



MANAGING BUYER-SUPPLIER CONFLICTS: THE EFFECT OF BUYER OPENNESS AND DIRECTNESS ON A SUPPLIER'S WILLINGNESS TO ADAPT

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Conflict has received much attention in the supply chain management literature, as it appears to be an inevitable aspect of buyer–supplier relationships. While previous studies mainly focused on preventing or mitigating conflict, this study examines the micro-processes of buyer–supplier conflicts and the mechanisms that facilitate functional conflict processes. Specifically, we examine how a buyer's conflict expression in the way disagreements are conveyed influences a supplier's willingness to adapt its internal processes in favor of the buyer. By means of a multi-method, sequential research design, combining insights from a case study and a scenario-based experiment, we found that expressions of entrenchment by the buyer negatively affect supplier adaptation. In addition, a buyer that is direct, while at the same time expressing openness to the supplier's position, is shown to positively influence supplier adaptation. We also demonstrate the mediating effects of the supplier's emotions in these relationships. Our findings contribute to the supply chain literature by demonstrating the relevance of conflict expression in enabling adaptive processes. In addition, our insights into the interplay between different expression dimensions extend conflict expression theory.

Keywords: behavioral supply management; buyer/supplier relationships; experimental design

INTRODUCTION

Conflict is an inescapable component of buyer–supplier relationships. Conflicts easily arise during the extensive interactions required for the supplier to adapt to the buyer's specific requirements in the joint design and production of exchanged goods, as well as in the ongoing interactions as the supplier fulfills the resulting orders (Gulati, Lawrence, & Puranam, 2005). In buyer–supplier conflicts, the two parties each strive to achieve their own business goals (Bai, Sheng, & Li, 2016) and to come to a satisfactory mutual outcome; each should adapt to the other's position to some extent at least. Gulati et al. (2005) argue that adaptation is crucial for buyer–supplier relationships to continue in a fruitful manner after an initial conflict. A key challenge for the buying firm is therefore to

understand the mechanisms that stimulate appropriate supplier adaptation in a buyer–supplier conflict. However, previous studies on buyer–supplier conflicts have mainly treated conflicts as something that should be prevented or mitigated at best (Bai et al., 2016; Cai & Yang, 2014; Ellegaard & Koch, 2014; Yang, Gao, Li, Shen, & Zheng, 2017). Consequently, despite studies describing constructive interactions following a buyer–supplier conflict (Reimann, Kosmol, & Kaufmann, 2017; Wang, Craighead, & Li, 2014), we know little about the micro-processes of buyer–supplier conflicts and the mechanisms that lead to supplier adaptation.

Studies on intragroup conflict have drawn attention to the significance of conflict expression as an important predictor of conflict behavior (Tsai & Bendersky,

2015; Weingart, Behfar, Bendersky, Todorova, & Jehn, 2015). This perspective emphasizes the importance of including the counterpart's receptivity to each other's suggestions in relation to the conflict outcome (Tsai & Bendersky, 2015). Along these lines, several studies into buyer-supplier conflict clarified how modes of communication can impact conflict outcomes. For instance, Celuch, Bantham, and Kasouf (2011) found that an actor's self-censoring of negative communication behavior affects whether a counterpart blames this actor for the conflict. Others showed the relevance of effective information exchange and communication processes (Ellegaard & Andersen, 2015; Gulati et al., 2005; Lam & Chin, 2005). What is missing in this literature is *how* the underlying conflict should be conveyed and how disagreements between buyer and supplier should be expressed. We address this void and seek to answer the following research question: What is the influence of a buyer's conflict expression on supplier adaptation in a buyer-supplier conflict?

In this paper, we adopt conflict expression theory, which proposes that the manner in which conflict is expressed impacts the behavior and emotions of the parties involved and subsequently the outcome (Todorova, Bear, & Weingart, 2014; Tsai & Bendersky, 2015; Weingart et al., 2015). Specifically, we build on conflict expression theory to draw hypotheses on how directness (i.e., explicitness) and oppositional intensity (i.e., entrenchment) affect supplier adaptation, and how these constructs interact. In addition, we hypothesize how positive and negative emotions (Jehn & Mannix, 2001; Todorova et al., 2014) mediate this relationship. We apply a multi-method sequential research design, consisting of an illustrative case study followed by a scenario-based experiment (Chen, Zhao, Lewis, & Squire, 2016; Eckerd, 2016). Our findings contribute to the SCM literature by showing how conflict expression can positively influence the outcome of buyer-supplier conflicts and by demonstrating the mediating effect of emotions in this relationship. In addition, we also make important empirical contributions to the literature on conflict expression theory by providing new insights into the interplay between directness and oppositional intensity and by extending its application to buyer-supplier conflicts.

In the following, we first discuss expression theory and introduce an illustrative case (study 1) of a buyer-supplier conflict in which conflict expressions are shown to have a major influence on the conflict outcomes. Then we develop hypotheses on the effects of conflict expression which are tested using a scenario-based experiment (study 2) that builds on the illustrative case.

THEORETICAL BACKGROUND

In general, conflicts refer to situations in which individuals are opposed to one another, advocating different outcomes (Weingart et al., 2015). Specifically, Rahim (2002, p. 207) defines conflict as an "interactive process manifested in incompatibility, disagreement, or dissonance within or between social entities (i.e., individual, group, organization, etc.)." Recent studies on group dynamics have drawn attention to conflict expression theory (e.g., Bradley, Anderson, Baur, & Klotz, 2015; Todorova et al., 2014; Tsai & Bendersky, 2015). Conflict expression theory argues that the way in which conflicts are expressed will influence perceptions, information acquisition, and reactions, changing the way the conflict processes unfold and the subsequent outcomes (Todorova et al., 2014). For instance, Tsai and Bendersky (2015) found that when different viewpoints are expressed as debates rather than as disagreements, the receiver's perception of the sender's receptiveness to dissenting opinions is enhanced, thereby increasing the receiver's willingness to share information, which will consequently lead to a positive conflict outcome.

Weingart et al. (2015) proposed that conflict expressions vary in their *directness* and *oppositional intensity*. Directness of a conflict expression is defined as the degree to which an actor explicitly (versus implicitly) conveys his or her opposition. Direct expressions explicitly identify (rather than imply) one's position in a conflict. Conflict expression with low directness is characterized by words that signal the existence of opposition but leave more room for interpretation by the receiver. For instance, direct expressions would involve claims and explanations of what the other party should accede to, while indirect expression involves asking questions and sharing experiences (Brett, Behfar, & Sanchez-Burks, 2014). Oppositional intensity in conflict expression refers to the strength, force, or energy with which opposition during a conflict is conveyed (Weingart et al., 2015). High-intensity expressions of opposition signal entrenchment in a position in which an actor forcefully argues from its own position. Conflict expressions with lower oppositional intensity indicate a more open attitude toward the perspectives of the other party (Todorova et al., 2014).

In this paper, we adopt these perspectives and argue that directness and oppositional intensity will impact the way in which actors behave in a buyer-supplier conflict. Analogously, we argue that conflict outcome is the result of a dynamic process that begins with an actor's expression, the receiver's perception of this expression, and a reaction in terms of behavior and expression by the receiver. While conflict expression theory is essentially a group-based theory, we aim to

examine its predictive value in a supply chain setting. Although conflicts in these different settings may share similarities, they also differ in the mechanisms available to generate cooperation and coordination. Gulati et al. (2005) note how intrafirm conflict substantially differs from buyer–supplier conflict in terms of formal mechanisms such as centralized decision-making, shared standards, and common membership, and informal mechanisms such as a shared culture, norms, and shared experiences. In addition, while group members generally share firm-level goals, supply chain actors can be expected to prioritize their own goals over those of their partner. At the same time, buyer–supplier relationships are often characterized by the expectation that the interactions will continue in the future (Heide & John, 1990). Successfully resolving a buyer–supplier conflict therefore requires adaptations until the interests of the partners are aligned (Gulati et al., 2005). As disagreements will not reach consensus without adaptation, we are particularly interested in how expression influences adaptation in a buyer–supplier conflict. Brennan and Turnbull (1999, p. 482) conceptualize adaptation in buyer–supplier relationships as “the motivation causing one or other party to adapt, the process by which the adaptation is brought about, and the outcomes of the behavioral process.” Adaptation can be viewed as a coordinated and cooperative reactive response to change (Gulati et al., 2005; Medlin, 2004) and is important in understanding interorganizational conflict (Murfield & Esper, 2016).

STUDY 1: ILLUSTRATIVE CASE

Study 1 presents a case study that shows how conflict expression can influence the outcome of a buyer–supplier conflict. The case describes a multi-episode conflict between managers of a Netherlands-based supplier and a US-based buyer that are both leather manufacturers. The Netherlands-based supplier (Dutch Leather; ~150 employees) produces high-quality leather for the high-end furniture industry. The US-based customer (Yankee Leather; ~100 employees) established a strong position in the private jet aviation industry. Over 25 years, the relationship between the firms has grown to be strategically important for both.

Dutch Leather and Yankee Leather began a new joint activity in 2005 in the commercial aviation industry, an industry unexplored by either of them. Especially for Dutch Leather, entering this new market required substantial adaptations to its internal processes, resulting in conflicts between the two firms. In study 1, we illustrate how two subsequent and similar conflicts varied in conflict expression and yielded distinct outcomes in terms of supplier adaptation.

The data of study 1 was obtained via participant observation (Czarniawska, 2004). The second author was fully embedded in the case as both a participant (marketing manager of Dutch Leather) and observer. This allowed firsthand and real-time data collection involving the “lived experience” (Lok & De Rond, 2013; Van Maanen, 2011). Because supply chain partners can differ in decision-making processes, standards, culture, and perceived experiences (Gulati et al., 2005), we observed the viewpoints and actions of both parties. We relied on shadowing, a research technique that aims to trace the actions of informants (Czarniawska, 2004). In addition, we conducted more than 40 ad hoc interviews. After finishing the data collection, we structured the process data chronologically (Langley, 1999) and constructed a narrative of how conflict expressions, responses, and adaptive behaviors developed over time. The Appendix S1 provides further details on the methodology of study 1.

Case Narrative

In 2005, the partners initiated a new joint business activity of manufacturing leather seat covers for the commercial aviation industry. Given the relatively low production capacity of Yankee Leather, it was agreed that Dutch Leather would manage the manufacturing and distribution of this new segment. However, Dutch Leather lacked the specific knowledge and experience needed to produce the high-quality leather required for the aviation industry. Therefore, several meetings were scheduled to discuss the necessary recipe and production methods. The firms agreed that Dutch Leather would produce a test sample as a first step.

First Sample Failure. Dutch Leather informed Yankee Leather that the first sample did not pass the flame and smoke tests. In response, Yankee Leather offered immediate support and proposed to visit Dutch Leather with a technical assistant to analyze what had happened. However, Dutch Leather declined Yankee Leather’s offer because they wanted to solve the problems themselves. As the R&D manager of Dutch Leather remarked:

Why do they always want to stick their noses into our business? We can do it ourselves, and one mishap does not say anything. We first have to analyze what happened anyway.

Dutch Leather stuck to their own ideas of production techniques and recipes while ignoring the questions and concerns expressed by Yankee Leather. During a visit to Yankee Leather one week later, managers at Yankee Leather were still disappointed because now they had to wait another eight weeks while being left in the dark about the actions of Dutch Leather. The operations manager of Yankee

Leather was not pleased about the situation and remarked that:

If there are technical questions, I always have to communicate with the sales department. I hope that this will change in the very near future.

Instead of being direct in addressing their concerns, the managers of Yankee Leather covertly expressed their concerns about the first misfire without explicitly asking for clear measures. In the meantime, Dutch Leather only took minor measures to address the concerns of Yankee Leather. No adaptations were made in the production system.

Second Sample Failure. After some time, Dutch Leather's R&D department reported that a second sample failed the tests. Again, Yankee Leather asked about what happened, but again Dutch Leather was reluctant to share information. In contrast to what happened after the first misfire, the managers at Yankee Leather were now very explicit in expressing to Dutch Leather's sales department how seriously disappointed they were and that they wanted to know exactly what went wrong. Yankee Leather expressed that they would terminate the new activity and reevaluate the entire relationship if Dutch Leather continued to refuse changes to their procedures and actions. As a Yankee Leather sales manager remarked:

If [Dutch Leather] is not willing to listen to us or is not capable of producing the leather according to our aviation standards right now, then we have to do it ourselves at least for the coming period as long they are not ready. We cannot risk our good reputation.

Yankee Leather proposed an immediate visit to Dutch Leather and explicitly urged Dutch Leather to be open about their actions. This announcement created alarming signals for Dutch Leather that the future of the new activity was in serious danger. Yankee Leather clearly communicated its position, and Dutch Leather became aware that action was needed to repair the damaged relationship. The CEO of Dutch Leather remarked:

We have to do everything now within our power to make this work. There is too much at stake. There are of course commercial but also relationship interests. After all, Yankee Leather is our most important customer.

During a joint meeting in the Netherlands, Yankee Leather explicitly stated that Dutch Leather needed to change its production processes and recipe in order to pass the aviation tests. This message left little room for interpretation. Dutch Leather adapted its recipe and production facilities according to suggestions

made by Yankee Leather. Dutch Leather issued a third sample that passed all the aviation tests, and the new business activity could resume.

Key Observations and Limitations of Study 1

The case narrative describes how, after Dutch Leather's second failure, Yankee Leather was much more direct in expressing its disappointment, while maintaining an open attitude to solving the issues at hand. Because of this, Dutch Leather realized how serious the problem was and accepted Yankee Leather's help.

Although these observations suggest an impact of conflict expression on supplier adaptation, study 1 is prone to several limitations. For instance, we cannot exclude that factors such as relationship history or the notion of multiple attempts influenced the behavior of Dutch Leather. To address these limitations, we conducted a second study building on a scenario-based experiment. This approach allowed for the precise sequencing of treatment and effect, offering a more precise observation of causal effects due to reduced effects of factors external to the treatment (Siemsen, 2011). Hence, while situational factors are likely to have been influential in study 1, study 2 ensures the inference of causality (Chen et al., 2016). Before discussing the details of study 2, we draw on conflict expression theory to hypothesize about the effects of conflict expression in buyer-supplier conflict.

HYPOTHESES DEVELOPMENT

Directness and Oppositional Intensity

As noted, directness refers to the degree to which an actor explicitly conveys his or her opposition. Weingart et al. (2015) stated that direct conflict expressions take the form of statements and actions that make the oppositional positions of an actor clear. Conflict expressions in which actors are less direct leave room for interpretation. Indirect expressions may thus mask the true meaning of a message and avoid providing clear information about the sender's intentions and problems. Direct expressions of needs, feelings, and ideas have been argued to contribute to open discussions and, hence, conflict resolution (Tjosvold, Wong, & Feng Chen, 2014). Indirect expressions and not having a clear view of each other's position can frustrate the process because the actors do not have information about the position the other party wants them to adapt to. As shown in study 1, because Yankee Leather was not explicit in stating their need to resolve the issues with the failed sample, Dutch Leather rejected their help. The direct expressions of Yankee Leather's position after the second failed

sample provided a clear view for Dutch Leather. This made Dutch Leather realize the importance of solving this issue and the necessity of involving Yankee Leather in its processes.

Successful expressions reveal the underlying causes of the conflict and plans for how conflict could be avoided in future interactions (Brett et al., 2014). When parties engage in constructive debates, they benefit if the nature of the conflict is expressed unambiguously. Acknowledging the conflict in such situations may promote a debate that aims at resolving disputes (Andres & Zmud, 2001). Clear and explicit information about the presence and substance of the opposition can have a de-escalating effect as well (Weingart et al., 2015). Still, direct expressions of a buyer can be perceived as coercive in the eyes of the supplier. Especially when the buyer connects negative consequences to not resolving the conflict, the supplier is likely to perceive coercive pressure, resulting in less willingness to embrace adaptive behavior (Nyaga, Lynch, Marshall, & Ambrose, 2013) and reduced resource allocation to the buyer's account (Pulles, Veldman, Schiele, & Sierksma, 2014). However, as observed in study 1, when Yankee Leather became explicit about the potential consequences of not resolving the issues at hand, this communicated an unambiguous message to Dutch Leather regarding how serious this conflict was to Yankee Leather. Especially when there is a willingness of both parties to resolve the conflict, direct expression helps to create a clear view of each other's position, making it easier for the counterpart to adapt its behavior.

H1: Direct conflict expression leads to a greater supplier adaptation than indirect conflict expression.

Weingart et al. (2015) posit that the oppositional intensity of conflict expression is characterized by (a) the extent to which a position is defended and (b) the extent to which an actor engages in activities designed to overturn, overthrow, or undermine the other party's position. Conflict expressions that are characterized by high-intensity communicate that an actor is entrenched and unlikely to budge from his or her position and might be trying to force the other party to go along with an undesirable position. In contrast, expressions with low-intensity signal a willingness to see other points of view and remain open to other ideas (Bradley et al., 2015). Oppositional intensity is generally argued to undermine a constructive debate (Todorova et al., 2014; Tsai & Bendersky, 2015; Weingart et al., 2015). An expression with high oppositional intensity can convey negative sentiments which interfere with the receiver's ability and willingness to debate constructively (Tsai & Bendersky, 2015). When the sender focuses

on resolving the conflict, the receiver responds by reciprocating this behavior (Friedman et al., 2004). Similar mechanisms were reported in buyer-supplier relationships by Mukherji and Francis (2008), who found that when a supplier shows a willingness to make changes to its internal procedures, the buyer reciprocates this behavior and makes more adaptations to its own processes.

In addition, important information that is brought to the table may simply be lost because entrenched actors do not want to change their perspective and do not assess the new information. In line with these arguments, Todorova et al. (2014) found that high-intensity conflict expressions are associated with lower information acquisition about the nature of the conflict in contrast to low-intensity expressions. Oppositional intensity reduces receptivity to opposing opinions, which negatively influences an actor's conflict behavior, and this actor can become defensive and favor its own preferences (Tsai & Bendersky, 2015).

H2: High oppositional intensity leads to less supplier adaptation than lower oppositional intensity.

Interaction Effect of Directness and Oppositional Intensity

In addition to their direct effects, conflict expressions are expected to show an interaction effect. Conflict expression theory stipulates that the most effective way for a sender to express conflict is to be direct with low oppositional intensity. While directness by itself is expected to have a positive effect, in combination with high oppositional intensity, it is likely to negatively impact supplier adaptation. The threat from oppositional intensity combined with direct expression limits the receiver's possible reactions (e.g., submit or fight). Direct and intense expressions are therefore likely to result in a stand-off or a withdrawal, resulting in a negative conflict spiral and less adaptive behaviors (Weingart et al., 2015). In contrast, in low oppositional intensity the sender signals openness, behavior that the receiver is likely to reciprocate (Friedman et al., 2004). In this scenario, the sender will benefit the most from explicitly sharing information about its position because the receiver will be open to the sender's point of view. As a result, direct expressions with low intensity allow unambiguous communication without inducing negative attitudes which could interfere with the receiver's willingness to debate constructively (Tsai & Bendersky, 2015). In this way, direct and low oppositional expressions have been shown to be effective in stimulating supplier adaptation as open and clear communication provides the supplier with a better

understanding of the buyer's position, making it easier to adapt to that position (Viio & Grönroos, 2014).

Oppositional intensity is similarly expected to negatively impact indirect expressions. Indirect expressions by themselves create confusion in the receiver about the position the sender is taking, thus reducing the likelihood of receiver adaptation (i.e., H1). If the sender at the same time signals entrenchment in its own positions and opposition to the receiver's perspective, this further reduces the receiver's willingness to adapt because reduced receptivity of its counterpart toward its own views will reduce the receiver's own willingness to adapt (Friedman et al., 2004; Weingart et al., 2015). Similarly, in buyer-supplier relationships, a lack of openness to supplier ideas reduces the perceived interactional fairness and consequently the levels of supplier commitment (Jokela & Söderman, 2017). Hence, these mechanisms predict a negative effect of oppositional intensity on both direct and indirect expression. Nevertheless, indirect expression with low oppositional intensity is expected to be less effective in creating supplier adaptation than direct expression with low oppositional intensity since the latter provides more clarity toward the supplier about the position to adapt to (Weingart et al., 2015).

H3a: The effect of both direct and indirect expressions on supplier adaptation are negatively affected by oppositional intensity.

H3b: Compared to other combinations of conflict expression, direct expressions with low oppositional intensity yield the highest levels of supplier adaptation.

The Mediating Effects of Emotions

The emotionality of a conflict is an important factor in how actors respond and behave (Dreu, 2006; Todorova et al., 2014). Emotions are central and explicit mechanisms in conflict expression theory as the sender's expression is argued to trigger the receiver's emotions, which drive the receiver's reaction (Weingart et al., 2015). Positive emotions facilitate self-regulatory behavior and thereby enable constructive relational behaviors such as cooperation (De Cremer & Hiel, 2006). In this way, positive emotions have been shown to influence interpersonal relationships as they allow each person to better appreciate the other, resulting in a better mutual understanding and higher relational satisfaction (Waugh & Fredrickson, 2006). On the other hand, negative emotions were found to impair self-regulatory actions and increase withdrawal tendencies from relationships (De Cremer & Hiel, 2006). Indeed, negative emotions such as anger and frustration have been shown to have detrimental effects during conflicts (Jehn, Greer,

Levine, & Szulanski, 2008; Jehn & Mannix, 2001). Emotions are therefore expected to play a mediating role in the relationship between conflict expression and supplier adaptation.

Conflict expression theory specifies that expressions trigger complex perceptual processes in the receiver because registering and appraising expression generate emotional reactions in the receiver (Weingart et al., 2015). Directness is expected to influence a receiver's emotions because it relates to the level of ambiguity in expressions. Receivers may experience negative emotions such as irritation and confusion in response to unclear expression as they attempt to make sense of the conflict expression (McIluff & Coghlan, 2000; Weingart et al., 2015). Contrary, clear, and explicit information about the presence and substance of the opposition reduces negative emotions, which can have a de-escalating effect (Weingart et al., 2015) and energize the receiver into solving the conflict (Todorova et al., 2014).

Oppositional intensity is argued to spark negative emotions and reduce positive emotions. In conflicts with low oppositional intensity, debates about opposing positions and ideas might actually motivate actors and lead to positive emotions (Todorova et al., 2014). In such conflicts, actors are open to each other's suggestions, which triggers the positive friction that is required to consider and scrutinize each other's position and generate new insights (Carnevale & Probst, 1998). High oppositional intensity signals that the sender is not interested in resolving the conflict, which reduces the energy the receiver is willing to invest and thus reduces its positive emotions. Oppositional intensity also signals that the sender is unwilling to budge from its position, which frustrates the receiver and creates negative emotions.

Because conflict expressions influence emotions in conflict situations, and because emotions impact behavior, we hypothesize a mediating effect of emotions in the relationship between conflict expression and supplier adaptation.

H4a: Direct conflict expression has a negative relationship with negative emotions, while negative emotions also have a negative relationship with supplier adaptation. In this way, negative emotions mediate the relationship between directness and supplier adaptation.

H4b: Direct conflict expression has a positive relationship with positive emotions, while positive emotions also have a positive relationship with supplier adaptation. In this way, positive emotions mediate the relationship between directness and supplier adaptation.

H5a: Oppositional intensity has a positive relationship with negative emotions, while negative emotions have a negative relationship with supplier adaptation. In this way, negative emotions mediate the relationship between oppositional intensity and supplier adaptation.

H5: Oppositional intensity has a negative relationship with positive emotions, while positive emotions have a positive relationship with supplier adaptation. In this way, positive emotions mediate the relationship between oppositional intensity and supplier adaptation.

STUDY 2

Study 2 draws on a scenario-based experiment using the case narrative of study 1. Experiments are a common research methodology for studying human behavior in many disciplines (Bendoly, Donohue, & Schultz, 2006), and they have been gaining momentum in the SCM literature (e.g., DuHadway, Carnovale, & Kannan, 2018). They enable researchers to study interpersonal interactions, offering a direct observation of behavior in a buyer-supplier setting (Ribbink & Grimm, 2014). Our scenario presents a process conflict in which the parties disagree about how to achieve a certain outcome (Jehn & Mannix, 2001).

Experimental Design

Based on study 1, we developed a scenario describing the history between a focal firm in the leather industry and Yankee Leather. We briefly introduced the focal firm using Dutch Leather's characteristics and described the new business opportunities with Yankee Leather. Our scenario described a typical setting for a buyer-supplier conflict, in which two independent firms with autonomy in decision-making face a conflict in the context of a relationship which is expected to continue into the future (Gulati et al., 2005; Heide & John, 1990). The participants were asked to act as the CEO of their firm in the interaction with the CEO of Yankee Leather (cf., Chen et al., 2016). Similar to the narrative in study 1, the scenario described how the first sample of their firm's aviation products failed the quality tests. It then described another failed test sample and ended with a reaction of Yankee Leather's CEO to this news. These reactions were used to manipulate the directness and oppositional intensity of expression (the Appendix S1 shows the full scenario).

Our experiment employed a 2 (directness) \times 2 (oppositional intensity) design. We mainly built on the works of Brett et al. (2014) and Tsai and Bendersky

(2015) to derive our manipulations of directness and oppositional intensity. According to Brett et al. (2014), examples of direct expressions are making a claim (versus asking a question) or explaining what the other party should accede to (versus sharing an experience or telling a story). We used these examples of Brett et al. (2014) together with the definition of Weingart et al. (2015) in our manipulation of the directness. To manipulate oppositional intensity, we followed the work of Tsai and Bendersky (2015). The Appendix S1 shows all manipulated expressions.

To ensure the effectiveness of the manipulations and scenario, we conducted a pilot study with 80 participants recruited from two executive MBA programs. As suggested by Bachrach and Bendoly (2011), we conducted manipulation, confounding, and Hawthorne checks. The Appendix S1 provides further details on these treatment checks and shows that our scenario was effective in creating the specific context of interest.

Sample

For the main data of study 2, we collected a practitioner sample. Participants were recruited using Amazon Mechanical Turk (MTurk) and were paid \$1.25 compensation upon completion of the experiment, which yields an acceptable hourly wage for US workers on MTurk (Lee, Seo, & Siemsen, 2018). In total, 235 MTurk participants opened our online experiment, 190 of whom completed the questionnaire we used to collect data for the treatment checks, latent variables, and controls. All 45 nonfinishers left the online experiment before being shown the treatment, which excludes the option that the treatment itself affected their decision to leave.

In general, the use of MTurk samples is considered appropriate when researchers take the right measures to assure data quality (Goodman, Cryder, & Cheema, 2013; Lee et al., 2018). Therefore, in line with suggestions from Goodman et al. (2013), we only selected US participants with an approval rate above 95% from previous assignments. Also, we included an attention check to eliminate inattentive respondents (see the Appendix S1). We excluded 5 participants from our final sample because they failed the attention check. An additional 6 were removed due to speeding (completion time below 120 seconds led to removal). In addition, to ensure that our participants were familiar with the decisions in our scenarios, we only selected participants with job functions in the marketing, sales, and business development area (Eckerd, 2016).

The final sample for study 2 consisted of 179 US-based practitioners with a marketing, sales, and business development background (mean age 36 years; 39.5% male; 13.5 years of experience), which is

consistent with sample sizes in other experimental studies on conflict expression (Todorova et al., 2014; Tsai & Bendersky, 2015). Participants were randomly assigned to a treatment condition using the randomizer in Qualtrics. Table S1 in the Appendix S1 shows the number of participants in each treatment. Comparative tests did not reveal any differences between these conditions in terms of participant characteristics. Table S2 shows the industry breakdown of the sample (Kaufmann, Esslinger, & Carter, 2018).

Treatment Checks and Measurements

Similar to our pilot study, three separate treatment checks were conducted (Bachrach & Bendoly, 2011). The results of these checks are reported in the Appendix S1 and show that our treatments were effective. To ensure that the participants considered the experiment realistic, we asked them to assess the realism of the scenario and manipulations. The realism of vignettes is important as participants take their roles seriously if they see that the vignette is mirroring what can realistically and plausibly occur (Rungtusanatham, Wallin, & Eckerd, 2011). The very last items in the questionnaire assessed the scenario's realism (Thomas, Thomas, Manrodt, & Rutner, 2013; see Appendix S1). The average score on these items was 4.2 on a 5-point Likert scale, which is comparable to prior studies (e.g., Thomas et al., 2013) and indicates a realistic scenario.

The questionnaires that participants filled out after reading the manipulated message included multiple-item measures that we used to test our hypotheses. To assess *supplier adaptation*, we measured the participant's willingness to adapt firm processes to the Yankee Leather account. Supplier adaptation is a three-item scale based on items of Nyaga et al. (2013), which measures the participant's willingness to adjust firm processes flexibly in favor of Yankee Leather. To measure emotions, we drew on conceptualizations in previous conflict studies building on empirical research of the circumplex model of emotions (Russell, 1980; Watson & Tellegen, 1985). These earlier studies clustered individual affective factors into higher-order positive-affect and negative-affect scales (Watson & Tellegen, 1985), from which Weingart, Bear, and Todorova (2009) extracted those factors that consistently ranked the highest for each emotion type. Our final four-item measures were adapted from Todorova et al. (2014). *Negative emotions* measured the participants' frustration, anger, irritation, and tension after reading the manipulated message. Similarly, *positive emotions* measured the participants' interest, focus, activeness, and energy. The experimental manipulations were used as independent variables and coded as dummy variables (direct 1, indirect 0; high oppositional intensity 1, low oppositional intensity 0).

We included several control variables. Weingart et al. (2015) noted how the gender of a disputant is likely to influence the ways in which conflict expression is perceived. Previous research reports gender differences in the intensity with which individuals experience emotions (Brody & Hall, 2008). Because our results could be impacted by this, we controlled for gender. Previous research also showed how age and experience might affect the decision-making heuristic of an individual. For instance, Read et al. (2009) found how experienced managers take a different approach to downstream marketing decisions than less experienced peers. To account for these effects, we included age and experience as controls. The Appendix S1 shows the items and their loadings and presents the correlation table (Table S3 and S4, respectively).

Several tests were conducted to assess the reliability and validity of our measures. We assessed the measurement model by conducting a confirmatory factor analysis using AMOS 24.0. The final measurement instrument showed satisfactory indices ($\chi^2 = 136.85$, $df = 81$, $\chi^2/df = 1.69$; comparative fit index [CFI] = .96; Tucker–Lewis index [TLI] = .94; root mean square error of approximation [RMSEA] = .06). To test the convergent validity of our constructs, we examined the average variance extracted (AVE). All constructs exceeded the .50 cutoff, and the square roots of the AVE values were greater than their correlation coefficients with the other constructs, based on which we concluded that our measures show a satisfactory level of discriminant validity (Fornell and Larcker, 1981). Composite reliability (CR) ranged between .86 and .93, exceeding the threshold of .70 (Fornell and Larcker, 1981). Based on these values, no items needed to be discarded.

Results

First, a two-way ANOVA test was conducted to examine how different configurations of directness and oppositional intensity affect supplier adaptation (see Table 1). Participants in the directness manipulation did not show a greater supplier adaptation than participants in the indirect manipulation ($\text{mean}_{\text{direct}} = 4.11$, $\text{mean}_{\text{indirect}} = 4.11$, $F = .00$, $p > .05$). Therefore, H1 is rejected. As predicted by H2, participants in the high oppositional intensity treatment were less willing to adapt than participants in the low-intensity manipulation ($\text{mean}_{\text{high-opp.intens}} = 3.94$, $\text{mean}_{\text{low-opp.intens}} = 4.31$), and this difference was significant ($F = 6.45$, $p < .05$). These findings support H2.

Expressions in the high oppositional intensity quadrants showed lower scores for supplier adaptation for both dimensions of directness, which provides at least partial support for H3a. Figure 1 shows that the effect

of oppositional intensity is mainly observed with high directness. These effects account for an overall negative interaction between directness and oppositional intensity on supplier adaptation ($F = 4.81, p < .05$). As predicted by H3b, expressions with high directness and low oppositional intensity gave the highest scores on supplier adaptation. Thus, H3b is supported.

Second, we followed suggestions by Breitsohl (2019) and conducted a structural equation modeling analysis. Compared to more common differences-in-means techniques in experimental designs (e.g., *t*-test, ANOVA), structural models allow us to demonstrate the entirety of the research model, including control variables and mediators (MacCallum & Austin, 2000). We tested two structural models with maximum likelihood estimation (AMOS 24.0). Model 1 included the direct effects of the conflict expression constructs and their interaction effect (i.e., the product term of the standardized expression dummies). The results for Model 1 were similar to those of the ANOVA tests. Directness showed no significant impact on supplier adaptation ($\beta = .01, p > .05$). Oppositional intensity did show a significant negative effect ($\beta = -.20, p < .01$). The interaction effect also showed a significant negative effect on supplier adaptation ($\beta = -.16, p < .05$). Model 1 accounts for 15% of the explained variance in supplier adaptation (i.e., $R^2 = .15$; see Figure 2). Similar to the ANOVAs, Model 1 rejects H1, but supports H2 and the overall effects of H3a and H3b.

Third, Model 2 presents the full structural model, including the emotion constructs. In this model, we included paths between the control variables and both of the emotion constructs as well as the supplier adaptation construct (fit indices of the full structural model: $\chi^2 = 161.51, df = 90, \chi^2/df = 1.79, CFI = .95, TLI = .92, RMSEA = .07$). Using our model's parameters, we calculated statistical power with the Preacher and Coffman (2006) estimation approach and found our model possessed adequate statistical power (MacCallum, Browne, & Sugawara, 1996). In line with H4a-b and H5a-b, Model 2 shows how both positive and negative emotions influence supplier adaptation ($\beta_{positive\ emotions} = .36, p < .01; \beta_{negative\ emotions} = -.29,$

$p < .01$). Indicative of the hypothesized mediation effects are the significant effects of the expression constructs on emotions. Oppositional intensity significantly affected negative emotions ($\beta = .31, p < .01$) and positive emotions ($\beta = -.18, p < .05$). While directness did not have a significant impact in Model 1, it did significantly and positively impact negative emotions ($\beta = .16, p < .05$). However, this effect is contrary to the expectations of H4, which predicted a negative effect. Similar to Model 1, the interaction term of the expression constructs significantly impacted supplier adaptation ($\beta = -.11, p < .05$), but it did not significantly influence emotions. Of the control variables, only the path between age and positive emotions was significant. Figure 3 shows the significant paths of the full structural model (for improved readability, nonsignificant paths are not displayed).

To test the significance of the mediation effects, we followed Rungtusanatham et al. (2014), who suggested constructing a bootstrap confidence interval in which the significance of a mediation path is determined by whether this interval contains zero (for this procedure, we had to remove an additional 2 respondents due to missing data on the gender control). In this procedure, we tested the significance of the individual effects of negative and positive emotions in separate models, including all control variables.

As shown in Table 2, the results of this test showed that the indirect effect (i.e., mediation path) of directness on supplier adaptation processes through negative emotions was significant (5000 bootstrap samples, 95 percent bias-corrected confidence interval of $-.138$ to $-.002$). However, because directness showed a significant negative effect on negative emotions, this effect is in a different direction than hypothesized. Positive emotions were not shown to be a significant mediator for directness (interval of $-.062$ to $.046$). The indirect effect of oppositional intensity was found to be significant for both negative emotions (interval of $-.226$ to $-.051$) and positive emotions ($-.153$ to $-.008$). Based on this analysis, we reject H4a and H4b, but confirm H5a and H5b.

TABLE 1
ANOVA Study 2

Supplier Adaptation			
	High Opp. Intensity	Low Opp. Intensity	Total
Direct Expression	3.78	4.44	4.11
Indirect Expression	4.09	4.14	4.11
Total	3.94	4.31	

DISCUSSION

Conflicts are inherent to buyer–supplier interactions. Most studies in the SCM literature have examined how conflict can be prevented or reduced, thereby implicitly assuming that conflict is detrimental to supply chain relationships. Such research focused on the antecedents of the buyer–supplier conflict (e.g., Bai et al., 2016; Cai & Yang, 2014; Yen, Abosag, Huang, & Nguyen, 2017) and its consequences (e.g., Plank, Newell, & Reid, 2006; Samaha, Palmatier, & Dant, 2011; Yang et al., 2017). However, the behavioral processes that can result in positive outcomes of buyer–supplier conflict have received much less attention (Reimann et al., 2017; Wang et al., 2014). Our research delved into the micro-processes of supply chain conflicts and examined the influence of a buyer’s conflict expression on supplier adaptation in a buyer–supplier conflict. In doing so, we make several important contributions to the theory, as we outline next.

Theoretical Contributions

First, our findings demonstrate how the expression of disagreements between buyer and supplier can facilitate functional conflict processes. Specifically, we show the important role of directness and oppositional intensity in influencing supplier adaptation. While previous work has broadly touched upon the importance of communication processes (Celuch et al., 2011; Ellegaard & Andersen, 2015; Gulati et al., 2005), we explicitly show how expression influences supplier adaptation and how the communication of buyers can affect buyer–supplier conflict outcomes. In this way, our study opens up new perspectives for the buyer–supplier conflict literature in terms of conflict outcome and the (micro-)processes within a conflict episode. Our findings are also relevant to the broader SCM literature. For instance, a focus in the SCM literature has been on increasing supplier adaptation as a way to increase the buyer’s relational outcomes as well as infusing more flexibility and agility into supply chain operations (Murfield & Esper, 2016; Nyaga

FIGURE 1
Interaction Directness and Oppositional Intensity

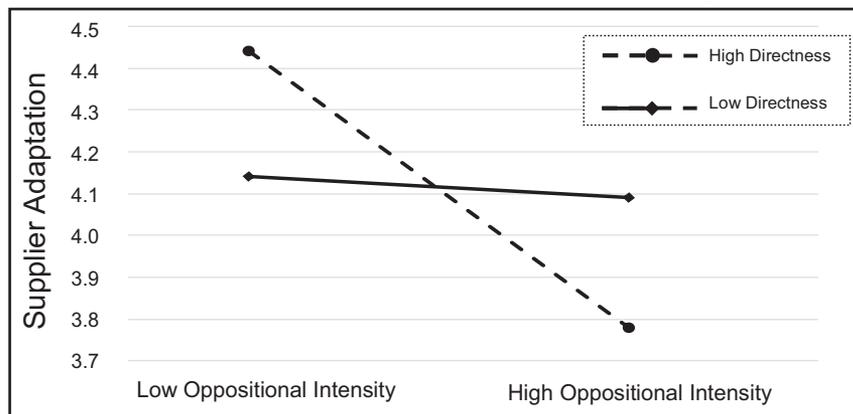


FIGURE 2
Model 1. * $p < .05$, ** $p < .01$, dashed paths indicate nonsignificant results

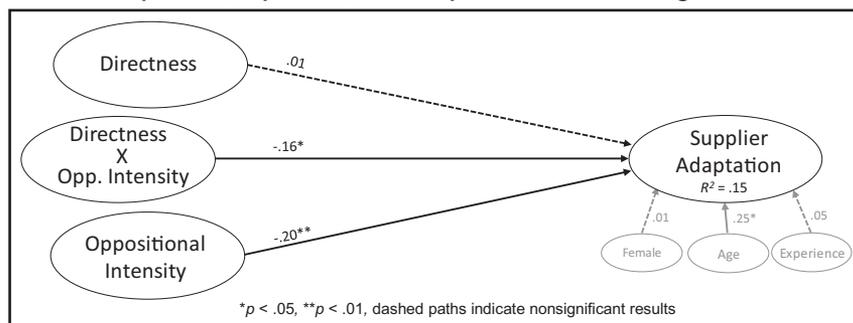


FIGURE 3
Model 2. *p < .05, **p < .01, nonsignificant paths are not shown

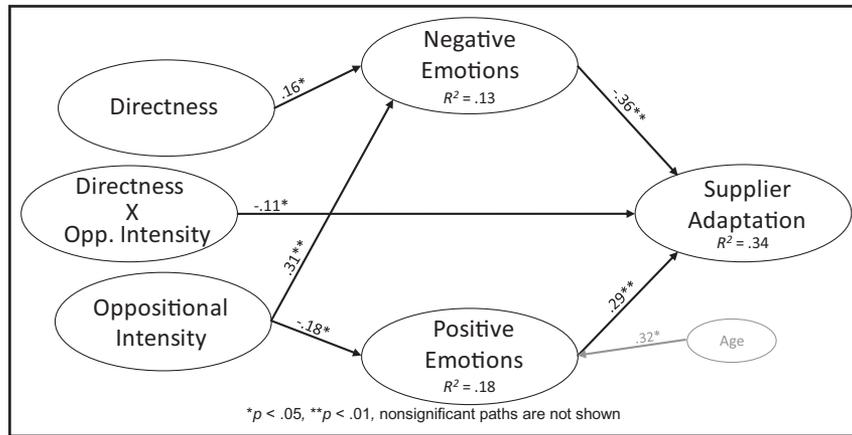


TABLE 2
Mediation Effects

Paths	Indirect Effect	Confidence Interval
Directness → Negative emotions → Supplier adaptation	-.060	-.138 to -.002
Opp. intensity → Negative emotions → Supplier adaptation	-.122	-.226 to -.051
Directness → Positive emotions → Supplier adaptation	-.005	-.062 to .046
Opp. intensity → Positive emotions → Supplier adaptation	-.065	-.153 to -.008

et al., 2013). During such efforts, conflicts easily arise in the interactions required for the supplier to adapt to the buyer’s specific requirements (Gulati et al., 2005), and our findings thus indicate that conflict management and expression could be a vital part of ensuring an adaptive supply base. In addition, communication as a general concept has been shown to impact buyer–supplier relationships (Paulraj, Lado, & Chen, 2008; Yan & Dooley, 2013). Our findings add detail to this perspective and show that directness and oppositional intensity may determine whether this communication is functional or dysfunctional. For mechanisms such as power in buyer–supplier interactions (e.g., Brito & Miguel, 2017; Huo, Flynn, & Zhao, 2017), it is likely the effectiveness of mediated forms of power such as rewards or coercion are dependent on the way in which they are expressed. For instance, affective interactions and a positive tone of the relationship have been found to reduce the negative effects of coercive power on trust (Jain, Khalil, Johnston, & Cheng, 2014). Also, the effectiveness of power use in buyer–supplier negotiations has been shown to be influenced by a negotiator’s agreeableness (Reimann, Shen, & Kaufmann, 2016). While mediated

forms of power can effectively be considered as efforts to enforce the supplier to adapt its behavior, our findings imply that reduced oppositional intensity (i.e., expressing openness to the counterpart’s position) could enhance the effectiveness of these mechanisms.

Second, our findings contribute to the literature on conflict expression theory. While conceptual work on conflict expression theory discussed directness and oppositional intensity as two distinct dimensions of conflict expression (Bradley et al., 2015; Brett et al., 2014; Weingart et al., 2015), empirical work has focused on oppositional intensity only, without including the directness dimension (Todorova et al., 2014; Tsai & Bendersky, 2015). We make an empirical contribution to the conflict expression theory by examining a comprehensive model including both the directness and oppositional intensity dimensions and both positive and negative emotions. This approach yielded several new insights. Contrary to our expectations, we found that directness by itself appeared to have little effect. Figure 1 explains why and shows that directness was only effective in influencing supplier adaptation in combination with low oppositional intensity. The illustrative case (study 1)

demonstrated how the buyer's change to more direct expressions while remaining open to the supplier's position by constructively working toward solutions (e.g., offering help and sending over staff) resulted in the supplier changing its behavior. Similarly, study 2 showed how direct expressions with low oppositional intensity produced the highest scores on supplier adaptation (Figure 1). These findings imply that a buyer seeking supplier adaptation benefits the most from explicitly sharing information about its position while at the same time being open to the supplier's point of view. Direct expressions with low intensity allow clear communication without inducing negative attitudes which could interfere with the supplier's willingness to adapt. These findings reveal that the influence of directness by itself is less pronounced than predicted by expression theory (e.g., Weingart et al., 2015). In addition, in contradiction to expression theory, we found that directness produces negative emotions. As stipulated by conflict expression theory, emotions play a central role in how expression drives reaction. Nevertheless, Tsai & Bendersky (2015) reported a noneffect of expression on emotions. In contrast, we do find an effect of expression on emotion. While conflict expression theory clearly predicts that directness reduces negative emotions and stimulates positive ones (i.e., H4a and H4b), our results reject this rationale and even find a reverse effect for negative emotions. Our findings demonstrate that the role of emotions is much less straightforward than the current theory would suggest. Apparently, although directness removes ambiguity in expression, it could also trigger other reactions. One explanation could be that the receiver actually prefers not to obtain explicit insight into the core of the conflict. Another explanation could be that direct expressions can be perceived as being overassertive or meddling. Finally, while conflict expression theory is essentially a group-based theory, we show its predictive value in a buyer-supplier setting, thereby extending its potential applications. At the same time, buyer-supplier conflict differs in context compared to group conflict. The buyer and supplier can be expected to differ in standards, culture, and norms (Gulati et al., 2005), which could explain why some of our findings contradict predictions made by conflict expression theory. This opens up new perspectives for both the group-based conflict expression literature and the SCM literature.

Third, our findings reflect the importance of integrating emotions in studies of buyer-supplier interactions. Despite several exceptions (e.g., Eckerd, Hill, Boyer, Donohue, & Ward, 2013; Mir, Aloysius, & Eckerd, 2017; Reimann et al., 2017), the impact of emotions on buyer-supplier interactions has received little attention in the literature (Polyviou, Rungtusanatham, Reczek, & Knemeyer, 2018). Naturally, theories such

as social exchange theory and attribution theory have found their way into the SCM literature (e.g., Kaufmann et al., 2018; Ro, Su, & Chen, 2016) and introduced a perspective on buyer-supplier interactions that is broader than the mere calculative transactional exchange. However, studies that explicitly integrate emotions as constructs through which mechanisms such as trust, power, attractiveness, and commitment could function remain scarce. The psychology literature demonstrates that emotions play a central role in decision-making processes (Lerner, Li, Valdesolo, & Kassam, 2015). Emotions such as anger can have a major impact in buyer-supplier conflicts, as was evidenced by the conflict between Volkswagen and two of its suppliers, forcing the former to temporarily close several of its factories (Reuters, 2016). Our findings show that positive and negative emotions affect supplier adaptation processes, which further stresses the relevance of including emotions in studies on buyer-supplier interactions.

Implications for Practice

Conflicts are an inescapable component in supply chain relationships and can have a major impact on firm performance, both negatively and positively. Our results can help managers guide conflicts toward favorable outcomes. Specifically, they indicate that an outcome of a conflict depends on how a conflict is expressed to the other party. In other words, managers should be aware that conflict expression is a key mechanism in conflict management because it sets the frame of how and if a conflict will be resolved through adaptive behavior by the supplier. Findings from our illustrative case, supported by the outcomes of the scenario-based experiment, imply that if the manager shows a willingness to coadapt the other's position while at the same time clearly expressing his or her own position, the counterpart may reciprocate by making appropriate adaptations to the relationship, which would lead to a satisfactory outcome. Hence, the challenge for supply chain managers is to articulate the nature of the conflict clearly while at the same time demonstrating openness to the other party's position. Especially during conflict situations, this may prove difficult as successfully resolving the conflict would require the other party to change its position. Paradoxically, however, our findings suggest that the more a supply chain manager tries to force its counterpart to change its position, the less likely this counterpart will follow and actually shift its position.

In addition, our findings imply that supply chain managers who find themselves in conflict with suppliers should focus on more than just the rational processes and outcomes, as they may benefit from monitoring emotions on the supplier's side. Expression influences emotions, which subsequently

determine how willing a supplier is to adapt. Supply chain managers may therefore benefit from being sensitive to emotions since a focus on the rational outcomes during a conflict can be perceived as direct and intruding by the supplier, resulting in negative emotions which can easily escalate the conflict. Supply chain managers may therefore benefit from actively managing emotions in buyer–supplier conflicts (David, 2017). This is not a trivial aspect as emotions during a buyer–supplier conflict can have a major impact in business practice (Reuters, 2016). Our findings imply that it is better to think twice before responding in a conflict situation, knowing that the wrong expression can trigger a negative conflict spiral.

Limitations and Future Research

The results of this study should be viewed in the light of some limitations. For instance, the conflict that was simulated in study 2 can be seen as a process conflict (Jehn & Mannix, 2001). Previous studies showed that different types of conflicts are resolved in different ways (Behfar, Peterson, Mannix, & Trochim, 2008). Future research is needed to clarify whether our findings hold in different types of conflict. In addition, both study 1 and the scenario in study 2 describe a situation in which the supplier (i.e., Dutch Leather) was initially reluctant to adapt. We cannot exclude that this aspect impacted our findings. Future research should therefore examine whether our findings hold in different conflict scenarios. Another limitation of our research is that we did not manipulate emotions. Therefore, our findings on the mediation effects are based on correlation rather than demonstrating causal effects (Pirlott & MacKinnon, 2016). Building on previous work (Watson & Tellegen, 1985; Weingart et al., 2009), we clustered emotions into positive and negative constructs. However, this clustering does not allow for more nuanced investigations of particular emotional states (e.g., Urda & Loch, 2013). Although additional analyses (see Appendix S1) did not reveal different patterns of the individual items compared to our main models, future research should take a more fine-grained approach to examining the role of emotions in buyer–supplier relationships. This particularly calls for techniques that capture emotions which our vignette-based approach is likely to have missed. Future research should aim for techniques which would capture a much fuller range of emotional queues such as video-based experiments (Kopelman, Rosette, & Thompson, 2006), face-to-face interactions (possibly with trained confederates; Filipowicz, Barsade, & Melwani, 2011), or even neuroimaging experiments (Schilke, Reimann, & Cook, 2013). Such techniques would also allow a more nuanced manipulation of expression. For instance, our manipulation of oppositional intensity (Tsai &

Bendersky, 2015) is rather extreme and might not reflect how partners in a long-term supply chain relationship express conflict. Weingart et al. (2015) note how nonverbal expressions such as sarcasm, tone of voice, or body language provide an additional source of meaning to expression. Our vignette-based approach did not capture these aspects, which are likely have an influence in real-life supply chain conflicts. This further strengthens the need for video-based and face-to-face designs which would enable an examination into the nonverbal side of conflict expression.

The conflict expression literature mentions other factors that could influence how expressions are perceived that our study did not take into account. For instance, some studies argue that culture interacts with how expression influences conflict specifically (Brett et al., 2014; Weingart et al., 2015) and buyer–supplier interactions more generally (Ribbink & Grimm, 2014). Our sample in study 2 consisted of participants from the US only, which limits the generalizability of our results. Because supply chains are inherently international, future studies should integrate how culture impacts the effects of conflict expression more explicitly. In addition, conflict expression theory is essentially about group-based interactions in intrafirm settings. Our study revealed some different effects than those predicted by conflict expression theory (i.e., the influence of directness on negative emotions), which could be explained by the differences between group dynamics and interfirm buyer–supplier dynamics. For instance, an implicit assumption in group dynamics is that individuals gain a certain familiarity. Our experiment did not explicitly include familiarity as a factor. Buyer–supplier relationships do change over time (Autry & Golicic, 2010), and it can be expected that direct and intense expressions in the initiation stage of a buyer–supplier relationship would have a different effect than the same expressions in more mature relationships (e.g., long-term buyer–supplier relationships). Therefore, future research could examine how the impact of directness and oppositional intensity changes as the buyer–supplier relationship develops.

Finally, the participants in study 2 were recruited through Amazon MTurk. The data used in study 2 therefore represents a convenience sample. We adhered to recommendations by publications on best-practice guidelines regarding MTurk samples (Goodman et al., 2013; Lee et al., 2018) and implemented several measures to ensure high-quality data. Nevertheless, our sampling approach is vulnerable to selection bias which limits the generalizability of our findings. In addition, the scenario in study 2 asks participants to envision themselves as CEO of the supplier firm. Although we aimed to ensure that our

participants were familiar with the decisions in our scenarios by only selecting participants with job functions in the marketing, sales, and business development area, arguably a substantial part of our participants lacked the experience to truly envision themselves as CEO. Therefore, to examine whether selecting participants by experience would have affected our results, we tested Model 1 only using participants with 20 + years of experience. The results are very similar to those of the full sample and resulted in the same conclusions in terms of the hypotheses (see Appendix S1). Although these additional tests do not provide indications that our sample and scenario are inadequately aligned, future research on supply chain conflicts should aim to augment our study with a sample of participants that is familiar with high-impact supply chain decisions on a regular basis.

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SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article:

Table S1-S7
Supplementary Material