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At a Loss for Words: Negotiators Disadvantaged in Technical Knowledge are Vulnerable  
to Verbal Domination and Economic Losses as a Function of Communication

Media Tempo

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### Abstract

We proposed and tested a model of the influence of communication medium on the ability of technically advantaged negotiators to establish conversational dominance over opponents and thereby obtain superior economic outcomes. Participants were assigned to the role of buyer or seller in a competitive multi-issue negotiation in which the technical advantage of sellers was manipulated. They negotiated using media that were similar except in fostering either a rapid conversational turn-taking tempo (Instant Messaging) or a slow turn-taking tempo (E-mail). Technically advantaged negotiators were better able to maintain conversational dominance if they communicated using a rapid turn-taking tempo. Importantly, mediational analyses showed that conversational dominance moderated economic disparities—being at a loss for words meant taking an economic loss. We offer the theoretical and managerial consequences of these findings for the practice and use of negotiations within markets.

**Key Words:** Negotiation, Communication media, Dominance, Social interaction

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Researchers of negotiation and decision making in strategic interactions have increasingly focused not just on individual cognitive processes and biases, but also on the social dynamics that connect cognition to interpersonal interaction and emotions (Brett, Northcraft & Pinkley, 1999; Lytle, Brett & Shapiro 1999; McGinn & Keros, 2002; Olekalns, Smith & Walsh, 1996; Thomas-Hunt, Ogden & Neale, 2003; Weingart, Hyder & Prietula, 1996). Some of these dynamics, such as the development of rapport or dominance, are influenced by the mode of communication through which individuals interact (Carnevale, Pruitt & Seilheimer, 1981). Increasing evidence suggests that influencing the processes of establishing rapport or choosing media with features that are catalysts of rapport (e.g., visual access) can help determine both the social and economic outcomes of negotiation (Morris, et. al., 2002; Thompson, 2001). This issue is of practical importance, given that buyers and sellers in present-day markets have an increasing array of choices with regard to communication media, such as E-mail and Instant Messaging (IM), but may not fully understand that this choice has consequence for their personal outcomes.

A story about one of our former students provides insight into the link between dominance and communication medium. The student, an M.D.-Ph.D., had never fared well in negotiating with car dealers. Although he prepared in advance to know the model and price he wanted, once he was face-to-face with the car dealer he could not defend himself against the barrage of technical rationales with which the dealer argued for a

different model or a higher price. Later, he tried negotiating by telephone, but still found himself at a loss. Finally, he decided to use E-mail to negotiate terms with a car dealer and found that he was able to avoid becoming dominated by the more knowledgeable salesperson.

Why E-mail? Face-to-face contact can heighten the use of pressure tactics and aggressive staring (Carnevale et al., 1981; Lewis & Fry, 1977), which is one route to dominance. Still, there must be additional important aspects to dominance because phone negotiations did not work. We suspect that in addition to visual contact, a second moderator of dominance is the rate of conversational exchange, or turn-taking tempo. In contrast to face-to-face and telephone conversations, E-mail does not carry stringent expectations about turn-taking tempo; it is more like a sequence of letters or faxes. For example, the Elements of E-mail Style (Angell & Heslop, 1994: 2) suggests that “E-mail allows you to digest your messages and put more thought into your responses, which you might not be able to do on the phone.” Thus a conversant faced with a difficult question or proposition has greater latitude in choosing when to reply if communicating with E-mail than if communicating in person or on the telephone. We suggest this distinction can be consequential in contexts like negotiation, where conversants are faced with difficult questions or demands that would benefit from additional time to formulate responses or counter-demands.

Our interest in linking media turn-taking tempo with dominance leads us to focus on an aspect of competitive multi-issue negotiation that has received surprisingly little research in the extant literature on negotiations and consumer behavior—the verbal poker game that emerges as negotiators attempt to gain information about their opponent’s

interests and preferences without revealing much of their own. Savvy negotiators often send misleading signals about their interests by voicing rationales that point in different directions, enabling themselves to later feign that they are making painful concessions when in fact they are not (O'Connor & Carnevale, 1997). A negotiator's success in generating convincing rationales for feigned interests and, at the same time, picking apart their opponent's hollow rationales, is the key to this verbal poker game. In this research, we focus on a pivotal moment in this game in which negotiators find themselves unable to defend their own positions or are unable to effectively critique their opponents' counter-claims.

### Conversational Dominance

In Halberstam's book, *The Best and the Brightest*, Robert McNamara was described as relying on reason to exert authority: "he could prove his rationality with facts, intimidate others... Everyone was impressed and many a little frightened" (cited in Pfeffer, 1992: 280-1). Mastery of technical information (or at least seeming mastery) can overwhelm others, leading them to concede. We use the term "conversational dominance" to capture the dynamic in which one negotiator's arguments puts the other at a loss for words, and thereby forces a loss of credibility in the interaction. That is, one negotiator makes a claim ("I'd like the car in yellow, with leather, for that price"), and the other counter-claims ("Of course you know that yellow is a very popular color—I don't think we even have one on the lot—but we could special order one and in four weeks it can be yours, although there is a \$3000 charge for special orders"). Because the first person initiated the argument and has not (at least yet) responded to the counter-claim, the burden of proof is on them (Bailenson, 2001; Rips, 1998). The first person's

feelings that he or she may be wrong about an issue may lower self-confidence and increase the likelihood of their being persuaded. It might lead to errors in judgment, weak arguments, or simply conceding if they are rushed to produce a response. Further, a failure to respond implies that the counter-claim stands as an accepted part of the common ground of the discussion (Clark, 1996). Thus technical arguments have a variety of routes by which to produce dominance in a conversation.

No matter the route, the effect on economic outcomes is substantially the same: if an individual cannot successfully counter-argue, then the position under question becomes final in the contract, which represents a distributive gain for the technically advantaged party. Accordingly, we propose that conversational dominance in negotiation should translate into discrepancies in economic outcomes. Even the perception of such yielding may be taken as a measure of discrepancy in outcomes, regardless of what the actual outcomes are. Thus, in addition to nonverbal cues as a means for expressing dominance, conversational dominance presents a second, rational-seeming route by which speakers can assert power for bargaining advantage through technical argumentation.

A primary determinant of conversational dominance is the relative technical knowledge of the two opposing parties. If there is a technical advantage on one side, that party will be able to construct technical rationales that the other side will be unable to refute (e.g., in the previous example, how would I know if they had a yellow car on their lot?). While it may seem obvious that superiority in technical knowledge would help a negotiator dominate their counterpart, it is not clear that such an advantage should have equal impact under all conditions.

### Communication Media and Turn-Taking Tempo

There can be no doubt that the pace of the conversation matters for conversational dominance. It is no coincidence that the fast-talking salesman is “fast-talking.” His rapid-fire list of technical reasons why one’s car has such a low trade-in value would be easier to rebut if one had time to think about each point before he was on to the next. Yet by itself, this is nearly a tautology—pace is probably both a cause and an effect of verbal dominance. However, an exogenous aspect of the negotiation setting that affects pace may be the communication media. Accordingly, communication media may enable disadvantaged negotiators to employ compensatory actions.

The importance of examining communication media in general, and the issue of turn-taking tempo in particular, has increased due to the emergence and growth of information technology for interpersonal communication and negotiation. Increasingly, managers and consumers use E-mail and Instant Messaging. Although IM is less widely used at present, industry analysts at Gartner and IDC expect that it will soon surpass E-mail as the primary online communication tool used in the United States (Heim, 2003). These two media are alike on most of the features that communication media researchers analyze, such as textual rather than oral communication and lack of physical co-presence. The two are different in one important respect, however, and that is their norms about turn-taking. Analysts of media have classified tempo in terms of being synchronous versus asynchronous, focusing on the extent to which conversational partners are connected in time (e.g., Poole, Shannon & DeSanctis, 1992). Synchronous communication media, such as face-to-face, telephone, or, as we will claim, Instant Messaging, bring with them expectations for a rapid reply.

At first glance, turn-taking expectations may seem to be the least of negotiators' problems when, say, facing a car dealer. Yet failures to live up to conversational expectations—such as fluently answering a direct question—have subtle but important consequences for how one feels, sees oneself, and acts. Individuals across many social contexts reliably demonstrate an interest in complying with such norms as part of their self-presentation concerns (Jones & Pittman, 1982). Violations of conversational norms can lead to unflattering attributions, which may explain individuals' explicit and/or implicit needs to uphold standards of convention even while risking the quality of their responses or yielding a point.

Sociolinguistic studies show that in oral conversation, people are highly accurate at predicting when speakers will begin and end conversational turns. As a result, people make attributions when parties fail to maintain turn-taking tempo during the course of interaction. Clark's (1996: 89) "principle of processing time" summarized the information that timing conveys as follows: "People take it as common ground that mental processes take time, and that extra processes may delay entry into the next phase." Thus, we understand that the complexity of what we say will have some bearing on the time it takes for another to respond. English speakers signal a delay by using "uh" and "um" to convey they are preparing to reenter the conversation. However, extra time does not extend indefinitely. If a sender takes longer than the receiver (and even the sender) assumes is necessary, unflattering judgments are made. As Tannen (2000: 393) explained, in the context of regional differences, "in every one of those countries that I know about, people from the slower-speaking regions are stereotyped as stupid." In sum,

oral conversation involves an expectation of rapid turn-taking that exposes those who cannot answer quickly, making them vulnerable to negative judgments.

Oral conversation involves the most rapid turn-taking tempo, and any written form may allow for deviation from this norm. However, we contend that the tempo of IM is much closer to that of oral communication than is email. IM makes it mandatory for people to be at their computers at the same time, reading and responding to brief messages quickly. Thus the turn-taking norms associated with IM are likely to be similar to those of oral communication. In contrast, E-mail is often used like letter-writing, with the expectation that people may not be focused on the conversation at the same time. As a result, the norms for turn-taking are not as strict for E-mail as for IM, and people's attributions about why a change in tempo occurred may be less predictable, and accordingly less influential. For these reasons, we suspect that the chances of a dominance dynamic are higher in IM. E-mail and other written communication media may establish different expectations about turn taking, and hence may be more forgiving to those needing more time to formulate an answer.

#### Study Overview

In the research study presented here, we investigate whether communication medium has a systematic influence on the process of establishing conversational dominance in the course of negotiation, thereby leading to substantive effects on negotiated outcomes in competitive bargaining contexts. Specifically, we predict that individuals with a technical advantage in negotiation will be better able to establish conversational dominance in contexts characterized by rapid turn-taking tempo than those with slow turn-taking tempo (see figure 1). Given the preceding analysis, we compared

negotiations in two media that are quite similar except that one engenders a rapid turn-taking tempo (IM) and the other a slower tempo (E-mail). This manipulation was crossed with a manipulation of the relative technical advantage enjoyed by sellers in a car-buying negotiation simulation. Specifically, MBA students assigned the seller's role were instructed to try to feign preferences to sell a different kind of car than the one they truly benefited most from selling. As ammunition to convince the buyer, an MBA student from a rival university, they were provided with either detailed technical knowledge and arguments, or with weaker, specious knowledge and arguments. Although use of deceit per se may not differ between IM and E-mail (although it should be higher than in face-to-face negotiation; Valley, Moag & Bazerman, 1998), we nonetheless expected that sellers with a technical advantage would be more likely to establish conversational dominance in the rapid rather than slow tempo medium. Put differently, buyers at a technical disadvantage when conversing over IM would be more likely to find themselves "at a loss." Conversational dominance is expected to lead to distributive gains and superior economic outcomes. We additionally test for corresponding effects on the social outcomes of the negotiation. Finally, the consequences of these results for the theoretical study of negotiation and its practical application to market settings are discussed.

## Method

### Participants

Participants in the study were full-time masters students in business school. A total of 224 students from Stanford University's Graduate School of Business and the Kellogg Graduate School of Management at Northwestern University took part in the study. Because a larger number of Stanford students were included, some of the

negotiation dyads (14 out of 112 dyads) included two students from Stanford. We matched students in these 14 same-school dyads from different masters programs at Stanford, and from different sections of the same course, so as to minimize the potential for contact between students before the study began. All students participated in fulfillment of a class assignment in a negotiations course.

### Design

The study design was a between-subjects 2 X 2 factorial, manipulating Communication Medium (E-mail versus IM) and Sellers' Technical Advantage (technical argument versus weak argument). One-half of the dyads were assigned to the E-mail condition, while the other half were assigned to the IM condition. Subsequently, half of the E-mail dyads, as well as half of the IM dyads, had sellers provided with strong technical arguments and the remaining dyads had sellers provided with weak arguments.

### Procedure

Participants were instructed to conduct a two-party negotiation exclusively through E-mail or Instant Messaging, depending on their assigned condition. Each student received a set of materials that included: (i) a page of general confidential instructions and guidelines; (ii) the pertinent contact information for their negotiation counter-part (either an Email address, or Instant Messaging account identification); (iii) a pre-negotiation questionnaire; and (iv) a post-negotiation questionnaire. Students in the IM condition additionally received an Instant Messaging instruction sheet. Because we expected that individuals were generally less familiar with IM technology than with E-mail, we instructed them to engage in a practice IM session with the experimenter before

the start of the exercise. Both IM and E-mail participants, however, were told not to contact their negotiation opponent until the start of the exercise.

In addition to communication medium, we also manipulated the technical advantage of the seller (see Appendix for full instructions). For the “technical argument” seller condition, students were provided with a high quality argument with technical rationales that was constructed by the experimenter. This argument was expected to create a technical advantage for sellers, thereby making it more difficult for buyers to respond. In the “weak argument” condition, sellers were provided with an argument that ostensibly would lead to buyer concessions, but which was specifically designed to be weaker in terms of quality and hence ease of rebuttal.

*Negotiation Task.* Students engaged in a negotiation involving the purchase of an automobile from a salesperson at a hypothetical automobile dealership. In order to increase the correspondence between experimental and real-world bargaining conditions, the students engaged in an eight-issue negotiation (e.g., purchase price, product attributes, warranty specifications) that included both distributive (conflicting interests; fostering competition) and integrative (potentially aligned interests; fostering collaboration) elements. For each of the eight issues, both buyers and sellers received private information about their own payoffs – a specific point value was assigned to each negotiated outcome. The maximum joint outcome for any dyad was 3,000 points, representing the pareto-optimal agreement. Additionally, both parties had explicitly defined best alternatives to a negotiated settlement. If the negotiation resulted in an impasse, both parties would receive 1,200 points with a joint outcome of 2,400 points.

Pre-Negotiation Measures

All students were instructed to complete a questionnaire, titled the “Preparation Worksheet”, before beginning the actual negotiation. These questions asked participants about their strategic plans for the negotiation, including their reservation point, their target point, and the first proposal that they intended to employ.

#### Dependent Measures

After the completion of the negotiation, each of the students was asked to complete a second questionnaire, entitled “Diagnosis Worksheet”. This included a series of questions related to the outcome variables of interest: (1) economic outcomes (which were confirmed from the details of the transcripts that were provided); (2) social outcomes; and (3) perceptions of the communication media itself.

The economic outcomes were assessed by calculating each individual’s point total, as well the joint point total of each buyer-seller dyad. Social outcomes were measured by asking respondents to determine the likelihood of choosing the same counterpart in a different negotiation exercise:

Suppose that you were to negotiate again in a different exercise. If given a choice, how likely would you be to want the same counterpart that you had in this exercise? (1 = very likely; 7 = not at all likely)

Finally, we assessed satisfaction with the negotiation experience by determining the degree to which participants would consider using their particular mode of communication for making future transactions:

This negotiation exercise was conducted using an electronic communication system. If given the choice in the future, how likely would you be to use this particular communication system again to conduct this type of transaction? (1 = very likely; 7 = not at all likely)

*Measures of Conversational Dominance (Buyer Self-Reports).* We expected that any systematic effects on the outcome variables across conditions would be mediated by the extent to which conversational dominance was established. We measured conversational dominance in terms of the difficulty that buyers experienced in generating adequate responses for sellers. Specifically, we asked buyers to report the extent to which they felt “nervous”, “hurried”, “intimidated”, “time pressured”, “irrational” (versus strategic), “in control”, and “comfortable” at any point during the negotiation (1= not at all descriptive; 7 = very descriptive).

*Content Analysis of Negotiation Transcripts.* Content analysis was conducted on the negotiation transcripts by segmenting them into discrete units at the level of conversational turns. For E-mails, each separate message was coded as one conversational turn. For IM, a transition from one conversant to the other signaled the beginning of a new unit. The coding scheme for this study involved the development of specific categories for classifying statements and was derived using guidelines from past research on negotiation behavior (Moore, et. al., 1999; Morris, et. al., 2002). As our interest was in examining the development of the conversational dominance dynamic, we explored two primary issues. First, we examined statements from buyers that indicated response difficulty and signaled the establishment of dominance. Second, we examined statements from sellers that indicated intent or ability to exert dominance (e.g. through successful use of feigned concessions). The specific categories are described next.

For buyers, we attempted to identify statements that were explicit declarations of response difficulty as a result of conversational dominance. Buyers’ responses were analyzed for signs of being “hurried by an opponent” (“Can you give me a minute to

think about that”), “hurried by external pressures” (“We only have time to negotiate for another 20 minutes”), being “at a loss for an answer,” and being “nervous.”

For seller responses, we were primarily interested *information exchange about preferences*. Within this category, we coded for several sub-categories: (i) signals sent about sellers’ own preferences/capabilities; (ii) specific misrepresentations of sellers’ own preferences/capabilities (such as deceptive statements and the use of feigned concessions, as when extreme anchoring offers outside the attribute ranges specified by the experimenter were used); and (iii) queries made about buyer preferences/capabilities. In addition to information about preferences, we also coded for *offers* (single-issue, multi-issue, or ultimatums), *information exchange about BATNA*, and the use of *manipulative tactics* like the use of threats of negative consequences or high-pressure statements.

All conversational turns were coded by a trained judge. A second independent judge coded a randomly selected subset of these transcripts (25 percent) in order to assess the reliability of the coding scheme. The two judges agreed on 88% of the coded items. The number of words offered by both buyers and sellers was used to determine the total volume of communication and used as a basis for standardization in the reported frequency counts.

## Results

### Pre-Negotiation Measures

The manipulations of communication media and seller strength were expected to influence the actual progress of the negotiations themselves, rather than the attitudes, beliefs and expectations of the participants prior to the negotiation. The manipulation of

communication medium and the sellers' technical advantage did not have any significant effects on buyer/seller reservation prices, aspiration levels or initial offers (see Table 1).

#### Economic Outcomes

The main economic outcome of interest was the difference between buyer and seller points (defined as (Buyer points) – (Seller points); see Table 2 for means). Data were submitted to a 2 (Communication Medium) X 2 (Technical Advantage) ANOVA, which showed an omnibus interaction effect at a marginally significant level,  $F(1,108) = 3.36, p=.07$ . No significant main effects of communication medium or technical advantage were obtained. We predicted that only the technical advantage IM condition should result in conversational dominance and hence disparities in the buyers' and sellers' outcomes. The contrast test specifically comparing this condition to the remaining three showed that it produced a reliably greater differential (143 versus 20 points),  $F(1,110) = 4.98, p<.05$ .

For the other economic outcomes of interest (buyer points, seller points, and joint points), no significant effects of communication medium or seller strength were obtained. Similarly, the impasse rate did not vary depending on medium or technical advantage. Mean scores for the negotiation outcome variables are provided in Table 2.

#### Social and Media Preference Outcomes

We measured social outcomes by determining the likelihood that a buyer would choose the same seller again in a different negotiation exercise (Table 2). Buyers who negotiated with sellers who made weak arguments, versus those who negotiated with sellers employing strong technical arguments, were more interested in negotiating with the same person (4.98 versus 4.29, respectively). An ANOVA parallel to that used for

economic outcomes confirmed this difference due to technical arguments,  $F(1,108) = 4.53$ ,  $p < .05$ . Further, the effect of making technical arguments was modified by a marginal interaction with communication medium, as IM made the stronger arguments particularly uncomfortable,  $F(1,108) = 3.70$ ,  $p = .057$ .

Interestingly, a filler question that helped to mask the focus of the study yielded an interesting result. The question was whether people would choose the same communication medium again to conduct the same type of transaction in the future. A significant main effect of technical advantage was obtained, such that buyers were more likely to want to use the same communication medium after interacting with sellers in the weak rather than strong technical argument condition,  $F(1,108) = 4.36$ ;  $p < .05$ . No significant main effect of communication medium was obtained, nor was an interaction effect obtained. The effect of technical arguments on future medium choice was unpredicted and seems to indicate a misattribution by participants to the media, rather than the ease or difficulty created by the manipulation of technical advantage.

#### Self-Report Measures of Dominance

We predicted that technically advantaged sellers using IM would secure superior economic outcomes (point differentials) by establishing conversational dominance during the course of negotiation. Means for the index of conversational dominance based on buyer self-reports ( $\alpha = 0.68$ ) are provided in Table 3. A specific contrast test on the conversational dominance index showed that buyers reported the greatest response difficulty when negotiating with IM with sellers given strong technical arguments, as compared to the other experimental conditions,  $F(1,110) = 4.12$ ,  $p < .05$ .

We predicted that conversational dominance mediates the relationship between sellers' technical advantage and disparities in economic outcomes. In order to test this hypothesis directly we conducted mediational analyses using the procedure of Baron and Kenny (1986). The results from this analysis are shown in Figure 2. In a regression model, the interaction of communication medium and technical advantage significantly predicts point differential, as well as the proposed mediator, the conversational dominance index. The conversational dominance index also significantly predicts point differential. Finally, in a combined model, the conversational dominance index still significantly predicted point differential while the interaction term was significantly reduced. This indicates that conversational dominance (as measured by buyer self-reports) partially mediates the effect of the interaction term on point differential.

#### Content Analysis of Negotiation Transcripts

The effects of technical arguments and Instant Messaging just discussed should be in part traceable to what people wrote. Specifically, the sellers' strong technical arguments should have been used to create value by taking advantage of buyers' statements of preferences. Sellers could then misrepresent their own preferences and thereby later exact value for false concessions. Consequently, we examined the transcripts for aspects of information exchange about preferences, as well as potentially related aspects such as discussions of BATNAs, offers, and the use of tactics. We report frequencies per 1000 words for each statement type in these analyses. There were no reliable differences in the number of words used across communication media or technical advantage (see Table 4 for means).

We focus the discussion that follows on the seller, as it proved difficult to code response difficulty in the transcripts. We coded for buyers being hurried by their opponents or some external pressure, being at a loss for a good answer, and evincing nervousness, but the frequency counts for clear examples of these categories were low. Buyers facing sellers with strong technical arguments using IM showed the most total response difficulty summed across these categories (0.62 statements versus 0.19 for the remaining conditions), but this difference is not reliable.

*Sellers' preferences.* We coded three categories relevant to information exchange about the sellers' preferences: (1) sellers' signals about their own preferences; (2) their misrepresentations of their own preferences; and (3) their queries about buyer preferences. A 2 (Communication Medium) X 2 (Technical Advantage) ANOVA yielded a significant main effect of medium on sellers' signals of their own preferences—more such information was exchanged over IM (6.07 statements) than E-mail (2.53),  $F(1, 90) = 34.38, p < .001$ . A main effect of technical advantage was also found, such that sellers with strong technical arguments gave more information than sellers with weak arguments (5.04 versus 3.48, respectively),  $F(1, 90) = 6.86, p < .02$ . Contrast tests showed that sellers using IM and given strong technical arguments provided more information about preferences than sellers in the other conditions (7.21 versus 3.30),  $F(1, 90) = 28.04, p < .01$ .

The experimental manipulations also showed a strong influence on the type of preference information provided. A parallel ANOVA showed that sellers were more likely to misrepresent preferences when technically advantaged (1.85 statements versus 0.97 for those with weak arguments),  $F(1, 90) = 10.28, p < .01$ , and marginally more likely

to do so when using IM (1.68) rather than E-mail (1.16),  $F(1, 90) = 3.47, p=.06$ . Contrast tests showed that sellers with strong technical arguments using IM were more likely to employ misrepresentation of preferences than those in other conditions (2.35 versus 1.11),  $F(1, 90) = 15.00, p<.001$ .

Sellers also showed differences in the extent to which they queried buyers about their preferences. Sellers queried buyers more often when using IM (3.21 statements) than E-mail (0.65),  $F(1, 90) = 46.25, p<.001$ . Sellers with strong technical arguments in the IM condition questioned buyers more often than those in the other experimental conditions,  $F(1, 90) = 39.76, p<.01$ .

Mediation tests were conducted to test whether these measures of information exchange could successfully explain the effects of the experimental manipulations on the point differential outcome. We found that seller misrepresentation of preferences partially mediated the interactive effects of communication medium and seller strength on point differential. The results are illustrated in Figure 3. In a regression model, the interaction of communication medium and seller strength significantly predicts point differential, as well as the proposed mediator, use of misrepresented preferences, which is a proxy measure of conversational dominance. The proportion of preference misrepresentations also significantly predicts point differential. Finally, in a combined model, the preference misrepresentation measure still significantly predicted point differential while the interaction term was significantly reduced.

*Additional seller information.* We also examined sellers' discussions of offers, BATNAs and their use of tactics. Sellers provided more offers if they used IM (2.87 statements) than if they used E-mail (1.58),  $F(1, 90) = 25.78, p<.001$ . Contrast tests

showed that sellers with strong technical arguments in the IM condition provided more offers than those in the other three conditions (3.02 versus 1.94),  $F(1, 90) = 11.90$ ,  $p < .001$ . When mediation tests were conducted, however, the offer variable did not significantly predict point differential in a regression model. With respect to BATNAs, sellers with strong technical arguments requested more information about buyers' BATNAs than did sellers with weak arguments (0.93 versus 0.50 statements),  $F(1, 90) = 5.83$ ,  $p < .02$ . However, no other significant effects were found for BATNAs. Finally, we did not find differences in the use of manipulative tactics, as measured by the use of threats and pressing behavior.

### Discussion

Recent years have seen rapid growth of information technology, including the development of new innovations in electronically mediated communication. Much of this technological advancement has permeated the workplace, transforming the manner in which business transactions are conducted. As communication technologies such as E-mail and Instant Messaging evolve, it is reasonable to expect that they will represent a growing share of all marketplace activities like negotiation.

Although electronic forms of communication may sometimes be implemented without substantive regard for their affect on negotiation, it has become clear that choice of medium used for interaction can have a substantial impact on negotiation behavior and outcomes. Electronically mediated negotiations do have inherent characteristics that separate them from traditional face-to-face encounters. Moreover, the substantive ways in which they differ can have important consequences for social dynamic processes like the establishment of dominance.

We found that technically advantaged negotiators could dominate their opponents, but that this effect is moderated by what communication medium they used. In discussions over Instant Messaging systems, negotiators with strong technical arguments dominated less knowledgeable opponents. In contrast, E-mail provided a more level playing field, whereby technical knowledge advantages were more effectively countered by the less knowledgeable party. Our contention is that the rapid turn-taking tempo engendered by IM was key to allowing the technical argument advantage to produce conversational dominance. Conversational dominance was produced by stronger arguments, but also increased misrepresentation of preferences and feigned concessions, with the proximal result being the other party felt they had difficulty responding. Because E-mail allows people greater latitude in the timing of their responses, it alleviated technical advantages and hence reduced conversational dominance relative to IM. Finally, in addition to process differences, conversational dominance produced economic disparities—dominators claimed value at the expense of the dominated. That is, being at a loss for words meant being at a loss for dollars.

#### Directions for Future Research

We see several regions of exploration and integration, the most obvious being turn-taking tempo. It is related to studies of time pressure (e.g., Carnevale & Lawler, 1986; De Dreu, 2003), though tied to norms about communication media. When is turn-taking tempo relevant and what else influences it or is influenced by it? For example, in this study, we uncovered the importance of turn-taking tempo in enhancing the success of sellers feigned concessions and other information-based strategies that used misrepresentation. However, information-based strategies may be only part of a larger

repertoire of tactics, such as intimidation and intransigence, that may also be more or less successful depending upon turn-taking tempo. The use of more extensive measures of such behaviors in future studies may allow for better measurement of such potential effects.

It is also an open question as to whether advantaged sellers recognize the potential benefits of rapid turn-taking and plan to use tactics like misrepresentation to a greater degree. General social exchange processes may be influenced by the types of turn-taking expectations that exist for the medium. Therein may lie a root cause of many social phenomenon related to choice of communication medium. For example, when an individual wishes to gain compliance for a request, he or she may wait for an opportunity for face-to-face contact. The targets of such requests, on the other hands, may seek out other venues of contact, such as a voice-mail message.

The specific issue of conversational turn-taking, and its role in moderating the effects of technical advantage, have important consequences for the study and practice of negotiation, particularly given the many forms in which negotiation now takes place. Continued study in this, and in other, contexts of social exchange provide greater theoretical insight into the social dynamic processes.

Finally, we raise two broader topics. The first is whether dominance is a valid umbrella construct for the many and varied behaviors and psychological states we and others have mentioned. Should we group, say, emotional expressions of anger or contempt, nonverbal acts of aggression, and technical argumentation into one category? The second is whether research on informal arguments (Rips, 1998) can be integrated with the growing body of research on the negotiation process. Information exchange in

negotiation is often discussed as leading to parties creating value (often through finding tradeoffs). In the current study, information was also used to assert dominance and claim value. Research on argumentation may provide a new approach and new tools for addressing these complexities.

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## Appendix A: “Technical” and “Weak” Arguments Provided to Sellers

Sellers were provided with the following information:

“Although you would like to get rid of your yellow cars, if the customer indicates that he/she would prefer yellow and a high level trim, you should use that against them with the following argument in order to extract some additional value:”

### *Strong Technical Argument*

“We don’t have any Yellow cars on the lot right now. Additionally, Plymouth only makes yellow cars with the “Sport” Trim Level. The leather Trim packages only come on the conservative colors like Obsidian or Cabernet. I could do a couple of different things for you. First, we could factory order a yellow car with leather Trim, but special orders cost an additional \$3000 and take 4 weeks to deliver. Or, we could do a repaint of one of our Obsidian cars with the leather Trim, but that would cost \$4000 extra and increase the delivery time by a couple of weeks.”

### *Weak Argument*

“The yellow color is especially popular in California and it is hard to find. Besides, you don’t want leather seats on a yellow car in California– they are extremely hot in the summer and you’ll be uncomfortable”.

Table 1: Means (SDs) of Pre-Negotiation Measures for Buyers and Sellers

Pre-negotiation Measure	IM + Technical Argument (n = 27)	IM + Weak Argument (n = 27)	E-mail + Technical Argument (n = 29)	E-mail + Weak Argument (n = 29)
<u>BUYERS</u>				
Reservation price	1262 (101)	1326 (133)	1307 (115)	1310 (115)
Target price	1872 (280)	1829 (253)	1768 (291)	1794 (209)
Value of first offer	2036 (156)	2054 (1982)	1993 (193)	1976 (157)
<u>SELLERS</u>				
Reservation price	1278 (89)	1233 (92)	1295 (121)	1274 (121)
Target price	1833 (220)	1853 (259)	1751 (212)	1782 (257)
Value of first offer	2017 (258)	1975 (214)	1988 (152)	1958 (208)

Table 2: Means (SDs) of Negotiation Outcome Variables

Measure	IM + Technical Argument (n = 27)	IM + Weak Argument (n = 27)	E-mail + Technical Argument (n = 29)	E-mail + Weak Argument (n = 29)
<u>ECONOMIC OUTCOMES</u>				
Point difference (buyer – seller)	-143.0* (266.8)	-15.6 (242.2)	0.7 (217.0)	-45.5 (272.8)
Impasse rate	14%	14%	18%	18%
<u>SOCIAL OUTCOME</u>				
Buyer's desire to keep the same counterpart (reversed)	3.85* (1.81)	5.22 (1.40)	4.69 (1.98)	4.76 (1.88)

Note. \*  $p < .05$  (for contrast between the IM + Technical Argument and remaining conditions)

Table 3: Means (SDs) of Buyers' Responses for Components of the Conversational Dominance Index

Measure	IM + Technical Argument (n = 27)	IM + Weak Argument (n = 27)	E-mail + Technical Argument (n = 29)	E-mail + Weak Argument (n = 29)
Nervous	3.33 (1.64)	2.85 (1.61)	2.31 (1.31)	2.72 (1.60)
Hurried	4.22 (1.83)	4.26 (1.91)	4.10 (1.66)	3.90 (1.66)
Time Pressured	4.30 (2.02)	4.52 (2.10)	4.38 (1.76)	4.59 (1.57)
Irrational	3.57 (1.05)	2.96 (0.90)	3.07 (1.16)	3.07 (0.59)
In control (reversed)	4.07 (1.07)	3.70 (1.17)	3.93 (1.07)	3.41 (1.05)
Comfortable (reversed)	4.26 (1.65)	3.37 (1.15)	3.66 (1.68)	3.10 (1.32)
INDEX ( $\alpha = 0.68$ )	3.96* (1.11)	3.61 (1.02)	3.57 (0.77)	3.47 (0.74)

Note. \*  $p < .05$  (for contrast between the IM + Technical Argument and remaining conditions for the Conversational Dominance Index)

Table 4. Mean (SDs) Number of Words Used by Buyers and Sellers

Word Count	IM + Technical Argument (n = 27)	IM + Weak Argument (n = 27)	E-mail + Technical Argument (n = 29)	E-mail + Weak Argument (n = 29)
Total Words Exchanged	1637 (767)	1661 (838)	1907 (644)	1640 (802)
Buyer Words	690 (288)	816 (477)	926 (327)	739 (304)
Seller Words	946 (503)	844 (420)	980 (394)	899 (559)
Word Differential	-256 (292)	-28 (324)	-54 (332)	-160 (408)

Table 5: Frequency Counts per 1000 Words (SDs) for Coded Seller Statements

Code	IM + Technical Argument (n = 27)	IM + Weak Argument (n = 27)	E-mail + Technical Argument (n = 29)	E-mail + Weak Argument (n = 29)
<u>Information Exchange About Preferences</u>				
(i) Signals about own preferences	7.21 <sup>**</sup> (3.78)	4.92 (3.10)	2.95 (2.62)	2.10 (1.94)
(ii) Misrepresentation of preferences	2.35 <sup>***</sup> (1.83)	1.00 (1.29)	1.37 (1.01)	0.95 (1.14)
(iii) Queries made of buyer preferences	3.10 <sup>**</sup> (2.52)	3.32 (2.45)	0.54 (0.48)	0.76 (1.02)
<u>Information Exchange About BATNA</u>				
	0.72 (0.79)	0.64 (1.23)	1.13 (0.80)	0.37 (0.36)
<u>Offers</u>				
	3.02 <sup>***</sup> (1.34)	2.71 (1.39)	1.70 (0.98)	1.45 (1.18)
<u>Manipulative Tactics</u>				
	0.85 (1.37)	0.46 (1.01)	0.23 (0.54)	0.74 (0.84)

Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$  (for contrast between the IM + Technical

Argument and remaining conditions)

Figure 1. Proposed Model

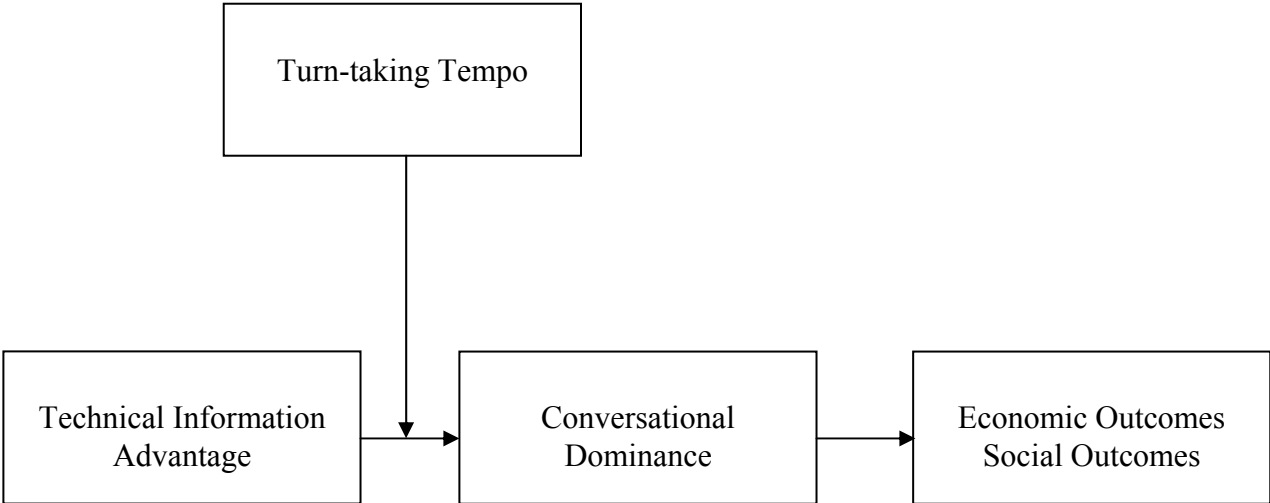
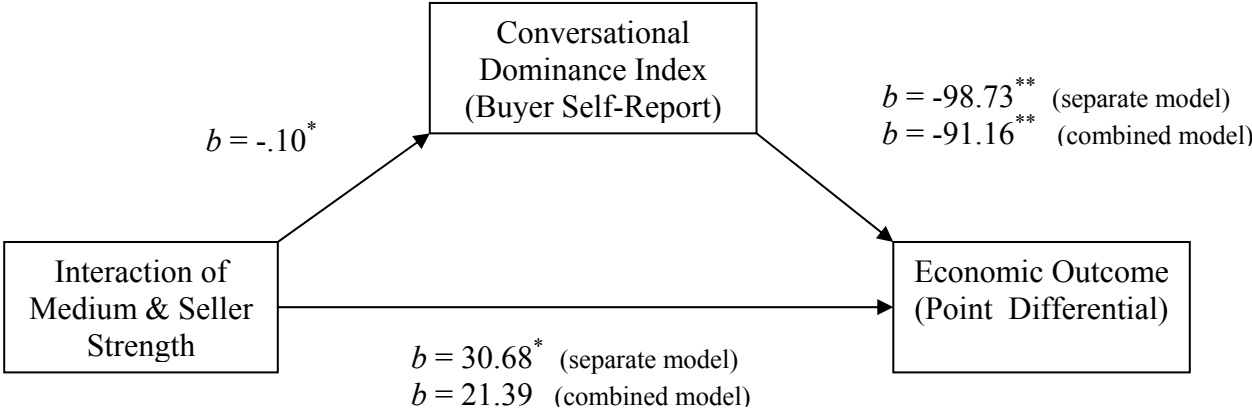
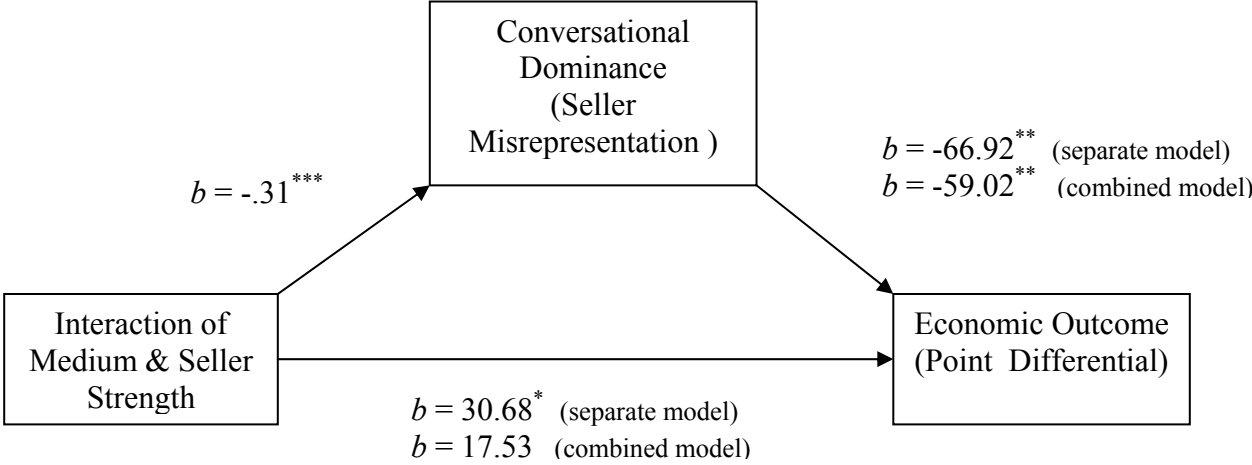


Figure 2.



Note. \*  $p < .05$ , \*\*  $p < .001$

Figure 3.



Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$