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Consistency Judgments, Embeddedness, and Relationship Outcomes in Interorganizational Networks

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Past research has shown how outcomes in interorganizational relationships are influenced by the characteristics of the individual relationship in question. Focusing on relationships between suppliers and their organizational buyers, we augment this perspective by positing that relationship outcomes are also influenced by social comparison processes involving perceptions of a supplier's practices across comparable buyer relationships. Based on past research on embedded ties and institutional theory, we propose that the effect of these comparison processes depends on the nature of a buyer's existing interorganizational ties and on the norms that are brought to bear on the relationship in question. We test our propositions based on 788 observations of organizational buyers who have relationships with the same supplier. Our findings paint a complex, multilevel picture of the process by which relationship outcomes come about in interorganizational networks.

1. Introduction

A firm's management of its relationships with external partners, such as downstream organizational buyers and upstream suppliers, is an integral part of its overall strategy (Jones et al. 1997). A substantial body of literature has emerged that documents how firms design and manage interorganizational relationships (IORs), and how such efforts are linked with performance outcomes of various kinds (Cropper et al. 2008, Dyer and Singh 1988).

Historically, much of the extant research on interfirm relationships has focused on how the characteristics of a particular dyad influence relationship effectiveness. For instance, transaction cost theory is quite explicit in its use of the individual "transaction" as the unit of analysis (Williamson 2005), which in empirical research has led to a focus on relationship-level characteristics. Other streams of research have also explained relationship outcomes based on dyadic factors, and focused on variables like resources (Gulati 2007), homophily (Podolny 1994), development stage (Jap and Anderson 2007), legitimacy (Oliver 1990,

DiMaggio and Powell 1983), power (Pfeffer 1992), complementarity (Chung et al. 2000), and learning (Noteboom 2008).

Recently, however, there has been growing recognition that organizational outcomes are also influenced by factors external to an individual dyad (Gulati 2007). Directly or indirectly, much of this research has been anchored in social network theory and in the proposition that properties of networks impact firm-level outcomes (Brass et al. 2004, Burt 2005, Kilduff and Krackhardt 2008, Kilduff and Tsai 2003). In particular, the literature on embedded ties suggests that dyadic relationships exist within broader systems of social relations (Granovetter 1985, 2005) that shape action and outcomes in the focal dyad (e.g., Amaral and Uzzi 2007; Uzzi 1996, 1997, 1999).

We seek to advance this line of research by examining a particular microlevel process that manifests itself in interfirm networks; one which involves a firm's judgments of the *consistency* of a supplier's practices across a set of connected (Cook and Emerson 1978) IORs. We examine vertical cooperative IORs

between a supplier and its downstream organizational buyers, and consider the buyers' perceptions of a supplier's efforts to promote relationship effectiveness through the provision of economic incentives (Gibbons 2005, Anderson and Narus 1990). We argue, however, that the effect of rewards on relationship effectiveness is a function of both (1) the buyer's perceptions of the rewards that are made available *within* the focal relationship and (2) the buyer's assessment of the consistency with which rewards are deployed by the supplier *across* related buyer relationships.

Our theoretical arguments are based on social comparison theory (e.g., Festinger 1954, Greve 1998) and on the premise that firms engage in systematic information processing of both their own (dyadic) relationship and related comparison groups such as other buyers who have similar IORs with the same supplier. Through such processes, buyers form judgments about the range and variance (consistency) of the relationship practices in the group. Ultimately, these consistency judgments have the potential to impact a buyer's perceptions of relationship effectiveness, above and beyond the supplier's practices in the relationship at hand.

We posit, however, that the effects of a buyer's consistency judgments are not universal. Rather, consistent with extant research on embedded ties and institutional theory, we propose that the effects of consistency judgments on outcomes are a function of a given buyer's social group, because of particular groups' (1) pattern of information transfer and (2) reliance on social norms. Specifically, the assessments of buyers who belong to so-called *cooperatives* are likely to be shaped by judgments of consistency.

We also posit that the effect of consistency judgments is time dependent and influenced by the age of the relationship in question. Conceptually, when a buyer forms judgments about consistency, she uses an external comparison standard in judging relationship effectiveness. Using such standards is most likely early in a relationship. Over time, as organizational ties strengthen, buyers are likely to rely on internal standards, established through partner-specific experience (Gulati et al. 2009). As a consequence, the effect of consistency (or lack thereof) on effectiveness should diminish as a function of relationship age.

An empirical test based on nearly 800 downstream buyers provides support for our hypotheses. The results paint a complex and nuanced picture of IORs and networks, where relationship-level outcomes are a function of both disaggregated (dyad-level) and aggregated (comparison group-level) processes. As a practical matter, this suggests that adopting a decentralized or disaggregated heuristic for relationship management, based only on dyadic considerations,

may have unintended consequences because of inconsistency across related relationships.[1]

We seek to make the following contributions to the literature on interorganizational relationships: First, we respond to recent calls (e.g., Kilduff and Krackhardt 2008, Zaheer et al. 2010) for research on the microlevel processes that operate in networks. Second, we add to the literature on embedded relationships. As shown in past research, embedded ties facilitate access to private information (Gulati 2007, Uzzi 1997). We show how such patterns of information transfer influence organizational processes (i.e., social comparisons) that ultimately impact perceptions of relationship effectiveness. We believe this provides new insights into the embeddedness construct and its particular effects. Third, from the standpoint of a supplier who designs strategies vis-à-vis vertical partners in a value chain, we point to a particular form of "spillover" (e.g., Mayer 2006), in the sense that the strategy used by a supplier in particular buyer relationships influences others, by virtue of entering into buyers' consistency judgments.

This paper is organized in the following fashion. Section 2 presents the conceptual framework and hypotheses. In §3, the research method is described, including the empirical test of the hypotheses. Section 4 discusses the implications of the findings for theory and practice.

2. Conceptual Framework

We focus on the effectiveness of the relationship between a buyer and a supplier, as indicated by the buyer's level of satisfaction with the focal supplier. Satisfaction is an important construct in IORs settings because of (1) its contribution to overall organizational effectiveness (e.g., Lewin and Minton 1986, Molm 1991) and (2) its role as a predictor of future relationship behavior (Anderson and Narus 1990).

Below, we first consider how relationship effectiveness is influenced by a buyer's perception of the supplier's use of economic rewards in a particular dyad. Next, we augment this (disaggregated) perspective by considering how (aggregate) judgments regarding the nature of the supplier's other buyer relationships in a certain comparison group have incremental effects on buyer satisfaction.

2.1. Dyad-Level Rewards and Relationship Effectiveness

The general explanatory mechanism in our framework is a supplier's provision of economic rewards or

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[1] With regard to external comparisons, research has suggested that external standards may also influence judgments of equity or fairness (e.g., Greenberg et al. 2007, Singh 1994). We later elaborate on, and empirically demonstrate, that the consistency and fairness constructs are conceptually and empirically distinct.

payoffs (Anderson and Narus 1990, Noteboom 2008). These rewards reflect the buyer's ability to generate profits selling the supplier's product, and are influenced by factors such as a supplier's selling price to the buyer, her investments in the buyer (e.g., in dedicated equipment or building strong social relationships), and promotional efforts in the buyer's market.

For a buyer, economic payoffs influence satisfaction by directly supporting her objective of profit generation (Kumar et al. 1995). A number of different literatures suggest that perceptions of rewards are an important determinant of relationship assessments (Thibaut and Kelley 1959, Ring and Van de Ven 1994). Theoretically, these literatures converge on the assumption that exchange partners expect to be rewarded for their contributions to a relationship (Homans 1958, Ring and Van de Ven 1994). We propose the following baseline hypothesis:

Hypothesis 1 (H1). *A buyer's satisfaction with a supplier is affected positively by her perceptions of the level of economic payoffs derived from the focal relationship.*

H1 reflects the general theoretical assumption that relationship outcomes can be explained by the characteristics of the dyad in question. We now consider the possibility that dyadic outcomes, in addition to their relationship-level determinants, also depend on the aggregate perceived properties of *related* relationships. Below, we draw on theories of social comparisons and cognition in networks to suggest how buyers engage in systematic information gathering and form consistency judgments regarding a particular supplier's relationship practices within a larger network.[2]

In general, such consistency judgments, which involve related buyer relationships, have the potential to influence a buyer's perception of effectiveness in the focal dyad. At the same time, the specific nature of these effects is context dependent. We draw on extant work on embedded ties (e.g., Uzzi 1996, 1997; Gulati 2007) and on institutional theory (e.g., Baum and Oliver 1992, DiMaggio and Powell 1983) to advance the specific ideas that the effect of a buyer's consistency judgments on satisfaction are contingent on (1) the relationship's particular *context*, (2) the relationship's *time* dimension, and (3) the judgments that a particular buyer makes about her own relationship *relative* to the current standards in the comparison group.

## 2.2. Social Comparison Processes and Buyer Consistency Judgments

Research shows that social actors engage in systematic review processes whose results influence their subsequent sentiments and behavior (e.g., Nickerson and Zenger 2008). Social comparison theory (e.g., Festinger 1954, Greve 1998) specifically suggests that an actor's search for knowledge is not fulfilled by obtaining objective information, but by comparing oneself with similar others.[3] In particular, buyers are likely to gather information about the range of scores for a given relationship feature within a relevant comparison group. Learning the range of scores is helpful to a firm, because knowing one's score has little meaning by itself (Singer 1966, Wheeler et al. 1969, Wood 1989). Research on cognition in social networks (e.g., Kilduff and Krackhardt 2008) specifically suggests that actors are inherently motivated to generate an overall picture of a social group. In the context at hand, organizational buyers are likely to solicit other buyers' perceptions of the economic payoffs they generate through their interactions with the supplier.[4]

Although the literature on social comparisons originated by examining individual-level phenomena, similar processes have been shown to unfold at the organizational level (Greenberg et al. 2007, Goodman and Haisley 2007). Our research context consists of relationships between an organizational buyer, her upstream supplier, and the latter's relationship with other buyers in a larger network. Figure 1 shows the different parties, the information flows that connect them, and the manner in which consistency judgments are formed. A buyer's immediate comparison group (i.e., comparison group A in Figure 1) consists of the supplier's relationships with *other* buyers in the focal buyer's geographical territory. Beyond this, we suggest that a given buyer, in forming a consistency judgment, also relies on her *own* existing organizational ties. Specifically, we posit that buyers

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[2] As will be discussed throughout, our conceptual framework is based on the assumption that parties' judgments (and ultimately their actions) follow from their perceptions of the relevant conditions, and not necessarily from detailed information (e.g., about profitability). This assumption is consistent with a number of different research traditions in organization theory (e.g., March and Simon 1958, Pfeffer and Salancik 1978). As a specific example, extant work on psychological contracts (e.g., Rousseau 1995) shows how parties' beliefs and behaviors depend on their perceptions of organizational rewards.

[3] The question of "similar" raises questions of what constitutes a relevant comparison standard in the first place. We return to this question below, where we draw on theories of embedded ties and local action to discuss (a) how consistency judgments are formed in the first place, and (b) ultimately drive perceptions of relationship outcomes.

[4] We note that these are horizontal relationships that do not involve actual transactions. Exchanges of detailed profit information do not create transactional rents; in fact, the buyers are potential competitors and are reluctant to share detailed accounting information (Ingram and Roberts 2000). Furthermore, the information channel used by the parties (e.g., face-to-face meetings during professional meetings) is not conducive to the sharing of detailed profit information. In the context at hand, the buyers form consistency judgments based on perceptions of economic payoffs in other relationships, and these perceptions serve as information proxies. In other words, the buyers use the best information available to evaluate their relationship, and this information ultimately determines their assessments of relationship effectiveness.

Figure 1   Social Comparison Processes and the Formation of Inconsistency Assessments: Relevant Actors and Flows of Information
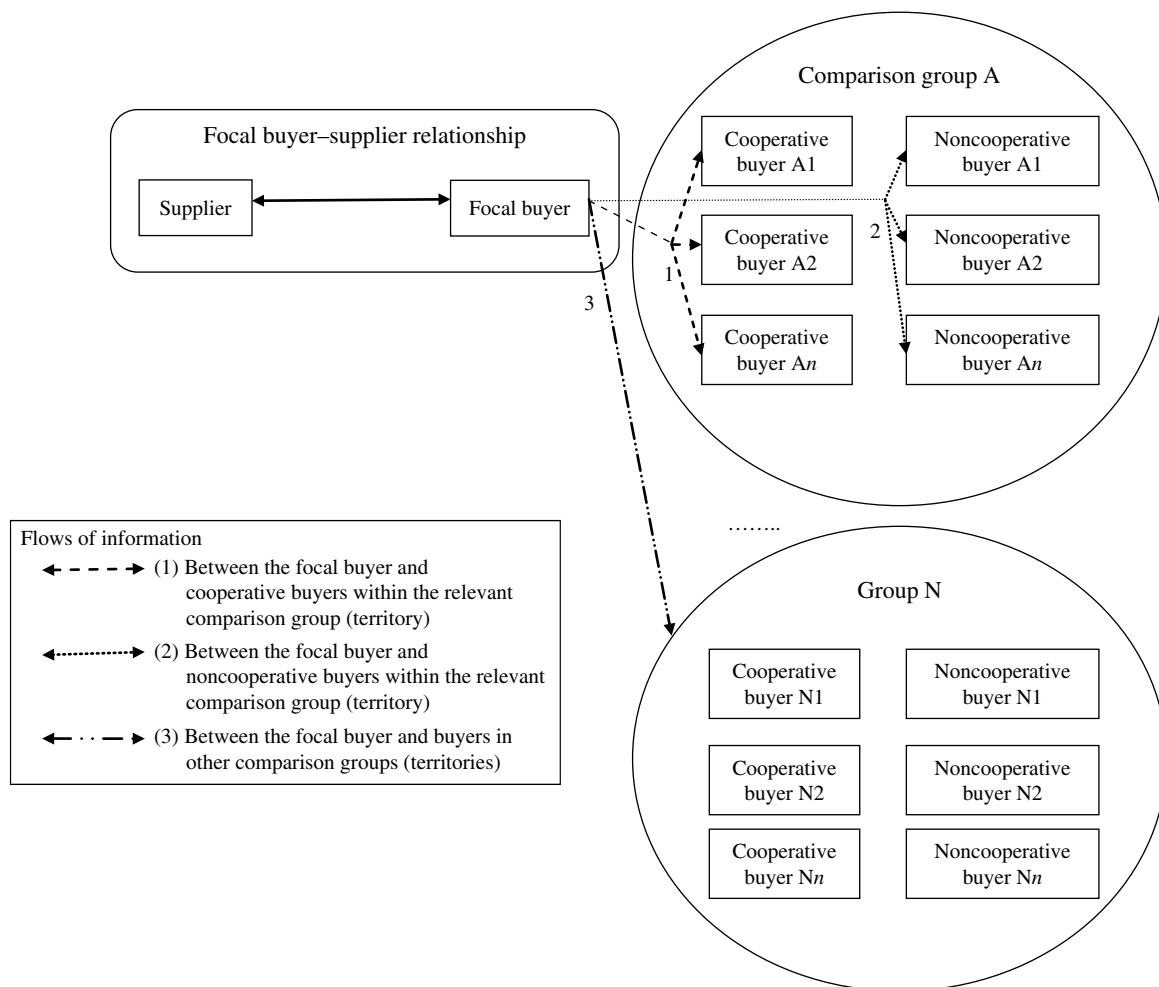
who belong to so-called *cooperatives* will rely on their relationships within that group in their decision making. In Figure 1, the information flows between the focal buyer and the other buyers (cooperative and others), which impact the buyer's consistency judgments, are labeled flows (1) and (2).

Conceivably, the focal buyer may also exchange information with buyers outside of the immediate comparison group (flow 3 in Figure 1), but we posit that these flows are either (a) less likely to emerge in the first place or (b) the information they make available will be less relevant for the purpose of making consistency judgments. As will be discussed, this assumption reflects the general premise of embedded ties (Granovetter 1985, 2005), and the idea that parties' perceptions and actions are driven by local information (Amaral and Uzzi 2007, Kilduff and Krackhardt 2008).[5]

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[5] We note that Figure 1 only captures the direct flows of information between the focal buyer and other buyers. It is likely that indirect links are also important sources of information because the different buyers are likely to communicate with each other and share some of the information gathered with the focal buyer.

In the next section, we discuss the specific ways in which a buyer's consistency judgments influence her perceptions of relationship effectiveness.

2.3. Consistency Judgments, Embedded Relationship, and Effectiveness

As shown in Figure 1, whereas a buyer's immediate comparison standard involves the focal supplier's relationships with other buyers in a comparison group, the buyer's judgments will depend on the nature of her own local ties. A central principle of the literature on embedded ties (e.g., Granovetter 1985, Uzzi 1996) is that individual dyads are part of larger contexts, and that their unique properties influence information flows and outcomes. In the context at hand, some of the buyers in question belong to so-called buyer *cooperatives* (Dwyer and Welsh 1985). Cooperatives are common in many industries (e.g., financial services, food retailing, agriculture, telecommunications, and healthcare), and they represent important institutional arrangements in their respective industries. As described in various trade sources (e.g., the National Cooperative Business Association;

http://www.ncba.coop), one of the main objectives of cooperatives is to provide bargaining power for their members through coordinated action (e.g., in purchasing).

A buyer cooperative possesses unique properties. First, they make information (Uzzi 1996, 1997) available about a supplier's practices that are not readily available through arm's-length ties. Uzzi and Lancaster (2004) note that such relationships represent unique bases for organizational learning, even across organizational boundaries. Within a cooperative, the information sharing that takes place is facilitated by the social bonds that unite the members, which both (1) facilitate the flow of information in the first place and (2) enhance its credibility.[6]

Beyond the information that is made available per se, we posit that consistency judgments in cooperatives have unique effects because of the particular standards to which the members subscribe. Normative institutions like cooperatives are concerned with procedural legitimacy and socially accepted norms (Selznick 1949). The interaction between its members is based on distinct rules that are clearly spelled out and apply equally to all members. Importantly, the establishment of the relevant rules in the first place is the outcome of distinctly democratic decision processes among the members (Dwyer and Oh 1988). In the terminology of institutional theory, these cooperatives involve inherent equity norms or legitimacy beliefs (Selznick 1949, Baum and Oliver 1992, DiMaggio and Powell 1983), whose raison d'être is to guide the ongoing interaction within the system.

Against this backdrop, perceptions of inconsistency in supplier practices across buyers within a comparison group will have an adverse effect on buyer satisfaction, because inconsistency represents a fundamental violation of system norms. Specifically, a perceived lack of consistency is likely to carry weight when the reseller is a member of a cooperative, to the point that perceptions of dyadic effectiveness are influenced. We propose the following hypothesis:

HYPOTHESIS 2 (H2). *In a cooperative buyer system, a buyer's satisfaction with a supplier relationship is affected adversely by inconsistency in perceptions of economic payoffs across buyer relationships within a comparison group.*

In summary, buyers will form consistency assessments based on the flows of information with other buyers in the same comparison group (flows (1) and (2) in Figure 1). We note, however, that buyers who belong to cooperatives, whose member ties possess

embedded properties, are likely to have unique access to information about the supplier's relationship with other cooperative buyers (flow of information (1) in Figure 1) and have more limited information about other relationships (flow of information (2) in Figure 1).[7]

We do not expect the effect that underlies H2 to hold for other buyer configurations that lack such systemwide norms. In other words, we do not expect the effect of supplier inconsistency on buyer satisfaction to be universal across buyers. We return to this question in the empirical section of the paper, where we formally test various assumptions about buyers' use of different comparison standards.

Next, we consider the possibility that the adverse effect of inconsistency on a cooperative firm's satisfaction is influenced by the age of the buyer-supplier relationship. Theoretically, we posit such time-dependent effects because of the manners in which (1) organizational ties emerge over time and (2) buyers in a network utilize information.

Social comparison theory argues that actors undertake comparisons to learn about the likely success with unfamiliar tasks (e.g., Greenberg et al. 2007, Mumford 1983). As such, systematic information search and processing of a supplier's practices with other buyers is most likely to occur in newly formed relationships, where precise evaluation standards have yet to be established (Mumford 1983). Stated differently, a buyer in a newly established supplier relationship will gather external information about how relationship characteristics (i.e., perceptions of the supplier's rewards) manifest themselves across the relevant comparison group, as a basis for evaluating her own relationship (Wheeler and Zuckerman 1977, Wood 1989).

Over time, however, as a buyer's ties with the supplier strengthen and take on embedded properties, the buyer is likely to evaluate the relationship based on internal standards, established through actual experience with the focal supplier. Increasingly, information from one's own past dealings with the supplier organization will be a better source of information than the initial information about the consistency of a supplier's practices. The longer the relationship lasts, the richer it becomes in debits and credits, thus creating an opportunity-rich social structure (Uzzi 1996), which serves as a buffer. As noted by Podolny and Morton (1999), a "visible history of behavior" makes signals

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[6] In particular, cooperative buyers are likely to believe that shared perceptions approximate the other buyer's actual economic payoffs from the supplier relationship. We thank one of the reviewers for this suggestion.

[7] Although our assumption is that the focal cooperative buyer will form consistency assessments based on a supplier's relationship with the different buyers in the same comparison group (cooperative and noncooperatives), we consider the possibility in the empirical section that consistency judgments for cooperative members are more likely to be based exclusively on the supplier's relationship with other cooperative members in the same territory.

less important for the purpose of ascertaining a partner's "type," because actual experience is a more accurate predictor of future behavior. This is consistent with the observation of Gulati et al. (2009) about the effects of partner-specific experience. Specifically, we posit that the adverse effect of inconsistency on outcomes should be most prominent in newly established relationships, and that it should subsequently decrease over time.[8] The above discussion is summarized with the following hypothesis:

HYPOTHESIS 3 (H3) *In a cooperative buyer system, the adverse effect on satisfaction of inconsistency in perceptions of economic payoffs across buyer–supplier relationships within a comparison group will decrease over time.*

Hypotheses 2 and 3 assume that in certain institutional contexts, because of their unique normative structure, perceptions of inconsistency per se will undermine satisfaction. Next, we consider whether (1) observed inconsistency prompts firms to engage in assessments of their own particular situation *relative* to comparison-group standards and (2) the resulting conclusion influences satisfaction.

To the extent that the buyer is at the top of the distribution on a given variable (i.e., perceptions of economic payoffs) within the relevant comparison group, it suggests the presence of a preferential relationship with the supplier in question. In turn, this should attenuate any negative effects of inconsistency on satisfaction. Previous research suggests that parties may selectively recall information to conjure up ideas for why they deserve higher rewards in interorganizational relationships (e.g., Thompson and Loewenstein 1992). In contrast, if the buyer's relationship with the supplier exhibits below-average values within the relevant comparison group, we expect inconsistency to negatively impact satisfaction. Under such circumstances, observed inconsistency indicates that other buyers have better relationships with the supplier, or that a few buyers have much better terms. The "upward" social comparison, which involves closely comparable competitors, is likely to produce negative affect (Greenberg et al. 2007, Wood 1989) and reduced satisfaction.

The above discussion suggests an interaction effect on relationship satisfaction between (1) the consistency in perceived supplier practices *across* relationships and (2) the nature of a buyer's *own* IOR with the supplier in question. In hypothesis form:

[8] The theoretical argument for H4 is based on informational mechanisms and would not hold if norms were the primary influence on the effect of inconsistency. The potential conflict with system norms caused by inconsistencies in economic payoffs (advanced in the previous hypothesis) becomes less relevant as buyers over time gather information about the supplier through direct interactions. We thank a reviewer for this insight.

HYPOTHESIS 4 (H4) *When the perceived level of economic payoffs a buyer derives from a supplier relationship is below the average level across all relationships within a relevant comparison group, group-level inconsistency with respect to economic payoffs will have a larger negative effect on buyer's satisfaction with the supplier relationship.*

Consistent with the above theoretical arguments based on social comparison theory, it could also be hypothesized that upward social comparisons would undermine satisfaction in the absence of inconsistency. We thus advance the following hypothesis:

HYPOTHESIS 5 (H5). *When the perceived level of economic payoffs a buyer derives from a supplier relationship is below the average level across all relationships within a relevant comparison group, buyer satisfaction with the supplier relationship will be lower.*

2.4. Summary of Hypotheses
Considered in combination, our hypotheses suggest that dyad-level outcomes in an IOR are a result of both disaggregated and aggregated processes, involving relationship—(as per H1) and comparison group-level (as per H2–H5) effects, respectively. Stated differently, within a network, a given relationship variable (e.g., economic payoffs) contributes to relationship satisfaction in different ways.

3. Methodology

3.1. Research Setting
We collected primary data from buyers of a leading agricultural chemical supplier. The buyers were resellers of the supplier's products. Resellers can include wholesalers or retailers of varying sizes who typically take title and handle logistics and marketing to customers of their choosing subject to a contract with the supplier. The resellers carry products from all the suppliers in the industry and are not exclusive to any one supplier. Competition can occur at any level or location among resellers.

The resellers reported on their organization's relationship with the upstream supplier. The unit of analysis is thus a financially independent reseller who purchases products from the supplier and reports on the ongoing relationship with the supplier in question.

3.2. Research Design

3.2.1. Data Collection and Questionnaire Design. Initially, the supplier provided a list of 3,646 of its 12,000 resellers in the United States in return for a report of the results of the study. The final sample was the result of a stratified random sampling of the supplier's reseller base that comprised different reseller types such as (1) independent resellers (typically with a single retail location), (2) national resellers (with

several nationwide locations), and (3) reseller cooperatives from all of the supplier's U.S. markets. The supplier did not sell directly to end users or rely on online sales.

Our informants were the supplier's primary contacts within each firm—the individuals with whom the supplier interacted on a regular basis. These individuals had been involved with the supplier for an average of 15.8 years, had worked for their respective companies for an average of 13.8 years, and had an average of 20 years of experience in their line of work. These demographics confirm their adequacy as key informants (Van Bruggen et al. 2002).

Questionnaires were mailed to each informant along with a postage-paid envelope and a cover letter on university stationery explaining the purpose of the study. Of the 3,646 surveys mailed, 1,452 responses were received, for an overall response rate of 40%. The proportion of national, independent, and cooperative resellers in the final sample was consistent with the corresponding proportions in the supplier's customer base of 12,000 resellers. Informants were instructed to complete the entire questionnaire regarding their relationship with the specific supplier organization. After elimination of questionnaires with missing data, the final sample consisted of 1,307 observations.

3.2.2. Tests of Nonresponse Bias. Although our response rate is quite high by most standards, we conducted two different tests of possible nonresponse bias. First, we compared early and late respondents, as per the procedure of Armstrong and Overton (1977). No significant differences ($p < 0.10$) were found on any of the study variables. Second, the sample of respondents was compared with a random sample of 1,750 nonparticipating resellers in terms of (1) the level of supplier sales to the reseller and (2) the allocation of sales among the supplier's four major product lines. The null hypothesis of equal sales levels was rejected, which suggests that our sample consists of resellers who purchase larger volumes. A multivariate test of means indicates that there is no significant difference between the two samples in terms of sales patterns along product lines.

3.2.3. Selection of Comparison Group. Recall that buyers perform systematic comparisons of their relationship with the supplier with other related relationships. A critical question is the likely composition of this comparison group. Past research on social comparisons has shown that the reference points for an actor's judgments are determined by physical proximity and ease of observation (e.g., Bothner 2003, Nickerson and Zenger 2008). In the context at hand, the most salient comparisons for resellers are the supplier's other buyer relationships within the sales

territory in question. In the terminology of Cook and Emerson (1978), these relationships are "connected" through the common supplier, and the relationships in question are comparable by virtue of facing similar customer and competitive conditions. Firms have been found to systematically gather information about competitive organizations, because competitive pressures stemming from those counterparts make the actions of these organizations more salient and comparable to the focal organization (e.g., Baum et al. 2000, Haveman 1993, Rhee et al. 2006). Relating to Figure 1, comparison group A is likely to be the focal buyer's territory, whereas other territories are less likely to be relevant for consistency assessments.

We followed the territory assignments adopted by the supplier. Suppliers usually divide their national sales areas into smaller territories to adapt their channel management efforts to local conditions. Most of the territories were defined based on geographical proximity. The database included resellers from 236 different U.S. territories.

We were unable to obtain territory information for 270 observations. A multivariate test of differences in the means of the study variables failed to reject the null hypothesis of group equality (i.e., between known and unknown territory assignment). We also assessed whether there were differences between the two groups in terms of sales levels. An individual t-test revealed that the level of sales for the group of observations with territory assignment was significantly higher than for the others. This suggests that observations without territory assignment represent smaller resellers. On average, there were 9.7 observations per territory.

3.2.4. Use of a Single Supplier. Every firm in the study described its relationship with the same supplier. It could be argued that the use of a single supplier may cause variance restrictions in some of our measures (e.g., in the perceptions of economic payoffs) because of Robinson–Patman restrictions on differential offerings. However, our interviews with distribution managers indicated that although the supplier formally offered a common reseller program involving discounts, shipping, packaging, and transportation terms, each reseller negotiated a final contract that reflected the unique characteristics of the individual relationship and market area. This is consistent with past research (e.g., Coughlan et al. 2001), which points to systematic variation within individual channel systems because of differences in end-user characteristics and other factors.

3.3. Measures
Constructs were first defined conceptually based on the past literature and our theoretical framework. Next, as per standard psychometric practice, a set

of items was developed for each construct based on past measures. New measures were developed for constructs with no measurement precedent. The measures and internal consistency estimates are presented in the appendix.

Reseller *satisfaction* was defined as a positive affective state resulting from the appraisal of the reseller's overall working relationship with the supplier (Anderson and Narus 1984, Locke 1976, Molm 1991). Consistent with previous research (e.g., Kumar et al. 1995), we operationalized the reseller's perceptions of *economic payoffs* from a relative standpoint. Specifically, the informants were asked to consider their economic payoffs (profits) from the supplier in question relative to alternative supplier relationships.[9]

Our *consistency* construct (as per H2) was operationalized as the standard deviation of the economic payoffs measure within a given territory. A higher standard deviation for the territory-level indicator reflects inconsistency across resellers in terms of resellers' perceptions of economic payoffs. The *length* of the channel relationship (as per our time-dependence hypothesis, H3) was the number of years that the focal reseller had been working with the supplier.

Recall that the effect of consistency on satisfaction should (1) matter the most at the early stages of relationship development (i.e., when the firm has limited knowledge about the partner's true characteristics and is more likely to engage in social comparison processes) and (2) subsequently decrease over time. We adopted a logarithmic form for the time measure. A positive effect of the interaction term between the time measure and the consistency measure reflects the expectation that the negative effect of the consistency measure on satisfaction decreases over time.

A dummy variable was used to indicate whether the perceived level of economic payoffs for a reseller relationship was below or above the average level for the same variable across resellers in the same territory. We expect this variable to be significant (as per H5) and to moderate the negative impact of inconsistency in perceptions of economic payoffs on relationship satisfaction, as per H4.

3.3.1. Covariates. Several covariates were included in our analysis. We controlled for interdependence (magnitude and asymmetry) between the parties, given past evidence (e.g., Jap and Ganesan 2000) that (1) more-interdependent relationships and (2) relationships where the power structure favors the

focal firm, are associated with higher levels of satisfaction. We measured the reseller's dependence on the supplier in terms of the perceived difficulty of replacing the other firm (Gundlach and Cadotte 1994). Interdependence magnitude was the product of (1) the reseller's dependence on the supplier and (2) her perception of the supplier's dependence on the reseller. Interdependence asymmetry is the difference between the two parties' dependence. This also controls for the possibility that more powerful (or less dependent) buyers may expect to receive better outcomes, thus reducing the potential effect of actual rewards (e.g., Molm 1991). We also included a measure of supplier sales to the buyer to further control for possible power/dependence effects.

We also controlled for the length (in number of years) of the supplier's presence in each of the territories to account for the possibility of improvement in her relationship management practices over time. This was measured as the maximum value of the length (in years) of the relationship between the supplier and the individual resellers within a territory.

Finally, based on past research on relationship effectiveness (e.g., Hage and Aiken 1967, Scott 1998), we controlled for relationship *formalization,* defined as the reseller's perception of the extent to which written rules, procedures, and instructions effectively govern relationship activities.

3.3.2. Consistency vs. Fairness. Given our theoretical grounding in social comparison theory, our focus is on the construct of consistency. It could be argued, however, that consistency is related to the notion of equity or fairness. Although we acknowledge that assessments of consistency may involve general judgments of fairness, past interorganizational research has tended to link such judgments to *internal* relationship states (e.g., the ratio of inputs and outputs, or the fairness or procedures *within* a given IOR). In contrast, our focus is on the use of *external* standards, namely, other reseller relationships outside of the dyad in question.

Despite this conceptual distinction, to empirically ascertain the extent to which our consistency measure is unique, we obtained a specific measure of relationship fairness, capturing whether the reseller believes the supplier acts in a fair and just manner in the relationship. The correlation between fairness and the consistency measure is very low and nonsignificant ($r = -0.01$), which provides evidence of discriminant validity.

3.3.3. Measure Purification. An exploratory factor analysis indicated that all of the measures were unidimensional. A confirmatory factor analysis (CFA)

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[9] To provide evidence of the convergent validity of our payoff measure, we assessed the correlation between this measure and an alternative one capturing whether the "supplier provides competitive margins on their products." The two measures are highly correlated (0.52, $p < 0.01$), and our main results do not change if we replace our original measure with this one.

Table 1   Variable Means, Standard Deviations, and Correlations

	Means	SD	Min	Max	V1	V2	V3	V4	V5	V6
Relationship satisfaction (V1)	3.90	0.73	1.00	6.67	1.00					
Economic payoffs (V2)	3.71	1.60	1.00	7.00	0.42*	1.00				
log(*Years relationship*) (V3)	2.59	0.70	0	3.91	−0.02	−0.02	1.00			
Dependence magnitude (V4)	12.44	7.10	1.00	40.50	0.32*	0.24*	0.04	1.00		
Dependence asymmetry (V5)	0.76	1.65	−5.00	6.00	−0.26*	−0.32*	0.06	−0.27*	1.00	
Level of supplier sales to buyer (V6)[a]					−0.00	0.01	−0.01	0.13*	−0.01	1.00
Supplier fairness (V7)	4.29	0.62	1.60	6.60	0.27*	0.25*	0.08*	0.21*	−0.15*	0.13*
Formalization (V8)	4.61	0.81	1.50	7.00	0.30*	0.29*	0.01	0.30*	−0.22*	0.12*
Dummy for whether economic payoffs below average in territory (V9)	0.50	0.50			−0.29*	−0.74*	0.04	−0.19*	0.24*	0.01
Years in territory (V10)	27.17	4.82	15.00	50.00	−0.02	0.04	0.14*	0.01	0.00	−0.03
Variation in economic payoffs (V11)	1.42	0.43	0	2.80	−0.08*	−0.01	−0.03	0.03	−0.02	0.10*

	Means	SD	Min	Max	V7	V8	V9	V10	V11
Relationship satisfaction (V1)	3.90	0.73	1.00	6.67					
Economic payoffs (V2)	3.71	1.60	1.00	7.00					
log(*Years relationship*) (V3)	2.59	0.70	0	3.91					
Dependence magnitude (V4)	12.44	7.10	1.00	40.50					
Dependence asymmetry (V5)	0.76	1.65	−5.00	6.00					
Level of supplier sales to buyer (V6)[a]					1.00				
Supplier fairness (V7)	4.29	0.62	1.60	6.60	1.00				
Formalization (V8)	4.61	0.81	1.50	7.00	0.26*	1.00			
Dummy for whether economic payoffs below average in territory (V9)	0.50	0.50			−0.14*	−0.20*	1.00		
Years in territory (V10)	27.17	4.82	15.00	50.00	0.05	−0.06	−0.02	1.00	
Variation in economic payoffs (V11)	1.42	0.43	0.00	2.80	−0.01	−0.09*	0.02	0.03	1.00

[a]Descriptive statistics for this variable are not revealed for confidentiality reasons.
*$p < 0.05$.

was used to assess the convergent and discriminant validity of the measures. The CFA model has a goodness-of-fit index (GFI) of 0.88, a comparative fit index (CFI) of 0.93, a root mean square error of approximation of 0.078, and a standardized root mean square residual (SRMSR) of 0.088, which indicates a satisfactory fit to the data. All of the observable indicators loaded significantly on their intended factors, which suggests convergent validity among the items of each scale. Discriminant validity was assessed according to Fornell and Larcker's (1981) criteria. All pairs of factors met these criteria, providing evidence of discriminant validity. Reliability was assessed through calculation of coefficient alpha for each item set, all of which were acceptable. Table 1 presents the descriptive statistics for the set of variables.

One final comment on the integrity of our data is in order: Given the unique measurement approach for our central consistency construct, the potential for common method bias in this study is limited by design. Recall that we do not capture the consistency measure directly from the individual respondents, but rather construct it based on the data from all the respondents within a territory.

3.4. Model Estimation and Results
We specified our model as follows:

$$Satisfaction_{ij} = b_{0j} + b_1 \times Payoffs_{ij} + b_2 \times \log Years_{ij}$$
$$+ b_3 \times Depmagn_{ij} + b_4 \times Depasym_{ij}$$
$$+ b_5 \times Sales_{ij} + b_6 \times Fairness_{ij}$$
$$+ b_7 \times Formaliz_{ij} + b_8 \times D\_Payoffs_{ij}$$
$$+ b_9 \times Yearsterr_j + b_{10} \times \text{Var}\_Payoffs_j + e_{ij}$$

with

$$b_{0j} = b_0 + v_{oj} + e_{0ij},$$
$$b_{10} = c_1 + c_2 \times \log Years_{ij} + c_3 \times D\_Payoffs_{ij}$$

The model terms are defined as follows:

$Satisfaction_{ij}$ = level of satisfaction of reseller i in territory j with the relationship with the supplier;

$Payoffs_{ij}$ = level of economic payoffs for reseller i in territory j within the relationship with the supplier, as perceived by the reseller;

$\log Years_{ij}$ = logarithm of the length (in number of years) of the relationship between reseller i in territory j and the supplier;

$Depmagn_{ij}$ = product of reseller i's dependence on the supplier and her perception of the supplier's dependence on the reseller;

$Depasym_{ij}$ = difference between reseller i's perceptions of the supplier's dependence on reseller i and her perception of her own dependence on the supplier;

$Sales_{ij}$ = level of supplier sales to reseller i in territory j;

$Fairness_{ij}$ = level of fairness in the relationship between reseller i in territory j and the supplier, as perceived by the reseller;

$Formaliz_{ij}$ = level of formalization of the relationship between reseller i in territory j and the supplier, as perceived by the reseller;

$D\_Payoffs_{ij}$ = dummy (1 if the buyer's perceptions of the level of economic payoffs for reseller i in territory j within the relationship with the supplier is below average for territory j, 0 otherwise);

$Yearsterr_j$ = number of years that the supplier has been present in territory j;

$Var\_Payoffs_j$ = level of variation of $payoffs_i$ across the relationships between the supplier and all resellers in territory j.

For the consistency measure, we needed to select territories with (1) a minimum number of observations (for the measure to be meaningful), while simultaneously (2) preserving the number of observations. Although no objective criteria exist for making this trade-off, we discuss the results for a sample of territories with at least five questionnaires from different resellers. In a later section, we show that our results are consistent across different cutoff points for number of observations per territory. Of the 236 territories for which there are observations, we had at least five observations for 109 territories, corresponding to 788 observations. Of these, 352 of the observations were reseller cooperatives, whereas the remaining were national or independent organizations.

We employed hierarchical linear modeling (HLM), which accounts for a lack of independence across observations from the same territory and thus overcomes the limitations of traditional methods for investigating relationships between variables at different levels (Raudenbush and Byrk 2002). We used the HLM software (Raundenbush et al. 2007) to estimate the model.

Consistent with the suggestions of Kreft and Leeuw (1998), we started by estimating a satisfaction model with only an intercept term and with random variation across territories. Our analysis indicated that there was sufficient between-territory variance in the dependent variable, suggesting that the territory-level differences merited further analysis. The total variation in satisfaction can be split among the two levels; the relationship- and territory-level terms explain 87% and 13% of the variance, respectively.

Table 2   Estimation Results—Satisfaction of Retail Cooperatives with the Supplier

Variable	Hypothesized influences	1. Basic model	2. Model with interactions
Constant		**4.00*****	**4.00*****
Economic payoffs	Positive	**0.13*****	**0.10*****
log(Years of relationship)		−0.02	−0.03
Dependence magnitude		**0.01****	**0.01****
Dependence asymmetry		**−0.04****	**−0.04***
Level of supplier sales to buyer		−0.01	−0.01
Supplier fairness		**0.16*****	**0.16****
Formalization		**0.13*****	**0.14*****
Dummy (1 if economic payoffs for relationship below average for territory, 0 otherwise)	Negative	0.06	0.00
Years in territory		−0.01	−0.01
Variation in economic payoffs	Negative	**−0.29*****	**−0.25*****
Interaction log(Years relationship) × Variation in economic payoffs	Positive		**0.22****
Interaction variation in economic payoffs × Dummy (1 if economic payoffs for relationship below average for territory, 0 otherwise)	Negative		**−0.41****
N		352	352

Note. Significant results ($p < 0.10$) are in bold.
*$p < 0.10$; **$p < 0.05$; ***$p < 0.01$.

3.5. Tests of Hypotheses

We test our main hypotheses focusing on the sample of cooperatives, as per our theoretical framework.[10] Table 2 presents a summary of the coefficients corresponding to the hypothesized determinants of satisfaction for cooperative resellers. Consistent with H1, we find that a reseller's perceptions of economic payoffs from the supplier relationship have a positive impact on satisfaction (0.10, $p < 0.01$).

H2 is also supported. Specifically, for channel cooperatives, a lack of consistency with regard to perceptions of economic payoffs (−0.25, $p < 0.01$) has negative effects on reseller satisfaction.

The interaction between the consistency variable and the length of the relationship is significant, suggesting that the negative impact of inconsistency in terms of perceptions of economic payoffs on satisfaction decreases over time (0.22, $p < 0.05$). Thus, H3 is supported.

H4 is also supported. We find that the negative impact of inconsistency in perceptions of economic payoffs on satisfaction is greater when the reseller perceives that she or he derives below-average levels

[10] We later show that the three retailer samples were not poolable and thus should be analyzed separately. Whereas the relationship-level effects are consistent across reseller samples, the territory-level (consistency) effects only apply to the cooperative sample, as per our theoretical framework.

of economic payoffs from the relationship (-0.41, $p < 0.05$).

H5 is not supported. We found no direct effect of whether the reseller perceives that she derives below-average levels of economic payoffs from the relationship on satisfaction.

An examination of the covariates shows that satisfaction is influenced positively by the magnitude of interdependence between the parties (0.01, $p < 0.05$) and negatively by interdependence asymmetry (-0.04, $p < 0.10$). Supplier fairness and relationship formalization have a positive impact on satisfaction (0.16, $p < 0.05$ and 0.14, $p < 0.01$, respectively).

3.6. Additional Robustness Checks

We conducted a number of robustness checks to assess the choices and assumptions made as part of our analyses. Specifically, we considered (1) additional cutoff points for territory designations, (2) whether the subsample of cooperatives with territory assignments was representative of the overall subsample of cooperatives, (3) whether the reseller was using referent firms in its territory in making her evaluations, and (4) whether a cooperative reseller's consistency assessments were based on all relevant buyers in the territory or, alternatively, exclusively on the set of cooperative buyers in the territory. Furthermore, we (5) controlled for the reseller's relative outcomes at the territory level and (6) established differential results for cooperatives versus independent and national resellers.

First, we assessed the possibility that the results might be sensitive to different cutoff points in terms of the number of observations per territory. We used a cutoff point of a minimum of five observations per territory, but assessed the impact of cutoff points of three, four, and six observations per territory. At higher cutoff points, the number of territories available to estimate the territory-level coefficients was limited (65 territories for a cutoff of seven, 43 for a cutoff of eight). The coefficients and significance levels for the consistency variable and the interactions were consistent across the different cutoff points (i.e., three, four, and six), with the highest explanatory power for the model coming from a cutoff of five observations per territory.

Second, we assessed whether the lack of territory assignment for some reseller cooperatives might affect the results. A multivariate test of difference in means indicated no difference between the groups of cooperative observations with known and unknown territory assignments. An additional multivariate test indicated no differences between the groups with at least five observations per territory and those with less than five. These tests suggest that the subsample of reseller cooperatives used in the estimation process is representative of the overall sample of cooperatives.

Third, one of the central premises of our study is that a reseller's evaluation of the supplier is based in part on other reseller relationships within a particular territory. Conversely, we assume that it is inherently difficult for resellers to gather information about relationships outside of their assigned sales territory. We assessed the validity of this assumption by comparing our main model with three additional models with different reseller territory assignment criteria. We started by computing the consistency values based on the reseller's actual territory. Next, each reseller was assigned to a different territory than their actual one, and the value for the firm's consistency variable was based on a territory different from their actual one. In one model, resellers were assigned to a random territory. For the other two models, we assigned each reseller to one of the closest territories (a different one for each of the two models). The consistency results became nonsignificant in each of the models, suggesting that the reseller in question does appear to be making comparative judgments to resellers within its specific territory.

Fourth, we advanced the possibility in the theoretical section that a buyer's relationship with other cooperative buyers may be more relevant for consistency assessments than a buyer's relationship with other noncooperative buyers in the same territory. We investigated this possibility by considering two different consistency measures for cooperatives and noncooperatives in the focal territory. Despite a significant reduction in the number of observations to estimate our model,[11] both consistency coefficients were significant (-0.32, $p < 0.05$ for inconsistency among cooperatives and -0.33, $p < 0.01$ for noncooperative members), indicating that both comparison groups or reseller types are relevant for consistency assessments. There was no difference between the two coefficients, despite the low correlation between the two measures of consistency (0.14).

Fifth, we expect lower satisfaction when the buyer derives below (territory) average perceived payoffs as per H5. To test this hypothesis, we added a main-effect term for this dummy variable to the model of reseller satisfaction. Although the coefficients were not significant, we note that the dummy variable is correlated with the economics payoffs variable ($r = 0.74$, $p < 0.05$). To assess whether these correlations were a potential source of bias, we compared the results for the two models with and without the dummy variable. The coefficients and levels of significance did not change with the introduction of the dummy variable.

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[11] For our consistency measures to be meaningful, we estimated our model for a sample of territories that had at least four cooperative members and four noncooperative members.

Table 3   Estimation Results—Satisfaction with the Supplier, Comparison Across Reseller Samples

Variable	Hypothesized influences	Main model (full sample)	Independents and nationals	Cooperatives
Constant		**3.90*****	**3.81*****	**4.00*****
Economic payoffs	Positive	**0.14*****	**0.14*****	**0.13*****
log(Years of relationship)		−0.02	−0.01	−0.02
Dependence magnitude		**0.02*****	**0.02*****	**0.01****
Dependence asymmetry		**−0.04*****	**−0.04****	**−0.04****
Level of supplier sales to buyer		**−0.01****	**−0.01***	−0.01
Supplier fairness		**0.16*****	**0.15*****	**0.16*****
Formalization		**0.13*****	**0.12*****	**0.13*****
Dummy (1 if economic payoffs for relationship below average for territory, 0 otherwise)	Negative	0.04	0.00	0.06
Years in territory		−0.00	0.00	−0.01
Variation in economic payoffs	Negative	**−0.15*****	−0.03	**−0.29*****
N		788	436	352

Note. Significant results ($p < 0.10$) are in bold.
*$p < 0.10$; **$p < 0.05$; ***$p < 0.01$.

Finally, we tested our hypotheses in the cooperatives sample, consistent with our theoretical framework. We investigated potential differences versus other reseller types, viz. nationals and independents, via a series of pooling tests that assess whether the consistency effects vary across the different reseller samples. Our analysis indicates that the national and independent samples are poolable and that the aggregate sample (comprising both channel types) is not poolable with the reseller cooperative one. The consistency coefficient was not significant for the sample of independent and national resellers. Table 3 presents a summary of the results for the determinants of satisfaction across reseller samples. Overall, these results support our theoretical argument that the impact of inconsistency on reseller satisfaction is dependent on the institutional context.

4.   Discussion

Our empirical findings suggest a series of theoretical implications and extensions of current knowledge. They also point to guidelines for managerial decision making, in particular with regard to the management of IORs. We discuss each of these below, and close with some observations about limitations and possible topics for future research.

4.1.   Theoretical Implications

Our findings expand the current perspective on how interorganizational outcomes come about. Much of the existing IOR literature, explicitly or implicitly, has taken a decentralized perspective and examined relationship outcomes based on the properties of the particular dyad in question. We show that dyad-level outcomes are also determined by the aggregate pattern of perceived exchange characteristics *across* individual relationships in a given comparison group. Theoretically, this suggests the presence of a particular form of interdependency between individual relationships.

A number of authors have recommended that the focus on relationship dyads be augmented to account for their larger network context (e.g., Granovetter 1991, Burt 2005). Interestingly, even transaction-cost theorists, who historically have embraced the "individual transaction" as the unit of analysis, have recently begun to adopt such a perspective. For instance, Williamson (2000, p. 595) has acknowledged that relationship-level "institutions of governance" are "embedded in the institutional environment," but that we are "still very ignorant" about their specific effects.

Unfortunately, despite the intuitive appeal of network types of arguments, the possible range of such effects remains unclear. In part, this can be explained by the sheer logistical challenge of collecting data on multiple exchange relationships. However, we believe that there are conceptual obstacles as well. Specifically, as noted by Zaheer et al. (2010), questions remain regarding the particular *processes* that manifest themselves in networks.

The consistency construct suggests one particular type of network process. We began by considering one relationship characteristic that is well established at the dyadic level, namely, the buyer's perceptions of the level of economic payoffs derived from the relationship. Next, we showed that a pattern of inconsistency in perceptions of characteristics across relationships is an important determinant of relationship-level satisfaction, above and beyond the focal characteristic's dyadic effects.

In addition to identifying and empirically examining the general notion of consistency, we identified some key boundary conditions for its effects. First, we showed that the effect of territory-level consistency on satisfaction depends on the context within which the focal buyer relationship is embedded. Specifically, we found that negative effect of inconsistency is most likely in reseller cooperatives, where (1) fine-grained information transfer and (2) established equity norms influence the effect of consistency on satisfaction. Furthermore, we showed that the negative effect of inconsistency in cooperative systems is the strongest for young relationships and that it decreases over time.

Our findings build on past work on embedded relationships to suggest some of the specific ways in which embeddedness influences organizational outcomes. Consistent with past research, we focused on

the role of information (Gulati 2007). Previous research has demonstrated a *direct* effect of embeddedness on various (information-related) outcomes such as job attainment, mortality, price formation, firm survival, and competiveness (e.g., Granovetter 2005, Uzzi 1997). We showed how various manifestations of embeddedness influence the nature of a particular organizational *process* (i.e., social comparisons) which in turn drives outcomes. We believe this provides some incremental nuance and perspective on the embeddedness construct and its effects.

Beyond this, we believe our current findings build on past research to address some of the specific unanswered questions that exist regarding the embeddedness construct. For instance, researchers (e.g., Rivera et al. 2010, Gulati et al. 2012) have raised questions about the specific mechanisms through which embeddedness operates, and their underlying dynamics. We believe our current findings, which point to (1) the unique role of a firm's comparison group, and (2) the effect of time begins to shed light on these questions.

4.2. A Heuristic for Relationship Strategy

Much of the existing literature on relationship management and strategy tends to take the perspective of a single party and focuses on decision heuristics that involve relationship-level strategies and efforts. Taken to its logical conclusion, the outcome of such a heuristic could be a portfolio of buyer relationships that exhibit radically different characteristics (i.e., in terms of the level of economic payoffs).

Our results suggest the need for modifications of this heuristic. A dyad-level or decentralized approach to relationship design, to the extent that it produces different perceptions of relationship characteristics, could very well undermine IOR outcomes. Our findings suggest that firms may need to deliberately balance the benefits of a decentralized deployment regime, with aggregate or territory-level considerations. We note, however, that our results do not suggest a need for aggregate or overall consistency, but rather the need for consistency within individual comparison sets. As long as the different sets or firm clusters (for example, based on geography) can't easily communicate with each other, or have a limited incentive to communicate to the extent that the information in question would not be relevant for comparison purposes, a lack of consistency should not, *ceteris paribus,* influence relationship effectiveness. The classical study of Padgett and Ansell (1993) on "robust action" provides an interesting example of such a disaggregated scenario: the Medicis managed to cultivate dramatically different identities for geographically and socially disconnected groups of followers.[12]

As a specific example of a dyadic level of analysis, Dutta et al. (1994), using a formal decision calculus, demonstrated how it may be efficient for a supplier to purposely tolerate some nonzero level of opportunistic behavior on the part of a particular reseller. This is an important and somewhat counterintuitive finding, which flies in the face of standard transaction-cost models and their underlying focus on eliminating opportunistic behavior in a trading relationship. At the same time, our results suggest that such a decentralized approach, which involves making decisions about relationship management at the level of a particular relationship, could have unintended consequences to the extent that it creates reseller perceptions of inconsistency across relationships.

Finally, to the extent that a supplier's overall strategy does dictate differences in relationship characteristics across buyers, our research suggests the importance of appropriate implementation strategies that can explain the rationale for variations across relationships. The evidence of time-dependent effects suggests that this is particularly critical in newly established relationships. More broadly, our findings support the observations of Kilduff and Krackhardt (2008) about the importance to firms (e.g., a supplier) of paying close attention to the structure of their networks and the relationships that comprise them.

4.3. Limitations and Further Research

The demonstrated effect of consistency on buyer satisfaction raises a number of additional research questions. First, although we treated consistency as an exogenous variable, it is important for firms to understand the specific manner in which their exchange partners form consistency judgments in the first place. For instance, they may gather information through formal interactions with other buyers in associations, councils, and interest groups (Macaulay 1963). In addition, information is acquired through a variety of informal channels, many of which are beyond a partner's control. In general, our findings suggest the importance of research on how IOR members collect and process information.

The current project was limited in scope to one relationship characteristic, namely, perceptions of economic payoffs. This variable is of particular relevance given our theoretical focus on social comparison processes, but we suspect that consistency considerations are also relevant for other supplier variables; even for potentially negative ones such as monitoring (Heide et al. 2007). The present perspective could usefully be expanded to examine a broader range of relationship management devices.

We capture a buyer's perceptions rather than actual economic payoffs. We note, however, that this measurement approach reflects the particular type of information that is transmitted in horizontal IORs. It

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[12] We thank a reviewer for this insight.

is also consistent with the theoretical notion that perceptions drive assessments as well as organizational action (March and Simon 1958). That said, grounded measures of payoffs such as ours have been found to converge with more-concrete measures of performance (Gulati and Sytch 2007).

We fail to find a direct effect of whether a buyer's economic payoffs are below the average for the territory on reseller satisfaction. Together with our support of H4, it suggests that "competitive standing" only matters when inconsistency is high. Theoretically, it is possible that information sharing among buyers is more likely for inconsistent suppliers. When a supplier is consistent across buyers, any further exchange of information is reinforcing and possibly redundant. In general, novel and disconfirming information is more valuable (Bochner and Insko 1966, Jaccard 1981), and when consistency is high, the "competitive" position of the buyer is less salient.

We recognize that the cross-sectional nature of our survey represents potential limitations, including the possibility of sampling on the dependent variable and capturing successful relationships. Ideally, the current design would have been augmented with a longitudinal component, but the practical challenges of conducting a second wave under the circumstances were substantial. We hope that future studies can be designed to include a longitudinal dimension.

From a substantive standpoint, we see considerable potential for additional integration between the social comparison and embeddedness literatures. Most of the past research on embeddedness has considered ties between exchange partners at different levels in the supply chain (e.g., Uzzi 1996, 1997, 1999). Building on the current study and the notion of social comparisons, we believe insights can be generated by focusing on "lateral" social ties between parties at the same level in the supply chain who have a relationship with the same exchange partner.

A particularly intriguing possibility is the role that an association like a cooperative may serve as an information transmission device. Although our current focus was on comparisons within a territory, it is conceivable that members of the same cooperative may engage in comparisons that involve members from different territories. Because of differences in market conditions, such comparisons may be less salient, but the broader question of the role of membership is worthy of future research.

Our findings suggest that information about other relationships is particularly relevant for young relationships, where embedded ties are weak and the parties are in the process of building trust. An interesting avenue for further research is to investigate more directly how such early initial information-gathering processes impact the effectiveness of a supplier's efforts to build relationships with its buyers in the first place. For instance, an intriguing question is whether strong perceptions of consistency can be instrumental in facilitating trust building between a set of parties.

Finally, additional avenues for future research include identification of other conditions that may moderate the effect of inconsistency on relationship effectiveness. Conceivably, preexisting relationship norms may play a buffering role and actually *permit* a differentiated pattern of deployment of relationship features. Alternatively, certain conditions may exacerbate the negative effects. For instance, if the inconsistencies in a given territory involve the supplier's own (direct) channels, the end result may be an even stronger dissatisfaction effect. These issues are at the core of IOR management and are worthy of further systematic research.

Acknowledgments

Appendix. Measures

Satisfaction of reseller with the supplier[a] (reliability = 0.87)
Based on Ruekert and Churchill (1984)

We are satisfied with the relationship that we have with ⟨supplier⟩

We are displeased with our relationship with ⟨supplier⟩ (R)

Our relationship with ⟨supplier⟩ has more than fulfilled our expectations

Level of economic payoffs[b]

How attractive is ⟨supplier⟩ compared to your next best *alternative* manufacturer in terms of generating profits?

Years of relationship

How long have your worked with ⟨supplier⟩? (in terms of number of years)

Reseller's dependence on the supplier[a] (reliability = 0.83)
Based on Jap and Ganesan (2000)

If our relationship was discontinued with ⟨supplier⟩, we would have difficulty making up the sales volume in our trading area

It would be difficult for us to replace ⟨supplier⟩

We are quite dependent on ⟨supplier⟩

We do not have a good alternative to ⟨supplier⟩ in our trading area

Reseller's perception of the supplier's dependence[a]
(reliability = 0.70)
Based on Jap and Ganesan (2000)

If we discontinued our relationship with ⟨supplier⟩, they would have difficulty making up the sales volume in our trading area

It would be difficult for ⟨supplier⟩ to replace us

⟨Supplier⟩ is quite dependent on us

⟨Supplier⟩ does not have a good alternative to us in our trading area

Appendix. Measures (Continued)

Reseller's perception of supplier fairness[a] (reliability = 0.75)

New scale

We trust ⟨supplier⟩ to deal fairly with us

We rarely think about the costs and benefits associated with this particular relationship

We often are concerned that ⟨supplier⟩ seems to be getting more out of the relationship than we are

⟨Supplier⟩ has a reputation of fairness in dealing with its customers

Some customers think that ⟨supplier⟩ only looks out for itself

Degree of formalization of the relationship between supplier and reseller[a] (reliability = 0.64)

New scale

Our relationship with ⟨supplier⟩ is governed primarily by written contracts

⟨Supplier⟩ has clearly specified our responsibilities

We follow rules and procedures prescribed by ⟨supplier⟩

We follow ⟨supplier⟩'s written and verbal instructions carefully

The only way we can seem to communicate effectively with ⟨supplier⟩ is when everything is spelled out in detail

We follow strict operating procedures defined by ⟨supplier⟩

Note. (R) reversed item.

[a]Seven-point scale anchored by "strongly disagree" and "strongly agree."

[b]Seven-point scale anchored by "much less attractive" and "much more attractive."

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