An Examination of Communication Behaviors as Mediators in Individual-Level Interorganizational Exchanges

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Abstract

This research attempts to address some of the gaps in our understanding of individual-level interorganizational exchanges. To this end, a conceptual framework which integrates cooperative norms, communication behaviors, and perceived problem solving efficacy is developed. We employ qualitative and quantitative methodologies to explore relevance and significance of proposed constructs and relationships. Findings support the viability of constructs and proposed relationships. Specifically, communication behaviors were found to mediate the relationship between cooperative norms and problem solving confidence to resolve conflict. These results hold implications for future research and management practice.

Many business-to-business transactions are part of a continuing relationship between buyer and supplier (Webster, 1992). Indeed, the ability to establish collaborative relationships across organizational boundaries can be a source of competitive advantage (Liedtka, 1996; Sheth & Sharma, 1997; Jap, 1999; Christopher & Juttner, 2000). This point is underscored by Morgan and Hunt (1994) who note, "…to be an effective competitor in today's global marketplace requires one to be an effective cooperator in some network of organizations" (p. 34).

According to Hutt and Speh (2004) collaborative relationships involve close informational, social, and operational linkages. Yet, in the end, the ability of two organizations to coordinate activities and develop an effective relationship is driven by the many discrete but interrelated interactions among *individuals*. As Jap (1999) observed, interpersonal relationships between boundary spanning personnel are the "microconditions that affect the dyad's decision to exploit relationship distinctiveness and make specific investments" (p.465). Similarly, Narayandas and Rangan (2004) concluded that interpersonal dynamics affect interorganizational commitment.

Integrating the objectives of individuals across diverse organizations whose interests can easily conflict makes relationship management a difficult task. The quality of an interorganizational relationship depends on the many dyads and interactions among groups of employees who interact, negotiate, and deliver value to the partner organization. This is a process in which parties sometimes have conflicting priorities as companies focus on objectives that may be difficult to reconcile (e.g., customers pressuring for price concessions as increases in supplier R&D are expected).

The purpose of this paper is to explain individual-level communication factors that affect relationship quality and, consequently, relationship success or failure. Using constructs from the buyer-seller relationship literature that have their origins in psychology, we develop a framework which integrates normative and communication factors to explain their effects on perceived problem solving efficacy. We then explore the relationships through qualitative and quantitative research. Finally our findings and the implications for future research and managerial practice are discussed.

Communication in Interorganizational Relationships

Communication is central to effective relationship management. Assael (1969) found that frequent communications were associated with constructive conflict management. Dwyer, Schurr, and Oh (1987) highlight the significance of relationship expectations and bilateral communication processes particularly in the relationship exploration phase. Ohmae (1989) emphasized the importance of mutual expectations in collaborative relationships. Anderson and Narus (1990), in noting the interdependent nature of working partnerships, found communication to be a critical factor in cooperative relationships. Helper (1991; 1994) found strong relationships between interorganizational information flow and the effective use of engineering-related problem solving. Similarly, Ellram (1991) reported that poor communication was the most important barrier to success in international purchasing relationships and that early communication of specification changes was positively related to successful partnerships. In later work, Ellram and Hendrick (1995) found that buyers and suppliers both desired improvements in face-to-face and electronic communication.

In a study of network dyads in entrepreneurial organizations, Larson (1992) found that individual interactions were critical in building effective interorganizational linkages. As she noted, communication is critical throughout alliance development, from preliminary assessment, to the trial period (where interpersonal interactions develop routines), to the establishment of operational structures and controls. Operational integration between partners depended on dense communication linkages, including many linkages between the organizations.

Mohr and Spekman (1994) reported that higher levels of communication quality and information sharing were associated with more successful partnering, and Paun (1997) found that communications frequency was one of the factors that differentiated best supplier relationships from average relationships.

In a study of purchasing managers, Leuthesser (1997) found that relational behaviors, including initiating behavior (the extent to which the supplier proactively initiates efforts to better understand the customer), signaling behavior (providing advance information), and disclosing (the willingness of the supplier to provide information about itself) were related to perceived relationship quality.

Christopher and Juttner (2000) noted that supply chain integration is typically achieved through a greater transparency of customer requirements through the sharing of information. They concluded that coordinating interpersonal relationships was one of the critical elements of effective interorganizational relationships.

Bantham, Celuch, and Kasouf (2003), extend work in the area by using dialectical and interdependence theory as orienting frameworks and further develop ideas implied in extant business perspectives. Their framework posits problem solving as the key "driver"

of business relationships. More specifically, problem solving is conceived as mediating the influence of two significant "enablers" on relationship satisfaction and investments. In this framework, a mindset enabler is characterized as the awareness of and willingness to address the tensions inherent in business relationships. A skillset enabler is conceived as consisting of communication behaviors that facilitate managing these tensions (i.e., nondefensive and active listening, self-disclosure, and editing).

Most recently, Claycomb and Frankwick (2004) identified a range of conflict resolution mechanisms that firms may employ in their supply chain relationships. These include joint problem solving (which enhances partnership success) smoothing over issues (which does not solve basic problems and may ultimately escalate the conflict), and coercion (which can destroy the relationship). They argue that effective communication is important in resolving conflict between partners.

Clearly, communication is a significant facilitator of relationship development and effectiveness. However, note that a review of the extant literature suggests other salient constructs that are implicated in buyer-seller communication processes. The conceptual challenge is developing a framework to explain interorganizational linkages that are managed by individuals and that endure change and conflict. Significant research representing both the operations management and marketing streams of literature has added to our understanding of these cooperative relationships. However, critical gaps in our understanding of individual-level interorganizational exchanges are evident.

First, the extant literature has not always provided the theoretical integration that would aid the development of more coherent bodies of research aimed at understanding how individuals in organizations become and continue to be effective cooperators.

Specifically, questions relate to the dynamics of how expectations and communication behaviors are translated into effective problem solving.

Second, relatively few studies have looked at partnerships from the perspective of the matched buyer-supplier dyads (Ellram, 1991; Ellram & Hendrick, 1995). This is an important issue because within each organization, individuals within multiple business functions interact to solve problems. Those studies that have explored both sides of the partnership have typically done so from the single perspective of purchasing (representing the buyer) and sales/marketing (representing the supplier). Few studies have looked at partnerships from the perspective of functions (other than purchasing and sales/marketing) that interact in the typical course of exchanges between buyers and suppliers—for example, engineering, quality control, and customer service. This study addresses the gap in the current literature by using a multi-case study design to explore buyer-supplier interactions from cross-functional perspectives within both partnering organizations which, in turn, provides dyadic "grounding" for the conceptual integration.

In reviewing the preceding literature, three prominent construct domains emerged. The first relates to relationship expectations (also conceptualized as mindset, better understanding, greater transparency of requirements). The second relates to aspects of communication (conceptualized as frequency, information flow, quality, skillset-specific behaviors). The third relates to problem solving (also viewed as conflict management/ resolution, operational integration).

Based on the identified significance of relationship expectations, communication, and problem solving in the business relationship literature we developed the following framework. In the large view, the framework extends prior work in the area by explicitly

proposing relationships among constructs that, to our knowledge, have not been previously explored in the business literature.

Figure 1 presents a conceptual framework which integrates three significant conceptual domains that help explain buyer-seller relationships. The perspective depicts the influence of cooperative norms working through specific communication behaviors to influence problem solving efficacy.

Figure 1. Communication Behaviors as Mediators of Cooperative Norms and Problem Solving Efficacy

We use cooperative norms as a construct to capture the first theme identified in the literature which represents a willingness to make adjustments and balance benefits and burdens in a relationship. This theme was characterized by concepts such as relationship expectations, mindset, better understanding, and greater transparency of requirements (Ohmae, 1989; Bantham et al., 2003; Leuthesser, 1997; Christopher & Juttner, 2000). The use of cooperative norms is also consistent with the view of Axelrod (1986) who argued that norms are a powerful mechanism to regulate conflict. Further, Cannon, Achrol, and Gundlach (2000) found that cooperative norms affect adaptations to dynamic market conditions.

As noted above, there is a considerable literature stream that identifies communication as important for buyer-seller relationship management. However, several aspects of communication have been identified (i.e., frequency, information flow, quality, specific behaviors) (Assael, 1969; Helper, 1991, 1994; Mohr & Spekman, 1994; Bantham

et al., 2003). We adopt the conceptual work of Bantham et al. (2003) as we believe this conceptualization extends work in the area by focusing on specific behaviors that help to operationalize communication quality/efficacy beyond frequency and information exchange dimensions. Note that while explorations of frequency and information flow aspects of communication have contributed insights to understanding individual-level relationships, it is clear that these are weaker proxy constructs for communication quality. Thus we propose that the influence of cooperative norms works through four communication behaviors proposed in previous interpersonal relationship literature (Bussod and Jacobson 1983, Fowers 1998) including:

- Nondefesnive listening: Focusing on what the other person is saying without interruption and attempting to understand his/her point of view.
- Active listening: Encouraging the other speaker, validating what they are saying, and working to avoid misunderstandings.
- Self-disclosure: Sharing relevant ideas, feelings, and information especially regarding requirements in the relationship.
- Editing: Managing communication to selectively minimize negative interactions as these exchanges may adversely effect the relationship.

Lastly, we use problem solving efficacy as a construct to capture the third theme identified in the literature which represents perceived confidence in the ability to coordinate activities in addressing problems. Note that in the present framework, this construct is an important outcome variable that is affected by cooperative norms expressed through communication behaviors. Recall that this issue has been conceived in the literature as conflict management/resolution, operational integration and problem solving (Assael, 1969; Claycomb & Frankwick, 2004; Helper, 1991; 1994; Bantham et al., 2003). In addition, Bantham, et al. (2003) conceive of interdependent problem solving as central to effective relationships.

Of interest from the perspective of the present research is that the Bantham, et al. (2003) framework offers potential relationships among the identified constructs. They suggest that a relational mindset (i.e., willingness to cooperate) will, at least partially, work through the expression of a skillset enabler (i.e., specific communication behaviors) to influence problem solving. By extension we propose that the influence of cooperative norms works through specific communication behaviors to influence problem solving efficacy.

This research used a two phase methodology to explore proposed constructs and relationships. Study one employed a qualitative methodology to explore the viability of the identified constructs and relationships. Study two used a quantitative methodology to more formally test identified relationships.

Study One

Method

Study one employs a qualitative research methodology as described by Eisenhardt (1989), Miles and Huberman (1994), and Yin (1994). This methodology focuses on developing a deep understanding of the dynamics present within settings. The primary unit of analysis is the partnership, focusing on the individual participants' perceptions of the relationship.

Subjects and Procedure

We investigated five partnerships in the manufacturing sector. Specifically, we studied the relationship between metal processing firms and their customers. Companies ranged in size from approximately 50 employees to several thousand employees.

Personal interviews were conducted with multiple individuals within each firm of the partnering dyad, including marketing, sales, purchasing, engineering, manufacturing, and quality control. The participants were selected after a member of the research team and a primary contact at supplier firms discussed the project and decided on the appropriate interview participants based on their involvement in the relationship. Participants were not explicitly cued in terms of the framework under investigation. The interview typically began with the researcher asking the participant to describe the relationship. Further questioning related to the genesis of relationship problems, their resolution, resources that each firm contributes to the partnership, positives and negatives of the relationship, and comparisons of the partnership with less successful relationships. In total, 26 informants were interviewed for study one.

Interviews were conducted on site and by telephone and typically lasted 30 minutes. Interviews were audio taped and later transcribed; notes were also taken. The data gathered from the transcriptions of the interviews were used to create a case study database which was reviewed in light of the framework proposed above. Researchers independently reviewed and coded passages of text as to their representativeness of framework constructs. Researchers then compared coded passages for agreement. Instances of disagreement were resolved through subsequent review and discussion.

Results

Cooperative Norms

Our interview data suggests that the cooperative norm construct defined as a willingness to make adjustments and balance benefits and burdens in a relationship is

prominently represented in working relationships between individuals from various functional areas across organizations. The following quotes are meant to serve as exemplars of the different ways that cooperative norms manifested themselves in the interview data. The first quote is from a Commodity Manager and the second from a Quality Engineer. Both refer to their partner's willingness to make adjustments and share benefits and burdens in the relationship.

> I can sum up in saying that they have been very cooperative with us in some tough business times. They understand our side as we have tried to understand their side. They have worked with us very well.

> It is just no question that they are going to work with us, whether it is a problem, or getting something qualified, or anything they need form us, or we need from them. They are, like it has always been, quite a partner, much more so than other companies. It seems to be a real focal point with them.

The following quote from an Operations Manager suggests a lack of cooperative norms negatively affecting communication behaviors.

> My view is they went out to everybody and basically put a gun to their head, put the bullet in the chamber, and pulled the hammer back. That was so out of character of how they had operated in the past, and they didn't do a very good job explaining what they were trying to do and how the program would work. So those pathetic explanations didn't end up coming until everybody was extremely upset and all sorts of communications going back and forth between the two companies, none of which were all that positive. They just literally went in and changed our prices. They just arbitrarily changed them.

Communication Behaviors

Our interview data provided numerous examples of communication behaviors that were represented in responses from individuals across functions and organizations which are consistent with those in the proposed framework. Below are a few examples, in the words of our informants, which illustrate these concepts.

Nondefensive listening

The following quotes, the first from a Quality Manager and the second from a Project Manager provide examples of nondefensive listening conceived as a focused attempt to understand the partner's point of view without reacting defensively to what the partner might say. The second quote further supports the suggested relationship between cooperative norms and communication behavior.

> I think we need to listen; we need to have good listeners. Once we truly understand what's going on, then we need to go in that direction and deal with what we are hearing. We need to be very open to self-criticism. Say we have a problem; this is our problem and not theirs. We have to deal with our problems in a mature way. Whatever our problem is, we have to deal with it. And then we can go and work with them and build relationships.

> Their engineers have been very cooperative. They are willing to listen to our concerns and issues and take them back to their group and discuss those issues. Whereas with other customers, it is kind of like hardball, you make the part so you do everything. At (Company Name), they listen. I have worked with their engineers and they listen to what you can or cannot do. They understand your problems.

Active listening

The following quotes provide examples of active listening conceived as proactively attempting to avoid misunderstandings. The first statement was made by a Buyer while the second was made by a Quality Engineer.

> We work together with suppliers. For example, we are going to (Company Location) because we are having some problems with the (part) there. I called together process engineering, design engineering, and quality to see if a potential design change will improve their output, to see if that's why they are having a high scrap rate. We are going to their place to say how can we help you help yourselves?

> Probably (Company Name) is a little bit more reasonable. They will listen to you, especially if we have a problem with a specific dimension or something like that. They will change things a little bit to make it easier for us to make. They will

> work with you. We have one particular customer that will not work with us, and it causes a lot of problems because it is very frustrating.

Self-disclosure

An Operations Manager and a Quality Engineer provide the following examples of self-disclosure, that is, the sharing of relationship-relevant information.

> One thing that is easy about working with them is that they let you know right up front, exactly what they expect and what they need. You don't have any problems calling them if we think something is not right or if we have any questions. There is not much left open for interpretation. They get right down to the black and white, and let us know what is expected of us.

> They have really gone out of their way to make us aware of programs they have going, making sure that we are aware of them, involved with them, quoting on them. They have been really coaching us on the things that we need to do to be more competitive.

The following example of self-disclosure, provided by a Supplier Manager, suggests that the lack of disclosure has a negative influence on problem solving.

> We send them purchase orders with weekly requirements and there are times when we don't hear form them and then the week that they are due it's, "Oh, we had issues. Oh, we had this or that." Let us know up front that you have the issues and we can work with you; but don't wait until after your delivery due date and say, "Oh, by the way, we've had this problem, we've had that problem."

Editing

Our interviews provided examples of the negative effects of a lack of editing, that is, the failure to minimize negative reactions/emotions. The following quotes, both from a Quality Manager, provide examples. The first is a self reflection on editing; the second speaks to a customer's lack of editing.

> We are not perfect. From where I sit, I see us behaving sometimes in similar kind. I think we as a company generally try to bargain in good faith, trying to establish a win-win situation, which is good for everybody. Sometimes we get a

> little negative emotion in there that escalates into an inappropriate position, but we generally do a very good job.
>
> Particularly at (Company Name), you know that somebody is going to be threatening right away. If there is a problem the threats start first thing.

Problem Solving Efficacy

The review of our interview data identified multiple examples of problem solving efficacy, that is, the confidence the participant has in the partnering firms jointly solving problems and resolving conflict. The following quotes provide examples. The first, provided by a Director of Purchasing, is a good exemplar of the construct. The second and third, provided by a Customer Service Specialist and a Quality Engineer, contrast positive and negative examples.

> They jumped through hoops to get our product done and approved and continue to supply from that product on. They have tried to understand our needs and we have tried to understand theirs. They have worked with us for a long time and they have been very responsive and worked through their issues with us. They have given us the criteria that we are looking for—the cost, quality, technology, delivery, administration, and attitude to move forward with more business.
>
> I have a particular problem customer that is just, I mean, we know his tolerances for his parts are so tight that it is almost impossible for us. I don't think we will ever please him. In fact, I was on the phone with him last night and again this morning. But with (Company Name), we have never had those issues. I mean they would always say, "Tell us what you can do." They will work with you. But this particular gentleman will not work with anyone. This particular gentleman has blinders on; black is black and white is white; there is no gray area in between.
>
> We have trouble correlating different measurements with one of our customers. Usually it is just one measurement and their paperwork always comes with a form that implies we are wrong—fix it. This has been going on for months and months. It is just a correlation thing. One of us is doing something different, but they don't seem to want to get to the bottom of it and figure out what is different. Where as with (Company Name), when we were having a similar problem, they spent hours on the phone with me, e-mailing back and forth, trying to figure out what we were doing differently and how we could get so we were doing it the same. It was never, "You are wrong and we are right." It was, "What are we doing differently from each other."

In sum, informant responses representing dyadic exchanges across functions and organizations provide qualitative support for the significance and relevance of constructs as well as, to a limited degree, relationships that were identified in the literature. Further, findings of study one suggest the appropriateness of further empirical exploration of the proposed relationships. We then moved to a quantitative analysis in study 2 to formally test a set of hypotheses generated by these results.

Study Two

We formally propose the following hypotheses based on Figure 1 which suggests that the influence of cooperative norms on problem solving efficacy will be mediated by specific communication behaviors. It is posited that:

H_1: Nondefensive listening will mediate the relationship between cooperative norms and perceived problem solving efficacy.

H_2 Active listening will mediate the relationship between cooperative norms and perceived problem solving efficacy.

H_3: Disclosure will mediate the relationship between cooperative norms and perceived problem solving efficacy.

H_4: Editing will mediate the relationship between cooperative norms and perceived problem solving efficacy.

We expect that cooperative norms will be positively related to the use of specific communication behaviors, which, in turn, will be positively related to perceived problem solving efficacy.

Method

Sample

Study two consisted of a sample of metal part producers from three separate metal forming technologies: powder metallurgy, casting, and heat treating. Although distinct, these technologies are metal forming industries that are in the mid-point of the supply chain and deal with a common set of competitive problems and customer management. Three different industry lists comprised the sampling frame. Using these lists, suppliers or firms that engage in specialized markets were eliminated. A total of 247 firms remained. At each firm, an individual was identified who was centrally engaged in an ongoing customer relationship.

Procedure

Following the Dillman Total Design Method (1978), a preliminary letter was sent to each potential respondent outlining the project, explaining its importance to them, and the importance of their participation. One week later, each individual received a cover letter, survey, and a postage paid return envelope. Individuals were promised a summary of results if they participated in the study. One week later a reminder post card was sent, and a follow-up survey package was sent to each non-respondent three weeks later. Data collection was terminated after another four weeks. The overall response rate was 36.4%.

Questionnaire

Measures based on literature reviews and knowledge of metal part producer industries. Industry representatives not included in the study reviewed an initial draft of the questionnaire. The final questionnaire included measures of managerial perceptions

of cooperative norms, use of communication behaviors, problem solving efficacy, and demographic descriptors.

Measures

The context for questionnaire administration was a significant customer relationship that had been ongoing for at least the past year in which the respondent had recently experienced conflict. Given the dyadic nature of relationships, respondent perceptions for all measures included views of their company's personnel as well as views of their customer's personnel. Measures were then summed and averaged representing combined company and customer perceptions. The ***Cooperative norms*** construct was assessed via five, seven-point items (strongly disagree/strongly agree) relating to the respondent's view of their company's/customer's personnel with respect to concern for partner profitability, willingness to make cooperative changes, view of problems as joint responsibility, view of the need to work together with the partner, and not minding owing the partner favors (adapted from Cannon, Achrol, & Gundlach, 2000).

Communication behaviors were measured with seven-point items (rarely/frequently) relating to the respondent's perception of company/customer personnel. These included:

- Nondefensive listening (3 items): paying attention to what the partner is saying, appearing to understand the partner, not interrupting the partner.
- Active listening (3 items): using eye contact when listening, accurately summarizing partner viewpoint, actively acknowledging understanding of the other perspective.
- Disclosure (5 items): sharing honest thoughts and feelings, open sharing of ideas and information, direct communication of point of view, specifies requirements and needs, identifies specific ways the other side can change to improve relationship.
- Lack of editing (4 items): interacting politely (reverse coded), engaging in fewer positive than negative exchanges, focusing on more negative than positive behaviors, and overreacting to negative events.

The measure of ***problem solving efficacy*** consisted of three, seven-point items (not at all confident/extremely confident) assessing a respondent's confidence in his/her company's/customer's ability to engage in joint problem solving in attempting to resolve conflict.

Results

Cronbach's coefficient alpha was used to assess the internal consistency of multiple item measures used in the study. Alpha measures ranged from .74 to .92 and compare favorably with reliabilities reported in related research. Table 1 reports descriptive statistics and correlations for the constructs used in this study.

Regression Analyses

In order to test whether communication behaviors mediate the effect of cooperative norms on problem solving efficacy three conditions must be met. 1. Norms should have a significant effect on the communication behaviors. 2. Norms should also have a significant effect on problem solving efficacy. 3. As compared to condition #2, the impact of norms on problem solving efficacy should significantly diminish when a communication behavior is included in a regression model with norms predicting problem solving efficacy (Baron & Kenny, 1986).

The above conditions were examined separately for the four communication behaviors with ordinary least squares regression using the Baron and Kenny criteria, and are reported in Table 2. Thus, a communication behavior is regressed against cooperative norms (condition #1). Next, problem solving efficacy is regressed against cooperative norms (condition #2). Lastly, problem solving efficacy is regressed against cooperative

norms and a communication behavior (condition #3). Note that Table 2 includes the standardized coefficients, model R^2 and F value for each tested relationship.

With respect to H1, cooperative norms had a significant effect on nondefensive listening, thus, condition #1 is met. As anticipated, norms had a significant effect on problem solving efficacy, thus, condition #2 is met. Further, the influence of norms was diminished when nondefensive listening was included in the regression model predicting problem solving efficacy, meeting condition #3 (with the standardized coefficient for cooperative norms dropping from .22 to .12).

Regarding H2, cooperative norms had a significant effect on adaptive listening, thus, condition #1 is met. As noted before, norms had a significant effect on self-efficacy, thus, condition #2 is met. Further, the influence of norms was diminished when active listening was included in the regression model predicting problem solving efficacy, meeting condition #3 (with the standardized coefficient for cooperative norms dropping from .22 to .14).

Findings with respect to H3 and H4 followed similar patterns with cooperative norms having significant effects on disclosure and editing, respectively, and problem solving efficacy (conditions #1 and #2). However, for condition #3, the influence of norms was diminished for disclosure (with the standardized coefficient for cooperative norms dropping from .22 to .00) and not for editing (i.e., a lack of). Note that directional relationships between variables were as expected with cooperative norms positively related to nondefensive and adaptive listening, disclosure, and problem solving efficacy and negatively related to a lack of editing. As anticipated all of the communication behaviors except a lack of editing were positively related to problem solving efficacy.

In summary, consistent with three of four predictions, communication behaviors were found to mediate relationships between cooperative norms and problem solving efficacy. Contrary to expectations the editing behavior was not found to mediate the relationship between norms and problem solving efficacy.

Discussion and Implications

The present research contributes to the business relationship literature in several ways. First, we have extended existing theory through an integration of three conceptual domains. Specifically, we have developed a framework suggesting that cooperative norms work through specific communication behaviors to influence problem solving efficacy.

To aid construct integration, we have employed field interviews as a check on the relevance and significance of constructs identified in the literature. To this end we have utilized qualitative research methodology incorporating matched buyer-supplier dyads as a means of exploring both sides of the partnership and have done so from multiple functions including top management, sales, purchasing, engineering, quality control, and customer service.

In addition, we have quantitatively explored proposed relationships among constructs. Specifically, we have added depth to our understanding of individual-level interorganizational exchanges by delineating and finding support for a process whereby cooperative norms work through nondefensive and active listening and disclosure communication behaviors in influencing problem solving confidence in conflict resolution. These findings imply that to understand how conflict resolution gets translated into subsequent relationship satisfaction, investments and commitment, one

must understand the antecedent process of how cooperative norms work through specific communication behaviors. Without communication behaviors facilitating efficacious problem solving, the likelihood of satisfaction, future investments and longer-term commitment in the buyer-seller relationship are reduced.

The present study contributes to research in the area in multiple ways. For example, exploration of the role of other communication behaviors could prove fruitful. Further, how might attributional processes related to prior problem solving episodes and associated outcomes affect cooperative norms and communication behaviors?

Given that the present research explored mediation for cross sectional data, longitudinal quantitative explorations appear particularly warranted. Specifically, examining the process whereby outcomes associated with one problem solving and conflict resolution episode effect subsequent communication and problem solving exchanges would be a valuable contribution to the literature. In addition, the role of cooperative norms, communication behaviors and problem solving efficacy in relationship satisfaction and investments begs exploration.

Future research in this area may also develop a contingency model comparing the generalizability of the present findings depending on the level of customer and seller power. Our research focused on selling firms in which the sales team dealt with a powerful customer. Might relationships among norms, communication behaviors and problem solving efficacy differ in settings in which the seller is more powerful?

From a practitioner standpoint, the present research has important implications. First, the significance of perspective taking cannot be overemphasized as a means of addressing relational conflict. This observation was highlighted over and over by

multiple informants in our field interviews and is further reinforced by the significant influence of cooperative norms in the regression equations.

Of significance is the finding that cooperative norms work through communication behaviors to influence perceived problem solving efficacy. Thus, even with the adoption of a partnering mindset, the achievement of truly efficacious problem solving will prove elusive without the complementing skillset – communication behaviors. Thus, training that reinforces skills relating to active and nondefensive listening, and disclosure provide specific tools that are critical for dealing with the continuous conflict encountered in various stages of interorganizational relationships. Informant responses unequivocally indicated than even when partners were willing to cooperate to address a problem, it is the way they communicate about the problem, more so than the amount of communication, that can either facilitate of denigrate problem solving efficacy.

In conclusion, understanding buyer-seller relationships will continue to be a significant topic within the marketing literature. It is our hope that this examination of relationships among cooperative norms, communication behaviors, and problem solving efficacy will contribute to further efforts aimed at increasing understanding of the dynamics of individual-level working relationships between organizations.

Table 1

Descriptive Statistics and Correlations for Cooperative Norms, Communication Behaviors, and Problem Solving Efficacy

	Mean	Standard Deviation	X1	X2	X3	X4	X5	X6
X1 Cooperative Norms	4.65	.89	-					
X2 Nondefensive Listening	4.87	1.01	.34	-				
X3 Active Listening	4.86	.95	.40	.57	-			
X4 Disclosure	5.07	.78	.57	.58	.63	-		
X5 Editing	4.59	1.02	.49	.44	.53	.50	-	
X6 Problem Solving Efficacy	4.66	1.19	.22	.32	.26	.36	.17	-

Table 2

Regression Analyses Testing Mediating Effect of Communication Behaviors on Cooperative Norms and Problem Solving Efficacy

	Model R^2	Results F value
Nondefensive listening		
Nondefensive listening = (.34*) Coop. norms	.12	11.87*
Prob. solving efficacy = (.22*) Coop. norms	.05	4.68*
Prob. solving efficacy = (.12) Coop. norms + (.28*) Nondefensive listening	.12	5.78*
Adaptive listening		
Adaptive listening = (.40*) Coop. norms	.16	16.72*
Prob. solving efficacy = (.22*) Coop. norms	.05	4.68*
Prob. solving efficacy = (.14) Coop. norms + (.22*) Adaptive listening	.09	4.31*
Disclosure		
Disclosure = (.57*) Coop. norms	.32	41.29*
Prob. solving efficacy = (.22*) Coop. norms	.05	4.68*
Prob. solving efficacy = (.00) Coop. norms + (.37*) Disclosure	.14	6.85*
Editing		
Editing = (-.54*) Coop. norms	.29	27.77*
Prob. solving efficacy = (.22*) Coop. norms	.05	4.68*
Prob. solving efficacy = (.27) Coop. norms + (-.03) Editing	.08	2.94

Note: Standardized coefficients appear in parentheses.
* $p < .05$ in all instances except adaptive listening coefficient where $p < .054$.

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