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Conflict escalation: Dispute exacerbating elements of e-mail communication

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ABSTRACT

In this article, we proffer new theoretical ideas regarding how the structural features of e-mail make it more likely that disputes escalate when people communicate electronically compared to when they communicate face-to-face or via the telephone. Building upon Rubin et al.'s (1994) conflict escalation model, we propose a new conceptual framework that articulates: (i) the structural properties of e-mail communication; (ii) the impact of these properties on conflict process effects; and (iii) how process effects, in turn, trigger conflict escalation. Propositions specify the nature of relationships among process effects and the components of conflict escalation. We also discuss how the extent of familiarity between individuals acts as a moderator of these relationships. Our conceptual framework, the dispute-exacerbating model of e-mail (DEME), is designed to be a foundation for future empirical research.

KEYWORDS

computer-mediated communication ▪ conflict escalation ▪ conflict management ▪ dispute resolution ▪ e-mail

As e-mail communication has become more prevalent, 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 et al., 1997), and solve problems (Siegel et al., 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, are the dynamics of conflict management changed by the use of e-mail?

Our motivation to explore this topic was a result of qualitative observations from numerous individuals 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 a 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 – yet reasonable – debate had turned into a relationship-ending conflict. We mentioned our observations about e-mail conflict to others and many told similar stories about disputes that began as small differences between the parties, yet spun out of control with angry recriminations and severely hurt feelings after a series of e-mails. These experiences and conversations convinced us that something unique was going on when people sought to resolve disputes through e-mail.

Much has been written about the effects of electronic communication on problem solving and negotiation (Kiesler, 1997), but comparatively little has been written about the everyday workplace interactions that represent the bulk of e-mail conflict interactions. Our article seeks to fill that gap by developing a theoretical framework of e-mail escalation, which we refer to as the dispute-exacerbating model of e-mail (DEME). 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 first section of the article, 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. We should point out that our analysis is conceptual, building on prior research and theory; further research is needed to confirm if our propositions hold true. At the end of the article, we outline a research agenda that could be used to test our propositions.

E-mail and the relative rate of conflict escalation

Rubin et al. (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 are used by one side, they are often mirrored by the other side, producing a vicious cycle. Rubin et al. (1994) cite the cold war as an example of an escalation of conflict. On a much smaller scale, the e-mail dispute we cited earlier was one in which a moderate conflict became more intense, to the point at which it affected relationships and was very difficult to undo.

Not all workplace relationships that involve communication via e-mail end up in tatters. Yet, if e-mail communications that exhibited conflict escalation 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 modest, the implications are still important – just a few incidents of conflict escalation for most people can create enormous problems and, as the number of workplace relationships managed by e-mail increases, the implications of e-mail escalation will grow exponentially. We acknowledge that e-mail certainly has some advantages and there may even be some elements in e-mail that reduce disputes. Yet, as reliance on electronic forms of communication in our society increases, researchers who study conflict resolution and negotiation will devote more and more of their attention to studying this form of communication. This research must be theory driven. Thus, our DEME model aims to contribute to scholarship by positing a new framework concerning e-mail escalation. Furthermore, our framework will contribute to management practice because awareness of the potential problems of e-mail may help people choose among communication media more carefully and avoid some of the pitfalls of e-mail communication in cases when they must rely on this form of communication.

Properties of e-mail communication

E-mail communication is almost 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. More likely, responses occur after hours or

days. E-mail is also purely textual, meaning that people work with written words only, not the facial expressions inherent in face-to-face conversations or in video-conferencing, or the 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' (1991: 128). In face-to-face conversations, Clark and Brennan (1991) argue, there are six tools for grounding: (i) *co-presence,* which allows each party to be in the same surroundings and see what the other is doing and looking at; (ii) *visibility*, which allows each party to see the other (albeit not necessarily their surroundings); (iii) *audibility*, which allows each party to hear timing of speech and intonation; (iv) *co-temporality,* where each party receives an utterance just as it is produced; (v) *simultaneity,* where both parties can send and receive messages at once; and (vi) *sequentiality*, where turn-taking cannot get out of sequence. As McGrath and Hollingshead (1990: 35) 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 co-presence, as does the telephone, losing only co-presence and visibility.

None of the above features are available in e-mail communications: one is not physically present with others, cannot see their faces or hear their voices, and cannot 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 co-presence, 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' (1991: 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 co-temporality and sequentiality. These are: (i) *reviewability*, which is the ability to have a record of each person's comments that can be reviewed as often as desired, and (ii) *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 co-temporality and sequentiality, beyond those cited by Clark and Brennan (1991). One is '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 numerous 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 or phone contact are feasible.

Lastly, e-mail occurs in a very different context than in-person 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 the writer is in isolation, staring at a computer screen – perhaps for hours at a time, so that awareness of the humanness of the counterpart 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 & Sproull, 1992: 104). Moreover, Orcutt and Anderson (1977) found that, after participants played a prisoner's dilemma game against a computer, 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.

Conflict escalation

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. Often, the initial approach is to start with mild actions

designed to achieve one's goals. Failing those actions, however, more aggressive 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 et al. (1997), participants were put in a simulation where a confederate hoarded supplies. The initial response by participants 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 participants then moved to threats and harassment. Thus, if a dispute persists, more contentious tactics may be used, which escalates conflict.

Escalation may occur for other reasons as well. According to the conflict spiral model (Rubin et al., 1994) escalation occurs when each side reciprocates the other's aggressive actions. Several recent studies confirm that people reciprocate unpleasant behavior in social interactions (Burgoon et al., 1995) and get stuck in 'reciprocated contentious communications' in negotiations (Brett et al., 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 change their perceptions and attitudes toward each other. The other is often seen as less moral than oneself, different than previously thought, untrustworthy, and perhaps an 'enemy.'

If a change of perceptions occurs, and the counterpart becomes disliked, then more aggressive behavior is likely to occur for several reasons. First, disliked others tend to receive more blame, whereas liked others are given the benefit of the doubt. Second, ambiguous actions are more likely to be seen as threatening if the 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, limiting communication. Lastly, negative attitudes reduce empathy and increase deindividuation. Once this perceptual transformation has occurred, it can easily become 'locked in' owing to biases in perception that make people see only evidence that reinforces their view of the other (e.g. Hastorf & Cantril, 1954) and attribute perceived bad actions to dispositional rather than situational causes (e.g. Hayden & Mischel, 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 that inhibit expression of anger. The existence of social bonds between the two parties tends to 'encourage yielding and problem-solving' (Rubin et al., 1994: 127). Also, it is less likely that one sees the other as evil, and treats them that way, if one has direct social ties with them. Perceptions of the other as similar to oneself may also dampen aggressiveness by making empathy more likely (Davidson & Friedman, 1998) and producing more positive perceptions of them and their actions. Escalation may also be damped by social norms that make aggressive behavior inappropriate. This

suggests that the effects we discuss later may be moderated. In particular, the depth and type of relationship between the parties may affect how vulnerable they are to escalation dynamics.

From this brief overview of the escalation literature, we see several ways in which escalation can be triggered.

1 *Use of aggressive tactics*. If e-mail communication encourages the use of more aggressive tactics during a dispute, or makes a counterpart's tactics appear more aggressive, then escalation will be triggered.
2 *Changes in view of other*. Escalation is more likely if e-mail causes negative changes in psychological processes (e.g. perceptions and attitudes) towards the other, such as (i) seeing the other as unfair, (ii) lessening empathy toward them, (iii) increasing deindividuation and anonymity, or (iv) seeing the other as immoral.
3 *Weakened interpersonal bonds*. If e-mail weakens social bonds with the other, then escalation is more likely (e.g. due to reduced inhibitions for aggression).
4 *Problems are difficult to resolve*. If the communication limitations of e-mail (e.g. asynchrony deficits) make problems more difficult to solve, conflict may be escalated as frustrated disputants move from mild to more aggressive strategies to achieve their goals.

Any one of these conditions, if triggered by the use of e-mail, may lead to higher rates of escalation when disputes are managed via e-mail than via face-to-face communication or other relatively rich media (Daft & Lengel, 1986) such as telephone conversations.

The impact of e-mail's structure on conflict escalation

Building on our previous discussion of the communication properties of e-mail and the conflict escalation model, we posit the DEME model, a conceptual framework regarding how the structural properties of e-mail are associated with process effects, which, in turn, impact the triggers of conflict escalation. We provide propositions that posit relationships between process effects and escalation. Figure 1 depicts the DEME framework.

Diminished feedback

When people interact, they typically look for clues about how the other reacts to their comments, and make constant adjustments and modifications.

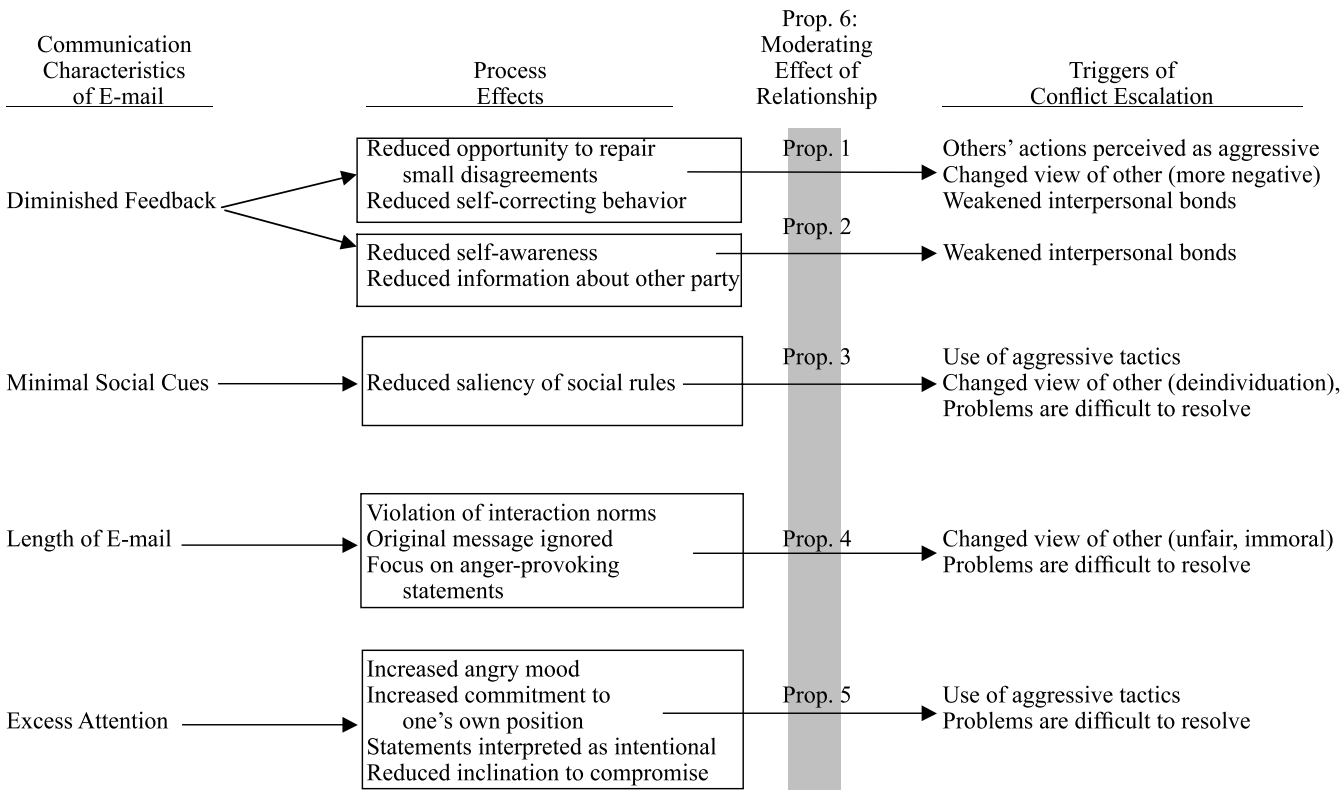

Figure 1 The dispute-exacerbating model of e-mail (DEME)

But doing so requires that they receive from the other party information about their reactions. E-mail does not carry such information due to the lack of visibility, audibility, co-temporality, and sequentiality. As a result, inadvertent insults are more likely, which the other party may interpret as more aggressive than intended. Moreover, there are more likely to be face-damaging interactions due to the lack of opportunities for self-repair, hurting the relationship between the two sides so that a more negative view of the other side develops and interpersonal bonds weaken.

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 pre-empt disagreement. 'Anticipatory completion' keeps the conversation from moving towards disagreement – a dispreferred action-in-progress – directing it instead towards agreement. Another reason why we do not let others complete their statements is to pre-empt others from correcting us and so we can 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 co-temporality 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: 145) made 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, opportunities to steer the conversation in preferred directions are not possible and mistakes persist. The latter parts of a lengthy message may 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 repair them in light of feedback about an earlier mistake. This is especially true of bundled statements in e-mail.

> *Proposition 1*: The diminished feedback inherent in e-mail reduces repairing and self-correcting behavior. These effects, in turn, increase the probability that the following conflict escalation triggers will occur: perceptions of more aggressive tactics by other, a more negative view of the other party, and weakened interpersonal bonds.

Lack of timely feedback limits the ability of parties to build or enhance social

bonds in another way as well. Powell and O'Neal (1976) show that people learn about others by interacting over time. Such learning is more successful the greater the 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 participants could interact with them. More starkly, diminished feedback can make people less aware 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 is likely to be a reply to each message, so that feedback (albeit belated) is received. Even then, however, the degree of feedback is diminished in e-mail compared to personal or telephone conversations and the development of social bonds is inhibited. According to Nakamura et al. (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 Stephens and Beattie (1986) compared how people interpreted conversations when provided with 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) such as a smiley face ':-)' or wink ';-)' e-mail conveys far fewer nonverbal cues about emotional state than does face-to-face or telephone communication. The lack of nonverbal cues also makes attempts at humor in e-mail highly risky.

A counterargument made by Walther (1996) is that computer-mediated communication (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. The examples he refers to, however, are not ones in which 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 wishes through differences of opinion. Indeed, 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 argues, 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 workplace conflicts are managed by e-mail, the chance for escalation is higher than if the interaction were to occur face-to-face. Also, although Walther (1996) points out that the relative slowness of CMC is usually of little consequence in the long run, such slowness may matter in the context of managing disputes.

> *Proposition 2*: The diminished feedback inherent in e-mail reduces self-awareness and information about the other party. These effects, in turn, increase the probability that the following conflict escalation trigger will occur: weakened interpersonal bonds.

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, 1993). 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 later. Moreover, although 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.

Minimal social cues

A lack of nonverbal and visual cues lessens not only information received by a person communicating via e-mail, but also their awareness of social norms and social conventions. 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 et al., 2000). E-mail communication is less socially rich and more purely cognitive than other forms of communication. According to Kiesler and Sproull (1992: 104) '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, creating a more pure focus on logic and argument. Moreover, according to Chaiken and Eagly (1983), written communication (of which e-mail communication is one type) tends to be more serious and less friendly than face-to-face communication.

The effects of lack of social cues and social context are complicated. There are clearly some benefits. 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 conduced on computers and participants are alone and can 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: 714) 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 an insult 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 participants felt anonymous to each other, and Rogers (1980) found that greater anonymity to authority figures increased aggression. E-mail indeed provides 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 al. (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. Weisband and Atwater (1999) showed 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 and more empathetic in their perceptions of friends than strangers (Tesser et al., 1989) and greater distance from another person reduces one's ability to empathize with them (Davidson & 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.

The depersonalization that accompanies electronic communication also has been shown to introduce rigidity into communications that can reduce problem-solving effectiveness. Communication styles are less spontaneous, and more task-oriented and depersonalized when using electronic communications (Kemp & 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 & Kite, 1970: 233). 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 makes it less likely for negotiators to optimize their results. In another study, Valley and Keros (2000) showed that e-mail negotiators were less likely than face-to-face negotiators to use openness as a strategy (51 versus 87 percent) or 'working together' as a mental model of the negotiation (15–26 percent). 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, although electronic communication allows for higher levels of involvement by low-status people, because of 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).

> *Proposition 3*: The minimal social cues inherent in e-mail reduce the saliency of social rules. This effect, in turn, increases the probability that the following triggers of conflict escalation will occur: use of

aggressive tactics, changed view of the other (deindividuation and anonymity), and problems are difficult to resolve.

Much of the theory underlying Proposition 3 was drawn from the work of the Carnegie school and is consistent with the advocates of social process theory (Short et al., 1976). However, a counter-argument has been made by Lea and Spears (1991) who developed the social identity model of deindividuation effects (SIDE model). 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. This suggests that some of the effects we identify may be moderated by the nature of the relationship between the two parties. We shall return to this point later.

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 and there is no chance to direct the conversation to areas of agreement. There is less opportunity to build the common ground (Clark & Brennan, 1991) that makes conversation into a collective action shared by both sides. As a result, it is easy for e-mail communications to get out of sync.

This can happen in several ways. First, the simple fact that one side is taking a long 'turn' can be seen as a violation of interaction norms, and experienced as 'piling on,' producing an inclination to respond aggressively. Second, the recipient of 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 ignored. 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. Moreover, it is harder to work through a difference if arguments are not being heard and answered. Third, returning to the earlier discussion of feedback, 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 – perhaps 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 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, say, a series of seven or eight arguments are made, but one was especially anger-provoking, then it is that most anger-provoking argument that is likely to 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.

> *Proposition 4*: Lengthy e-mail statements violate interaction norms, result in the original message being ignored, and increase the focus on anger-provoking statements. These effects, in turn, increase the probability that the following triggers of conflict escalation will occur: changed view of the other (perceived unfairness and immorality), and problems are more difficult to solve.

Excess attention

The fact that e-mail 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. Full attention may be helpful, but excess attention is not. When a person receives an e-mail, it is possible to review it over and over, and work for long periods on a response. It provides opportunities for rumination that are not available when interactions proceed quickly. According to Lyubomirsky et al. (1999) rumination can make problems seem larger, and reduce the likelihood that solutions are implemented, which we expect makes problems difficult to resolve. Also, Rusting and Nolen-Hoeksema (1998) found that rumination can increase angry mood, which we expect might increase aggression. Thus, having the opportunity to focus a great deal of time on a received message may not be productive.

A similar problem can occur on the message sending side. It helps to spend time crafting 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 belief that that position is true and right, leading to greater commitment to that position and less inclination to compromise. Revisability of e-mail messages can lead to escalation by making it less likely that one accepts the other's arguments and thus more difficult 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 et al. (1987) argue, negative actions that are perceived as intentional are more likely to generate aggressive reactions. Reviseablity 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 revisablity may help parties cool off it may also contribute to elements of escalation.

> *Proposition 5*: Excess attention to e-mail increases angry mood, raises commitment to one's own position, enhances the probability that a counterpart's statements were intentional, and reduces inclination to compromise. These effects increase the probability that the following triggers of conflict escalation will occur: the use of aggressive tactics and problems are more difficult to solve.

Moderating effect of the relationship

Throughout the discussion above, one moderator was suggested. Rubin et al. (1994) suggest that social bonds may dampen escalation dynamics. Instead of actions being viewed in the worst possible way, people are more tolerant and open to those they know well. The idea that strength of the relationship moderates these effects was also found in the SIDE model (Lea & Spears, 1991), which suggests that strength of in-group ties affects the degree to which social norms for appropriate behavior might be active in e-mail communications. Indeed, Davidson and Friedman (1998) show that people are more likely to give someone the benefit of the doubt when that person is in-group. Walther (1996) reports that on-line behaviors are very

different when people expect future interactions with the other party. When people anticipate future interactions, they tend to 'seek more information from each other, to act more friendly, and to cooperate in negotiations – in essence, to enact more relationally positive communication' (Walther, 1996: 12). Taken together, these observations suggest that the risks associated with escalation dynamics may be lower when the two parties have very strong ties – know each other well, anticipate future interactions, and are in-group to each other.

> *Proposition 6*: The extent of ties between individuals will moderate the relationship between process effects and triggers of conflict escalation. Weaker social ties will increase the likelihood that process deficiencies will lead to escalation yet stronger social ties will decrease the likelihood that process deficiencies will lead to escalation.

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 suggest that the greater risk of escalation when using e-mail is a function of the technology. Yet, 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 those made about group decision support systems. In one study, Poole et al. (1991) reported that 'Manual groups [groups that used manual decision support systems, such as flip charts, rather than computers] 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' (pp. 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' (Poole et al., 1991: 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 new technologies for group decision-making need much more 'active guidance' than they would otherwise require

(Zigurs et al., 1988). The same might be said for the use of e-mail in dispute resolution.

Recommendations for managing disputes

Although our main objective in this article 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 recommended. 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 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 deindividuate the other and for him or her to deindividuate you. Fifth, watch for tendencies towards hyper-rationality – remember that differences occur, and are resolved, through appropriate emotion not solely logical argument. Sixth, consider generating 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.

We do not suggest abandoning 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 et al., 1997). Moreover, e-mail does not turn all communications into escalated conflicts. But e-mail has some characteristics that make it highly susceptible to conflict escalation: e-mail reduces feedback and social cues, allows for excess attention to be focused on statements made, introduces new tactics (such as argument bundling) that can lead to the use of aggressive tactics, makes the other

party's tactics seem heavier, creates deindividuation, enhances biased perceptions of the other party, and makes 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 may become more skilled in e-mail. For the time being, however, and probably into the foreseeable future, we must use caution regarding how we act when addressing and resolving disputes via e-mail.

Research agenda

The DEME model presented here is conceptual. Although it is based on prior research, none of the propositions have yet been tested directly. Our hope is that this article will spur interest in this topic and provide some guidance for future research.

One part of the research should focus on the structural effects of e-mail. That is, do people using e-mail experience the kinds of process effects that are shown in the middle column of Figure 1? Looking at Proposition 4, for example, if a conciliatory comment is combined with several more angry comments in a long e-mail, is the conciliatory comment less prominent in the mind of the receiver than if the comment stands alone in a shorter e-mail? Looking at Proposition 5, if people are given thirty minutes to revise and develop their e-mail response, are they less likely to compromise than the person who is given one minute to respond? If an e-mail receiver sees an angry comment within a long e-mail that appears to be carefully constructed (e.g. is detailed, with correct grammar and spelling), is the angry comment more likely to be perceived as intentional than if it is received in an e-mail that does not appear carefully constructed (e.g. is not detailed, with many grammar and spelling mistakes)?

All of these questions can be addressed with experimental methods. Study participants could be given conflict scenarios that identify them as one party in a dispute. Then, they could be given information about the other party, and asked to interact with them by e-mail. Those e-mail messages could be constructed in ways that would allow us to learn the answers to the questions listed above (e.g. some messages are longer and some are shorter). These studies would not need to include face-to-face conflicts – at least some of the process effects listed in Figure 1 could be studied by comparing reactions to varying characteristics of e-mail communications (e.g. through content analysis of e-mails). It would also be possible to set up scenarios in which a confederate plays the role of the other party, some of whom are allowed to meet directly with the study participant and some of whom are required to interact via e-mail. With this type of study, it would be possible

to examine whether the expected process effects emerge naturally. For example, do conflicting parties exhibit less self-correcting in the e-mail condition than the face-to-face condition?

The other part of the DEME model that can be tested includes the effects of the processes in the model on triggers of conflict escalation. This, again, could be tested in a controlled way, or a more naturalistic way. A more controlled experiment might manipulate interactions so that the other party does or does not violate expected interaction norms, and the dependent variable would be how that difference affects perceptions of the other party and the ability of the two parties to solve the dispute easily. A more naturalistic experiment would compare participants asked to interact via e-mail with those allowed to interact face-to-face, to see if they differ in terms of perceptions of the other party and ease in solving disputes. In addition, these types of studies could also measure whether, in the end, conflict does or does not escalate. Are more aggressive tactics used in one condition compared to the other? Are there more threats and verbal attacks? An alternative approach would be to find disputes that are naturally occurring, and ask participants to keep structured journals that measure variables such as time spent formulating a response, conformity to social norms, and strength of interpersonal tie with the other party.

Final caveats

In this article, we have tried to cover the literature in a comprehensive way, and identify key aspects of e-mail that match the existing literature. We acknowledge, however, that there are probably additional technologies that we have not covered (e.g. chat rooms), other effects of e-mail that we have not considered (e.g. the long-term impact of having written records), and other conditions we have not explored (e.g. number of parties involved in the conflict). Yet, we provide what we hope is a relatively comprehensive analysis of a phenomenon that is of increasing importance, and some suggestions both for how to better use e-mail, as well as the theoretical propositions that might be tested empirically.

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