
EMOTIONAL CONTAGION IN THE ELECTRONIC COMMUNICATION CONTEXT: CONCEPTUALIZING THE DYNAMICS AND IMPLICATIONS OF ELECTRONIC EMOTIONAL ENCOUNTERS IN ORGANIZATIONS

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ABSTRACT

Advancements in communication technology constantly change organizational functioning in many ways. One of the aspects these changes bring about is an emergence of individual and reciprocal emotional encounters online in ways that differ from those typically observed in face-to-face settings. In this paper I analyze the existing research on this topic and build a theoretical model of emotion transfer in the electronic communication context in organizations. In particular, drawing on a social contagion theory (Levy & Nail, 1993; adapted for electronic communication exchange by Thompson & Nadler, 2002), I propose a conceptual model of dyadic emotional contagion in the online context and address several key factors that may influence this process and its outcomes. The paper concludes with some guidelines for operationalization and empirical testing, as well as a brief discussion of limitations and theoretical and practical implications of the proposed model.

INTRODUCTION

Electronic communication at work is a relatively new social phenomenon that contributes importantly to organizational behavior. Research has confirmed that in the last decade alone, electronic communication has changed organizational practices in all areas of business from medicine to manufacturing to education to management practices (e.g., Keil & Johnson, 2002; Kraut, Brynin, & Kiesler, 2006; Martins & Kellermanns, 2004; Spielberg, 1998). However, what is less known in the literature is how the new work environment changed both emotional and relational aspects of individual interaction in the modern workplace. As recent research has emphasized (Carley, 2002: 226), “emotions may become critical for organizations of the future, where personnel are more distributed and more work is outsourced.” In this paper, I make an attempt to draw scholars’ attention to the importance of individual emotional processes and outcomes in organizations with regards to electronic communication realm by building a conceptual model that explores the dynamics and the outcomes of emotion transfer in the electronic context. By doing so, I am not only acknowledging that organizations are emotional entities and that emotions play a critical role in multiple organizational processes and outcomes, but also

that new technology at work (namely, electronic mail) stimulates individual emotional encounters and behavioral responses in a different way from those typically observed in face-to-face settings. Specifically, drawing on a social contagion theory (Levy & Nail, 1993; adapted by Thompson and Nadler (2002) for emotional interactions in the electronic communication context), I aim to shed some light on the topic of emotional contagion by reviewing an existing research in this area and proposing a new theoretical model that will hopefully help scholars and practitioners alike to better understand the specifics individual emotional transfer in electronic communication settings.

EMOTIONS AND EMOTIONAL CONTAGION

In this paper I define emotions as specific occurrences that are identified with or directed towards particular stimuli. They are relatively high in intensity and short in duration and can disrupt ongoing thought processes (Barry, 1999; Frijda, 1993; Forgas, 1992). Research in psychology has mostly studied mood states and emotions along two dimensions: valence (positive-negative direction of affect) and arousal (high-low intensity of affect – see Russell, 1979; Watson & Tellegen, 1985). I call the process of emotion transfer from one individual to another an “emotional contagion process” and employ the definition of social contagion proposed by Levy & Nail (1993). In particular, “in its broadest sense, social contagion is defined as the spread of affect, attitude, or behavior from Person A (the “initiator”) to Person B (the “recipient”), where the recipient does not perceive an intentional influence attempt on the part of the initiator” (Levy & Nail, 1993: 226). I believe this definition of social contagion refers to the same process as emotional contagion especially with respect to affect and I adopt it for the purposes of this paper.

RESEARCH ON EMOTIONS AND EMOTIONAL CONTAGION IN FACE-TO-FACE SETTINGS

Though the topic of emotional contagion has its origins at the beginning of the 20th century, it did not receive much attention in the field until recently. Early works on the topic primarily considered the intra-individual components of emotions (see, Frijda, 1986; Lazarus, 1991, LeDoux, 1995; Staw & Barsade, 1993; Watson, Clark & Tellegen, 1988), addressing what happens to individuals themselves when they experience different emotions, while the effects of such emotions on the environment and on other people had been mainly unnoticed (Keltner & Haidt, 1999). Furthermore, since earlier works looked at emotions from a dispositional perspective (see Snyder & Ickes, 1995 for a critique of the dispositional approach), they generally overlooked the dynamics of the emotional contagion process on the dyadic or group levels of analysis. Recently, however, some empirical works have investigated emotional contagion in the face-to-face environment and found that contagion can occur among both initiators and receivers of emotions (e.g., Howard & Gendel, 2001; Neuman & Strack, 2000). In addition, research in negotiations has shown that the positive affect of more powerful individuals is the

best predictor of (1) trust formation among negotiators and (2) whether they were able to reach integrative outcomes (Anderson & Thomson, 2004; Kopelman, Rosette, & Thompson, 2006). Also, studies on group emotional contagion have appeared recently in the literature, documenting the existence of this phenomenon in work teams in face-to-face settings, and establishing that positive emotional contagion improves group cooperation, decreases conflict, and increases perceived task performance (Barsade, 2002; Barsade, Ward, Turner & Sonnenfeld, 2000). However, it should be emphasized that the empirical work mentioned above explored the emotional contagion process exclusively in the face-to-face settings, while the aim of this paper is to look at how this process occurs in the electronic realm.

From a theoretical perspective, an important step in the direction of emotional contagion research in the face-to-face setting was done by Hatfield, Cacioppo and Rapson (1994) who focused on “primitive emotional contagion” which they defined as “the tendency to automatically mimic and synchronize facial expressions, vocalizations, postures, and movements with those of another person and, consequently, to converge emotionally” (pp.153-154). According to this definition, emotional contagion *has* to happen in personal interactions in which individuals have an opportunity to see, or at least hear, each other; which means that Hatfield and colleagues (1994) did not consider that emotional contagion can happen in contexts other than face-to-face encounters. On the other hand, in spite of the fact that Hatfield and colleagues (1994), made a case in their book that individual emotional contagion primarily depends on one’s dispositional characteristics, they nevertheless accepted the possibility of some situational causes to influence the emotional contagion process. In this paper I attempt to expand on this idea and look at the dyadic emotional contagion process that happens in the electronic communication context, as well as to explore some of the possible factors that influence its dynamics.

EMOTIONAL CONTAGION IN THE ELECTRONIC COMMUNICATION CONTEXT

Existing empirical research has established that individual affect has its role in the online communication context. Specifically, activities ranging from individual relationship building and cooperation to teamwork and negotiations have been shown to be more difficult to accomplish through e-mail than through other forms of communication media (e.g., face-to-face, telephone conversations or paper documents), due to media-specific constraints on human interactions, such as higher medium ambiguity and equivocality (e.g., Friedman, Anderson, Brett, Olekans, Goates & Lisco, 2004; Jarvenpaa & Leidner, 1999; Kurtzberg, Belkin & Naquin, 2006; Kurtzberg, Naquin & Belkin, 2005; McGinn & Keros, 2002; Morris, Nadler, Kurtzberg & Thompson, 2002; Naquin, Kurtzberg & Belkin, 2008; Thompson & Nadler, 2002; Van Dijk, Van Kleef, Steinel, & van Beest, 2008; Van Kleef, De Dreu, Pietroni & Manstead, 2006).

Recently, however, researchers have attempted to move away from fairly static studies of individual emotions and towards more reciprocal emotion contagion studies. The pioneering step in this direction was made by Thompson and Nadler (2002), which was among the first to argue that besides

face-to-face settings, social contagion can also occur in the electronic communication environment, through online negotiations, to be specific. Further, developing on the existing empirical evidence on handwriting (e.g., Starch, 1911), group research (e.g., McGrath & Kelly, 1986), and human-computer interactions (e.g., Kiesler & Sproull, 1992; McKenna, Green & Gleason, 2002, among others), as well as their own longitudinal analysis of negotiations conducted via e-mail, Thompson and Nadler argued that electronic actors “nonconsciously imitate not only the linguistic structure of each other’s messages (e.g., message length, informational context, grammar), but also the social-emotional connotations of the other’s message (e.g., tone, directness) and perhaps even the rate at which the message is attended to (in terms of e-reply lag time)” (Thompson & Nadler, 2002: 113). Also, some other recent empirical studies (mainly in the domain of negotiations) have also been able to prove that the emotional contagion phenomenon can occur without face-to-face interaction (e.g., Belkin, Kurtzberg, & Naquin, 2009; Friedman et al., 2004; McGinn & Keros, 2002; Moore, Kurtzberg, Thompson & Morris, 1999; Van Kleef, et al., 2004a; 2004b, 2006, among others).

Despite the fact that researchers have some general understanding that the emotional contagion phenomenon exists (as presented in the above studies), the field does not have yet a coherent understanding of how exactly emotions transfer from one individual to another in the online context, what are the outcomes of this process and, more so, what are the key factors that moderate its dynamics. Building on previous work, in this research I propose a theoretical model of dyadic emotional contagion in the electronic communication context and address several key variables that may affect this process and its outcomes. To my knowledge, this is one of the first theoretical attempts to systematically analyze and explore the dynamics of this process in the electronic context.

In particular, I propose that individual emotional displays in a dyadic electronic communication will cause a different degree of interpersonal emotional contagion depending on the direction (valence) of expressed emotions. Resulting emotional contagion in the electronic communication context is expected to mediate individual emotional, attitudinal, behavioral and performance outcomes. The following two moderators of this online process are proposed: (1) stage of interpersonal relationship (the newer the relationship of virtual communicators, the greater the expected impact of emotional contagion on interpersonal attitudes), and (2) individual positional power (the magnitude of emotional contagion will depend on individual positional power and direction of emotions). Please refer to Figure 1 for graphical depiction of the model¹.

THEORY BUILDING AND HYPOTHESES

Main Effect - Valence

General findings on emotional valence in the face-to-face context indicate that negative emotions lead to greater emotional contagion than positive emotions do (Bartel & Saavedra, 2000; Cacioppo, Gardner & Berntson, 1997; Rozin & Royzman, 2001). In addition, research in psychology

has illustrated that due to a selective memory bias, people tend to pay more attention to negative than to positive information (Kanouse & Hanson, 1972). Such influence of negative affect on individuals may possibly be magnified in the electronic communication context due to the overall structure of e-communication (Friedman & Currall, 2003; Morris et al, 1999) as described below.

I argue that the features of electronic communication, such as ambiguity and the absence of non-verbal cues (e.g., Daft & Lengel, 1986) may make it harder for a recipient to converge towards positive emotions of a sender. In particular, in Western culture the words that generally intend to carry a positive meaning (such as, "dear", "happy", "sincerely", "best", etc.) are in fact a part of the routine etiquette and everyday communication in organizations, and do not necessarily represent any particular association with the real mood of an individual. Therefore, it may be more difficult for an actor to reflect and transfer positive emotions through the electronic communication medium than it is through face-to-face interactions, where actors are able to "catch" each others' emotions through the tone of voice, facial mimics or gestures. Consequently, as negative expressions (especially towards strangers or distant partners) are against the norms of communication in Western society, such expressions by a sender should be more noticeable and contagious to a receiver in the electronic communication environment than would be expressions of positive affect. Though positive emotions may have a contagion effect on a recipient as well, due to the striking contrast of negative expressions to societal norms of interaction, I expect negative emotions to produce a greater degree of emotional contagion in recipients.

In addition, the reduction of social cues that occurs in the electronic communication context may enhance negative perceptual biases against the other party making it more likely that negative attitudinal changes, which contribute to conflict escalation, will occur (Friedman & Currall, 2003). In particular, when a person receives e-mail, it is possible to review it over and over, and spend time crafting a response. For e-mails with perceived negative propensity, such asynchrony provides an opportunity for receivers' rumination that is less available in interactions that occur simultaneously (as in face-to-face settings), potentially escalating problems and making them more difficult to resolve. Also, many ambiguous electronic messages (caused perhaps either by individuals' lack of experience with e-communication, or poor individual writing skills) can be interpreted as having direct negative intentions towards the recipient. Moreover, according to the causal attributions literature, negative actions that are perceived intentional are more likely to generate aggressive reactions (e.g., Blount, 1995; Brickman, Ryan & Wortman, 1975). Hence, the perceived intentionality of a sender may also add to conflict escalation among communicators.

Summarizing the above, I expect that positive emotions communicated through electronic mail will not have as much emotional impact on a recipient as will negative emotions. Specifically, the following hypothesis is proposed:

H1: Emotional contagion online will be influenced by emotional valence, such that for negative affect the amplitude of contagion on the recipient will be greater than for positive affect.

Proposed Moderators - Stage of Relationship

In addition to emotional valence, I also argue that the duration of work or personal relationships among communicators can have an impact on how emotional contagion occurs. Borrowing from normative social influence theory (Asch, 1966), I argue that when virtual partners are new to working together and did not have any prior communication or interaction, the social norms of behavior are not yet established among them. Such actors, starting a formal relationship in the electronic realm without having an opportunity to build rapport and create communication norms (i.e., communicate informally prior to that), may perceive each other as members of different social groups. These perceptions may result because there are fewer social and identity cues in the electronic communication context (as compared to face-to-face interactions) through which people are able to relate to each other. Meanwhile, as some research points out, attributing sinister motives to outgroup members is especially prevalent in electronic communication, where the absence of social cues may lead to feelings of social distance (Thompson & Nadler, 2002). On the other hand, pleasant experiences and rapport building can also play an important role in the first stage of a virtual relationship in helping actors to build positive experience with each other (see Moore et al., 1999; Morris et al, 2002).

Elaborating further, it can be hypothesized that in newer relationships the actors will be more susceptible to emotional contagion than in established relationships. Specifically, in an online context any mixed or negative tone messages may be interpreted by virtual communicators in a more negative way than in face-to-face interactions, especially if communicators do not already have an established relationship with each other (e.g., have successfully worked together before, occasionally met, or know each other by some other means). Also, due to the “lean” features of electronic media like the lack of non-verbal cues and temporal asynchrony (Daft & Lengel, 1986), individuals may have more difficulty imagining the situational constraints that their virtual partners might experience and this may also contribute to the attribution of more sinister motives towards them (Cramton, 2001).

On the other hand, positive emotions might help actors to build trust and ensure future long-term relationship (Thompson & Nadler, 2002). As Morris and colleagues (2002) found, those actors who are able to share some personal information with each other through a telephone conversation, thereby establishing some rapport prior to a negotiation, experienced more positive emotions towards their opponents. However, I argue that positive emotional contagion will probably be not as strong in an online context if coworkers have never met face-to-face (or at least talked on the phone) prior to e-interaction, since it could be harder for actors to understand someone’s tone or whether one is joking, thereby potentially limiting the positive emotional contagion effect.

Thus, it can be assumed that, everything else held constant, any new information about the other party in the electronic communication context will have a greater impact in newer relationships than in established ones, since there is not much substantive information upon which to base one’s opinions about the other party. In other words, when a relationship among coworkers is well established (e.g., they have successfully worked previously) and norms of social interactions are known, both emotions

(assuming that valence and intensity are held constant) will have less impact on individuals than when the relationship is in its insipient phase.

Therefore, I hypothesize the following:

H2: The stage of a relationship of virtual coworkers will affect the dynamics of emotional contagion online, such that the newer the relationship of virtual communicators, the greater will be the impact of their emotional tone(s) on the perceptions of each other.

Individual Positional Power

Consistent with the existing literature, I herein define individual positional power as the ability of actors to influence others. In the relevant literature such individual power is sometimes referred as structural power (see Brass, 2002 for a review; see also, Anderson & Thompson, 2004; French & Raven, 1968; Keltner, Gruenfeld & Anderson, 2003).

As Lord, Brown and Freiberg (1999) proposed, supervisors may unconsciously influence employees by their affective states. In this model I hypothesize that the positional power that individuals possess in organizations should have a moderating effect on the process of emotional contagion in the electronic context. For example, if virtual partners have different power status, it is expected that those in an inferior power position will adapt to the way the powerful individuals communicate. For instance, it has been shown that electronic actors have a propensity to imitate each other in message tone or directness (Thompson & Nadler, 2002). It seems that positional power may asymmetrically influence the manner in which this imitation will go. As was observed by Van Kleef and colleagues (2006) in face-to-face settings, negotiators with less power are more responsive to their counterparts' positive affect during negotiations than those with more power (see also, Anderson & Thompson, 2004; Anderson, Keltner & John, 2003; Belkin, et al., 2009).

In addition, besides the genuine desire to communicate with a positively attuned partner, in actual organizations people may be eager to respond in kind to the positive affect of more powerful individuals due to rational (i.e., self-interest) or political reasons, such as career building (see Higgins & McCann, 1984). Even more intense dynamics can be observed in the electronic context, where the magnitude of visibility, reproducibility and reach of a positive electronic message may encourage such behavior in individuals towards those with more positional power. For instance, people with less positional power in organizations may use electronic communication media for increasing their visibility to those with more power, by interacting with them as frequently as possible in a positive manner, initiating or supporting various work-related and non-related discussions. As argued by Johnson (1997), the high reproducibility and extensive reach of electronic mail can also be used for political and power games in organizations. Therefore, positive emotional contagion of powerful individuals in the online environment may have more pronounced effects on less powerful individuals than on those that are in

the same power position; and thus, more positive emotions will be displayed in return through electronic messages by those with less power.

However, this does not necessarily imply the reverse: that such positive attempts of those with less power will be easily “caught” by more powerful individuals, especially according to the argument above that likelihood of positive emotions being transmitted in the electronic medium will be lower as compared to negative emotions. Instead, the logic here suggests that less powerful individuals are motivated to “catch” positive emotions of powerful individuals and express their positive emotions in return, while the specifics of the electronic communication medium will still play its role in this process. Accordingly, the following hypotheses are proposed:

H3a: Emotional contagion online will be moderated by one's positional power, such that the more positional power the individual has, the more his/her positive emotions will become contagious.

H3b: Emotional contagion online will be moderated by one's positional power, such that the more positional power the individual has, the more positive emotions will be displayed to him/her in return.

Alternatively, negative emotions from powerful actors may also initiate emotional contagion. For example, empirical work on leadership has demonstrated that followers watching a leader expressing anger felt more nervous and less relaxed than followers observing a leader expressing sadness or no emotion (Lewis, 2000). Also, Taylor and Fieldman (2005) found some empirical evidence that individual positional status and the electronic communication medium interact, such that they have an impact on individual's physiological condition. Specifically, study participants who read threatening electronic messages from people with higher positional power had significantly higher diastolic blood pressure than those who read non-threatening messages or messages from those with the same or lower positional power within their department (Taylor & Fieldman, 2005). Consequently, if power position can heighten the negative emotional contagion process and have an impact on individual physiological condition in the electronic communication environment, it may further translate to one's attitudinal and behavioral responses towards the initiator of the electronic message. The less control the person feels that he/she has over the environment, the more likely he/she will see ambiguous issues as a threat (Milliken, 1990); thus, individual perceptions will be negatively tilted towards ambiguous messages and may elicit negative behavioral responses from the recipients.

On the other hand, less powerful individuals might try to hide their negative emotional contagion towards more powerful individuals. Apparently, in face-to-face interactions people have a much harder time concealing their emotions than in online interactions, because it is more difficult to control the attributes of emotional expression (such as tone of voice, facial expressions and gestures) in synchronous communication, than in the electronic communication context, where, besides the absence

of non-verbal cues, an individual can take the time to think and reflect on a received message before responding. Consequently, it can be argued that negative emotional contagion towards those with more power will have a significant impact on less powerful individuals, but the display of such emotions will not be as visible online.

Building on the above arguments, the following hypotheses are proposed:

H3c: Emotional contagion online will be moderated by one's positional power, such that the more positional power the individual has, the more his/her negative emotions will become contagious.

H3d: Emotional contagion online will be moderated by one's positional power, such that the more positional power the individual has, the less negativity will be displayed to him/her in return.

Emotional Contagion's Impact on Performance

Besides influencing individual attitudes and affective states, emotional contagion may generate substantial influence on individual and dyadic performance. Regarding individual performance, it has been already demonstrated in the literature that negative emotions inhibit individual decision-making abilities, increase work-related stress and negatively impact job satisfaction in the face-to-face context (Hertel & Kerr, 2000; Lord, Klimoski & Kanfer, 2002; Sarbaugh-Thompson & Feldman, 1998). There is limited evidence of the potential benefits of bad mood (with the exception of George and Zhou (2002) study, where they demonstrated that bad mood can enhance individual creativity) and most of the empirical evidence supports the idea that positive affect results in positive outcomes such as increased creative thinking, improved job performance especially on complex tasks (Isen, Daubman & Nowicki, 1987; Staw & Barsade, 1993), and decreased absenteeism (George, 1995).

Empirical evidence of the effects of positive emotions and emotional contagion on dyadic or group performance in face-to-face context in organizational environment is, however, somewhat mixed. Studies by Mackie and Worth (1991) and Schwarz, Bless and Bohner (1991) show that positive mood actually inhibits rational decision-making by forcing people to rely more on source-credibility variables (e.g., by relying more on opinions of others than on their own rationale in appraising given information), as compared to those in neutral or negative moods. However, Barsade (2002) found that positive emotional contagion improves team cooperation, and increases perceived task performance. Also, Staw and Barsade (1993) observed that positive affect among team members is conducive to a successful performance on complex tasks.

Conversely, findings regarding the impact of negative affect and emotional contagion on dyadic or group performance are more or less consistent in the literature. For example, Allred, Mallozzi, Matsui and Raia (1997) found that negative emotions significantly negatively influence negotiators' willingness

to work with each other in the future and inhibit negotiators' ability to achieve joint gains. Also, a substantial body of literature exists that demonstrates how negative affect decreases trust among partners (e.g., Kopelman et al., 2006; Morris et al., 1999, Thompson & Nadler, 2002), stimulates conflict and negatively influences group performance (Anderson & Thompson, 2004). Such damaging consequences of negative emotions on individual and interpersonal performance may be enhanced in the electronic communication context, where high ambiguity of the electronic medium is coupled with a lack of non-verbal cues to reduce trust and cooperation among partners as compared to face-to-face interactions (Moore et al., 1999; Morris et al., 2002; Naquin & Paulson, 2003). Therefore, in this work I argue that negative emotional contagion online will not only influence individual attitudes, but will also negatively impact individual and dyadic performance of virtual communicators.

Based on the evidence presented in this section, the following hypotheses are proposed:

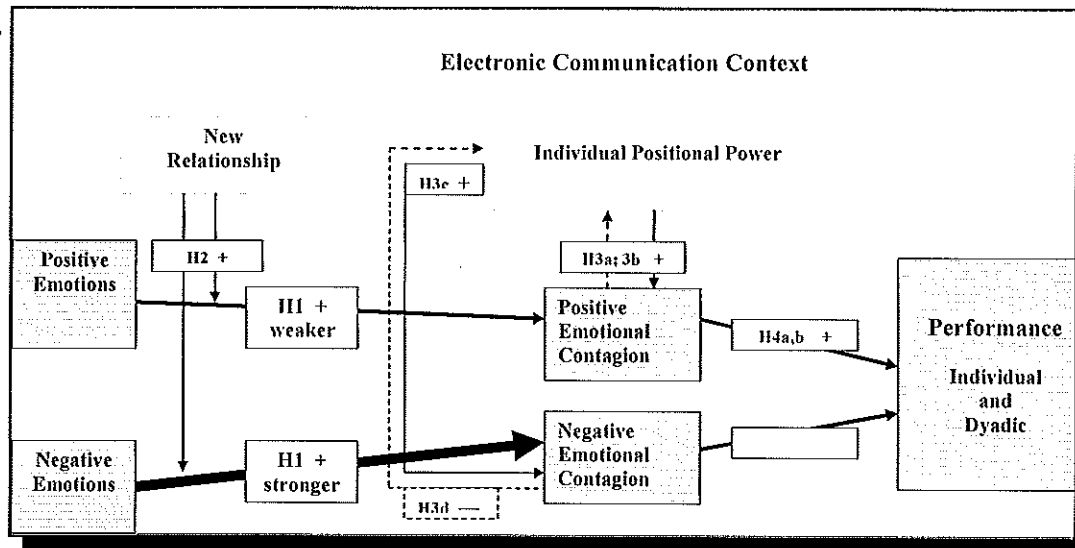
H4a: Effects of emotional contagion on individual behavior in an electronic context will differ based on the sign of expressed affect, such that virtual coworkers converging on a negative emotions will realize poorer dyadic level outcomes than will either neutral, positive or mixed mood pairs.

H4b: Effects of emotional contagion on individual behavior in an electronic context will differ based on the sign of expressed affect, such that virtual coworkers converging on a negative emotions will realize poorer individual level outcomes than will either neutral, positive or mixed mood pairs.

GUIDELINES FOR OPERATIONALIZATION AND EMPIRICAL TESTING

In this paper I attempted to build a comprehensive theoretical model that addresses the specifics of emotional contagion processes in the electronic communication context in organizational settings. In particular, drawing on a recent conceptual and empirical research in emotions, communication media, and organizational behavior fields, I explored the ways in that both positive and negative emotions expressed through e-mail can influence one's perceptions, behaviors and performance. Further, I argued that several key variables, such as the stage of individual relationship and individual positional power in organizations, moderate the dynamics of emotional transfer and affect individual and dyadic-level performance. In the section below I offer several guidelines for operationalization and empirical testing of this model.

Figure 1
Conceptual Model of Emotional Contagion in the Electronic Communication
Context in Organizations



One of the ways to approach an empirical investigation of an emotional contagion process and to test this model can be a comparison of the reported emotional states of interacting participants for convergence as a proxy for emotional contagion after engaging in a dialogue. Some studies have already used self-reported measures of emotional convergence as an indicator of contagion effect (e.g., Barsade, 2002; Belkin et al., 2009; Kopelman, et al., 2006). However, as self-reported emotional recall can be inherently biased, I highly encourage researchers to use this method in conjunction with other approaches, such as videotaping participants during experiments, or using qualitative methods, such as coding actual e-mail transcripts or conducting interviews with organizational employees.

Another option for testing emotional encounters in experimental settings is the use of trained confederates to enact one side of the conversation (e.g., Barsade, 2002; Kopelman et al., 2006). This can allow for a more reliable interpretation of a participant's subsequent emotional reaction, as the emotion that has been "input" would be relatively constant. In this case, it is not the dyadic convergence, but the recipient's emotional movement towards the confederate's emotion that would signal that contagion had occurred. Also, additional approach would be to try to systematically manipulate the participants' emotional state before the actual conversation. Through this method, it would be possible to look at various pairings of emotions, such as having one participant in a positive and one in a negative emotional state before interacting.

In terms of task, it is imperative to create a context in which it is possible to understand and interpret the outcome in a meaningful way. Many negotiation simulations exist which allow for quantifiable outcomes on each, an individual and a group, level. Finally, a field study using real organizational data would lend even more support and generalizability to the model, over and above the findings from the experimental work. Coding of real e-mail exchanges could provide information on how often and in what way emotions are expressed online in professional settings, and under which conditions emotional contagion is likely to occur.

DISCUSSION AND IMPLICATIONS

The main purpose of this work is to shed some light on the process of emotional contagion in the electronic communication context by building a conceptual model that explores the dynamics and the outcomes of emotion transfer between individuals in organizations. Theoretically, this research contributes to the literature in several important ways that has not been previously addressed by scholars. First, researchers fairly recently started to study electronic communication media in work settings and existing studies on this topic have not yet offered a comprehensive model of the emotional contagion process. This paper aims to fill in some of the existing gaps in this area by examining the process and identifying possible moderators that can affect emotional contagion online differently than in face-to-face environment.

Second, in this model I propose to conduct research across different levels of analysis (both individual and dyadic), as opposed to the majority of research that typically is concentrated solely on one level, whether individual or group. Third, this model follows the call in the literature to go beyond the confounded simplicity of static models, as it takes into account reciprocal emotional exchanges among individuals. Fourth, in this work I call for a combination of field and experimental research as a critical condition for this model's validation. As outlined in my guide for empirical testing, the combination of both the qualitative and quantitative methods can also provide more thoroughly validated and potentially more reliable knowledge to the field. Finally, if empirically supported, this model can extend the existing knowledge in various areas of organizational behavior field, such as research on emotions, organizational communication and information systems research, as well as literature on conflict management and decision-making.

However, several limitations to the proposed model need to be acknowledged. First, this model does not take into account individual differences that might influence individual and dyadic emotional contagion. Specifically, depending on individual characteristics such as extroversion/introversion, or the degree of susceptibility to emotional influence, individual emotional contagion, as well as reciprocal emotional encounters, may vary. I believe that future research needs to find ways to incorporate individual differences into the model along with situational variables. Second, although in this model I take into account dyadic exchanges when looking at the emotional contagion processes, this model does not account for group processes, where the involvement of several people in emotional interactions

can change the dynamics of emotional contagion process outlined in this work. Thus, caution must be exercised when this model is applied to study emotional contagion processes in a group setting. Finally, this model does not take into account potential longitudinal effects of emotional contagion on individual attitudes and behaviors. Conceptualizing and measuring emotional contagion over time can prove to be a useful addition to the proposed model, as it can help identify the longevity of positive versus negative emotional contagion, as well as add some insights on how emotional contagion can influence relationships and individual behaviors over time.

From a practical standpoint, academic research on organizations needs to be up to date with changes that companies and businesses worldwide are going through (Mowday & Sutton, 1993; Rousseau, 1997). Empirical evidence indicates that today managers often regard e-mail as the primary communication medium for intra-organizational communication, as well as for communication with distant or overseas partners (Nadler & Shestowshy, 2004). Thus, studying the processes and outcomes of individual emotional contagion in the electronic communication context represents an important topic of interest to the academic community and practitioners, as it can illustrate how changes in modern organizations (specifically, changes in interpersonal communication, such as communication in the electronic environment) influence the attitudes and behaviors of employees. Further, as was noted by Carley (2002), there is a lot of potential in future research that is directed towards determining the value of emotions as a coordination mechanism in organizational processes and understanding factors that increase or diminish the importance of emotions in an organizational context. I believe this model carries some important implications for organizations as it can help scholars to empirically demonstrate how emotional encounters expressed in the individual electronic interactions influence attitudes and behaviors of coworkers, and ultimately can change not only their individual performance, but also organizational functioning.

ENDNOTES

- ¹ As a minor point, it should be noted that many researchers examine emotions from a dispositional perspective, treating negative and positive affect as stable facets of individual personality (e.g., Watson & Clark, 1984; Watson, Clark & Tellegen, 1988). However, a growing number of scholars support the situational perspective and concur that many effects of emotions are likely to be context dependent (e.g., Barry & Oliver, 1996; George & Zhou, 2002; Martin et al., 1997). Following this trend, the present research treats emotions primarily as a situational variable).

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