

# The effect of unethical behavior on trust in a buyer–supplier relationship: The mediating role of psychological contract violation

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## ABSTRACT

Research on trust in buyer–supplier relationships has tended to focus on the performance outcomes of a trusting relationship, as well as the processes that serve to build trust. Largely absent from the buyer–supplier literature is an in-depth examination of activities that break down trust, and the resulting effect on supplier trust in the buyer. The authors propose and test a model that evaluates psychological contract violations between a buyer and a supplier as a mediating variable of the effect of unethical activities on trust within a partnership. Survey data was collected from 110 tier one suppliers of major corporations in the state of Ohio. Our results show how a supplier's perception of a violation of the psychological contract either partially mediates or fully mediates the relationship between the buyers unethical activity and the suppliers trust in that buyer. We discuss how suppliers may demonstrate bounded ethicality when they overlook perceived unethical behaviors by the buyer.

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## 1. Introduction

Toyota surpassed General Motors (GM) as the world-wide leader in automotive sales in the first quarter of 2007. The struggles of American automobile manufacturers to stay ahead of their Japanese counterparts is partially attributable to numerous flaws in the former's manufacturing and management principles, including shortcomings in supply chain management efforts. The philosophies of these companies vary substantially, particularly with regard to supply chain relationships. Japanese automobile companies manage suppliers as extensions of their own firm, working closely with them to reduce unit costs by developing their skills. Meanwhile, American automobile

companies are notorious for unilaterally demanding cost reductions from the supplier, utilizing adversarial and potentially unethical techniques which consequentially optimize on short-term performance. For example, GM writes contracts that allow it to shift to a less expensive supplier at a moment's notice (Liker and Choi, 2004). The result of this myopic stance is predictable, often devolving into spiraling distrust between buyer and supplier.

Grave challenges face managers regarding their ability to manage relationships and coordinate activities across multiple independent players, as legal documentation is unable to anticipate the many cooperative activities and intense flexibility required for meaningful integration. One manifestation of these new buyer–supplier relationships is the emphasis on trust in lieu of formal contracts. A recent study (Johnston et al., 2004) indicates that higher levels of inter-organizational cooperative behaviors, such as shared planning and flexibility, were strongly linked to the supplier's trust in the buyer firm. Alternatively, unethical business practices can possibly undercut the development of trusting, long-term business relationships. Unethical

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behavior can lead to negative publicity, substantial fines, and ultimately decreased sales and profits (McGuire et al., 1988). DuPont agreed to pay nearly \$11 million to a group of commercial growers because they allegedly withheld critical scientific test data and other evidence regarding the company's Benlate DF fungicide that farmers claimed damaged their crops (Geyelin, 1999). When supplier's trust in a buyer erodes due to the partners unethical behaviors, the supplier has the option to seek alternative business opportunities. The supplier may also communicate negative information with other potential suppliers of the buying firm, possibly causing the buyer to lose some influence over its suppliers. Dunfee (1991) acknowledges that punishment extolled through negative word of mouth need not be administered through a party holding power in the relationship; the power is derived from the community.

Building strategic relationships that transcend organizational boundaries has proven a formidable struggle for many managers. This is evidenced in a 2004 Computer Sciences Corporation survey of supply chain progress in which respondent firms note the most underdeveloped area of their supply chain involves developing long-term relationships with suppliers and customers, and consequently this area was in need of the most work going forward. This reveals that beyond basic logistic and infrastructural problems requisite of a firm's time and attention, such as transportation, warehousing, and inventory management, lie equally pressing issues of a "softer" nature, including ethics, trust, and the psychological contract. These represent key aspects of relationship management, and form the basis of the current study.

Research that examines the cognitive and psychological aspects of managing the buyer–supplier relationship is sparse. Also largely absent from the buyer–supplier literature is an in-depth examination of activities that break down trust. This paper adds to this emerging research stream by evaluating psychological contract violations between a supplier and buyer as a

mediating variable of the effect of unethical activities on trust within a partnership. We define trust here as a firm's reliance upon other entities with which it is engaged to voluntarily recognize and protect its rights and interests (Hosmer, 1995). As such, the governing mechanism of much relationship behavior is an implied obligation of reciprocity (Rousseau, 1989). This suggests a psychological contract exists between the supplier and buyer, defined as a participant's subjective, idiosyncratic perceptions regarding obligations due (Morrison and Robinson, 1997; Ho, 2005). A perceived violation of the psychological contract may occur through subtle or blatant unethical acts that fail to protect the rights and interests of others. From the supplier's perspective, unethical behaviors by the buyer occur as exogenous variables outside the realm of control of the supplier, and may lead the supplier to experience decreased levels of trust in that buyer. Our research investigates this phenomenon, and seeks to determine the role of psychological contract violation within the ethics–trust relationship.

This paper proceeds as follows. First, in Section 2 we survey the academic literature surrounding each of the constructs depicted in our conceptual model, accompanied by the hypotheses to be explored in this paper. In Section 3, we outline our research design. In Section 4, we present our data analysis and in Section 5 discuss our results. Concluding insights for practicing managers, contributions to theory, and directions for future research are provided in Section 6.

## 2. Literature review, model, and research hypotheses

The three constructs examined in this research are the psychological contract, unethical behaviors, and trust within the context of a buyer–supplier relationship. We view these constructs from the perspective of the supplier. The resulting model, shown in Fig. 1, depicts unethical behavior as an antecedent to a decline in trust, as mediated by the experience of a psychological contract violation.

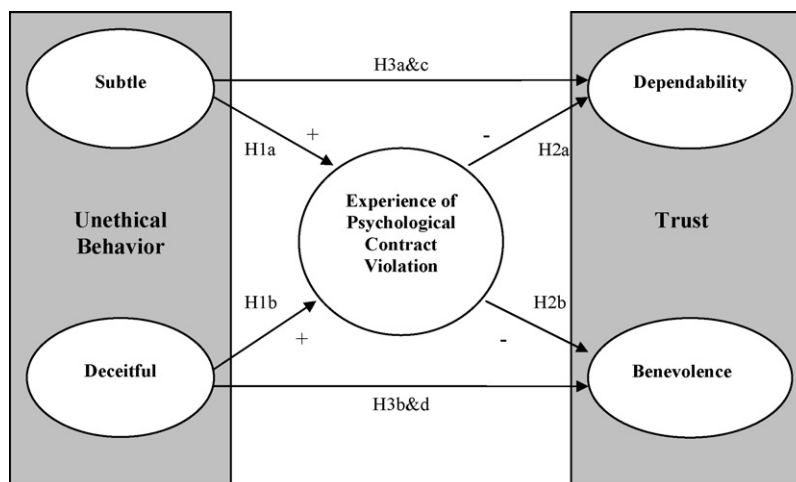


Fig. 1. Model of hypothesized relationships.

## 2.1. Psychological contract

A psychological contract is an assumed set of reciprocal obligations between parties in a relationship (Schein, 1978; Robinson and Rousseau, 1994; Robinson and Morrison, 2000). While most of the psychological contract literature has centered on employee–employer relationships, it is reasonable and even desirable to extend evaluation of this theory to relationships at other levels (Blancero and Ellram, 1997; Guest, 1998; Kingshott and Pecotich, 2007). While true that individuals, not organizations, experience emotions related to the psychological contract, we expect the sentiment of the individual in the boundary-spanning role to mirror that of the organization's members collectively. This is consistent with findings by Zaheer et al. (1998), which show that interpersonal trust and inter-organizational trust are highly correlated. In this work as well, it is the impact on trust in a buyer–supplier relationship that is key. We additionally emphasize firm-level analysis via the language utilized in the survey questions. For example, “The buying firm is trustworthy” and “The buying firm uses obscure contract terms to gain a competitive advantage” (emphasis added).

In a buyer–supplier relationship, the supplier maintains a set of expectations which may or may not differ from the expectations understood by the buying firm; the essence of the psychological contract is that it is implied or assumed, and thus may suffer from incongruences between parties. As such, a violation of the psychological contract is solely a perceptual event, and the parties may not necessarily be in agreement that a violation has occurred. A perceived violation of psychological contract is often an emotional event, accompanied by feelings of anger and frustration, a sense of having been cheated, and displeasure and disillusionment with the overall relationship (Morrison and Robinson, 1997). These perceptions are found to negatively impact trust and job satisfaction within an employee–employer relationship (Robinson and Rousseau, 1994; Robinson, 1996).

Psychological contract violation is rooted in two contributing factors: renegeing and incongruence (Robinson and Morrison, 2000). Renegeing involves an obvious and intentional failure to meet existing obligations, the outcome of which is typically readily observable. This can occur when a party willfully decides to default on an obligation, or when a party is physically or financially unable to follow through on a commitment. In a buyer–supplier relationship, a supplier may perceive renegeing when the buying firm purposefully misleads the supplier's salesperson during negotiations. The buying firm may be attempting to negotiate a lower cost structure simply for the goal of reaping greater profits, or the buyer may be in financial straits, depending on the lower cost structure for its very survival.

Incongruence may lead to a perceived violation of psychological contract, as well. Morrison and Robinson (1997) specify three factors contributing to incongruence of obligations: differing cognitive schema resulting from varied backgrounds and prior experiences; complexity or ambiguity of the relationship terms; and a lack of

communication between parties. In a buyer–supplier relationship, unmatched cognitive schema may be realized when a buyer outsources a function or fabrication of a component previously performed in-house. The expectations of the buyer may be more stringent than what the supplier has previously dealt with due to the intimate knowledge the buyer possesses of the process.

Complexity or ambiguity of relationship terms may also lead to incongruence, and this facet is particularly prone to occur as a relationship evolves over time (Morrison and Robinson, 1997). Just as a firm must regularly revisit and reassess its own strategies and target market segments, it also must evaluate the appropriateness of ongoing relationships with other firms. Complexity may also be introduced as the number of individuals interacting across partner firms increases, unless proper coordination mechanisms are in place (Carter and Miller, 1989). Additionally, complexity may result if turnover in the positions responsible for managing the relationship is high and systems for organizational memory development and retention are not maintained (Bell and Iverson, 2002).

Finally, a general lack of communication between parties may also contribute to incongruence of psychological contract terms. The importance of communication to the success of buyer–supplier relationships is well established in the literature (Carr and Pearson, 1999; Prahinski and Benton, 2004). This literature promotes cross-firm communications as a “relational competency that yields strategic advantage for the collaborating firms” (Paulraj et al., 2008, p. 59). These three instigators of incongruence – mismatched cognitive schema, complexity or ambiguity, and lack of communication – are due to conditions that are not necessarily obvious to the violator (Morrison and Robinson, 1997). They are generally of a more indirect, or subtle, nature.

In considering the psychological contract, Morrison and Robinson (1997) note that a perceived violation will be evaluated in reference to shared norms. The severity of the feelings associated with violation will correlate with the extent to which action deviates from acceptable norms (Morrison and Robinson, 1997). In this paper, norms are expressed as ethical or unethical behaviors, and as such set the stage and provide the ethical context for the relationship. The ethical dimension of partnerships is relevant because partnerships are established and grow only through compliance with norms that engender and increase trust.

## 2.2. Ethics

### 2.2.1. Theory of bounded ethicality

Simon (1983) discusses the concept of “bounded rationality” as a behavioral model in which human rationality is bounded by the situation. Messick's pioneering contributions to the field of business ethics (Messick, 1995, 1996; Messick and Bazerman, 1996) focus on psychological patterns of behavior that could predict how natural patterns of human judgment would lead to unethical behaviors. Chugh et al. (2005) extend this work and introduce a phenomenon they called “bounded ethicality.” Bounded ethicality refers to situations in which

people make decisions that are inconsistent with their own consciously espoused beliefs and preferences. For example, though most companies aim to promote social justice some still outsource production to offshore subcontractors that are inexpensive because they are less constrained by labor and environmental standards. Gino et al. (2008) develop a subcategory of bounded ethicality, referred to as “motivated blindness,” which explains the psychological process by which individuals evaluate unethical behavior. Suppliers processing information in this manner tend to ignore unethical actions that are in his or her self-interest.

In this paper we explore the relationship between unethical behaviors, psychological contract violations and trust. We explore whether the “bounded ethicality” phenomenon causes suppliers to ignore information when making decisions relative to shared norms. We propose that bounded ethicality can partially explain the relationship between unethical behaviors, psychological contract violations, and trust.

### 2.2.2. Ethical decision making

Much of the management research is directed toward implementing formal programs and policies for guiding ethical behavior in corporations (Weaver et al., 1999). For a comprehensive review of ethical judgment and behavior literature see Loe et al. (2000). These formal programs are intended to bring the behavior of individuals within the organization into conformity with a shared ethical standard. Research suggests that ethics programs can enhance company performance (Donaldson and Preston, 1995; Quinn and Jones, 1995) and help generate legitimacy-enhancing organizational outcomes, a key indicator of corporate social performance (Wood, 1991). A number of other studies identify important contextual and organizational factors, such as ethics training (Delaney and Sockell, 1992), the use of codes of ethics (Weaver et al., 1999), and the use of incentives (Hegarty and Sims, 1978). Prior work also identifies important factors that influence ethical behavior. The majority of these studies focus on the influence of individual factors, such as gender (Schminke and Ambrose, 1997) and nationality (Lewicki and Robinson, 1998).

In the buyer–supplier relationship literature, ethical issues are commonly examined from the purchasing management perspective (Felch, 1985; Turner et al., 1994). Carter (2000) examines ethical issues from the perspective of both the buyer and supplier wherein he demonstrates that each player, regardless their country of origin, considers the same sets of activities to be unethical. It is also established in the extant literature that unethical activities can be parcelled out into either deceitful or subtle actions (Carter, 2000). The former constitutes purposeful acts of deception with observable outcomes such as falsification of a competing supplier firm by a buyer in order to gain more favorable contract terms. The latter relates to more inconspicuous actions such as giving preference to those suppliers with whom a personal relationship exists.

We take the position that subtle unethical behavior is akin to incongruence, an indirect form of psychological contract violation. In evaluating suppliers' perceptions of

subtle unethical activity as conducted by the buying firm, Carter (2000) does not find a statistically significant relationship to the satisfaction of the supplier firm. Perhaps this is due to the very definition of subtlety, in that the offending firm does not consider such indirect actions as grievances, and the actions are so inconsequential as to not register a perceived violation of the psychological contract. However, in the relationship marketing literature, Morgan and Hunt (1994) find a positive relationship between shared values and trust. Deviations from shared norms in many cases represent subtly unethical actions. For example, a buyer may unwittingly make purchasing decisions on the basis of the personalities of supplier representatives, or may subconsciously select a supplier known to be preferred by top management.

Deceitful actions, on the other hand, are outward acts of unethical behavior typically evidenced by an associated outcome. This is similar to reneging, or the knowing and purposeful act of failing to meet psychological contract terms. Reneging may occur because a firm is simply unwilling to follow through on obligations, or due to an inability to follow through. Carter's (2000) investigation uncovers a negative effect of a buyer's deceitful practices on supplier satisfaction, and Morgan and Hunt (1994) also reveal a significant negative relationship between opportunistic behaviors and trust.

In this research, we capture a buying firm's unethical activities as perceived by the supplier firm. It is expected that both subtle and deceitful factors will be positively associated with feelings of psychological contract violation. This experience is typified by feelings of anger, disillusionment, and frustration, a sense of having been cheated, and an overall displeasure with the relationship (Morrison and Robinson, 1997). Stated formally, our research hypotheses related to unethical behaviors are as follows:

**Hypothesis 1a.** Supplier perception of subtle unethical behavior by the buyer is positively associated with supplier experience of psychological contract violation.

**Hypothesis 1b.** Supplier perception of deceitful unethical behavior by the buyer is positively associated with supplier experience of psychological contract violation.

### 2.3. Trust

Like ethics, trust has been studied widely in the literature. For example, in organizational behavior Barney (1990) and Donaldson (1990) discuss what is referred to as “norms of trust” which is considered a characteristic distinguishing management theory from organizational economics. In the management strategy literature, Mohr and Spekman (1994) find trust to be a significant predictor of successful partnerships versus unsuccessful ones. Sherman and Sookdeo (1992) discuss how the biggest roadblock to the success of strategic alliances is the lack of trust. In the operations management literature, McCutcheon and Stuart (2000) elaborate at length on the value of trust in building a beneficial alliance, as well as on the mechanisms and challenges to developing sufficient trust.

Trust has also been shown to exhibit a positive association with relationship satisfaction (Grossman, 1999; Benton and Maloni, 2005), thus emphasizing the importance of trust in building and sustaining fruitful, long-term relationships. Therefore, it is established that relationships rely on some degree of trust in order to function successfully and satisfactorily.

Trust may be defined as comprised of two distinct measures: dependability and benevolence (Doney and Cannon, 1997; Hosmer, 1995). Dependability characterizes the reliability of a relationship partner, whereas benevolence serves as a gauge of a partner's moral values, as measured by a willingness to protect the interest and well-being of that partner (Hosmer, 1995). The reputation of a firm is in part determined by how a firm performs on these dimensions (Hosmer, 1995). As such, it is critical that a firm be capable of achieving and maintaining trust in relationships if it hopes to sustain current business opportunities as well as win new ones. Johnston et al. (2004) represent trust as a two-dimensional construct in order to capture the reliability and goodwill aspects uniquely. Our model distinguishes between these two facets of trust, as well.

Consistent with the findings of Robinson and Rousseau (1994) previously discussed, we anticipate that a perceived violation of the psychological contract will be negatively related to trust. The stronger the feelings of violation, the more negatively they effect trust. Robinson (1996) corroborates these findings within the context of an employee–employer relationship, demonstrating a strong negative association between experience of psychological contract violation and trust. We extend these results to a buyer–supplier relationship and distinguish between the two dimensions of trust, as formally stated by the following research hypotheses:

**Hypothesis 2a.** Experience of psychological contract violation will be negatively associated with the level of dependability the supplier perceives the buyer to exhibit in the relationship.

**Hypothesis 2b.** Experience of psychological contract violation will be negatively associated with the degree of benevolence the supplier perceives the buyer to exhibit in the relationship.

The experience of psychological contract violation may occur in the absence of a true violation, and likewise may not be experienced in the face of actual violation. In our research, we evaluate whether a supplier perceives unethical activities to have occurred. We also gauge the extent to which the supplier is experiencing accompanying feelings of violation, such as anger and disillusionment. We acknowledge the possibility of instances where the supplier perceives the buyer to be involved in unethical activities, yet the supplier does not experience feelings of violation. This unusual set of circumstances may come about for several reasons. For example, perhaps over the duration of the buyer–supplier relationship, the grievance acknowledged was the first ever instance of such a violation. The supplier may choose to be forgiving considering the circumstances, and may not be subjected

to feelings of anger, disillusionment, and the like. In another situation, a supplier may acknowledge an unethical act, but consider it a trivial matter in the current relationship and so not experience feelings of violation.

We suspect the above set of circumstances to represent an exception to the ethics–psychological contract relationship, not the norm. As such, the model we have proposed considers the psychological contract as a mediating variable that explains why unethical behaviors result in a decreased level of trust felt by the supplier towards the buyer. The associated research hypotheses are as follows:

**Hypothesis 3a.** Psychological contract violation mediates the relationship between subtle unethical activity and dependability.

**Hypothesis 3b.** Psychological contract violation mediates the relationship between subtle unethical activity and benevolence.

**Hypothesis 3c.** Psychological contract violation mediates the relationship between deceitful unethical activity and dependability.

**Hypothesis 3d.** Psychological contract violation mediates the relationship between deceitful unethical activity and benevolence.

### 3. Research design

#### 3.1. Data collection and descriptive statistics

##### 3.1.1. Survey development

Survey development and design was conducted in accordance with Dillman's Tailored Design Method (2006). We first developed a draft questionnaire based on an in-depth literature survey. As our domain of interest was behavioral, we included a review of the organizational behavior, marketing, and operations management literatures. Grounding our theoretical model in the literature allowed us to adapt existing scales to measure our constructs. A complete list of items used in this questionnaire is provided in Appendix 1.

In validating our measurement instrument, we conducted a focus group with six business enterprises in Nashville, Tennessee. We interviewed a group of 15 operations managers from a variety of manufacturing and service companies. Survey researchers in the social sciences typically collect data through group interaction in a preliminary capacity to assist in developing the content of their questionnaire (Morgan, 1996). Our objective was to obtain qualitative feedback on our research instrument and theoretical model. We asked these managers to evaluate the content, relevance, and clarity of our survey questions. We then proceeded with a pilot study of the instrument utilizing a listing of managers provided by the Supplier Development Council of Middle Tennessee. We were careful to choose managers who had responsibility for the ongoing relationship with the purchasing manager of their major buying firm. Ninety potential respondents were first mailed a preemptory postcard advising them of the survey followed by a mailing of the instrument with a



cover letter. Twenty-nine responses were returned for a response rate of 32%. Based on responses to the pilot survey, preliminary analyses demonstrated reliability and uni-dimensionality of the scales and thus the appropriateness of full-sample survey administration.

### 3.1.2. Main sample response rate and test for bias

To obtain a sample frame for this study, a list of businesses in the Midwest was obtained from the Regional Supplier Development Council of Southwest Ohio. In order to potentially increase our sample size the survey was administered on-line. Boyer et al. (2002) note that one key difference between mail surveys and on-line surveys is that on-line surveys have substantially fewer missing responses. Potential respondents were sent an initializing email detailing the objectives of the study and containing a link to the on-line survey. This was followed by a second email to non-respondents after 2 weeks. Five hundred potential respondents were contacted with 116 responding; of these responses, 110 were usable for a response rate of 22%. This compares favorably with other studies of this nature (Rosenzweig et al., 2003). Basic data analysis was conducted to ensure appropriateness of the methods to be employed. The data appeared free of departures from normality and susceptibility to outliers, and unaffected by heteroscedasticity. Scales were also tested using the Kaiser–Meyer–Olkin measure with all scales falling within the range of 0.702 and 0.842, and the Bartlett test of sphericity with all constructs showing significance at the level of  $p < 0.000$  (Hair et al., 1998).

Non-response bias addresses the issue of whether or not the actual sample obtained is representative of the target population. One methodology that has become popular is to test for a difference between the early and late responders (Lambert and Harrington, 1990); we utilized this approach to test for non-response bias. The sample was divided into thirds based on when a respondent completed the survey. Two-tailed  $t$ -tests of the mean difference between groups one and three were performed across all constructs. There was no significant difference between the two groups across all constructs at  $p = 0.38$ . Thus, we have no reason to believe non-response bias was an issue in this study.

Common method bias as a source of measurement error is of particular concern in research utilizing self-report questionnaire data. To assess the extent to which our data may be negatively influenced by common method bias, we employed Harman's single-factor test (Podsakoff et al., 2003). The results of this test demonstrated that neither a single factor emerged nor did one general factor present itself when considering all variables at once in an unrotated exploratory factor analysis. As such, we have no reason to believe that common method bias was problematic to our analysis.

### 3.1.3. Description of the sample

The unit of analysis for this study is a buyer–supplier relationship. We take the perspective of the supplier in this study; a recent survey of the operations management literature found a strong focus on buyer's perceptions (van der Vaart and van Donk, 2008). We were careful to send the

questionnaire only to individuals who interacted frequently with the corresponding purchasing manager of the buying firm. For manufacturing firms, we asked the plant manager or the Vice President of Operations to identify this particular individual for us. The respondents included individuals with a broad range of titles, including plant managers, production managers, supply chain managers, materials managers, and sales managers. For service companies, we asked the operations manager to identify the appropriate individual for us. In most cases this was either the operations manager or the sales manager. When completing the questionnaire, the respondent (the representative from the supplier firm who interacted with the buying firm) was asked to refer to a significant relationship with a major customer (buying firm). To control for the length of the relationship we asked suppliers to only consider buyers to which they have been supplying goods and/or services for a minimum of 5 years. We chose 5 years because this was the minimum length of relationship reported from our pilot survey.

An intended contribution of this study is the development of managerial insights that have broad applicability. For this reason, the sampling frame for this study crosses several industrial boundaries and seeks to capture buyer–supplier relationship experiences in a variety of industries. Table 1 provides a description of the supplier demographics. The sample consisted of 58 businesses that primarily provided a product to their major customer with the remaining 52 providing a service. The sales figures in Table 1 suggest that the supplier respondents cover a range of small to medium size firms.

### 3.2. Reliability and validity of measures

The content validity of a construct addresses the degree to which its operationalization covers the domain that it is purported to measure. To foster a common understanding within the academy, it is highly recommended whenever possible to use existing scales from the literature; those for which reliability and validity have been previously established (Flynn et al., 1990). Scales for this study were therefore derived from existing scales, modified to capture the supplier's perspective.

Ethics scales were adapted from Carter (2000), and exploratory factor analysis confirmed the existence of two distinct constructs: deceit and subtle unethical activities. Items assessing deceitful buyer behaviors query about activities such as the use of obscure contract terms or exaggerating the seriousness of a problem in order to achieve competitive advantage. Items gauging subtle buyer behavior evaluate preferences of top management or the influence of personalities on decision making, for example. The scale assessing psychological contract violation was adopted from Robinson and Morrison (2000), and asks the respondent to reflect on feelings regarding the supplying firm's contributions to the relationship in comparison to what the buying firm has given to the relationship. Finally, trust items were adapted from Doney and Cannon (1997), and as with the ethics scale, an exploratory factor analysis provided evidence of two distinct constructs: benevolence and dependability. Benevolence items capture the buying firm's goodwill

**Table 1**  
Description of the supplying firms by industry.

Industry type	# (%) of suppliers in study
<b>Manufacturing</b>	
Auto Industry & Parts	13 (11.8%)
Industrial Equipment	9 (8.2%)
Metals	8 (7.3%)
Chemicals	6 (5.5%)
Packaging, Container	6 (5.5%)
Personal Products	5 (4.5%)
Building Materials	5 (4.5%)
Food Production	3 (2.7%)
Paper Products	2 (1.8%)
Electronics Equipment	1 (0.9%)
<b>Total Manufacturing</b>	<b>58 (52.7%)</b>
<b>Services</b>	
Food Services	11 (10%)
Health Care	10 (9.1%)
General Merchandise	7 (6.4%)
Staffing/HR/General Cleaning	6 (5.5%)
Specialty Retailers	5 (4.5%)
Financial Services	4 (3.6%)
Logistics Provider	4 (3.6%)
Communications	3 (2.7%)
Lawn Care	2 (1.8%)
<b>Total Service</b>	<b>52 (47.3%)</b>
<b>Firm Size</b>	
Median annual sales	\$43 million
Range of annual sales	\$1.5 million to \$96 million
<b>Length of Relationship</b>	
Median length of relationship	9 years
Range of length of relationship	5–17 years

towards the supplier, whereas the dependability items measure, for example, the buying firm's ability to keep its promises and communicate honestly with the supplier.

Two control variables were also introduced in this analysis: the nature of the relationship, whether long-term or short-term; and type of industry, either service or manufacturing. Dummy variables were used to model both of these categorical variables. Relationships characterized by the respondent as intermittent and utilizing short-term contracts were coded as 1 to signify a short-term relationship, whereas those relationships of a long-term, developmental nature were coded as 0. Suppliers primarily providing a product to the buyer were coded as 1, and those providing primarily a service were coded as 0.

A confirmatory factor analysis (CFA) was conducted to establish convergent validity, in that measures that are purported to be theoretically related are demonstrated to be

related. The CFA model was analyzed in the RAMONA application available in SYSTAT Version 12. The model provided a reasonable fit, as determined by recommended fit indices ( $\chi^2 = 284.39$ , d.f. = 160;  $\chi^2/\text{d.f.} = 1.80$ ; RMSEA = 0.08; CFI = 0.92) (Hu and Bentler, 1998; Shah and Goldstein, 2006; Browne and Cudeck, 1992; Bentler and Bonett, 1980). Results of the CFA serve to assess item validity, and are presented in Appendix 1. We also assessed discriminant validity, or the notion that measures that are not theoretically related are indeed distinct from one another. Inter-factor correlations are provided in Table 2, and serve to confirm discriminant validity in that all inter-factor correlations are less than the commonly applied cut-off point of 0.85 (Brown, 2006). Finally, analysis of variance extracted (AVE) and composite reliabilities (CRs) are also provided in Table 2, and demonstrate all values exceed the recommended hurdles of 0.50 and 0.60, respectively (Bagozzi and Yi, 1988).

### 3.3. Model evaluation

The hypothesized model depicted in this study is one of mediation, which explains why the effects of an independent variable on a dependent variable occur (Baron and Kenny, 1986). Our model examines whether a buyer's unethical behaviors and the level of trust a supplier firm has in that buyer is mediated by feelings of psychological contract violation experienced by the supplier. We use the three-step approach proposed by Baron and Kenny (1986) to test the hypothesized relationships. In the first step the mediating variable, psychological contract, is regressed on the independent variables, subtle and deceitful unethical behavior. In the second step the dependent variables of trust are regressed on the independent variables. In the final step the dependent variables of trust are regressed on both the mediating variable, psychological contract, and the independent variables of unethical behavior. Partial mediation is demonstrated when steps one and two are shown to be significant, the mediating relationship in step three is significant, and the effect of the independent variables found in step three is less than the effect demonstrated in step two above. Full mediation occurs when the independent variables in step 3 are no longer significant.

## 4. Results

### 4.1. Impact of unethical buyer behaviors on supplier's experience of psychological contract violation

Ordinary least squares (OLS) regression was carried out in SPSS Version 15.0 for Windows (as were all regressions)

**Table 2**  
Inter-factor correlations.

	Analysis of variance extracted	Composite reliability	Psychological contract violation	Dependability	Benevolence	Deceit	Subtle
Psychological contract violation	0.683	0.912	1.00				
Dependability	0.551	0.858	−0.699	1.00			
Benevolence	0.771	0.910	−0.558	0.655	1.00		
Deceit	0.637	0.875	0.522	−0.629	−0.308	1.00	
Subtle	0.635	0.839	0.518	−0.595	−0.471	0.565	1.00

All correlations significant at the 0.01 level.

**Table 3**  
Influence of unethical activity on psychological contract violation.

Standardized coefficients:	Model 1	Model 2
Length of relationship	0.022	0.038
Type of industry	−0.007	0.009
Subtle		0.320*
Deceitful		0.345*
R <sup>2</sup>	0.001	0.347
F-value	0.029	13.948*
Change in R <sup>2</sup>		0.346
F-change		27.851*
Durbin–Watson		2.120

\*  $p \leq 0.001$ .

to assess the relationship between unethical buyer behaviors with the supplier's experience of psychological contract violation. In model 1 of the hierarchical regression, the control variables of length of relationship and type of industry were incorporated, followed by the inclusion of subtle and deceitful activities in model 2. The results of this analysis are shown in Table 3, and demonstrate a significant positive relationship between both subtle and deceitful unethical activity and psychological contract violation ( $p \leq 0.001$ ). These results provide support for *Hypotheses 1a and 1b*. This also satisfies step 1 of the Baron and Kenny (1986) procedure outlined in Section 3.3, where each of the independent variables is shown to have a significant effect on the mediator.

#### 4.2. Impact of supplier's experience of psychological contract violation on supplier's trust in a buyer

*Hypotheses 2a and 2b* investigate the relationship between a supplier's experience of psychological contract violation and the trust that a supplier has in the buyer. Trust is defined as two distinct elements, dependability and benevolence. The results of the respective OLS hierarchical regressions are shown in Table 4. In model 1 of the hierarchical regressions, the control variables of length of relationship and type of industry were incorporated, followed by the inclusion of perceived psychological contract violation in model 2. These results provide evidence that feelings of psychological contract violation experienced by the supplier are negatively associated with the supplier's assessment of both buyer dependability and

**Table 4**  
Influence of psychological contract violation on trust.

Standardized coefficients	Dependability		Benevolence	
	Model 1	Model 2	Model 1	Model 2
Length of relationship	−0.031	−0.016	−0.243*	−0.231**
Type of industry	−0.058	−0.063	0.012	0.007
Psychological contract violation		−0.699***		−0.553***
R <sup>2</sup>	0.004	0.493	0.060	0.365
F-value	0.225	34.296***	3.389*	20.349***
Change in R <sup>2</sup>		0.488		0.306
F-Change		102.015***		51.097***
Durbin–Watson		2.112		2.013

\*  $p \leq 0.05$ .

\*\*  $p \leq 0.01$ .

\*\*\*  $p \leq 0.001$ .

**Table 5**

Influence of unethical activity and psychological contract violation on trust.

Standardized coefficients	Dependability		Benevolence	
	Model 1	Model 2	Model 1	Model 2
Length of relationship	−0.056	−0.039	−0.226**	−0.209**
Type of industry	−0.076	−0.071	−0.014	−0.010
Subtle	−0.350***	−0.208**	−0.387***	−0.244*
Deceitful	−0.436***	−0.283***	−0.116	0.039
Psychological contract violation		−0.443***		−0.448***
R <sup>2</sup>	0.488	0.617	0.273	0.404
F-value	25.043***	33.439***	9.853***	14.084***
Change in R <sup>2</sup>		0.128		0.131
F-change		34.787***		22.819***
Durbin–Watson		2.001		1.982

\*  $p \leq 0.05$ .

\*\*  $p \leq 0.01$ .

\*\*\*  $p \leq 0.001$ .

benevolence ( $p \leq 0.001$ ). Additionally, we find that length of relationship is a significant predictor of benevolence ( $p \leq 0.01$ ); however, neither control variable significantly influenced dependability.

#### 4.3. Mediating role of psychological contract violation

Table 5 displays results from the hierarchical regression analysis performed to test the mediating effect of psychological contract violation on the relationship between unethical behaviors and trust. There are two sets of results, one set for each of the dependent variables under consideration. In model 1 of the hierarchical regressions, we input the control variables of length of relationship and type of industry as well as the unethical activities, and in model 2 we incorporated the proposed mediating variable, psychological contract violation.

##### 4.3.1. Models of dependability

In model 1 of the hierarchical regression examining dependability, we find that both subtle and deceitful activities possess a significant direct negative relationship with the dependent variable ( $p \leq 0.001$ ). After incorporating the proposed mediating variable in model 2, we find the standardized beta coefficients for the independent variables have decreased. This establishes partial mediation in accordance with Baron and Kenny (1986), and provides support for *Hypotheses 3a and 3c*. However, it is important to note that a significant direct relationship continues to exist between subtle and deceitful activities and the dependent variable, dependability ( $p \leq 0.01$  and  $p \leq 0.001$ , respectively). Neither of the control variables exerted significant influence on the dependability models.

##### 4.3.2. Models of benevolence

The results of the models of benevolence proved quite interesting. As evidenced in Table 5, we see that subtle unethical behaviors demonstrate a significant negative relationship to benevolence ( $p \leq 0.001$ ). Upon incorporating the proposed mediating variable in model 2, the standardized beta coefficient for subtle unethical beha-



**Table 6**

Influence of unethical activity on psychological contract violation—long-term versus short-term relationships.

Standardized coefficients	Long-term relationships		Short-term relationships	
	Model 1	Model 2	Model 1	Model 2
Type of industry	–0.019	–0.027	0.024	0.182
Subtle		0.088		0.701***
Deceitful		0.547***		0.022
R <sup>2</sup>	0.000	0.372	0.001	0.482
F-value	0.028	14.581***	0.017	8.669***
Change in R <sup>2</sup>		0.371		0.481
F-change		21.849***		12.988***
Durbin–Watson		2.076		1.833

\*\*\*  $p \leq 0.001$ .

viors is found to decrease. This demonstrates partial mediation in accordance with Baron and Kenny (1986), thus providing support for Hypothesis 3b. To our surprise, there was no direct significant effect of deceitful activity on benevolence. However, we note that the significant influence of length of relationship in these models may be disguising a deeper story. As such, we split the sample according to the length of relationship variable (long-term versus short-term nature), and investigated the associations anew.

Table 6 shows the influence of unethical activity on psychological contract violation by long-term versus short-term relationship length. It is interesting to find that the relationship between deceitful activity and psychological contract violation is only significant when considering long-term relationships ( $p \leq 0.001$ ). Results of the models of mediation, which were conducted similar to the previously described models, are shown in Table 7. When considering just long-term relationships, we find that deceitful activities have a significant negative association with benevolence (model 2,  $p \leq 0.05$ ), an association that is no longer significant when psychological contract violation is included in model 3. This provides evidence that psychological contract violation serves to fully mediate the relationship between deceit and benevolence for suppliers and buyers involved in a long-

term relationship, thus providing partial support for Hypothesis 3d.

## 5. Discussion

The models of partial mediation provide a very interesting and fertile ground for further investigation. Psychological contract violations only provide partial clarification of the relationship between subtle unethical behaviors and trust levels. There is still the presence of a statistically significant direct effect of subtle unethical behaviors on trust, one that is not fully mediated by feelings of psychological contract violation. One plausible explanation for this direct effect is attributable to the theory of motivated blindness (Gino et al., 2008), a subcategory of Simon's (1983) theory of bounded rationality. Although unethical acts on the part of the buyer may indeed be evident, feelings of psychological contract violation by the supplier may be bypassed if the unethical actions are serving the supplier's own self-interest. A perceived unethical act can be interpreted as "the cost of doing business" (the norm), and as such have no impact on the relationship. It can be filtered through the lens of "there is something in it for me." That is, the perceived act is to the supplier's advantage and they will make the rational (cognitive) decision to ignore it.

However, the above explanations only serve to illustrate why the supplier may not respond to feelings of psychological contract violation. It does not explain why trust levels decline directly in relation to subtle unethical behaviors. In a business relationship, both parties are attuned to information they receive on an ongoing basis; information scanning and processing is a critical function of those in boundary-spanning roles, such as purchasing (Aldrich and Herker, 1977). Buyers and suppliers alike observe and categorize information, consciously and subconsciously referring to it when making decisions or judgments involving their partner (Goodwin and Fiske, 1996). So while subtle unethical behavior today may be received within the context of "motivated blindness," the deviant actions are still processed and categorized for future reference. When assessing the immediate viability of the relationship, the supplier is satisfied as his own best

**Table 7**

Influence of deceit and psychological contract violation on benevolence—long-term versus short-term relationships.

Standardized coefficients	Long-term relationships			Short-term relationships		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Type of industry	–0.075	–0.068	–0.083	0.232	0.104	0.127
Subtle		–0.265*	–0.216		–0.536**	–0.445
Deceitful		–0.321*	–0.023		0.242	0.245
Psychological contract violation			–0.544***			–0.130
R <sup>2</sup>	0.006	0.292	0.477	0.054	0.270	0.279
F-value	0.434	10.152***	16.673***	1.712	3.458*	2.615
Change in R <sup>2</sup>		0.286	0.186		0.216	0.009
F-change		14.931***	25.961***		4.152*	0.331
Durbin–Watson			2.121			2.472

\*  $p \leq 0.05$ .\*\*  $p \leq 0.01$ .\*\*\*  $p \leq 0.001$ .

interests are served. But as he assesses the future viability of the relationship, the supplier is cognizant of some degree of risk associated with transactions conducted with a buyer who behaves unethically. Although the supplier is benefiting from the relationship today, there is a risk that tomorrow he may be the target of the unethical activities he is observing; thus, the levels of dependability and benevolence decline.

When the buyer participates in deceitful unethical activity, based on our survey questions and definition of deceit he is acting to benefit only himself. There is likely a distinct outcome associated with deceitful actions, and this outcome is expected to be in favor of the buyer. It is not odd that a supplier may experience negative feelings over displays of deceitful behavior. For example, when the buying firm purposefully misleads the supplier during negotiations to achieve an outcome of competitive advantage, the supplier may feel harm associated with the outcome, and therefore feel angry. The supplier believes he can no longer trust information provided to him by the buyer, thus adjusting downward his assessment of the buyer's dependability (Gino et al., 2008; Jones and George, 1998). When considering deceitful activity, there is also a decrease in dependability that is independent of feelings of psychological contract violation. For example, a buying firm using obscure contract terms in order to gain competitive advantage is simply a firm that cannot be trusted, as reflected in directly decreased levels of dependability.

The association between deceit and benevolence is more complex. Recall that benevolence is a gauge of shared moral values and goodwill between partners, characteristics which are developed over time. Pruitt (1981) argues that the longer the relationship the greater the likelihood the foundation is laid for mutual liking, genuine concern, and a good working relationship. In fact, our findings indicate that deceitful activity blatantly violates the goodwill established between partners, in such a way that cuts at the moral foundation of the relationship. This only holds for suppliers involved in long-term relationships. The results show that deceitful actions work strictly, or indirectly, through psychological contract violation to decrease feelings of benevolence. The perceived aberration of a partner's moral stance arouses feelings of violation that drive the full mediation observed in this relationship.

The notion of outcome bias is important in understanding the difference between what we observe with deceitful unethical actions versus subtle unethical actions in the context of benevolence. It explains why deceitful actions, which are much more likely to have a distinct and negative outcome, are fully mediated by psychological contract violation, whereas subtle acts are less likely to be associated with a direct negative outcome, thereby avoiding the harmful associated psychological consequences.

## 6. Conclusion

The results obtained from our analysis suggest interesting and important implications for buyer–supplier relationship management. First, we empirically demonstrate the significance of psychological contract violation as a mediating variable to the relationship between

unethical behaviors and trust. The findings presented in this paper have significant practical managerial implications. Participants in a buyer–supplier relationship must be cognizant not only of the actions of the firm's representatives, but also of the perceptions maintained by the partner firm. Our research shows that these perceptions are an important driver of feelings of psychological contract violation and trust levels.

Second, we also show there is a direct relationship between perceived unethical behaviors and trust. It is important for buyers to understand that trust levels may be declining independent of the supplier's experience of psychological contract violation. A buyer firm cannot rely solely on supplier's indications of frustration and disillusionment as an indicator of how trusting the supplier perceives the buyer to be. These findings may be generalized to all buyer and supplier firms interested in developing or maintaining a mutually rewarding relationship with another firm.

Third, we extend previous work on psychological contract theory to the field of supply chain relationships, thereby making a theoretical contribution to the field that incorporates a behavioral perspective. Previous research by social psychologists has demonstrated how emotions can affect the wisdom of decisions (Forgas, 1998; Allred et al., 1997). Recently, research in operations management has emerged that added social psychological variables to research structures consistent with a behavioral decision research perspective (Johnston et al., 2004; Griffith et al., 2006; Cousins et al., 2006). We have added to this emerging research by showing how the judgment of suppliers is influenced by social psychological variables and how these variables can influence the supplier's level of trust in the buyer.

Finally, we examine all of this within the context of the supplier's perspective, which has been largely neglected in the operations management literature to date (van der Vaart and van Donk, 2008). Specifically, our results give the buyer useful hints about the likely behavior of suppliers and suggest ways in which the buyer's own decisions may be perceived by the suppliers. We show that under certain conditions psychological contract violations partially mediate the effect of unethical behavior on trust. However, we show that psychological contract violations fully mediate the relationship between deceit and benevolence in long-term relationships.

The study presented here is not without its limitations. First, the cross-sectional design prevents us from making assertions about causation, although we do strongly support with extant literature the process we have outlined. The collection of longitudinal data would allow for a more statistically rigorous evaluation of causality, as well as improved understanding of the development of supplier psychological contracts over time. Second, while our research did fill a gap in the literature by examining the perspective of the supplier, it would be interesting from multiple aspects to extend this investigation to buyer–supplier dyads. In particular, how does the buyer assess the ethicality of his behavior, and furthermore, how ethical does he perceive the supplier to be? To what extent is the buyer aware of violations of the psychological contract,

and are there opportunities to repair the harm caused by a violation prior to a corresponding decrease in trust? Moreover, our examination was limited to ongoing relationships of a minimum duration of 5 years. Inclusion of even younger partnerships may reveal differences in relationship dynamics beyond what was uncovered in our study. Finally, further research should attempt to identify additional factors contributing to the relationships described here. It is clear from our results that other factors contribute to feelings of psychological contract violation, and it is managerially important that as many of the factors as possible be brought forth. Structural equation modeling could be utilized to further test this and more complex models.

An improved understanding of the role psychological contracts plays in buyer–supplier relationships is long overdue, and holds great promise for enhancing the quality and performance of interfirm business partnerships. We see this paper being broadly compatible with the review of the survey-based research in supply chain integration. We believe that a critical new research direction concerning how buyers and suppliers psychologically define the relationship game will slowly emerge. These non-traditional solutions to supply chain integration can be systemized by the development of a literature based on what is commonly outside of the operations management literature.

## Appendix A. Confirmatory factor analysis

Responses are on a 7 point Likert scale: 1 = strongly disagree, 4 = neither agree nor disagree, 7 = strongly agree.	Standardized loading	Standard error	t-Value
<b>Subtle unethical behaviors</b>			
The buying firm gives preference to suppliers preferred by their top management.	0.789	0.048	16.595
The buying firm allows the supplier's personality to impact decisions.	0.836	0.043	19.599
The buying firm writes specifications that favor a particular supplier.	0.763	0.051	15.109
<b>Deceitful unethical behaviors</b>			
The buying firm invents (makes up) a second source of supply to gain a competitive advantage.	0.747	0.049	15.184
The buying firm uses obscure contract terms to gain a competitive advantage.	.829	.038	21.682
The buying firm exaggerates the seriousness of a problem to gain a competitive advantage.	0.820	0.039	20.825
The buying firm purposefully misleads our salesperson in negotiations.	0.793	0.043	18.428
<b>Psychological contract violation</b>			
When I think about what our firm contributed to the relationship with the buying firm and what we received in return, I feel...			
Angry	0.949	0.014	67.283
Cheated	0.940	0.015	61.806
Pleased <sup>a</sup>	−0.494	0.074	−6.636
Disillusioned	0.876	0.025	35.076
Frustrated	0.787	0.039	20.288
<b>Trust–dependability</b>			
This buying firm keeps promises it makes to our firm.	0.767	0.045	17.088
This buying firm is not always honest with us. <sup>a</sup>	−0.680	0.057	−12.017
We believe the information that this buying firm provides us.	0.745	0.048	15.533
This buying firm is trustworthy.	0.864	0.031	27.492
We find it necessary to be cautious when dealing with this buying firm. <sup>a</sup>	−0.633	0.062	−10.145
<b>Trust–benevolence</b>			
This buying firm is genuinely concerned that our business succeeds.	0.890	0.027	32.892
When making important decisions, this buying firm considers our welfare as well as its own.	0.907	0.025	36.076
We trust that this buying firm keeps our best interests in mind.	0.836	0.034	24.408

<sup>a</sup> These items were reverse coded.

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