

E-Mail Escalation: Dispute Exacerbating Elements of Electronic Communication

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Abstract

Much has been written about the effects of electronic communication but few researchers have explored how the structural properties of e-mail impact the process of conflict management. In this paper, we examine whether the structural features of e-mail make it more likely that disputes will escalate when people communicate electronically compared to when they communicate face-to-face or via the telephone. Building upon Rubin, Pruitt, and Kim's (1994) conflict escalation model, we propose new conceptual framework that articulates: (1) the structural properties of e-mail communication, (2) the impact of these properties on conflict process effects, and (3) how process effects, in turn, set into motion the components of conflict escalation. Propositions identify the nature of relationships among process effects and conflict escalation. Our conceptual framework is designed to be the basis for future empirical research as well as a prescriptive guide regarding how one can avoid conflict escalation when communicating via e-mail.

As e-mail communication has become more available, it is being used as a fundamental communication tool by millions of people around the world. E-mail is used to organize meetings and manage virtual work teams (Jarvenpaa & Leidner, 1999), discuss work-related proposals and make announcements (Stoddard, Donnellon, and Nolan, 1997), and solve problems (Siegel, Dubrovsky, Kiesler & McGuire, 1986). Inevitably, e-mail also is being used as a vehicle to communicate about disputes (Landry, 2000). Because we have come to rely on e-mail more and more in the normal course of our day-to-day work, many disputes are waged via e-mail. But, does the use of e-mail in any way change the dynamics of conflict management?

Our motivation to explore this topic was a result of informal conversations with others who described e-mail communications that had spun out of control, as well as our own personal experiences with e-mail conflicts. In one case, there was a dispute with an editor of a journal about an aspect of the revision. Each side had been presenting arguments back and forth until the editor, who was known personally, e-mailed that he was “ending our relationship.” What had until then seemed like a difficult -- but reasonable -- debate had turned into a relationship-ending conflict. In another case, correspondence between a university staff person and external website service provider escalated due to wording choice by the parties (e.g., “First of all, the problem has only been brought to my attention this morning! ...and was fixed within hours.”). This language generated tension between the parties, which eventually had to be resolved via phone calls. We mentioned our observations about e-mail conflict to others and many began to tell similar stories about disputes that began as small differences between the parties, but ended up with angry recriminations and severely hurt feelings after a spate of e-mails. These experiences and

conversations convinced us that something different was going on when people communicated through e-mail.

Much has been written about the effects of electronic communication on problem solving and negotiation (Kiesler, 1997), but not the kind of everyday interactions that represent the bulk of e-mail interactions. The present paper seeks to fill that gap by developing a theoretical framework of e-mail escalation. Our basic thesis is that some structural features of e-mail make it more likely that disputes will escalate when people communicate electronically than when they communicate face-to-face or via the telephone. In the paper's first section, we describe the structural features of e-mail followed by a discussion of theories of escalation. We then turn to a description of the ways in which the structural features of e-mail create conditions that make conflict escalation more likely. Our conceptual framework is intended to be the basis for future empirical research on conflict escalation and e-mail.

E-Mail and the Relative Rate of Conflict Escalation

A relationship does not end up in tatters every time differences are expressed via e-mail. The incidents mentioned above were examples that occurred in the context of hundreds of communications. Yet, if those particular discussions had occurred by phone or in person, would they have ended as they did? Or, to put it another way, is the relative rate of conflict escalation likely to be higher when communications occur via e-mail rather than other modes of communication (even though the actual number of escalated disputes is fairly small as a percentage of overall interactions)? Although we expect that the absolute number of incidents that any one person experiences will be small, the implications are still important – just a few incidents of conflict escalation for most people can create enormous problems and, as the number of relationships managed by e-mail increases, the impact of e-mail escalation will

grow. Awareness of these potential problems may help people choose among communication media more carefully, and to avoid some of the pitfalls of e-mail communication in cases when that is the only realistic way to conduct the interaction. Also, we acknowledge that e-mail certainly has some advantages and there may even be some elements in e-mail that reduce disputes.

WHAT ARE THE PROPERTIES OF E-MAIL COMMUNICATION?

E-mail communication is unique in that it is asynchronous, textual, and electronic. By asynchronous, we mean that the two parties are not co-present, but rather each reads the other's e-mail whenever desired and responds whenever desired. The result is not a conversation, but a series of intermittent, one-directional comments. It is possible for communications to be nearly instantaneous with e-mail, and thus close to synchronous, if the parties happen to be on-line at the same time and choose to respond immediately, but that is not typical in e-mail interactions. More likely, responses occur within hours or days. E-mail is also textual, meaning that people work with written words only, not the kinds of facial expressions inherent in face-to-face conversations or in video-conferencing, or the kinds of verbal nuances conveyed on the telephone.

Clark and Brennan (1991) provide a detailed description of differences across different communication media as part of their analysis of "grounding"-- the process by which two parties in an interaction achieve a shared sense of understanding about a communication and a shared sense of participation in the conversation. Grounding is important because "speech is evanescent...so Alan must try to speak only when he thinks Barbara is attending to, hearing, and trying to understand what he is saying, and she must guide him by giving evidence that she is doing just this (p.128)." In face-to-face

conversations, they argue, there are six tools for grounding: (1) *copresence*, which allows each party to be in the same surroundings and see what the other is doing and looking at, (2) *visibility*, which allows each party to see the other (albeit not necessarily their surroundings), (3) *audibility*, which allows each party to hear timing of speech and intonation, (4) *cotemporality*, where each party receives an utterance just as it is produced, (5) *simultaneity*, where both parties can send and receive messages at once, and (6) *sequentiality*, where turn-taking cannot get out of sequence. As McGrath and Hollingshead (1990) point out, in face-to-face meetings, all members are “linked in all modalities with 0 time lags.” Teleconferencing, we should point out, retains most of the advantages of face-to-face conversation, losing only copresence, as does the telephone, losing only copresence and visibility.

None of these tools are available in e-mail communications: one is not physically present with others, can't see their faces or hear their voices, and can't give or get immediate responses. The lack of contextual clues (due to a lack of contemporality and sequentiality) impose high “understanding costs” on participants in e-mail interactions, making it harder to successfully ground the interaction, according to Clark and Brennan (1991). And the inability to carefully time actions and reactions (due to lack of copresence, visibility, audibility, and simultaneity) also makes grounding harder, thus imposing “asynchrony costs.” Asynchrony imposes high costs because “in conversation people time their utterances with great precision. They can begin an utterance precisely at the completion of the prior speaker's turn. They can time acknowledgments to mark what it is they are acknowledging. They can interrupt a particular work to show agreement or disagreement on some aspect of it (p.144).” All of that is lost in e-mail communication.

E-mail does, however, have two tools available that are not present in face-to-face, telephone, or teleconferencing, which are derived from e-mail not being subject to cotemporality and sequentiality. These are: (1) *reviewability*, which is the ability to have a record of each person's comments that can be reviewed as often as desired, and (2) *revisability*, which is the ability to revise a statement before sending it. When one is using e-mail, the message can be retained and looked over repeatedly, and messages can be drafted and re-drafted.

Several additional tactics are made possible by the lack of cotemporality and sequentiality, beyond those cited by Clark and Brennan (1991). One is as "argument bundling;" e-mail comments can be very long and include multiple points all in one "bundle." While norms of turn taking in face-to-face conversation typically allow only one or a few comments to be made before others have their turn, an e-mail message sender can make five or ten points all at once. E-mails can be quite short, but it is also possible to go on for pages without the receiver having the opportunity to respond or clarify. In addition, reviewability allows for one party to quote exactly what the other said, and to respond point by point. Letters have these same characteristics, but take more effort and cost to produce (buying envelopes and stamps, printing the letter, finding an address, writing the address on the envelope, and going to the mailbox) and are thus less likely to be used when personal contact or phone contact are feasible.

Lastly, e-mail occurs in a very different context than direct communications. As already discussed, it lacks social cues, but, we argue, it is even more profoundly asocial. E-mails are typically received and written while sitting in isolation, staring at a computer screen – perhaps for hours at a time, while answering dozens of e-mails or engaging in other types of work. E-mail interactions are thus

distant from the social rituals common to face-to-face or telephone conversation (Goffman, 1967) so that awareness of the humanness of the message recipients may be diminished. For example, Zuboff (1988) quotes an employee as saying: “When I discuss something on the computer, in the back of my mind I know somebody else is going to hear it, but it isn’t as obvious as if we were all in one room. It’s like I know the tape recorder is running, but I kind of block it out (in Kiesler and Sproull, 1992).” And, Orcutt and Anderson (1977) found that, after participants played a prisoner’s dilemma game against a computer (that had no social element to it), many continued to act asocially even when told that they were now playing with people (through the computer). Therefore, e-mails often occur in a context devoid of awareness of human sensibilities. They also occur in situations where a given e-mail may not be the primary focus of what a person is doing. More likely, a person is trying to plow through dozens of e-mails or working on other projects when the computer beeps at them signaling an incoming e-mail. Communications are sporadic, and spread out, unlike phone or personal conversations where two parties are often engaged in a sustained dialogue.

CONFLICT ESCALATION

Rubin, Pruitt, and Kim (1994) define escalation as “an increase in the intensity of a conflict as a whole (p.69).” Escalation is important, they argue, because when conflict escalates it “is intensified in ways that are sometimes exceedingly difficult to undo (p.69).” One reason why escalated conflicts are so hard to undo is that when more aggressive tactics used by one side they are often mirrored by the other side, producing a vicious cycle (see Figure 1). Rubin et al (1994) cites the cold war as an example of escalation of conflict. On a much smaller scale, the disputes we cited above are ones where a moderate conflict became more intense, to the point where they affected relationships and were very difficult to undo.

Insert Figure 1 about here

Conflict begins when there is a perceived divergence of interest between one party and another, such as wanting to change the other’s behavior in ways that they do not want or to change some other aspect of reality at the expense of the other party. The initial approach typically is to start with mild actions designed to achieve one party’s goals. Failing those actions, however, more contentious tactics may be used until the desired changes are achieved or the cost of the effort outweighs the expected benefit. In one experiment by Pruitt, Parker, and Mikolic (1997), subjects were put in a simulation where a confederate hoarded needed supplies. The initial response by subjects was to make a request for the materials. When that did not work, they moved to demands, and then complaints and angry statements. A few subjects then moved to threats and harassment. Thus, if a difference persists, more contentious tactics may be used, escalating conflict.

Escalation may occur for other reasons as well. According to the conflict spiral model (Rubin et al, 1994) escalation occurs when each side responds to the other's action. A conflict begins with a mild tactic by one side, followed by similar tactics by the other side. These tactics in turn generate incrementally more aggressive tactics by the first party, which then stimulate a similar response by the opponent. Several recent studies confirm that people reciprocate unpleasant behavior in social interactions (Burgoon, Le Poire, and Rosenshal, 1995) and get stuck in "reciprocated contentious communications" in negotiations (Brett, Shapiro, and Lytle, 1998).

The key to this process is the psychological state of each party (Rubin et al, 1994). As each side is exposed to aggressive behavior by the other, they may change their attitudes towards and perceptions of the other. The other is often seen as less moral than oneself, more different than previously thought, untrustworthy, and an "enemy." If this change of perceptions occurs, then more aggressive behavior towards the other is likely to occur. First, disliked others tend to receive more blame while liked others are given the benefit of the doubt. Second, ambiguous actions by the other are more likely to be seen as threatening if that other is disliked. Third, inhibitions against retaliation are reduced if the other is disliked. Fourth, people tend to avoid those towards whom they are hostile, reducing communication. Lastly, negative attitudes reduce empathy. Once this transformation had occurred, it can easily get "locked in" due to biases in perception that make people see only evidence that reinforces their view of the other as bad (e.g., Hastorf and Cantril, 1954) and attribute those bad actions to dispositional rather than situational causes (e.g., Hayden & Michel, 1976).

But not all conflicts go through this type of transformation. In some cases there may not be as much anger in response to other's action, or there may be factors which inhibit expression of this anger.

Being in a good mood tends to dampen aggressive responses, and the existence of social bonds between the two parties tend to “encourage yielding and problem-solving (Pruitt, et al, p.127).” Also, it is harder to see others as evil, and treat them that way, if you have direct social ties with them. Perceptions of the other as similar to oneself may also dampen aggressiveness, by making empathy more likely (Davidson and Friedman, 1998) and producing more positive perceptions of them and their achievements. Escalation may also be dampened by social norms that make aggressive behavior inappropriate.

From this brief overview of the escalation literature, we see four ways in which escalation can be triggered or amplified by e-mail communications. First, if e-mail communication in any way encourages the use of more aggressive tactics during a dispute, or makes tactics seem more aggressive, then it will stimulate escalation. Second, if e-mail in causes changes in psychological processes (e.g., attitudes) towards the other, such as lessening empathy toward them, encouraging party to see the other as more different or amoral, then e-mail would encourage the intra-personal structural changes that drive escalation. Third, if e-mail weakens social bonds with the other or encourages deindividuation, then it would promote escalation. Fourth, if the communication limitations of e-mail (e.g., understanding costs, asynchrony costs) make it harder to resolve problems, then the source of annoyance will remain, encouraging one to take more aggressive actions to achieve resolution. Any one of these conditions, if triggered by the use of e-mail, would imply higher rates of escalation when disputes are managed via e-mail than via face-to-face communication or other relatively rich media (Daft and Lengel, 1986), such as telephone conversations.

THE IMPACT OF E-MAIL'S STRUCTURE ON CONFLICT ESCALATION

Building on the previous discussion of the communication properties of e-mail and the conflict escalation model, we now posit a conceptual framework regarding how the structural properties of e-mail are associated with process effects, which, in turn, impact the components of conflict escalation. We also provide propositions, which posit relationships between process effects and escalation. Figure 2 depicts the framework.

Insert Figure 2 about here

Low Feedback

When people interact, they usually look for clues about how the other reacts to their comments, and make constant adjustments and modifications. But doing so requires that they receive from the other party information about their reactions. E-mail eliminates that information due to the lack of visibility, audibility, cotemporality, and sequentiality.

Timing is critical for understanding and feedback. As Lerner (1996) points out, we often do not let others finish their turns in conversation. One reason this occurs is to preempt disagreement. “Anticipatory completion” keeps the conversation from moving towards disagreement – a dispreferred action-in-progress – directing it instead towards agreement – a preferred action. Another is to preempt moves towards having others correct us and move towards self-correction – another shift from a dispreferred to a preferred action. In this way, we use the quick back-and-forth available under conditions of cotemporality to keep conversations focused on actions that are experienced more positively. One benefit of this pattern is to help each side maintain face, and thus support the

relationship. Clark and Brennan (1991) make a similar argument, focusing on the ability of people to make repairs during interactions. “In audible conversation...speakers prefer to initiate and make their own repairs, and there is evidence that they interrupt themselves and make these repairs just as soon as they detect a fault. These preferences tend to minimize the cost of repairs...[and] help minimize the cost of faults: They tend to remove a fault from the floor as quickly as possible.” In e-mail interactions, by contrast, there is not the opportunity to drive the conversation in preferred directions, and any mistakes that are made persist. The latter parts of a lengthy message may, then, be read in the context of the misunderstanding, anger, or loss of face generated by a misstep made during an earlier part of the message; the sender will have proceeded to later arguments, unable to adjust them in light of feedback about an earlier mistake. This is especially true of bundled arguments.

Lack of timely feedback also limits the ability of parties to build or enhance social bonds. Powell and O’Neal (1976) show that people learn about others by interacting over time. Such learning is more successful the more there is ongoing interaction and feedback. If feedback is limited, a person is prevented from developing clarity and confidence (i.e., “testing hypotheses”) in their understanding of the other. Lombardo et al (1973) make a similar point, showing that attraction to a stranger was stronger the more freely subjects could interact with them. More starkly, diminished feedback can make people less aware of that they are dealing with a specific individual person. According to Weisband and Atwater (1999) reduced feedback leads to lowered self-awareness so that “people communicating electronically feel a greater sense of anonymity and detect less individuality in others (p.633).”

Eventually, there will be a reply to each message, so that feedback (albeit belated feedback) is received. Even then, however, the degree of feedback is diminished in e-mail compared to personal or telephone conversations. According to Nakamura, Buck, and Kenny (1990), facial expressions are key to understanding emotional states, so that e-mail leaves a receiver with only written statements to interpret the other's reaction. Similarly, a study by Stephans and Beattie (1986) compared how people interpreted conversations when provided only a written transcript versus hearing the conversation on audiotape. Only when they heard the actual voices could they discern when an utterance was turn ending. The written words in the transcripts did not provide these cues. As Wiesband and Atwater (1999) put it: "because nonverbal behaviors, such as gesture, head nods, facial expressions, and tone of voice, are reduced in electronic communication, the feedback individuals receive about their own behavior is limited (p.633)." Although there are some ways to signal emotions via e-mail (Rice & Love, 1987), it conveys far fewer cues about emotional state than does face-to-face or telephone communication.

E-mail's lack of full and immediate feedback can contribute to escalation in several ways. Absent feedback, less information is conveyed between the parties, neither party can adapt quickly or adjust their communication strategies, and statements are made on the basis of less information. As a result, inadvertent insults are more likely, which the other party may experience as more aggressive than intended. Moreover, there are more likely to be face-damaging interactions, hurting the relationship between the two sides so that psychological change is more likely to occur; and misunderstandings can accumulate, making the conflict less easy to resolve, stimulating a shift to more aggressive tactics to resolve the issue.

In one way, however, slow feedback may prevent escalation. Because of the added time people have to respond, they may be able to calm down and carefully choose how they respond, avoiding rash statements (Harasim, 1983). But there are reasons to believe that the added time available for responding may lead to “excess attention” which contributes to escalation. These dynamics are discussed in detail below. Moreover, while people can be rash when interacting face-to-face, the more visible presence of social norms under those conditions should make responses more controlled in face-to-face meetings. These dynamics are also discussed below. In sum, we make the following argument regarding feedback:

Proposition 1: The diminished communication feedback inherent in e-mail, compared to face-to-face and phone interactions, increases the likelihood of conflict escalation. This will occur because conflicts will be less easy to resolve, parties will use tactics that are experienced as heavy by the other side, and the relationship between the parties will be harder to sustain.

Reduced Social Cues

A lack of verbal and visual cues lessens not only information to a person communicating via e-mail, but also their awareness of social norms and social relations. This is probably the most widely discussed aspect of electronic communication. E-mail communications are stripped of many social cues, such as social status and social ties (although some information about social status can still be gleaned from communication patterns in e-mail [Owens, Neale & Sutton, 2000]). E-mail communication is less socially rich and more purely cognitive than other forms of communication. Chaiken and Eagly (1983) found that communicator likeability influenced acceptance of decisions when communication occurred via video or audiotape, but not when it occurred via written communication.

Ocker and Yaverbaum (1999) found that reduced social presence led people in electronic work groups to focus on the message more than on the presenter. And Weisband and Atwater (1999) report that liking affected ratings of contributors in a group discussion only in face-to-face groups. Liking also becomes less important to the sender of a message. According to Kiesler and Sproull (1992) “without nonverbal and paralinguistic reminders of the social context, people’s attention turns away from others and so does their concern with being positively evaluated or with liking the other.” Thus, elements of social relations are reduced, allowing for a more pure focus on logic and argument. In sum, according to Chaiken and Eagly (1983), e-mail communication tends to be more serious and less friendly than face-to-face communication.

The lack of social context in e-mail communication also can come from the time-distance from social “greeting rituals.” According to Goffman (1967), most interactions begin with rituals of greeting. These early moments are used to establish contact and ensure a shared orientation. Moreover, these greeting rituals reaffirm social ties between the parties. In e-mail there may be similar rituals. People open up a contact by asking a personal question if the other is known to them (e.g., “How are you? How are the kids?”). What is different, however, is that while most of the conversation in a face-to-face or phone conversation can occur within the minutes or hours following these greeting rituals, in e-mail the interaction can often occur over days or weeks – distant from the point of initial contact and the effect of greeting rituals. Much of the communication may occur at a time when ritualized reminders of social ties are long past and thus less salient.

The effects of lack of social cues and social context are complicated. There are clearly some benefits to be had. If one is trying to get more people involved in a group discussion, low status

members are more likely to make comments when social status cues are weaker (such as during computer mediated communication) than when those cues are strong (such as in face-to-face meetings) (Kiesler, 1997). If there is a negative relationship with the other party, weak social cues may make communication more palatable. And, if a researcher is trying to get accurate survey responses, there may be fewer social desirability effects when the survey is conducted on computers and subjects sat alone and could backtrack (Richman et al, 1999).

At the same time, however, there are potential costs that come from the weak social cues. If social desirability effects are reduced, that indicates that people are less sensitive to acting in ways that are socially desirable. As McLeod et al. (1997) describe, “politeness norms generally prescribe that group members make positive responses to each other, refrain from blunt criticisms of each other, and appear to listen attentively to each other, and such norms are likely to be more salient in the face-to-face than the [computer mediated] conditions.” As a result, there may be more chance that a slight will be made (intentional or not), which may initiate a conflict. Then, with weak cooperative norms and weak restraint against using aggressive tactics, conflict can escalate.

Research supports the idea that lack of social cues may enhance aggression. Rogers and Ketchen (1979) found that emotional arousal enhanced aggression only if the subjects felt anonymous to each other, and Rogers (1980) found that greater anonymity to authority figures increased aggression. E-mail provides precisely an increased feeling of anonymity, making the negative consequences of one’s action seem remote or non-existent. Kiesler and Sproull (1992) report that communication via e-mail is characterized by more outspoken advocacy and discord: “when group members disagree electronically, they engage in deeper conflict than they do face-to-face. Conventional behavior such as politeness and

acknowledgment of the other people's views, decreases (p.110)." Thus, aggressive behavior is more likely, contributing to escalation.

Moreover, seeing and treating the other more like a "stranger" (because many reinforcers of affect and relationship are absent), may lead to biases against that other party. Alicke et (1995) found that the tendency to see oneself as better than others (the "better-than-average effect") is stronger when people compare themselves with a non-individuated target (e.g., "the average college student") than when they compare themselves to someone with whom the person has personal contact. Moreover, Weisband and Atwater (1999) show that when people communicate electronically they tend to inflate self-ratings even more than they do when communicating face-to-face. Similarly, we know that people are kinder in their perceptions of friends than strangers (Tesser et al., 1989), those who are seen as in-group to oneself are viewed more favorably than those who are seen as out-group to oneself (Brewer, 1979), and greater distance from another person reduces one's ability to empathize with them (Davidson and Friedman, 1998). The reduction of social cues that occurs in e-mail may enhance perceptual biases against the other party, making it more likely that the kind of negative attitudinal changes occur that contribute to escalation, and that those transformation persist.

The depersonalization that accompanies electronic communication also has been shown to introduce rigidity into communications that can reduce the use of effective problem-solving tactics. Communication styles are less spontaneous, and more task-oriented and depersonalized when using electronic communications (Kemp and Rutter, 1982). Early studies in negotiation showed that "players that negotiated by written communication as compared to those using telephone communication took much more time, used more formal and awkward language, and referred to past communications more

often (Vitz and Kite, 1970).” More recently, Valley et al. (1998) have shown that during e-mail negotiations less information is shared, and that this lack of open exchange of information make it less likely for negotiators to optimize their results. In another study, Valley and Keros (1900) showed that e-mail negotiators were less likely than face-to-face negotiators to use openness as a strategy (51% versus 87%) or “working together” as a mental model of the negotiation (15% to 26%). Thus, for those communicating about a dispute via e-mail, the lack of social cues may lead to negotiating behaviors that reduce the chance that bargainers will find common ground or solve the problem, making escalation more likely.

Acknowledging some of the potential advantages of the lack of social cues, one could argue that e-mail can be used as a communication medium for parties who are too angry to meet face-to-face. It is not clear, however, that this is always an advantage. There are times when avoiding is a preferred alternative in conflict management. For example, moments when one is very angry may in fact be a good time to avoid contact. Yet, e-mail may allow contact at a time when intensely negative comments are more likely to be made. Also, while electronic communication allows for higher levels of involvement by low-status people, due to the lack of status cues, their increased levels of involvement may result in violations of social norms about status, which can result in anger and resentment (Garfinkel, 1967).

Our argument so far has been consistent with the advocates of social process theory (Short, Williams & Christie, 1976) as well as much of the work from the Carnegie school. We need, however, to account for two bodies of research that appear to oppose our arguments – the work of Joseph

Walther on personalized computer-mediated-communication (CMC), and the SIDE model developed by Lea and Spears (1991).

Walther (1996) argues against social process theory, as well as the Carnegie school, based on findings that CMC can be highly personal – or even “hyperpersonal”—in some contexts. He cites as examples e-mail romances, on-line social support communities, and virtual weddings, and argues that much personal information can be conveyed via text – it is just slower than face-to-face interactions. These examples, however, are not ones where the parties are managing conflict. They are, instead, instances where the goal is to build a relationship and provide support, not assert one’s needs or work through differences of opinion. Moreover, Walther’s (1996) interpretation of these findings is actually consistent with our argument. He suggests that CMC intensifies whatever emotions are present. While highly personal communications may become “hyperpersonal” via e-mail, as he shows, expressions of conflict may also be intensified, as we suggest. Our argument is not that communications between friends and lovers will turn to conflict, but rather than when conflicts are managed by e-mail, the chance for escalation is higher than if the interaction were to occur face-to-face. Also, Walther agrees that it takes more time (and presumably effort) to develop relationships on line. If that is true, then comparing face-to-face interactions with e-mail interactions, a personal relationship is less likely to have been developed at a given point in the interaction when communication is via e-mail.

The other counter-argument comes from the SIDE model (Lea & Spears, 1991). This model suggests that while politeness norms may be reduced overall in e-mail, group norms may be amplified in some cases. Because there are fewer social cues in CMC, hints that the other person may be either in- or out-group to oneself hold greater weight. If the person is out-group, then social norms are especially

weakened compared to face-to-face interactions, but if the person is in-group, then social norms will be especially influential. What the model does not say, however, is what those norms would be. If the basis of the in-group ties is, for example, being from New York, then New York social norms would prevail. Those norms may be to exhibit a higher level of aggression. SIDE theory does not say that others will be more polite to in-group others because in-groupness strengthens the relationship between the parties. Also, in most cases those with whom we interact via e-mail are in-group to us in some ways. In the anecdotes described at the beginning of this paper, the editor and I belonged to the same academic association. In many cases conflicts escalate between employees of the same company, faculty at the same university, or people from the same town. Indeed, some in-group relationship is likely to exist, which is the reason why the two parties are interacting in the first place. SIDE theory does not explain exactly what type of in-group tie is especially relevant. Lacking that type of specificity, and lacking information about what the content of any specific group's norms might be, we proceed with the generalized observation that politeness norms are generally weakened when there are fewer social cues.

Proposition 2: The reduced social cues inherent in e-mail, compared to face-to-face or phone interactions, increase the likelihood of conflict escalation. This will occur because there are fewer reminders of social relations and social rules, resulting in greater bias towards the other party, less empathy, more rigid communications, and less politeness.

Excess Attention

The fact that e-mails communication is reviewable and revisable can also change the dynamic of how conflicts are managed. On the positive side, these characteristics of e-mail slow down the

interaction and thus allow for more thoughtful responses. Yet, this type of slow response time has costs as well. When a person receives an e-mail, it is possible to review it over and over, and work for long periods of time on a response. It provides opportunities for rumination that are not available when interactions proceed quickly. According to Lyubormirsky et al. (1999) rumination can make problems seem larger, and reduce the likelihood that solutions are implemented, and Rusting & Holen-Hoeksema (1998) found that rumination can increase angry mood. Thus, having the opportunity to focus a great deal of time on a received message may not be productive. As discussed above, the kind of angry mood that comes from rumination makes perceptual biases more likely in ways that enhance structural change. Full attention may be helpful, but excess attention is not.

A similar problem can occur on the message sending side. It helps to spend time thinking carefully about what one wants to say, but the more one is able to draft, redraft, and fine-tune an argument, the more likely it is that one will become psychologically invested in the argument and convinced that this argument is correct. As shown by cognitive dissonance theory (Festinger 1957), greater investment in a position enhances the need to believe that that position is true and right, leading to greater commitment to that position and less compromise. Revisability of e-mail messages can lead to escalation by making it less likely that one accepts the other's arguments and thus less likely to resolve an issue. Greater revisability can enhance escalation in another way as well. Because each party knows that the other has time to revise messages, it is more likely that whatever message gets sent will be perceived as being intended and fully thought-out. It was not an accident, or a slip of the tongue. As Carroll, Perkowitz, Lurigio, and Weaver (1987) argue, negative actions that are perceived as intended are more likely to generate aggressive reactions. Revisability should increase perceived

intentionality, and thus increase aggression. Overall, the structure of e-mail interaction makes it easier for a message receiver to ruminate about the other party, while providing them additional time to become more fully committed to the responses that are provided. At the same time, knowing that comments were revisable is likely to increase aggression in response to a negative comment. While reviewability and revisability may help parties cool off it may also contribute to elements of escalation.

Proposition 3: The excess attention involved in sending or receiving e-mail messages, compared to face-to-face or phone interactions, increases the likelihood of conflict escalation. This will occur because rumination can occur, creating a more angry mood and amplifying the apparent size of the dispute, and because more elaborate editing is possible, increasing commitment to statements one makes and increasing the other's perception than any slights made were intended.

Lengthy E-mails

E-mails can be of any length, including very brief comments or extensive arguments with point-by-point response to the other side. The constraint of sequentiality that governs face-to-face and telephone conversation is absent: Normal turn-taking is not followed, there is no chance to direct the conversation to areas of agreement, and little building of common ground (Clark and Brennan, 1991) that makes conversation into a collective action shared by both sides. As a result, it is quite easy for communications to get out of sync.

This can happen in several ways. First, the very fact that one side is taking such a long “turn” can be seen as a violation of interaction norms, and experienced as “piling on,” producing a new source of conflict. Second, the recipient of such a long argument could respond by attending to only one or a

few points, or with an overall short statement, making the counterpart feel that their original message was not heard or addressed. Indeed, as bundled arguments flow back and forth, it is quite easy for many points to get lost or ignored in the process. When that happens, new slights may be created, plus it is harder to work through a difference if arguments are not being heard and answered. Third, returning to the discussion of feedback above, later points in a bundle of arguments may continue errors contained earlier in the bundle; mistakes thus build upon mistakes so that it is harder to unravel the differences between the parties. Fourth, there is reason to believe that only some arguments will be attended to— those that are the most negative. In work on retrospective evaluations (Fredrickson & Kahneman, 1993; Varey & Kahneman, 1992), people’s memories tend to focus on events that are most recent, and on those that are the peak experiences. Thus, in response to bundled e-mail communications, the focus will be on the final argument or on the argument that generated the most intense reaction. If a series of, say, seven or eight arguments are made, but one was especially anger-provoking, then it is that most anger-providing argument that will be dominate memory, overshadowing points where there was more room for constructive engagement. The loss of sequentiality in e-mail takes away the process of orderly, back-and-forth interaction that allows each point to be heard, addressed, and clarified as well as both sides to be recognized as participants.

Of course, there is an advantage to lack of sequentiality; full arguments can be made and all the issues aired without interruption. Indeed, that is what marriage counselors recommend – that each side sit and listen to the whole story as expressed by the other side. But, the very fact that counselors need to develop special rules to generate such conversation is indicates how unnatural it is, and in those cases the parties have the benefit of a third-party observer – the counselor – to manage the interaction.

Proposition 4: Lengthy, one-directional communications, which are more likely when conflicts are handled via e-mail (compared to face-to-face or phone interactions), increases the likelihood of conflict escalation. This occurs by making it harder for the interaction to have a pace that fits norms for social interaction thereby making communications seem more harsh than intended. Moreover, it is more likely that comments made will be ignored or that only those that are more extreme will be remembered.

CONCLUSION

Is it the Medium or How it is Used?

Is escalation inherent in e-mail conflict, or merely a product of how people use that technology (Desanctis & Poole, 1994)? We would suggest that the greater risk of escalation when using e-mail is a function of the technology but such risks can be reduced by greater self-awareness among those who use e-mail and the use of different ways of communicating than would happen naturally. This argument parallels that made about groups decision support systems (GDSS). In one study, Poole, Holmes and Desanctis (1991) reported that “Manual groups dealt with conflict in a low-key fashion that did not develop obdurate oppositions between group members. As a result, to be effective, manual groups could engage in hard bargaining without escalating conflict too much, and this led to high consensus change (p. 948-9).” Thus, managing a group’s decision process via computer imposed risks of conflict escalation. These risks, however, could be overcome by appropriate use of conflict management tactics – in this case “integrative discussion tempered by avoidance behavior (p.949).” In other cases (Sambamurthy & Poole, 1992), specific steps were built into the technology, such as “graphical displays to identify key assumptions they agreed on (p.246)” that helped groups manage more carefully

the higher conflict generated by computer mediated communication. In sum, those using these new technologies for group decision-making need much more “active guidance” than they would otherwise require (Zigurs, Poole, & DeSanctis, 1988). The same might be said for e-mail and disputes.

Recommendations For Managing Disputes

Although our main objective in this paper is to present a conceptual model on which future empirical research can be conducted, we also offer recommendations for how users of e-mail can better manage disputes. Most broadly, our analysis suggests that e-mail is not the preferred way to manage disputes – there are too many risks. If there is an option to walk down the hallway or make a phone call, that is generally preferred. However, this may not always be possible, due to either space or time constraints. When e-mail is used to manage conflict, participants need to become more self-aware and manage their reactions carefully. First, they need to recognize that some perceived insults are not intended and are an artifact of the technology – the other party may be acting based on lack of feedback or social cues, excess rumination, or confusion caused by argument bundling. It also may be true that one’s own interpretation of what is communicated via e-mail is especially biased. Second, watch for indications of enhanced aggressiveness. Check yourself when you wish to respond angrily to ensure that that is what you really wish to do. Third, recognize that a response made with good intentions can be easily misinterpreted as being more aggressive than intended. Think through what meanings might be attached to your statement and adjust the statement accordingly. Fourth, remind yourself of any relationship you have with the other party, and include in your message reminders of the relationship. This will reduce the tendency to de-individuate the other and for him or her to de-individuate you. Fifth, watch for tendencies towards hyper-rationality – remember that differences

occur, and are resolved, through emotion, affect, and relationships, not just logical argument. Sixth, try to generate as much interaction back and forth as possible, and avoid bundling large numbers of arguments together that might be overwhelming. Quick feedback will allow both sides to make adjustments before misunderstandings accumulate.

As a reminder, we are not condemning the use of e-mail. It is an extremely useful tool that allows us to communicate with many people, over greater distances, more clearly (Garton & Wellman, 1995) and can help transform organizations into “networked” forms (Dickson, DeSanctis, Poole & Jackson, 1997). Moreover, e-mail does not turn all communications into escalated conflicts. But e-mail does have some characteristics that make it highly susceptible to conflict escalation: E-mails reduce feedback and social cues, allow for excess attention to be focused on statements made, introduce new tactics (such as argument bundling) that can lead to the use of heavy tactics, make the other party’s tactics seem more heavy, create deindividuation, enhance biased perceptions of the other party, and make it harder to resolve disputes. As a result, escalation is more likely than would be the case in face-to-face or phone communication. These problems can be managed, and perhaps – over time – most people will become skilled enough in e-mail and aware enough of its risks that the effects we propose will disappear. For the time being – and probably into the foreseeable future—we must use caution regarding how we act when addressing and resolving disputes via e-mail.

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FIGURE 1
Conflict spiral model (Rubin et al, 1994).

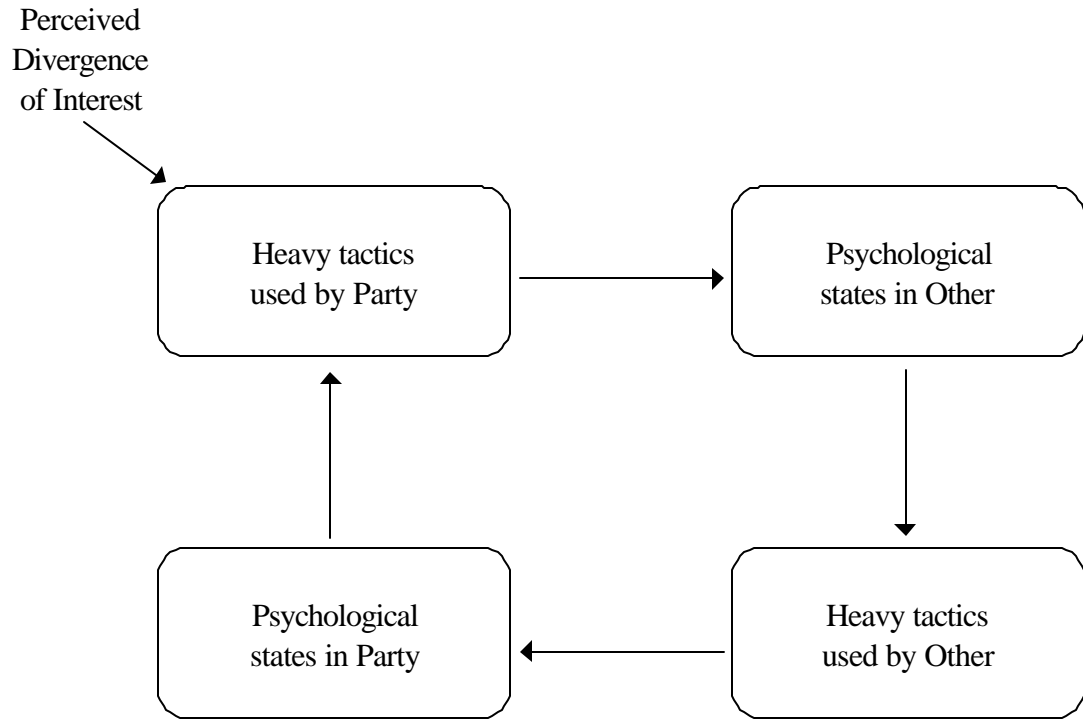
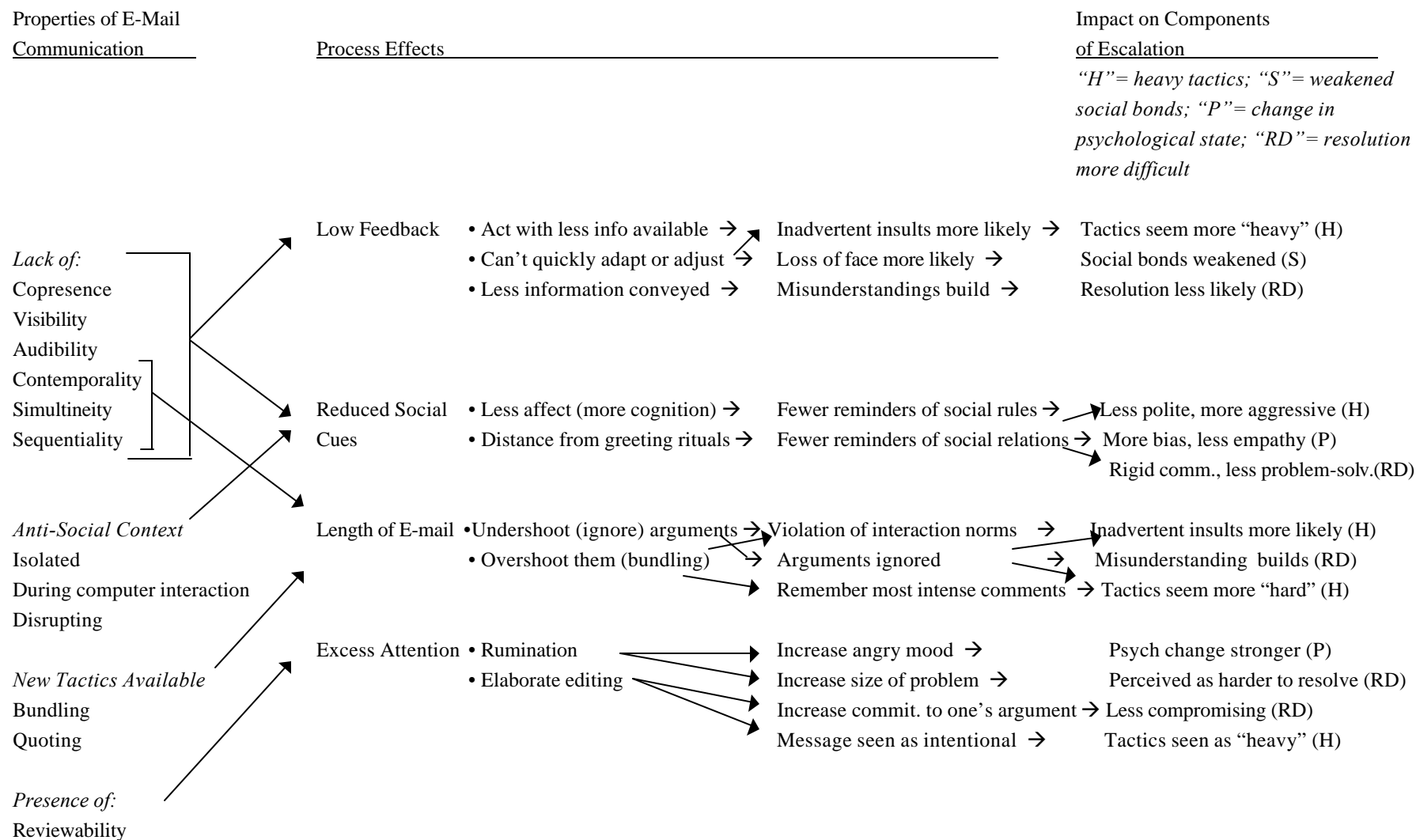


FIGURE 2
Effects of Properties of E-Mail on Escalation



Revisability