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# Unrequited: Asymmetry in Interorganizational Trust forthcoming in Strategic Organization

## **Comments**

This is a pre-copy-editing, author-produced PDF of an article accepted for publication in *Strategic Organization* in 2018 following peer review. The definitive publisher-authenticated version is available online at [DOI:10.1177/1476127018808465](https://doi.org/10.1177/1476127018808465).

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**UNREQUITED:  
ASYMMETRY IN INTERORGANIZATIONAL TRUST**

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**Forthcoming in Strategic Organization**

**ABSTRACT**

Many studies of interorganizational relationships assume that trust between organizations is symmetric. In this essay, we explore the origins of this assumption and examine relevant quantitative and qualitative evidence from the literatures on strategy, marketing, supply chain management and information systems. We conclude that no systematic evidence currently exists to support the assumption that interorganizational trust is typically symmetric. We explore how the possibility of asymmetry complicates interpretation of previous research on the effects of interorganizational trust. We encourage further research to identify conditions under which symmetry is likely, and offer a variety of strategies that scholars may use to deal with potential asymmetry.

Interorganizational relationships such as alliances, joint ventures, supply chain partnerships and mergers and acquisitions have attracted attention from scholars in a variety of fields, including strategy, organization theory, marketing, operations, and information systems. In order to understand these complex relationships, scholars have paid particular attention to the role of trust. Trust refers to the willingness of one party to be vulnerable to the actions of another party based upon positive expectations of its intentions or behavior (Mayer, Davis and Schoorman, 1995; Rousseau, Sitkin, Burt and Camerer, 1998) and is often seen to encompass a competence-based and an integrity-based dimension (e.g., Malhotra and Lumineau, 2011; Connelly et al., 2018). Trust between organizations is a burgeoning research area, with scholars examining its antecedents (Zhong et al., 2017), development processes (Schilke and Cook, 2013), and consequences (Connelly et al., 2018).

Scholars have often implicitly or explicitly assumed that trust in interorganizational relationships is symmetric, conveniently enabling researchers to use archival data or single-informant surveys to study dyadic relationships. Recently, doubt has crept in regarding the soundness of this approach. Lumineau and Oliveira (2018) described a “single party blind spot” in the literature on interorganizational relationships, criticizing the practice of “projecting known information about a party into an area not known (e.g., the other party or the whole dyad).” Similarly, an editorial in the supply chain management literature argued, “the quality of a buyer-supplier relationship cannot be adequately addressed by just the buyer or the supplier” (Flynn, Pagell and Fugate, 2018: 3). Nevertheless, given the challenges of dyadic data collection, single-sided data sets remain pervasive in studies of interorganizational trust. Like other studies of interorganizational relationships, “most (if not all) recent trust papers” have collected data from only one side of the partnership (Villena, Choi and Revilla, forthcoming). The result is that

single-sided data collection is justified based on an assumption of symmetry, yet this assumption remains largely untested because of the prevalence of single-sided data.

In this essay, we address this quandary by examining the plausibility and potential consequences of assuming that interorganizational trust is symmetric. First, we examine how the assumption of symmetry became widely accepted in the literature on interorganizational trust. We show that early findings were overlooked or selectively cited, until symmetry became taken-for-granted in the literature. Second, we examine the totality of the evidence regarding asymmetry in interorganizational trust. We take an interdisciplinary approach, drawing upon relevant research in organizational theory, strategy, supply chain management, marketing, and management information systems. Our focus on interorganizational relationships complements recent calls for better understanding of trust asymmetry in *intraorganizational* settings (Korsgaard, Brower and Lester, 2015). Our review reveals a notable lack of evidence to support the assumption of trust symmetry in interorganizational relationships, leading us to our third step: exploring how the possibility of asymmetry complicates interpretation of the existing body of literature on interorganizational trust. Finally, we develop recommendations for how scholars may deal with the possibility of asymmetry when studying interorganizational trust. Our intention here is not to develop a theory of asymmetry - indeed, we argue that armchair theorizing has led the field astray. Instead, we argue that gathering further empirical evidence is the way forward, and we offer suggestions for how to conduct reliable research on interorganizational trust, even if such trust may be unrequited.

## **How did we get here? The symmetry assumption and one-sided data collection**

Conceptual articles about interorganizational relationships have long assumed that trust is mutual. Ring and Van de Ven (1994: 110) theorized that trust is “a cumulative product of repeated past interactions” that leads to “a common understanding of mutual commitments.” Das and Teng (1998) argued that trust development is inherently reciprocal. Moreover, Jeffries and Reed (2000: 875) suggested asymmetric dyads would be rare and fleeting: “Whereas matching trust dyads are stable, ones in which there is no match are both unlikely and unstable.”

Yet despite the logical appeal of these arguments, empirical support for trust symmetry in interorganizational relationships has been scarce from the start. In an early study, John and Reve (1982) collected dyadic data on wholesaler-retailer relationships, asking each party to rate “the degree to which transactions within the dyad are based on mutual trust” (p. 518). The correlation in ratings across the dyad was only 0.166. The authors concluded, “[I]t is reasonable to expect differences in perceptions among the actors. After all, wholesalers and retailers have very different roles and functions in the distribution system” (p. 523). They also noted that symmetry was more likely to occur for structural variables such as degree of formalization, and less likely for sentiment variables such as trust. Campbell (1997) surveyed packaging industry firms and their customers, asking each respondent to assess the degree of mutual trust in the relationship (e.g., “We can always rely on each other when it counts”). The correlation between supplier and customer ratings was statistically insignificant. Taken together, these early studies provided reason to doubt the assumption of symmetry in interorganizational trust.

Surprisingly, subsequent research often overlooked the conclusions of these two studies, while research that addressed trust asymmetry more tangentially – or not at all – became heavily cited. As an illustration, we consider three references that are regularly used to support one-

sided data collection in interorganizational trust research: Heide and John (1990), Anderson and Narus (1990), and Zaheer et al. (1998). Heide and John (1990) measured buyers' and suppliers' perceptions of several dimensions of their relationships. Notably, the dimensions they measured did not include trust. Moreover, the authors found that relationship perceptions were not symmetric across the dyad, concluding, "We find that buyers and suppliers not only have different incentives for developing close relationships, but that their approaches to developing alliances may differ...This asymmetry must be taken into account in practice" (1990: 34).

Anderson and Narus (1990) collected interorganizational trust data from manufacturers and their distributors. However, their study analyzed the manufacturer and distributor data in separate models and did not report any statistical test of agreement across the dyad. Furthermore, comparisons across the manufacturer and distributor models found differences in the antecedents and consequences of trust for these two groups. Finally, Zaheer et al. (1998) collected data from only one side of the dyad (buyers). Their study was aimed at examining the degree of consensus *within* the organization, and did not provide any data on the level of agreement *between* organizations.

In short, none of these three articles provides evidence of symmetry in interorganizational trust. Nevertheless, these studies have often been cited in support of single-sided data collection. Lui and Ngo (2004) referenced Anderson and Narus (1990) and Zaheer et al. (1998) as providing "evidence that perceptions of exchange are consistent across partners" (p. 483). Ebers and Semrau (2015: 421) cited all three papers, stating that "buyers and suppliers overall have consistent perceptions of their exchange relationships (Anderson and Narus, 1990; Zaheer et al., 1998)" and that single informants "can provide reliable and valid information (Heide and John, 1990)." Similarly, Revilla and Knoppen (2015) cited Anderson and Narus (1990) and Zaheer et

al. (1998) as examples of previous work indicating that “buyers and suppliers overall have consistent perceptions regarding their exchange relationships” (p. 1417).

Our goal here is not to single out individual scholars (indeed, we are simply offering a few illustrations of a common practice), but rather to explain how a reliance on one-sided measures of interorganizational trust became taken-for-granted in the literature. An example of this taken-for-grantedness comes from Brinkhoff, Özer and Sargut (2015), who explained, “we interviewed one partner organization for each dyad... While nonreciprocal data may not be seen as an ideal alternative, its use is common in social sciences” (p. 188). Similarly, single-sided data collection has been justified as following “the overwhelming majority” of prior studies of interorganizational relationships (Lui and Ngo, 2004: 476), as being “in line with accepted practice” (Revilla and Knoppen, 2015: 1426) and as being a practice “in common with most large-sample studies on inter-organizational relationships” (Corsten et al., 2011: 558).

The net result of this reliance on single-sided data collection is that the assumption of symmetry has remained largely untested. In the next section, we assemble the available evidence to assess whether symmetry is indeed a viable assumption in studies of interorganizational trust.

### **Direct evidence of (a)symmetry in interorganizational trust**

In order to assess the evidence for trust symmetry we drew from a range of literatures, including strategy, marketing, operations and supply chain management, international business and management information systems. We considered direct evidence from quantitative and qualitative studies of interorganizational trust, as well as indirect evidence from research on trust antecedents.



### *Quantitative evidence*

As noted above, very few studies of interorganizational trust have included data from both parties in the dyad (Zhong et al., 2017). Even those studies that have included dyadic data typically provide little insight into the degree of symmetry between the parties (e.g., Anderson and Narus, 1990; Ganesan, 1994; Jap and Anderson, 2003; Malhotra and Lumineau, 2011). Some authors report tests comparing mean trust levels across respondent categories (e.g., Ambrose et al., 2010; Liu, Luo and Liu, 2009). However, t-tests are of limited value in assessing symmetry since buyers and sellers could collectively display the same average level of trust even if every matched buyer-seller dyad is asymmetric.

The handful of studies that have reported correlations in interorganizational trust across matched partners have had widely diverging results. John and Reve (1982) and Campbell (1997) reported dyadic correlations of 0.166 and 0.27, respectively. At the opposite end of the spectrum, Cullen, Johnson and Sakano (2000) examined strategic alliances between Japanese and US firms, reporting cross-dyad correlations of 0.76 for credibility trust (similar to competence) and 0.83 for benevolence trust. Selnes and Sallis (2003) found a correlation of 0.53 for vendor and customer trust. Fang, Palmatier, Scheer and Li (2008) measured trust in international joint ventures located in China, finding an correlation of 0.64 across partners. Klein and Rai (2009) surveyed a logistics provider and its clients, and found a correlation of 0.4 in their trusting beliefs. Most recently, McEvily, Zaheer and Fudge Kamal (2017) found the correlation between manufacturer and supplier trust was 0.351 at the firm level, and 0.012 at the interpersonal level.

Like trust research more broadly (McEvily and Tortoriello, 2011; Seppanen, Blomqvist and Sundqvist, 2007; Zhong et al., 2017), the studies just reviewed used a range of different

measures and observed different types of interorganizational relationships, making comparisons difficult. Several of the studies captured multiple dimensions of trust within the same measure. These include reliability and benevolence (Fang et al., 2008); ability, integrity and benevolence (Klein and Rai, 2009); reliability, predictability and fairness (McEvily, Zaheer and Fudge Kamal, 2017); and competence and general trustworthiness (Selnes and Sallis, 2003). Some studies (Selnes and Sallis, 2003; Klein and Rai, 2009; McEvily et al., 2017) framed their survey items in a unidirectional manner (e.g., “Supplier/Buyer X is trustworthy”), while Fang et al. (2008) framed items in terms of mutual trust (e.g., “Both partners’ parent companies trust each other”), and Campbell (1997) used a mixture of unidirectional and mutual questions (“This supplier will work hard in the future to maintain a close relationship with my company,” “We can always rely on each other when it counts.”) Given this heterogeneity, it is difficult to identify the factors that lead to trust asymmetry or to assess whether some trust dimensions are more symmetric than others. However, at minimum, the quantitative evidence indicates that interorganizational trust is not consistently symmetric.

### *Qualitative evidence*

Qualitative studies have also found mixed evidence regarding symmetry in interorganizational trust. Fine-grained case studies by Larson (1992) and Uzzi (1997) described buyer-supplier relationships characterized by mutual trust developed through gradual, reciprocal processes of risk-taking. Yet Larson also noted that such relationships were atypical, describing them as “unusual in their high levels of collaboration and cooperation” (1992: 80).

Other qualitative research has observed instances of asymmetric interorganizational trust. In a study of international joint ventures, Gill and Butler (2003) found that the partner firms

attended to different events and information in forming assessments of their counterparts' trustworthiness. For example, higher-than-expected start-up costs negatively impacted trust levels for a British firm, but not for its Japanese partner. Conversely, the Japanese firm's trust suffered when managers observed that their proprietary technology was being used outside the joint venture, in other parts of the British partner's business. British executives did not recognize or reciprocate this reduction in trust. In fact, they "proudly drew attention to the major improvements in [the British firm's] operations due to learning from the Japanese" (p. 556). This behavior underscores the differences in perspective between the partners.

In their case study of an alliance between a biotechnology venture and a large pharmaceutical firm, de Rond and Bouchikhi (2004) traced a dialectical process that involved phases of both symmetric and asymmetric trust. In one episode, initially symmetric trust became imbalanced when the larger firm hired a key scientist away from the smaller partner. The larger firm believed that hiring the scientist was preferable to having him leave the alliance altogether. However, the biotech firm's leaders interpreted the situation as a deliberate trust violation, and from their perspective "trust broke down" (p. 63). The event points to asymmetric information and conflicting interpretations of partner behavior as potential antecedents to asymmetric trust. The same study also notes that trust may be symmetric across some parts of both organizations, yet asymmetric in other organizational units.

In a comparative case study analysis of eight acquisitions of entrepreneurial firms, Graebner (2009) also observed trust asymmetry. Because target firm leaders knew that they would lose power after being acquired, they screened out potential buyers that they did not trust. Buyers did not have the same reservations about dealing with distrusted targets. As a result, when acquisition discussions began, most target firm leaders trusted their buyers but most buyers

distrusted their targets. This asymmetry increased during the negotiation process as sellers viewed their ongoing interactions through the lens of a deepening personal relationship, while buyers viewed the same events as part of a competitive bargaining process. While some parties correctly identified the presence of asymmetric trust, many did not. This calls into question the ability of one-sided data collection to assess accurately the presence of trust asymmetry.

Lander and Kooning (2013) observed trust asymmetry during the negotiation phase of a merger between Air France and KLM Royal Dutch Airlines. They identified three domains of trust, pertaining to negotiation process, negotiation outcomes, and personal interactions. Trust asymmetry emerged regarding negotiation outcomes because KLM continued partnership talks with British Airways at the same time as negotiating with Air France. Trust asymmetry regarding the negotiation process emerged as a result of KLM's complex governance structure, which forced its CEO to reopen issues that Air France had thought were resolved. Negotiations continued despite these asymmetries, because trust in the personal domain compensated for process and outcome-related concerns. The authors concluded that periods of trust asymmetry in one domain can be tolerated if trust exists in other domains.

### **Indirect evidence: Antecedents of trust**

Research about the antecedents of interorganizational trust also offers insights about the plausibility of trust asymmetry. Social embeddedness theory suggests that interorganizational trust is fostered by pre-existing ties and shared third-party relationships (Larson, 1992; Uzzi, 1997). These precursors prime the relationship for acts of reciprocity that gradually build trust. Following this logic, several studies in the networks literature have even used the number of

prior ties (Gulati, 1995) or the length of their current relationship (Uzzi, 1999; Uzzi and Lancaster, 2004) as proxies for embeddedness and/or trust.

Since the proposed antecedents of embedded relationships (presence of pre-existing ties, presence of shared third-party ties, and relationship duration) are symmetric across the dyad, to the extent that these factors predict trust, we would expect trust to also be symmetric. However, the developmental processes observed in social embeddedness research may characterize only a minority of interorganizational relationships. A growing body of evidence suggests that neither relationship duration (Young-Ybarra and Wiersema, 1999; Poppo et al., 2008; Gulati and Sytch, 2008; Vanneste, Puranam and Kretschmer, 2014; Zong et al., 2017) nor the presence of prior ties between the firms (Lui and Ngo, 2004; Young-Ybarra and Wiersema, 1999) are in fact reliable predictors of trust. Shared ties with third parties have complex effects, and may even increase the probability of withdrawal from an interorganizational relationship (Greve, Baum, Mitsuhashi and Rowley, 2010). Moreover, emerging evidence suggests that individuals' perceptions of their interorganizational networks are often flawed (Knoben, Oerlemans, Krijkamp, and Provan, 2018). The members of a dyad may not share the same perceptions of whether they have common third-party ties, leading to divergent levels of trust.

As noted earlier, some scholars have theorized that asymmetric dyads will be unstable and short-lived (Jeffries and Reed, 2000). This argument suggests that relationship duration does not predict absolute levels of trust, but does predict the level of agreement across the dyad. Whether longer relationships have a greater degree of trust symmetry is ultimately an empirical question that will require additional studies. However, it is interesting that most of the relationships studied by Campbell (1997) were more than 11 years in duration, and those studied by McEvily et al. (2017) averaged 6 years in duration, yet both studies reported low correlations

of trust ratings across the dyad. Interorganizational relationships may endure because of high switching costs, investments in specific assets, risk of hold-up, inertia, or because the partner has a monopolistic position (Lumineau and Henderson, 2012; Gulati and Sych, 2007). None of these explanations would necessarily increase trust symmetry over time.

Other antecedents of interorganizational trust have varying (Anderson and Narus, 1990; Ganesan, 1994; Johnson et al., 1996) or even opposing effects on trust on either side of the dyad, depending on each firm's role (e.g., buyer vs. seller). For example, McEvily, Zaheer and Fudge Kamal (2017) found that a buyer's exchange hazard was positively related to a supplier's trust in that buyer, but negatively related to the buyer's trust in that supplier. Finally, even if the structure of trust antecedents were the same for both firms, studies have identified several antecedents that could reasonably be expected to have different values for the two firms. These include the firms' nationalities (e.g., Ertug et al., 2013), dependence on the other firm (Zhong et al., 2017), cultural sensitivity (Johnson et al., 1996), and reputation for environmental responsibility (Norheim-Hansen, 2015). In sum, the literature on the antecedents of interorganizational trust provides little reassurance regarding symmetry across the dyad.

## **Implications**

Up until this point, we have argued that interorganizational trust may be asymmetric in many situations. We now consider the implications of this claim. From a theoretical viewpoint, the existence of trust asymmetry calls for a more nuanced conceptualization of interorganizational trust and a more sophisticated understanding of how trust between organizations develops. From an empirical viewpoint, the possibility of asymmetry introduces new interpretations for the findings of previous research. As one example, consider research on

the effects of trust on relationship-specific investments. Corsten, Gruen and Peyinghaus (2011) found no relationship between a supplier's trust in a buyer and the supplier's relationship-specific investments, while Ebers and Semrau (2015) found that a buyer's trust in a supplier did increase the supplier's share of specific investments. If we assume that trust is symmetric, these findings could be viewed as conflicting, with Corsten et al. (2011) providing evidence that trust does not influence relationship-specific investment and Ebers and Semrau (2015) providing evidence that it does. Yet if we allow for the possibility that trust is asymmetric, we might draw a different conclusion: firm A's trust in firm B influences firm B's relationship-specific investments, but firm B's trust in firm A does not.

The possibility of asymmetry also raises questions about potential differences between the effects of absolute level of trust and the effects of the degree of trust symmetry. For example, consider Gulati and Sytch's (2007) finding that no significant relationship exists between a manufacturer's trust in its supplier and the degree of information exchange in the relationship. This result could mean that trust simply does not influence information sharing. However, an alternate explanation is that the degree of trust symmetry, rather than either party's individual level of trust, predicts information sharing. Indeed, a meta-analysis of trust at the interpersonal level provides some evidence that mutual trust has stronger effects than unidirectional trust on information-sharing behavior (Kong, Dirks and Ferrin, 2014). Yet without knowing whether trust was symmetric in Gulati and Sytch's sample, we cannot know which interpretation is more valid.

The question of trust levels vs. degree of symmetry similarly complicates our understanding of the effects of different dimensions of trust. A meta-analysis by Connelly et al. (2018) found that integrity-based trust has a larger impact than competence-based trust on

reducing ex post transaction costs in interorganizational relationships. This could be interpreted as indicating that transaction costs fundamentally depend more upon parties' integrity than their competence. However, other interpretations are plausible if we believe that trust can be asymmetric. It is possible that integrity-based trust is more frequently symmetric than competence-based trust, or vice versa. If the former is true, then the underlying reason that integrity-based trust has larger effects on reducing transaction costs could simply be that symmetric trust has stronger effects than asymmetric trust.

The possibility of trust asymmetry also raises complex issues related to research design, including how to address common method bias. One solution for common method concerns is to measure independent variables by surveying one side of a relationship, and dependent variables by surveying the other side. Yet if trust is asymmetric, this approach could actually obscure important relationships. For example, Roh, Whipple and Boyer (2013) showed that the effects of interorganizational trust on relationship satisfaction were significant when independent and dependent variables came from the same side of the dyad, but not when trust was measured from one side of the dyad (e.g., supplier) and relationship satisfaction from the other (e.g., buyer). Supplier trust influenced buyer satisfaction only when the two firms were in agreement about the level of trust in the relationship, i.e. when trust was symmetric. Had those authors measured trust from one side of the dyad, and relationship satisfaction from the other side, they would have eliminated common method concerns but erroneously concluded that trust does not influence relationship satisfaction.



## Research strategies

As just described, unmeasured trust asymmetry may have important conceptual and empirical consequences for researchers. We now turn to potential strategies for dealing with this issue.

### *Dyadic data*

The obvious solution to the many questions regarding trust asymmetry is to conduct more studies with data from both sides of the interorganizational relationship and to report the level of agreement across the dyad. Notwithstanding statements that collecting dyadic data presents an “overwhelming task” (Katsikeas, Skarmeas and Bello, 2009: 149), a number of authors have succeeded in collecting such data sets. However, the sample size tends to be small. Even research on *intraorganizational* trust has relied heavily upon single-sided data (Krasikova and LeBreton, 2012; Korsgaard, Brower and Lester, 2014), and collecting data from both sides of interorganizational relationships is even more daunting. In general, sample sizes tend to decrease by 50% or more when studies are conducted at the organizational vs. individual level (Shen et al., 2011). Samples in prior interorganizational trust research have ranged from 52 dyads (Ganesan, 1994) to 315 (Selnes and Sallis, 2003), with most samples numbering between 80 and 130 dyads (Perrone, Zaheer and McEvily, 2003; Johnson et al., 1996; Nyaga et al., 2013; Klein & Rai, 2009; John & Reve, 1982; Ambrose, Marshall & Lynch, 2010; Fang et al., 2008; Smith & Barclay, 1997; Roh, Whipple & Boyer, 2013; McEvily, Zaheer and Fudge Kamal, 2017; Villena & Craighead, 2017). It is particularly difficult to gather a sufficient sample of dyadic responses when conducting longitudinal research, which requires repeated waves of surveys.

As one way to increase sample size, some researchers have collected data from one or a few large firms on one side of the relationship. For example, in Nyaga et al. (2013), all respondents from the buyer side came from a single high-tech firm, and in Jap and Anderson (2003), all buyer respondents came from four Fortune 500 firms. Such designs may make data collection more manageable and as well as controlling for firm-specific effects. However, they raise important questions of external validity.

Dyadic data collection may also raise confidentiality concerns that generate biased responses. For instance, suppliers may not want to disclose sensitive information which may be used against them by buyers. In addition, dyadic samples may be biased toward highly-functioning relationships, especially if one party selects the counterpart to be surveyed (e.g., Liu, Luo and Liu, 2009), or even asks the counterpart to participate (e.g., Selnes and Sallis, 2003). Fortunately, remedies are available for these problems. To identify whether biases are present in answers to sensitive questions, surveys can include perceptual questions regarding confidentiality and social desirability issues (e.g., Couper et al., 2008). To overcome sample selection biases with matched dyads, the focal firm can rank order their exchange counterparts, with the researcher then randomly selecting an exchange partner from this list (Klein and Rai, 2009; McEvily et al., 2017).

### *Other research strategies*

Despite researchers' best efforts, it may be very difficult to collect dyadic responses for certain data sets. An alternative in these cases is a close examination of a subsample. Poppo, Zhou and Li (2016) collected dyadic data for a small sample of 28 buyer-supplier relationships, and found a correlation of 0.82 for buyer and supplier ratings of relational trust. This increases

confidence in their larger, one-sided data set. Of course, it is important to ensure that such subsamples are representative of the entire data set. Other authors have conducted dyadic interviews to supplement one-sided surveys (e.g., Dyer and Chu, 2000; 2003). Dyer and Chu reported that in their preliminary interviews, “there were no instances where the perceptions of suppliers and automakers were dramatically different (2003: 67).” Greater transparency regarding such interview data, such as including illustrative quotes from both sides of a relationship that indicate similar levels of trust, would help to further increase confidence.

In addition, scholars can be careful to match their theory to their measures (Heide and John, 1995). If a study involves data from only one party, its theoretical development, hypotheses and conclusions should be framed to reflect one-sided measures. Villena, Choi and Revilla (forthcoming) provide a recent example of a one-sided study that explicitly adopts the buyer’s perspective, and develops theory and measures accordingly. Similarly, Perrone et al. (2003) explicitly focus on the supplier’s perspective. In addition to specifying whose perspective is being taken, scholars should also be careful to indicate whether their measures are intended to reflect one party’s trust in another, or one party’s assessment of the degree of mutual trust in the relationship. If trust is asymmetric, these may be two very different things.

Finally, researchers can consider alternatives to survey methods. A number of approaches have been used to study other aspects of interorganizational relationships and could be adapted to studying trust. These methods include experiments (e.g., Ro, Su and Chen, 2016), formal models (e.g., Panico, 2017), simulations (e.g., Sting et al., forthcoming), and content analysis of archival data (e.g., Malhotra & Lumineau, 2011). We also believe the field has much to gain from additional qualitative studies (Graebner, Martin and Roundy, 2012).

## **Conclusion**

Our purpose in this essay was to critically examine the assumption of symmetry in interorganizational trust research. We were motivated by observing that the vast majority of studies of interorganizational trust use single-sided data to represent a dyadic construct. Our review suggests that assuming symmetric trust across the dyad is problematic. Ultimately questions about the prevalence and consequences of asymmetry in interorganizational trust must be answered by systematic collection and comparison of dyadic data. However, recognizing the difficulty of such a data collection effort, we have also suggested several more modest steps that researchers can take.

More broadly, our examination of trust asymmetry highlights the importance of probing assumptions that have become taken-for-granted in particular research domains. Despite the challenges of questioning established beliefs, we hope that our discussion of trust asymmetry has shown the value of such an endeavor for advancing our understanding of interorganizational relationships and other organizational phenomena.

## References

- Ambrose E, Marshall D and Lynch D (2010) Buyer supplier perspectives on supply chain relationships. *International Journal of Operations & Production Management* 30(12): 1269–1290.
- Anderson JC and Narus JA (1990) A model of distributor firm and manufacturer firm working partnerships. *Journal of Marketing* 54(1): 42–58.
- Brinkhoff A, Özer Ö and Sargut G. (2015) All you need is trust? An examination of inter-organizational supply chain projects. *Production and Operations Management* 24(2): 181–200.
- Campbell A (1997) Buyer-supplier partnerships: Flip sides of the same coin? *Journal of Business and Industrial Marketing* 12(6): 417–434.
- Connelly BL, Crook TR, Combs JG, Ketchen DJ and Aguinis H (2018) Competence- and integrity-based trust in interorganizational relationships: Which matters more? *Journal of Management* 44(3): 919–945.
- Corsten D, Gruen T and Peyinghaus M (2011) The effects of supplier-to-buyer identification on operational performance – An empirical investigation of inter-organizational identification in automotive relationships. *Journal of Operations Management* 29:549-560.
- Couper MP, Singer E, Conrad FG and Groves RM (2008) Risk of disclosure, perceptions of risk, and concerns about privacy and confidentiality as factors in survey participation. *Journal of Official Statistics* 24(2): 255–275.
- Cullen JB, Johnson JL and Sakano T (2000) Success through commitment and trust: The soft side of strategic alliance management. *Journal of World Business* 35(3): 223-240.
- Das TK and Teng B-S (1998) Between trust and control: Developing confidence in partner cooperation in alliances. *Academy of Management Review* 23(3): 491–512.
- de Rond M and Bouchikhi H (2004) On the dialectics of strategic alliances. *Organization Science* 15(1): 56–69.
- Dyer JH and Chu W (2000) The determinants of trust in supplier-automaker relationships in the US, Japan, and Korea. *Journal of International Business Studies* 31(2): 259–285.
- Dyer JH and Chu W (2003) The role of trustworthiness in reducing transaction costs and improving performance: Empirical evidence from the United States, Japan, and Korea. *Organization Science* 14(1): 57–68.
- Ebers M and Semrau T (2015) What drives the allocation of specific investments between buyer and supplier? *Journal of Business Research* 68(2): 415–424.
- Ertug G, Cuypers IRP, Noorderhaven NG and Bensaou BM (2013) Trust between international joint venture partners: Effects of home countries. *Journal of International Business Studies* 44(3): 263–282.
- Fang E, Palmatier, RW, Scheer LK and Li N (2008) Trust at different organizational levels. *Journal of Marketing* 72: 80–98.
- Flynn B, Pagell M and Fugate B (2018) Editorial: Survey research design in supply chain management: The need for evolution in our expectations. *Journal of Supply Chain Management* 54 (1): 1–15.

- Ganesan S (1994) Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing* 58(2): 1–19.
- Graebner ME (2009) Caveat venditor: Trust asymmetries in acquisitions of entrepreneurial firms. *Academy of Management Journal* 52(3): 435–472.
- Graebner ME, Martin, J., and Roundy, P (2012). Qualitative data: Cooking without a recipe. *Strategic Organization* 10: 276-284.
- Greve HR, Baum JAC, Mitsuhashi H and Rowley TJ (2010) Built to last but falling apart: Cohesion, friction, and withdrawal from interfirm alliances. *Academy of Management Journal* 53(2): 302-322.
- Gulati R (1995) Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Academy of Management Journal*, 38: 85-112.
- Gulati R and Sytch M (2007) Dependence asymmetry and joint dependence in interorganizational relationships: Effects of embeddedness on a manufacturer's performance in procurement relationships. *Administrative Science Quarterly* 52(1): 32–69.
- Gulati R and Sytch M (2008) Does familiarity breed trust? Revisiting the antecedents of trust. *Managerial and Decision Economics* 29: 165-190.
- Gill J and Butler RJ (2003) Managing instability in cross-cultural alliances. *Long Range Planning* 36: 543-563.
- Heide JB and John G (1990) Alliances in industrial purchasing: The determinants of joint action in buyer-supplier relationships. *Journal of Marketing Research* 27(1): 24–36.
- Heide JB and John G (1995) Measurement issues in research on inter-firm relationships. In: Wilson DT and Moller K (eds) *Business Marketing: An Interaction and Network Perspective*. Boston: Kluwer Academic Publishers, pp. 531–554.
- Jap SD and Anderson E (2003) Safeguarding interorganizational performance and continuity under ex post opportunism. *Management Science* 49(12): 1684–1701.
- Jeffries FL and Reed R (2000). Trust and adaptation in relational contracting. *Academy of Management Review* 25(4): 873–882.
- John G and Reve T (1982) The reliability and validity of key informant data from dyadic relationships in marketing channels. *Journal of Marketing Research* 19(4): 517–524.
- Johnson JL, Cullen JB, Sakano T and Takenouchi H (1996) Setting the stage for trust and strategic integration in Japanese-US cooperative alliances. *Journal of International Business Studies* 27(5): 981–1004.
- Katsikeas CS, Skarmas D and Bello DC (2009) Developing successful trust-based international exchange relationships. *Journal of International Business Studies* 40(1): 132–155.
- Klein R and Rai A (2009) Interfirm strategic information flows in logistics supply chain relationships. *MIS Quarterly* 33(4): 735–762.
- Knoben J, Oerlemans LAG, Krijkamp AR and Provan KG (2018) What do they know? The antecedents of information accuracy differentials in interorganizational networks. *Organization Science* 29(3): 471-488.

- Kong DT, Dirks KT and Ferring DL (2014) Interpersonal trust within negotiations: Meta-analytic evidence, critical contingencies, and directions for future research. *Academy of Management Journal* 57(5): 1235-1255.
- Korsgaard MA, Brower HH and Lester SW (2015) It isn't always mutual: A critical review of dyadic trust. *Journal of Management* 41(1): 47–70.
- Krasikova DV and LeBreton JM (2012) Just the two of us: Misalignment of theory and methods in examining dyadic phenomena. *Journal of Applied Psychology* 97(4): 739–757.
- Krause D, Luzzini D and Lawson B (2018) Building the case for a single key informant in supply chain management survey research. *Journal of Supply Chain Management* 54(1): 42–50.
- Lander MW and Kooning L (2013) Boarding the aircraft: Trust development amongst negotiators of a complex merger. *Journal of Management Studies* 50(1): 1–30.
- Larson A (1992) Network dyads in entrepreneurial settings: A study of the governance of exchange relationships. *Administrative Science Quarterly* 37(1): 76–104.
- Lioukas CS and Reuer JJ (2015) Isolating trust outcomes from exchange relationships: Social exchange and learning benefits of prior ties in alliances. *Academy of Management Journal* 58(6): 1826–1847.
- Liu Y, Luo Y and Liu T (2009) Governing buyer-supplier relationships through transactional and relational mechanisms: Evidence from China. *Journal of Operations Management* 27(4): 294–309.
- Lui SS and Ngo H-Y (2004) The role of trust and contractual safeguards on cooperation in non-equity alliances. *Journal of Management* 30(4): 471–485.
- Lumineau F and Henderson J (2012) The influence of relational experience and contractual governance on the negotiation strategy in buyer-supplier disputes. *Journal of Operations Management* 30(5): 382–395.
- Lumineau F and Oliveira N (2018) A pluralistic perspective to overcome major blind spots in research on interorganizational relationships. *Academy of Management Annals* 12(1): 440–465.
- Majchrzak A, Jarvenpaa SL, and Bagherzadeh M (2015) A review of interorganizational collaboration dynamics. *Journal of Management* 41(5): 1338-1360.
- Malhotra D and Lumineau F (2011) Trust and collaboration in the aftermath of conflict: The effects of contract structure. *Academy of Management Journal* 54(5): 981–998.
- Mayer RC, Davis JH and Schoorman FD (1995) An integrative model of organizational trust. *Academy of Management Review* 20(3): 709-734.
- McEvily B and Tortoriello M (2011) Measuring trust in organizational research: Review and recommendations. *Journal of Trust Research* 1(1): 23–63.
- McEvily B, Zaheer A and Fudge Kamal DK (2017) Mutual and exclusive: Dyadic sources of trust in interorganizational exchange. *Organization Science* 28(1): 74–92.
- Norheim-Hansen A (2015) Are 'green brides' more attractive? An empirical examination of how prospective partners' environmental reputation affects the trust-based mechanism in alliance formation. *Journal of Business Ethics* 132(4): 813–830.

- Nyaga GN, Lynch DF, Marshall D and Ambrose E (2013) Power asymmetry, adaptation and collaboration in dyadic relationships involving a powerful partner. *Journal of Supply Chain Management* 49(3): 42–65.
- Panico C (2017) Strategic interaction in alliances. *Strategic Management Journal* 38(8): 1646–1667.
- Perrone V, Zaheer A and McEvily B (2003) Free to be trusted? Organizational constraints on trust in boundary spanners. *Organization Science* 14(4): 422–439.
- Poppo L, Zhou KZ and Ryu S (2008) Alternative origins to interorganizational trust: An interdependence perspective on the shadow of the past and the shadow of the future. *Organization Science* 19(1): 39–55.
- Poppo L, Zhou KZ and Li JJ (2016) When can you trust “trust”? Calculative trust, relational trust, and supplier performance. *Strategic Management Journal* 37(4): 724–741.
- Revilla E and Knoppen D (2015) Building knowledge integration in buyer-supplier relationships: The critical role of strategic supply management and trust. *International Journal of Operations & Production Management* 35(10): 1408–1436.
- Ring PS and Van de Ven AH (1994) Developmental processes of cooperative interorganizational relationships. *Academy of Management Review* 19(1): 90–118.
- Ro YK, Su H-C and Chen Y-S (2016) A tale of two perspectives on an impending supply disruption. *Journal of Supply Chain Management* 52(1): 3–20.
- Roh JA, Whipple JM and Boyer KK (2013) The effect of single rater bias in multi-stakeholder research: A methodological evaluation of buyer-supplier relationships. *Production and Operations Management* 22(3): 711–725.
- Rousseau DM, Sitkin SB, Burt RS and Camerer C (1998) Not so different after all: A cross-discipline view of trust. *Academy of Management Review* 23(3): 393–404.
- Schilke O and Cook KS (2013) A cross-level process theory of trust development in interorganizational relationships. *Strategic Organization* 11(3): 281–303.
- Selnes F and Sallis J (2003) Promoting relationship learning. *Journal of Marketing* 67: 80–95.
- Seppanen R, Blomqvist K and Sundqvist S (2007) Measuring inter-organizational trust – A critical review of the empirical research in 1990–2003. *Industrial Marketing Management* 36(2): 249–265.
- Shen W, Kiger TB, Davies SE, Rasch RL, Simon KM and Ones DS (2011) Samples in applied psychology: Over a decade of research in review. *Journal of Applied Psychology* 96(5): 1055–1064.
- Smith JB and Barclay DW (1997) The effects of organizational differences and trust on the effectiveness of selling partner relationships. *Journal of Marketing* 61(1): 3–21.
- Sting FJ, Stevens M and Tarakci M (forthcoming). Temporary de-embedding buyer-supplier relationships: A complexity perspective. *Journal of Operations Management*.
- Uzzi B (1997) Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly* 42(1): 35–67.



- Uzzi B (1999) Embeddedness in the making of financial capital: How social relations and networks benefit firms seeking financing. *American Sociological Review* 64(4): 481-505.
- Uzzi B and Lancaster R (2004) Embeddedness and price formation in the corporate law market. *American Sociological Review* 69(3): 319-344.
- Vanneste BS, Puranam P and Krestchmer T (2014) Trust over time in exchange relationships: Meta-analysis and theory. *Strategic Management Journal* 35(12): 1891–1902.
- Villena VH, Choi TY and Revilla E (forthcoming) Revisiting interorganizational trust: Is more always better or could more be worse? *Journal of Management*. DOI: 10.1177/0149206316680031.
- Villena VH and Craighead CW (2017) On the same page? How asymmetric buyer-supplier relationships affect opportunism and performance. *Production and Operations Management* 26(3): 491–508.
- Young-Ybarra C and Wiersema M (1999) Strategic flexibility in information technology alliances: The influence of transaction cost economics and social exchange theory. *Organization Science* 10(4): 439–459.
- Zaheer A, McEvily B and Perrone V (1998) Does trust matter? Exploring the effects of interorganizational and interpersonal trust on performance. *Organization Science* 9(2): 141–159.
- Zhong W, Su C, Peng J and Yang Z (2017) Trust in interorganizational relationships: A meta-analytic integration. *Journal of Management* 43(4): 1050–1075.

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