) yield important insights to how traditional FTF influence takes place.

One type of CMC that is increasing in usage (Pew Internet and American Life Project, 2005) but has not been well studied is video-mediated communication (VMC). Video mediated communication may have different effects on social influence because both users have the ability to see and hear their interaction partner. Most video-conferencing packages in use today incorporate a small view of the individual somewhere on screen during the video chat. This "virtual mirror" may act as a catalyst causing the opposite reaction of anonymity thereby increasing public self-awareness. Little research has been conducted looking at private and public self-awareness within the domain of video mediated chat. The heightened private self-awareness found in anonymous online interactions, is in part, due to the absence of nonverbal cues when interacting online in a non-teleconferencing environment. Heightened private self-awareness is thought to create an increase in focus inward and of the self, resulting in the stability of ones owns attitudes and a reduction in attitude change (Sassenberg, Boos, & Rabung, 2005). However, in VMC the users have almost a full range of nonverbal cues and should have an increase in public self-awareness due to the constant feedback of their appearance (i.e., the virtual mirror discussed above). It may be the case that influence attempts made using VMC may be it more similar to FTF influence attempts whereby there is increased attitude change and public self-awareness. These qualities make VMC ripe for empirical investigation.

With the advent of Web 2.0 (perceived ongoing transition of the World Wide Web from a collection of Web sites to a full-fledged computing platform serving web applications to end users) technologies, such as Skype (a computer program that allows it's users to make telephone calls, instant message, and video chat), the likelihood of VMC and similar avenues of computer mediated communication become increasingly more probable. With these new forms of computer-mediated communication come new forms of social influence. Each emergent technology carries with it's own unique properties that will affect the social influence processes in novel ways. The extent to which these new Web 2.0 technologies deviate from standard FTF communication will dictate the amount of new and unique ways these emerging technologies affect how social influence is carried out within them.

In addition to the advent of new technologies (and new uses for old technologies), as previously discussed, the research we reviewed has revealed that the gender of the interactants may play an important role in social influence via CMC (Guadagno & Cialdini, 2002, 2007). However,

most studies that examine social influence in CMC do not address the differences that exist between men and women and their reactions to social influence online. Moreover, the majority of research examining social influence over CMC uses same-sex dyads. Thus, researchers are left guessing about how mixed gender dyads might differ in their reactions to social influence over CMC. Future research should examine mixed gender dyads so that we may get a full picture of the necessary components of social influence taking place over CMC.

CONCLUSION

This chapter began with a specific question: How does attempting to influence individuals via CMC affect the social influence process? We addressed this question by presenting a brief overview of the major differences between persuasion attempts via CMC and FTF along with discussions of two lines of research employing two distinct theoretical perspectives and methodological techniques. In the end, persuasion attempts via CMC may not be as simple to understand or as similar to FTF persuasion attempts as once thought. Individual differences such as gender, along with many of the distinct features of CMC previously discussed, all point to the conclusion that more research is needed to fully understand social influence via CMC. Moreover, researchers examining social influence via CMC must note the significant differences between CMC and FTF as well as pay special attention to how individual differences may moderate or mediate the influence process. The shift from using computers only to gather information to a means of communication has afforded the research community a vast new area in which to explore all social psychological topics. The annual increase in computer and Internet usage for the purposes of maintaining and beginning interpersonal relationships, means that social influence via CMC is in great need of empirical research to help shed light on some of the differences and similarities between influence attempts via FTF and CMC.

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KEYWORDS

Catastrophe Theory of Attitudes (CTA): A theory that predicts when and how attitudes are likely to change by accounting for both linear and nonlinear attitude change. It predicts that information is the normal factor and involvement is the splitting factor such that differing levels of involvement will produce differing attitude change characteristics.

Computer Mediated Communication (CMC): Any form of communication between two or more individual people who interact and/or influence each other via separate computers through the Internet or a network connection—using social software; any form of communication in which computers are directly involved at both ends.

Dynamic Social Impact Theory (DSIT): An individual level theory that predicts how cultures emerge and change at the group level. It predicts that in spatially distributed groups four phenomena will occur as a result of social influence: clustering, correlation, consolidation, and continuing diversity.

Gender: The state of being male or female (typically used with reference to social and cultural differences rather than biological ones)

Social Role Theory: A theory suggesting that most behavioral differences between males and females are the result of cultural stereotypes about gender (how males and females are supposed to act) and the resulting social roles that are taught to young people.

WEB 2.0: A term often applied to a perceived ongoing transition of the World Wide Web from a collection of Web sites to a full-fledged computing platform serving web applications to end users. Ultimately Web 2.0 services are expected to replace desktop computing applications for many purposes.

ENDNOTES

[a]   CTA bases its predictions on involvement. Most research operationalizes involvement as personal importance. To reduce confusion, importance will be used in place of involvement throughout the rest of the document.

[b]   Participants importance's ratings were calculated and averaged during the experiment. The ratings for the session were then averaged and put in ascending order. The experimenter then chose two issues that participants in that session rated as high, medium, low-medium, and low importance and input those issues to the chat program.

[c]   These statistics may be confounded by ease of use. Most e-mail applications are more

simplistic to use than the instant messaging systems. Thus, it may be that there are more individuals participating in e-mail than chat rooms due to their ease of setup and use.