

# Electronic Signatures and Interpersonal Trustworthiness in Online Negotiations

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## Abstract

Corporate-mandated signature lines in professional e-mail messages (i.e., those required and often added automatically by the company's server) are an increasingly common practice in organizations. This research empirically explores the impact of one such electronic signature upon judgments of interpersonal trustworthiness in online negotiations. Specifically, we compare the impact of what we call the "disclaimer" signature (statements that the e-mail represents the opinion of the sender and not necessarily the organization) to "non-disclaimer" signatures (statements of confidentiality.) Findings indicate that negotiators who received such a disclaimer signature tended to judge the sender as less trustworthy and also receive lower objective outcomes than did those who either did not have any statement, or those who had one with different (non-disclaimer) content.

E-mail communication has become an established facet of organizational life, largely due to the ease of use and the convenience associated with the ability to send and receive messages at different times. This characteristic provides considerable advantages for organizational efficiencies, and as such, interactions across the entire spectrum of organizational activities are becoming increasingly found online. Teamwork, scheduling, coordinating, brainstorming, and information seeking and sharing activities are examples of the many ways e-mail is used in contemporary organizations. In addition to these intra-organizational uses, e-mail communications have also readily supplanted traditional face-to-face or telephone-based inter-organizational contact as well (Kraut *et al.*, 2006). As a natural consequence of this prolific use of e-mail, negotiations over

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e-mail (in part or entirely) have also become commonplace for many organizations, as the benefits of not having to coordinate a face-to-face meeting become apparent. Our research contributes to the growing literature on electronic interactions within organizational life by exploring the impact that various types of closing “signatures” in e-mail messages can have upon judgments of interpersonal trustworthiness.

There are fundamental differences to the way communication happens in a text-only environment, as compared with either face-to-face or telephone conversations. Classic Media Richness Theory describes limitations as a function of the “richness” (Daft and Lengel, 1986) or “social bandwidth” (Barry and Fulmer, 2004) of a medium. Richness is lost systematically as one progresses from face-to-face to voice-only through to text-only media, as fewer cues are available for encoding and decoding. Thus, this theory asserts that people have more difficulty effectively conveying and understanding ideas in less rich media. These difficulties have helped to explain observations of increased negativity online, both in terms of increased insults, or “flaming” behavior (Kiesler and Sproull, 1992) and in terms of a greater difficulty building and maintaining satisfying relationships (e.g., Carnevale and Probst, 1997, Jarvenpaa and Leidner, 1999, Naquin and Paulson, 2003, Purdy *et al.*, 2000). Recent neurological research has even highlighted the brain’s ability to subconsciously interpret subtle facial cues and signals when interacting face-to-face, and has thus ascribed some of the observed negative behavior online to the absence of these cues (Goleman, 2007, Suler, 2004).

In addition to the structural limitations that the text-only nature of e-mail contains, there are also psychological barriers to be recognized. For example, Kurtzberg *et al.* (2005) showed that people were systematically more negative in their peer appraisals over e-mail than on an identical paper form. In a follow-up study, people reacted more negatively to the idea of receiving feedback from one’s manager via e-mail as opposed to on a printed form (Kurtzberg *et al.*, 2006). As these studies demonstrate, Media Richness Theory can only take us so far, and we must recognize that even within the category of text-only media, differences emerge in the way people use, think about, and react to e-mail as compared to other forms of media.

Also important to explore are the ways in which actual e-mail content can shape the interpretations of the receiver. For example, Moore *et al.* (1999) found that when people were instructed to include a mere sentence or two of introduction before initiating an e-mail negotiation, participants had better rapport and better chances of reaching a successful negotiated outcome than did those who jumped right in to the negotiation itself. E-mail use is still in the relatively early days of being used in professional settings (that is, a mere 25 years ago people were just beginning to get introduced to the concept)—and, thus, norms and expectations have yet to be well-established to guide its most effective use. The above research provides one example: do people know how much of a personal introduction is considered appropriate when initiating a negotiation with a new business contact? Despite these noted findings, might not one feel silly spending the first message talking about personal information? While introductions are one part of making a first impression, our current study seeks to explore a more subtle form of e-mail content that might unintentionally trigger psychological distance between virtual communicators: a company “disclaimer” message.

Anecdotally, it seems to be increasingly commonplace for organizations to include a company-mandated signature, or standard message, that gets automatically added to any e-mail from a company's server. For example, a company may choose to put a disclaimer on the bottom of all e-mail messages that states something along the lines of:

"This message contains the opinions of the sender and is not representative of the views of the ABC company."

It seems plausible that such a closing statement may spur some unintended psychological reactions in the recipient, and thus could affect the subsequent interaction and the task outcome if people are indeed influenced by the inclusion of such a closing. It is the impact of this type of "disclaimer" signature that we wish to empirically explore, and hypothesize that this type of electronic signoff may alienate recipients and, thus, negatively influence negotiated outcomes. After all, decades of research in psychological priming warn us that even the most seemingly objective cues can inspire sub-conscious influences. As a recent example, Williams and Bargh (2007) demonstrated that participants being asked to hold either a hot or a cold cup of coffee on their way into an experiment systematically influenced the degree to which they rated a hypothetical person as warm and social (more so if the cup was warm). If a cup of coffee outside of the focal experimental situation can have such an impact, might not a printed text message on the bottom of an e-mail from a stranger have an effect as well, even if it is a subtle one? We aim to test the possibility that electronic signatures may activate different schemas for participants and thus influence the subsequent relationship and negotiation.

## Negotiations via E-Mail

In many contexts, it has been shown that relationships can be more difficult to establish in the online environment. Engaging in negotiations online is no exception, and the lesser degrees of trust (e.g., Naquin and Paulson, 2003), rapport (e.g., Moore *et al.*, 1999), and cooperation (e.g., Morris *et al.*, 2002) that people experience with online partners can take their toll on negotiation success, both in terms of being able to complete a negotiation and in terms of the amount of value that is created by the negotiated outcome for each side (Purdy *et al.*, 2000). Trustworthiness, per Cummings and Bromiley (1996), p. 303), is the belief that another individual or group (a) makes good-faith efforts to behave in accordance with any commitments both explicit or implicit, (b) is honest in whatever negotiations preceded such commitments, and (c) would not take excessive advantage of another even when the opportunity arises. Judgments of trustworthiness, then are decisions about to what degree another would uphold these tenets, which are based on evaluating the available information about another person (Mayer, Davis, and Schoorman, 1995; McAllister, 1995).

E-mails contain less social information than do richer media, and this can lead to more "loose coupling" and lesser judgments of trustworthiness than other forms of communication, as parties have a more difficult time receiving cues on which to base a trusting judgment (a perspective called "Cues-Filtered-Out" by Culnan and Markus, 1987, see also Sproull and Kiesler, 1986, Barry and Fulmer, 2004). More pertinent to our own research

is the idea that whatever information is available, including a potentially troubling disclaimer statement, may be given even more weight in this process. More generally, tight coupling between parties has been viewed as a critical ingredient for trust to develop (Burt and Knez, 1996, Coleman, 1990), and empirical research has found that interpersonal trust is indeed lacking in e-mail negotiations (e.g., Naquin and Paulson, 2003). However, research has also found that there are steps to be taken to counter this potential drop in interpersonal trust (e.g., Moore *et al.*, 1999, Paulson and Naquin, 2004), focusing primarily on attempts at relationship-building at the outset of the e-mail contact.

On a basic level, this research has found that people have an easier time trusting the other party when (1) they feel they can connect with them, as a person, even a little bit at the beginning of the negotiations (Kurtzberg *et al.*, 2009, Moore *et al.*, 1999, Morris *et al.*, 2002, Paulson and Naquin, 2004), or (2) if they are just given the opportunity to get to know one another over the course of time (Wilson *et al.*, 2006), though likely this requires more time in an online context than would be required if negotiating face-to-face. Thus, introductory e-mails, pre-negotiation phone chats, the exchange of a humorous moment, and even the identification of the other side as similar in some way (graduates from the same school, for example) all seem to help e-negotiators create a better environment for their negotiated outcomes. If the luxury of time is not an option (as in the work by Wilson *et al.*, 2006), then a salient personal connection, or commonality, seems to help overcome the obstacles of online negotiations by creating a positive sense of the trustworthiness at the onset of a negotiation.

As mentioned previously, in this research we explore the possible unintended effects of the disclaimer electronic signature which can be a standard closing in corporate e-mail correspondence. We posit that this disclaimer statement may work *against* the relationship-building instincts that people might otherwise utilize in an online negotiation. We believe that this will happen primarily because, in the absence of better information about which to draw a conclusion on the trustworthiness of the opponent (see Levin *et al.*, 2006), the disclaimer sends (subtly and likely even sub-consciously) a message that the individual may not in fact be wholly trustworthy. In addition, the litigious tone of the e-mail may even activate a schema of “big corporation” and not “individual person with whom to have a friendly negotiation,” which may even translate to slight feelings of intimidation. After all, the company seems to be at the ready to disown any controversial content, and indeed seems to be including a “back door” for renegeing on content if it does not suit its needs at the end of the day, regardless of what the individual has asserted. On a personal level, the individual sender might perhaps be seen as less trustworthy because the company itself might not even stand by what the person says. The message received by such a disclaimer statement may be something along the lines of “we’re not sure what this person is going to say, and it may or may not actually be what we wanted.” In either case, such a statement may result in judgments of less trustworthiness in an interpersonal relationship.

*Hypothesis 1:* Recipients of e-mails containing a disclaimer statement will consider their opponent less trustworthy on average than those who do not receive such a statement.

We argue further that the presence of this disclaimer may even be perceived as a threat in the negotiation, in the sense that negotiating with a potentially non-trustworthy other is

a more difficult and unpredictable experience, about which the process and outcome are less certain. Previous research on threats has demonstrated that in terms of individual gain, both implicit and explicit threats were likely to elicit concessions from the other side, but implicit threats (i.e., those that do not specify the potential consequence of non-compliance with the desired behavior) work better at the outset of negotiations, and explicit threats work better in later stages (Sinaceur and Neale, 2005).

This implicit-threat finding allows us to draw a parallel to the presence of a disclaimer statement on an e-mail. As we have posited, the presence of a disclaimer statement may act as a source of unconscious threat, albeit less strongly than would a written threat. Similarly, based on Sinaceur and Neale's (2005) finding that implicit-threats at the outset of a negotiation are likely to result in concessions from the other side, we propose that the presence of such a disclaimer will limit the amount of gain the recipient of the disclaimer will realize in an e-mail negotiation. We posit that this may occur primarily because of the psychological uncertainty that may occur once the other side is seen as potentially non-trustworthy, leading them to potentially falter in the negotiation itself.

*Hypothesis 2:* Recipients of e-mails containing a disclaimer statement will have lower individual gain than those who do not receive such a statement.

## Methods

### Participants and Research Design

Participants were 130 full-time graduate-level business students who participated in this study as part of a negotiation class assignment. The experimental design had three conditions—the focal negotiator (whom we call the “recipient”) negotiated with another party who had either (a) no electronic signature, the control condition, ( $n = 22$  dyads), (b) a disclaimer statement in the signature line that disclaimed any company responsibility for the e-mail contents and that the e-mail represented the negotiator's personal opinion, called the disclaimer condition ( $n = 22$  dyads), or (c) a “neutral” (non-threatening) signature line that commented about the privacy of the e-mail, called the confidentiality condition ( $n = 21$  dyads). Note that in conditions 2 and 3, the sender's e-mail only had the mandated signature, not both members of the dyad. This third experimental condition was created to ensure that the presence of an alternative kind of company message at the bottom of an e-mail was not enough to trigger the intimidation effect, but instead needed to contain the more intimidating disclaimer element. We chose a confidentiality statement because that seemed to be another common signature used in organizational contexts. The exact wording of the electronic signatures can be seen in Appendix A. Participants were randomly assigned to experimental conditions and were unlikely to know each other in advance as they came from different class sections. In addition, there were two roles in this negotiation and the party (i.e., role) assigned to have an electronic signature was alternated between roles.

## Procedures and Materials

The case used for this negotiation was Oceania (Thompson and Bloniarz, 1998). Participants in this two-party negotiation were randomly assigned to represent either a major metropolitan theater venue or a production company with a touring show (Windy City Theater is interested in booking a show produced by POP productions.) All participants received their case materials via an e-mail containing their confidential instructions and negotiation role information.

In the instructions, all participants in all conditions were told to remove whatever personal electronic signatures they may have had on their e-mail systems for the duration of this negotiation exercise. Those in the confidentiality or disclaimer conditions were further told to add a specific sentence as their signature line (again, see Appendix A for the exact instructions). In all conditions, participants were explicitly instructed that their goal was to maximize their individual payoff and that they had 5 days in which to complete the negotiation. They turned in the details of their contract via an e-mail to the instructor.

Oceania (Thompson and Bloniarz, 1998), is an integrative negotiation case involving multiple issues. Unbeknownst to the participants, the payoffs are such that one issue is purely distributive (i.e., one person's gain comes at the other's loss), another issue has the potential to form a contingent contract (an "if-then" arrangement, or phrased another way, a bet on the future), another issue is purely compatible (i.e., both parties want the same thing), and there is also potential for an add-in (an issue that is not necessary for the negotiation at hand but can be used to increase joint gain). After completing the negotiation, participants filled in a post-negotiation questionnaire, displayed in Appendix B, in class via pen-and-paper. The class results and study were then fully debriefed.

## Dependent Measures

### *Trustworthiness*

To assess interpersonal trustworthiness in their negotiating partners, we used the Organizational Trust Inventory-Short Form (OTI-SF) developed and validated by Cummings and Bromiley (Cummings and Bromiley, 1996). This scale uses 12 items geared toward assessing three dimensions of trustworthiness: (a) reliability, (b) honesty, and (c) good-faith in the other party with respect to fulfilling their commitments. We slightly modified the OTI-SF to be more appropriate for a negotiation setting by asking negotiation-based questions (e.g. substituting the words "the other party" where the original questionnaire stated the name of the "other department" or "unit"). The reliability for this measure in the presented study was acceptable with Cronbach's  $\alpha = 0.70$ . The modified OTI-SF is presented in the Appendix B.

### *Objective Payoff*

We explored the objective negotiated outcome (i.e., payoff) on both the individual and the dyadic-level.

## Results

As per our hypotheses, we were most interested in the responses from the “receivers” or those individual negotiators who were at the receiving end of the e-mails containing the manipulated signatures. (Recall that only one party in each negotiating dyad used an electronic signature). Of those who received these e-mails with signatures, we first compared all dependent variables across role assignment with results indicating no difference between roles for any of the dependent variables. Consequently, the data were collapsed across role for all subsequent analysis. There were no impasses in any of the experimental conditions.

### Trustworthiness

Analyses of interpersonal trustworthiness supported our first hypothesis. An overall ANOVA revealed significant differences between experimental conditions for the trustworthiness variable,  $F(1, 62) = 3.52, p < .05, \eta^2 = .10$ . Exploring this difference in greater detail, we found no difference between the control ( $M = 4.52, SD = .67$ ) and confidentiality conditions ( $M = 4.42, SD = .71$ ) but those in the disclaimer condition (i.e., those on the receiving end of a disclaimer statement) ( $M = 4.04, SD = .47$ ) were less trusting of their opponents than those in either the control,  $t(62) = 2.50, p < .05$ , or those in the confidentiality condition (i.e., those on the receiving end of a confidentiality statement),  $t(62) = 1.99, p < .05$ , providing support for our Hypothesis 1 (see Tables 1 and 2).

### Objective Individual-Level Outcome

Objective outcome was first analyzed at the individual level (see Tables 1 and 2), and results supported Hypothesis 2. The pattern of results mirrored that of trustworthiness judgments. As before, we were most interested in responses from negotiators who were at the receiving end of the e-mails containing the manipulated signatures. An overall ANOVA indicated differences between conditions,  $F(1, 62) = 3.35, p < .05, \eta^2 = .10$ . In particular, we again found no difference between the control ( $M = 321522.73, SD = 78664.94$ ) and confidentiality conditions ( $M = 325214.29, SD = 69851.15$ ). However, those in the disclaimer condition ( $M = 275704.55, SD = 61277.26$ ) had lower

Table 1  
Means and Standard Deviations by Experimental Condition

Variables	None		Confidentiality		Disclaimer	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1. Trust	4.52	.67	4.42	.71	4.04	.47
2. Individual payoff	321,522.72	78,664.94	325,214.29	69,851.15	275,704.54	61,277.26

Table 2  
*Comparisons Between Experimental Conditions*

Variables	None versus confidentiality		None versus disclaimer		Confidentiality versus disclaimer	
	<i>t</i> (62)	<i>p</i>	<i>t</i> (62)	<i>p</i>	<i>t</i> (62)	<i>p</i>
1. Trust	.48	<i>ns</i>	2.50	.02	1.99	.05
2. Individual payoff	.17	<i>ns</i>	2.16	.03	2.31	.02

individual gains than those in either the control,  $t(62) = 2.16, p < .05$ , or those in the disclaimer condition,  $t(62) = 2.31, p < .05$ . Thus, hypothesis 2 was supported.

We also explored some details of the negotiated outcomes, coding the agreements as to the type of integrative techniques that were employed. Recall that this case had clearly defined issues that lent themselves to a variety of integrative strategies, including (1) a contingent opportunity, (2) a compatible opportunity, and (3) an add-in opportunity, each of which were easily identifiable in the agreements and acted to potentially expand the size of the pie. The agreements were coded as to whether they contained each of these issues or not.

Results indicated that those in the disclaimer condition had a reduced likelihood of realizing the add-in issue. Specifically, those in the disclaimer condition included the add-in 18% of the time whereas those in the control and confidentially condition included the add-in 50% and 57% of the time respectively,  $\chi^2(2, 65) = 7.70, p < .05$ . Our manipulation had no influence upon the likelihood of realizing the contingent deal or compatible issues.

## Mediation Analyses

Though not directly hypothesized, we also explored the potential relationship between reported judgments of trustworthiness and objective outcome, and found that trustworthiness was not a significant predictor of individual gain. Therefore, though the disclaimer seemed to limit both trustworthiness and individual gain for people receiving it, these variables seem to account for different portions of the variance in the model and thus trustworthiness does not mediate the relationship between the presence of a disclaimer signature and the recipient's level of gain received in the negotiation.

## Analyses of Disclaimer-Sender versus Disclaimer-Receiver

Although our hypotheses and subsequent analyses thus far have been focused upon the negotiator who received the disclaimer statement, we nonetheless also explored how the overall disclaimer-receiver compared with the disclaimer-sender along the measured dimensions, as presented in Table 3. In regards to individual-level judgments of trustworthiness, we found no major differences in trustworthiness between the recipient ( $M = 4.04, SD = .47$ ) and sender ( $M = 4.09, SD = .59$ ) of the signature messages in any of the experimental conditions,  $F(1, 42) = .08, ns$ .



Table 3  
*Means and Standard Deviations as a function of Receiving or Sending a Disclaimer Signature*

Variables	Disclaimer-receiver		Disclaimer-sender	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1. Trust	4.04	.471	4.0882	.59522
2. Individual payoff	275,704.55	61,277.26	367,295.45	103,912.36

In regards to objective outcome, differences were found depending upon whether a negotiator was the recipient or sender of a disclaimer signature. Those in the disclaimer-sender position earned greater profit from the negotiated deal ( $M = 367295.45$ ,  $SD = 103912.35$ ) than did those in the disclaimer-receiver position ( $M = 275704.55$ ,  $SD = 61277.26$ ),  $F(1, 42) = 12.68$ ,  $p < .001$ ,  $\eta^2 = .23$ . This supports prior research which demonstrated that threats or intimidation with unclear consequences at the outset of a negotiation tends to yield concessions (Sinaceur and Neale, 2005).

### Analyses of Dyadic-Level Outcomes

We also explored outcomes at the dyadic (i.e., joint) level and found the pattern to match that of the individual-level described above. Specifically, an overall ANOVA indicated differences between conditions for both dyadic-level trustworthiness,  $F(1, 62) = 3.99$ ,  $p < .05$ ,  $\eta^2 = .11$ , and for joint outcome,  $F(1, 62) = 3.36$ ,  $p < .05$ ,  $\eta^2 = .09$ . Upon further investigation, while there were no differences between the control and confidentiality conditions for either variable, we again found differences between the these conditions ( $M = 4.49$ ,  $SD = .61$  for dyadic trustworthiness -  $M = 646651.16$ ,  $SD = 147255$  for joint outcome) and the disclaimer condition ( $M = 4.07$ ,  $SD = .50$ ,  $F(1, 62) = 7.95$ ,  $p < .01$ ,  $\eta^2 = .11$  for dyadic trustworthiness) ( $M = 551409.10$ ,  $SD = 122555$ ,  $F(1, 62) = 6.78$ ,  $p < .05$ ,  $\eta^2 = .09$  for joint outcome).

## General Discussion

The goal of this research was to empirically explore the impact of adding a disclaimer statement in the signature line of an e-mail on an electronic negotiation. Our results demonstrate that the use of a disclaimer statement as an electronic signature does seem to have a negative effect upon the recipient of the e-mail. For one, the recipient of the disclaimer statement tends to judge the sender as less trustworthy than those who saw either a more benign signature, or those who saw nothing at all. And, these negotiators also tended to have a worse objective outcome.

This finding suggests that a disclaimer statement that serves to distance the company from the individual employee does, on average, (a) get noticed by the recipient of the e-mail, (b) serve to change the impressions of the recipient in terms of trustworthiness, and (c) change the actual behaviors of the recipient during the course of the negotiation such that different outcomes emerge. Future research can aim to explore more precisely

in what ways the behaviors changed: were disclaimer-recipients more cautious with their requests? Were they less likely to make demands? Or were they more willing to meet the demands of the other side? We do have some insight into the process of the negotiations, however, based on the specific findings regarding outcomes.

First and most generally, we know that disclaimer-senders tended to outperform disclaimer-recipients in terms of individual negotiated outcomes. This suggests some form of intimidation, concessions, and/or appeasement in the actions of the recipients, whether consciously or not. Second, we know that those in the disclaimer condition were uniquely less likely to realize that there was an additional issue (the add-in) that would create value for both parties. This suggests that either or both of two limitations are likely to be occurring in these exchanges: either the disclaimer-recipient was not comfortable bringing up the extra issue, or was not comfortable responding to it if it was mentioned by the other side.

Whether it was lack of initiation or response on the part of the disclaimer-recipients, several possible psychological mechanisms might help explain this effect, and this is left for future research to tease apart. One possibility is that the disclaimer-recipients did feel threatened by their counterparts, and the add-in issue, because it was not required for making a deal, felt like more of a risk. In this case, especially given the reduced judgments of trustworthiness that we observed in these participants, it may have seemed like a safer negotiated deal to just stick to the essential features and not branch into optional areas, where there might be trouble lurking. Thus, perhaps also the implicit-threat of litigation in the disclaimer message from the company behind the counterpart, who is acting as a “silent partner” in a sense, made the thought of extending negotiations to include an optional issue seem that much more unnecessary. Another possibility is the idea that the disclaimer-recipients are more taxed both cognitively and psychologically as they strain to gather more information about the trustworthiness of their opponent, and as such do not want to get involved with extra issues that are not absolutely necessary. Research in cross-cultural negotiations, for example, has demonstrated similar effects and documented that outcomes that “satisfice” instead of optimize are more common in these more demanding (and mentally taxing) exchanges (Adair *et al.*, 2001).

It is interesting to note that although these disclaimers were associated with both reduced judgments of trustworthiness and lower outcomes, trustworthiness did not statistically mediate the relationship between condition and outcome in these data. Perhaps, this is because there are different types of reactions to the disclaimer statement: those who feel a reduced judgment of trustworthiness consciously and subsequently may put up their guard and negotiate carefully on their own behalf, while those who are affected subconsciously may award more trustworthiness but may have a harder time realizing all the potential gain out of the deal. Or, there may be another mediating mechanism entirely at work here. For example, it may be that feelings of inclusion that drive the differences between the two types of signatures that we used: Reminding someone that they are privy to confidential information may signal inclusion while reminding someone that their exchange may not be in line with the company’s wishes may be a signal of exclusion from the company in-group. These signatures may also trigger an emotional reaction that may also become contagious and thus shared between

the parties in a dyad. Finally, it is also possible that it was the senders themselves who reacted to the disclaimer on their own messages and behaved differently as a result.

It is also noteworthy that judgments of trustworthiness did not seem to differ along sender-receiver lines, but instead, each member of a dyad seems to have ended the negotiation with similar impressions of the trustworthiness of the other side. Perhaps this is because our measure was only taken once at the end of the interaction, by which time the parties had been exposed to each other enough so that one's judgments of low trustworthiness might have influenced the other's perceptions in a process of reciprocity over the course of the negotiation. In other words, once I have judged my counterpart to be less than fully trustworthy, my defenses may go up and I may in turn limit the amount of trustworthy behaviors that I myself exhibit, thus potentially lowering your judgments of my trustworthiness in turn. If we were able to take a separate snapshot of trustworthiness after the first e-mail message, perhaps we would have seen a more differentiated effect.

We must note that our findings and conclusions are limited by the context in which they were studied. Perhaps if negotiations were to occur only in part via e-mail (with other interactions taking place either face-to-face or on the telephone), the effects would be lessened. Perhaps the effect also occurs most strongly in the first interaction with a new company and might weaken with repeated exposure and a more solid relationship of experience. Similarly, if these signatures became so common that they were used in the majority of professional e-mail messages, their impact might also wane. Finally, the MBA-student nature of our sample could perhaps have changed the dynamics with which these disclaimers were interpreted, since the exercise was not a real professional activity for them, and since they were not necessarily strangers to each other in every case. Also, in a real setting, if the disclaimer were a consciously intimidating presence, one may opt not to continue the negotiation at all, an option that was not likely to occur to our student-participants. Future work can aim to help uncover the nuances of the demonstrated effect.

From the company's perspective, at first glance it might seem like using a disclaimer signature could be used as a tactic to improve the bottom lines of electronic negotiations for their side. Yet, getting what you want by reducing the sense of trustworthiness that you convey and intimidating the other side is not necessarily a winning, long-term, strategy. Therefore, even though the disclaimer-sender participants did seem to get more value out of the deal, it is likely that this advantage would be best realized only in one-off negotiations where the future relationship between the parties did not matter.

Similarly, organizationally, there are potential limitations outside the scope of negotiations alone to be imagined from having a standard e-mail procedure that potentially serves to alienate or intimidate those outside of your organization. If it is indeed the case that a boiler-plate disclaimer such as this one can have subtle but very real effects on the behaviors of those who receive e-mails, there may be implications for many other facets of business such as company reputations, sales, customer service, or even supply-chain relationships. Caution should be exercised, then, about what signatures are truly necessary from a legal standpoint and at the very least, more attention should be paid to the psychological ramifications of disclaimer signatures before they are utilized without a balanced decision of costs and benefits.

Though these are clearly only initial steps in the puzzle of how e-mail signatures influence impressions, relationships, and behaviors in negotiations and beyond, the findings here suggest that these statements should not be uniformly assumed to be harmless without good evidence. Further study is warranted to understand the nuances of these effects, yet these results give us evidence that damage can be done and thus, it is a topic worthy of more attention.

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## Appendix A: Sample Instructions

You are representing POP productions in negotiation with a prospective theater. The information for your negotiation is attached. Please review this information carefully before you begin your negotiation.

This negotiation is to take place exclusively via E-mail. That means no phone, fax, or instant messaging.

As for the E-mail system to use, you should do this exclusively via Web Mail.

In addition, for your particular role in this negotiation, you should remove any electronic signatures that you have on your Web Mail and keep them off for the entire duration of this negotiation. You can do this by going to the signature tab.

In place of any personal signature you may have, you should put in the following signature instead (see statement below in bold typeface), and keep it there for the duration of the negotiation:

**[This e-mail message and any attachments are the opinion of the sender and not necessarily that of POP Productions.]**

or

**[This e-mail message and any attachments may contain confidential information from the sender. Do not distribute without sender's explicit permission.]**

Again, you should keep this signature for the duration of your negotiation. You can remove it once the negotiation results have been turned in.

Good luck!

## Appendix B

### Questionnaire

Your name: \_\_\_\_\_

### Oceania

#### Post Negotiation Questionnaire

*Instructions:* Complete this sheet after you have negotiated with the other party and complete it while you are in private. Please circle the number to the right of each statement that most clearly describes your opinion of each member of the other party (on an individual basis).

Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7
1					1	2 3 4 5 6 7
2					1	2 3 4 5 6 7
3					1	2 3 4 5 6 7
4					1	2 3 4 5 6 7
5					1	2 3 4 5 6 7
6					1	2 3 4 5 6 7
7					1	2 3 4 5 6 7
8					1	2 3 4 5 6 7
9					1	2 3 4 5 6 7
10					1	2 3 4 5 6 7
11					1	2 3 4 5 6 7
12					1	2 3 4 5 6 7

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