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Interdependence, punitive capability, and the reciprocation of punitive actions in channel relationships

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Using data from automobile dealers in the Netherlands, the authors find that dealers' punitive actions toward their key suppliers are affected by their perceptions of their own and their supplier's interdependence and punitive capabilities, as well as by the supplier's punitive actions. Punitive actions are affected by interdependence, but a more complete picture is achieved by also examining punitive capability. The authors test hypotheses based on bilateral deterrence, conflict spiral, and relative power theories, but none of these comprehensively explains the effects of both total power and power asymmetry. Dealer punitive actions are inhibited as total interdependence increases, but are promoted as total punitive capability increases. Using spline regression, the authors find that interdependence asymmetry has no direct effect on punitive actions, whereas punitive capability asymmetry does. As dealers' punitive capability advantage as compared with their suppliers' increases, dealers make greater use of punitive actions, whereas they use fewer punitive actions as their punitive capability deficit increases. The authors also find that dealers with a relative advantage in dependence or punitive capability are more likely to reciprocate their supplier's punitive actions.

Interdependence, Punitive Capability, and the Reciprocation of Punitive Actions in Channel Relationships

Researchers in marketing recently have devoted much attention to relationship-building activities that promote trust and commitment (e.g., Anderson and Weitz 1992; Heide and John 1992; Kumar, Scheer, and Steenkamp 1995a, b; Morgan and Hunt 1994). This parallels the groundswell of collaborative relationships that are emerging to exploit efficient consumer response, electronic data interchange, and just-in-time (JIT) technologies (Kumar 1996). The interdependence involved in relationships such as these inherently gives each channel firm the ability to support, as well as disrupt, the other's operations through *punitive actions,* intentional acts that inflict negative consequences on a partner. Although punitive acts might indicate a "sick relationship" (Morgan and Hunt 1994), there are situations in which they are legitimate (French and Raven 1959, p. 161). For example, a manufacturer could take appropriate punitive action to halt one dealer whose dysfunctional behavior undermines other dealers. Automakers justly impose previously negotiated fines on their JIT suppliers for late delivery. Punitive actions do not always indicate malice, for they are sometimes necessary, appropriate, or fair (Scheer 1993).

In pursuit of greater understanding about the characteristics of channel relationships that incite or inhibit punitive actions, we examine three elements. First, *interdependence* affects the partners' likelihood of engaging in various behaviors (Buchanan 1992; Gundlach and Cadotte 1994; Heide 1994). Are punitive actions rarely employed in highly interdependent channels, or does the greater mutual power promote greater punitive acts? What impact does interdependence asymmetry have on the more and less dependent partners' punitive actions?

Second, each firm's *punitive capability,* the ability and willingness to inflict negative consequences on its channel

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partner, also might play a role.[1] A firm that stockpiles punitive capability signals its readiness to take punitive actions. But do the effects of total punitive capability and punitive capability asymmetry mirror those of interdependence?

Third, the *partner's punitive actions* also must be considered. Channel firms tend to reciprocate punitive actions (Frazier and Rody 1991; Frazier and Summers 1986), but is this tendency moderated by interdependence asymmetry and punitive capability asymmetry?

THEORY

We focus on a channel firm's punitive actions, acts through which the firm intentionally inflicts damaging consequences on its partner (Gaski and Nevin 1985; Lusch 1976). A firm can affect its partner's outcomes negatively, either contingently, through an associated explicit influence attempt, or noncontingently, through a direct power exercise (Scheer and Stern 1992). Punitive actions include, for example, a supplier paying fines for late delivery per its prior agreement with an industrial customer; a grocer unilaterally taking unauthorized deductions off an invoice for a vendor's improper palletization; or a megaretailer shifting inventory it previously carried to its supplier, while unconditionally demanding more frequent deliveries of smaller lots and no increase in wholesale price.

Dependence and Punitive Capability

What elements in a channel relationship give rise to, or inhibit, punitive actions? Recent channels research has emphasized *dependence* and the power that "rests on the extent to which B is dependent on A for valued resources" (Dwyer 1984, p. 682). When a channel firm possesses valued resources, such as capital, expertise, information, services, assets, affiliation, or status (Dwyer, Schurr, and Oh 1987; Scheer and Stern 1992), that generate for its partner rewards and benefits that are not easily replaced, the channel partner is dependent on the firm (Emerson 1962).

Although the partner's dependence gives the firm power over the partner, the firm's power encompasses more than the partner's dependence. A firm also might possess damaging resources that generate no value for the partner but can be used to wound the partner (Molm 1989), such as a vertically integrated dual channel that competes with the partner or legal staff that could bury the partner in litigation. *Punitive capability* is the firm's ability and willingness to inflict negative consequences on a channel partner. To develop punitive capability, a firm must invest in the infrastructure and systems to control the withdrawal of valued resources and/or the exercise of damaging resources, as well as in personnel with the will to impose negative consequences on a channel partner. For example, firms such as Lotus 1-2-3 and Fiat have developed product tracking systems so they can detect gray market sales and appropriately punish offending dealers.

Dependence is expected to affect punitive acts, but just because a firm is able to withdraw valued resources from its partner does not imply that it is inclined to do so. The firm's accumulation of the rewarding resources that underlie dependence is essentially neutral—a firm can share those resources, which thereby creates benefits for the partner, or it can punitively withdraw benefits previously provided. Punitive capability represents a distinct element of a channel firm's power—the ability and willingness to inflict negative consequences on that partner, regardless of the resources available to be used in such a manner. A firm that accumulates damaging resources and makes its partner aware of that accumulation sends an unmistakable message about its readiness to use punitive capability. As we examine the channel power structure, it is therefore useful to supplement an assessment of the partners' dependence with an examination of their punitive capabilities.

Total Power and Power Asymmetry

In examining the effects of power, channels researchers have examined the *own power effect*, the relationship between a firm's power and its use of power (e.g., Gaski and Nevin 1985; Hunt and Nevin 1974), and the *partner power effect*, the relationship between a channel partner's power over a firm and the firm's use of power (e.g., Frazier, Gill, and Kale 1989; Frazier and Rody 1991). More recent empirical investigations that have focused on the dyadic power effect (e.g., Anderson and Narus 1990; Buchanan 1992; Geyskens et al. 1996; Heide 1994; Lusch and Brown 1996) suggest that looking solely at one firm's power tells only part of the story. Behavior and attitudes are affected by *total power*, the sum of both partners' power, and *power asymmetry*, the difference between the partners' power (Bacharach and Lawler 1981; Lawler 1986).

When focusing on total power and power asymmetry, studies that include only one firm's power provide no direct evidence because of the lack of information about the partner's power.[2] Extant channels literature on total power and power asymmetry has focused exclusively on interdependence (e.g., Buchanan 1992; Geyskens et al. 1996; Gundlach and Cadotte 1994). Lawler and Bacharach (1987, p. 447) observe that "while both dependence and punitive capability are foundations of power, this does not necessarily suggest that theoretical principles or research findings which apply to one of these forms of power apply to the other." We examine the channel partners' total interdependence and interdependence asymmetry as well as their total punitive capability and punitive capability asymmetry from the perspective of a focal firm.

HYPOTHESES

For insight on the effects of interdependence and punitive capabilities, we turn to two sociological theories that offer divergent predictions. Bilateral deterrence theory predicts that, as total power increases, punitive acts decline because

[1]We use the terms *punitive capability* and *punitive actions* for two reasons. First, though some researchers have not linked power with a specific use (e.g., Gaski and Nevin 1985), much of the channels research on "coercive" power and influence has focused more narrowly on that which could be, or was, contingently exercised (e.g., Brown, Lusch, and Nicholson 1995; John 1984). Because the concept we address is more inclusive than that which often is labeled "coercive power," we use different terminology to avoid confusion. Second, we use "capability" and "actions" to clarify the distinction between the possession of power and its use.

[2]Finding that an increase in one firm's power is related positively to its punitive actions sheds no light on the effects of total power or asymmetry. That firm's power increase could be part of a total power increase (if partner power increases, is constant, or decreases less than the firm's increase), no change in total power (if the partner's power decrease equals the firm's increase), or a total power decrease (if partner power decreases more than the firm's power increase). The firm's power increase therefore could be associated with an increase, decrease, or no change in asymmetry.

both partners have greater exposure to loss and strong motivation to avoid that loss; conflict spiral theory, in contrast, argues that greater total power results in both partners' greater temptation to use, and the actual use of, punitive tactics (Lawler 1986; Lawler, Ford, and Blegen 1988; Rubin and Brown 1975). The primary motivation underlying bilateral deterrence is loss avoidance, whereas conflict spiral hinges on the presumption that a firm will exploit whatever power it has to pursue its goals. Because dependence embodies the value to be lost if the relationship ends, bilateral deterrence theory seems applicable to the partners' interdependence. Because punitive capability is the stockpiling of the potential to inflict damage, conflict spiral theory seems particularly relevant to the partners' punitive capability.

Effects of the Partners' Interdependence

Following bilateral deterrence theory, we posit that as the partner's power based in the firm's dependence increases, the firm's fear of retaliation increases, and the partner's expectation of attack decreases. Thus, as the firm and its partner share greater interdependence, each increasingly fears undermining the relationship and expects that the other shares this view. Various benefits have been associated with higher levels of channel interdependence, including fewer punitive tactics (e.g., Buchanan 1992; Gundlach and Cadotte 1994). Consistent with bilateral deterrence theory, we hypothesize that increased total interdependence will result in fewer punitive actions.

Bilateral deterrence theory views asymmetric relationships as inherently unstable; only symmetry deters punitive acts, with the greatest deterrence resulting when total power is high. Channels researchers have found that symmetric relationships are more stable and beneficial than asymmetric relationships (e.g., Buchanan 1992; Kumar, Scheer, and Steenkamp 1995b). Greater asymmetry is expected to generate greater punitive tactics by both partners (Bacharach and Lawler 1981; Cook and Emerson 1978; Molm 1989). In bilateral deterrence theory (Lawler, Ford, and Blegen 1988), the dependence of the less dependent firm is the key motivating element. The less dependent firm focuses on the little it has to lose, and it therefore has little fear of retaliation and few restraints on its punitive actions. The more dependent partner's knowledge that the firm is likely to use punitive actions renders its fear of retaliation a moot point. Although the more dependent partner has more to lose than the firm, it also expects to be attacked, regardless of its actions, and therefore has strong incentive to use punitive tactics preemptively to signal that it will not passively submit, despite its relative dependence. On the basis of bilateral deterrence theory, we hypothesize that

H_1: As total channel interdependence increases, a firm's use of punitive actions decreases.

H_2: As channel interdependence asymmetry increases, (a) the less dependent firm's use of punitive actions increases and (b) the more dependent firm's use of punitive actions increases.

It is questionable, however, if this prediction about the more dependent partner's heedless use of punitive tactics is germane to the context of channel relationships. Contrary to bilateral deterrence theory, relative power theory asserts that the partner with less power (relative dependence) will be inclined to be as inoffensive and nonthreatening as possible, so as not to incite the more powerful firm to engage in even greater punitive actions. Relative power theory argues that increasing interdependence asymmetry will have divergent effects on the firm and its channel partner; specifically, the less powerful partner will become more reluctant to use punitive actions, whereas the more powerful firm will be increasingly likely to use punitive tactics (Cook and Emerson 1978; Gundlach and Cadotte 1994; Rubin and Brown 1975). The less dependent firm has little reason for restraint or fear of retaliation because it can exit the relationship more easily than its partner can. Because relative power theory offers a compelling alternative rationale for the more dependent channel firm's behavior, we offer an alternate hypothesis:

H_{2alt}: As channel interdependence asymmetry increases, (a) the less dependent firm's use of punitive actions increases and (b) the more dependent firm's use of punitive actions decreases.

Effects of the Partners' Punitive Capabilities

In conflict spiral theory, as a firm's punitive capability increases, the firm's temptation to use its power grows, thereby increasing its partner's expectation of attack (Lawler, Ford, and Blegen 1988). As total punitive capability increases, each firm knows that its partner is similarly tempted and motivated to use punitive actions. Cultivating a partner's dependence might have various purposes, but investing in, developing, stockpiling, and making a partner aware of the punitive capability of the firm has only one purpose: That is, it sends an unambiguous signal of the firm's readiness to use that capability.[3] Evidence also suggests that channel firms tend to use their punitive capability (Frazier, Gill, and Kale 1989; Gaski and Nevin 1985). Consistent with conflict spiral theory, we posit that increasing total punitive capability results in greater punitive actions.

Conflict spiral theory argues that increasing asymmetry stabilizes a relationship, because one party clearly is more dominant (Lawler, Ford, and Blegen 1988; Rubin and Brown 1975). As a firm faces an increasing punitive capability deficit, it avoids punitive acts because it realizes that the expected gain from such tactics is low. Because punitive tactics are unlikely to advance its goals, the firm with lower punitive capability will seek other means to gain its more powerful partner's cooperation. Conflict spiral theory also argues that the dominant partner becomes less likely to use its punitive capability because it has a lower expectation of being attacked by the less powerful firm and is able to get that firm to comply without resorting to punitive tactics. Consistent with conflict spiral theory, we hypothesize effects for punitive capability that are opposite those of bilateral deterrence theory:

H_3: As total channel punitive capability increases, a firm's use of punitive actions increases.

H_4: As the asymmetry in channel partners' punitive capabilities increases, (a) the firm with a punitive capability advantage decreases its use of punitive actions and (b) the firm with a punitive capability deficit decreases its use of punitive actions.

It is debatable, however, if a firm with a punitive capability advantage will exercise restraint, given its inherent temp-

[3]We thank a reviewer for this insight.

tation to use that advantage (Lawler 1986). Relative power theory argues that increasing asymmetry will result in greater punitive acts by the firm with the greater punitive capability; as a firm's punitive capability deficit widens, it is more likely to avoid punitive acts that would incur overwhelming retaliation from its more powerful partner (Cook and Emerson 1978; Gundlach and Cadotte 1994; Rubin and Brown 1975). Because relative power theory offers a compelling alternative theory about the behavior of a firm with a punitive capability advantage, we offer an alternate hypothesis:

H_{4alt}: As the asymmetry in channel partners' punitive capabilities increases, (a) the firm with a punitive capability advantage increases its use of punitive actions and (b) the firm with a punitive capability deficit decreases its use of punitive actions.

Reciprocation of Partner's Punitive Actions

Although the partners' interdependence or punitive capabilities might provide an impetus for punitive actions (i.e., low total interdependence and high total punitive capability), firms can choose to resist this impulse and refrain from punitive acts (Gaski and Nevin 1985). The beneficial effects of a highly interdependent relationship similarly can be undermined by punitive acts. A channel firm's use of coercive power has been associated with reciprocal coercive actions by its partner (Frazier and Rody 1991; Frazier and Summers 1986). All other things being equal, the partner's use of punitive actions will increase the channel firm's use of punitive actions.

This reciprocity effect could be moderated by the channel partners' interdependence or punitive capabilities. As a firm's power advantage in interdependence or punitive capability increases, it is increasingly likely to reciprocate its partner's punitive actions. Failure to do so would undermine the firm's advantage, for reciprocation sends a signal to the partner, verifying and reinforcing the firm's advantaged position. In contrast, as a firm's power deficit based in punitive capability or dependence widens, it is increasingly unlikely to reciprocate punitive acts. It is instead more likely to defuse the situation without resorting to retaliation, either through compliance or other nonconfrontational actions. Some supporting evidence is found in a study conducted in India by Frazier, Gill, and Kale (1989). They speculate that dealers refrain from reciprocating their suppliers' punitive actions because the dealers are relatively dependent on their suppliers. We therefore hypothesize that

H_5: A channel firm's use of punitive actions is related positively to its partner's use of punitive actions.

H_6: The reciprocity effect is moderated by the channel interdependence asymmetry. Specifically, as the channel interdependence asymmetry increases, (a) the less dependent firm is more likely to reciprocate punitive actions and (b) the more dependent firm is less likely to reciprocate punitive actions.

H_7: The reciprocity effect is moderated by the channel partners' punitive capability asymmetry. Specifically, as the asymmetry in channel partners' punitive capabilities increases, (a) the firm with greater punitive capability is more likely to reciprocate punitive actions and (b) the firm with less punitive capability is less likely to reciprocate punitive actions.

METHOD

Sample and Data Collection Procedure

Our sample consisted of automobile dealers in the Netherlands, drawn from a list of 4000 new-car dealerships that represent the entire country. Because this list, which was supplied by the Dutch Association of Car Dealers, did not name the owners, questionnaires were addressed to the Owner. Informants were thus dealership owners—the people most knowledgeable about the dealer's relationship with its primary supplier. Each owner-informant reported on the dealer's relationship with the automotive supplier that accounts for the largest percentage of its sales.

The Netherlands has no domestic automobile manufacturing, and therefore, dealers' direct suppliers are importers of a brand. The Dutch automobile market is very dispersed, with the market leader holding less than 15% market share. Legal restrictions offer considerable protection to dealers, as dealers typically have exclusive geographic sales territories and new dealerships are limited through a strict governmental permitting process. Furthermore, 21% of Dutch automobile dealers represent two or more manufacturers. As a result of all these factors, some dealers in the Netherlands perceive themselves as more powerful (on dependence and/or coercive capability) than their suppliers, which thereby ensures adequate variation to test the power asymmetry hypotheses.

An original English version of our questionnaire first was translated into Dutch by one person and then retranslated into English by a second person, each of whom was fluent in both languages. Any differences that emerged were reconciled by the two translators. As a final pretest, to ensure that the owners could comprehend the Dutch translation adequately, a draft of the questionnaire was administered to several dealership owners in face-to-face interviews. A few minor wording changes were made to improve the clarity of the final questionnaire.

This questionnaire was mailed to a random sample of 1600 owners, drawn from our list of 4000 dealers. Resource limitations precluded follow-up letters to nonrespondents, resulting in a response rate of 19%, with 309 questionnaires returned. After we eliminated questionnaires with excessive missing data, there were 289 responses constituting the final sample. Our response rate, though low, is within the range reported for channels studies. Because Armstrong and Overton's (1977) procedure indicated no significant differences ($p > .10$) between early and late respondents, nonresponse bias does not appear to be a problem. Subsequent telephone calls made to a subset of owners confirmed that the informant was the person most knowledgeable about the dealer's relationship with the supplier.

Operational Measures

For the empirical test of the hypotheses, our focal dependent variable is the dealer's reported use of punitive actions. Because a channel firm's behavior is based on its perceptions (e.g., Anderson and Narus 1990; Anderson and Weitz 1992), all elements are measured from the dealer's perspective. Multi-item measures based on construct definitions and channels research precedents were developed. Dealer informants reported their perceptions regarding both the dealer's and the supplier's punitive actions, punitive capability, and dependence. See the Appendix for the measurement items.

Punitive actions. Punitive actions were conceptualized as the intentional imposition of negative consequences that inflict damage on a firm's channel partner (Gaski and Nevin 1985; Hunt and Nevin 1974), whether contingently, following a threat (e.g., Frazier and Summers 1986), or noncontin-

gently, without prior warning (Scheer and Stern 1992). Although we a priori expected that the partners' interdependence and punitive capabilities would affect both contingent and noncontingent punitive actions in the same way, to be comprehensive, we included items that measured both types. Six parallel items were constructed to measure the supplier's and the dealer's use of punitive actions.

Punitive capability. Punitive capability was defined as a firm's ability and willingness to inflict negative consequences on its channel partner. Four parallel items that elicited the capacity to inflict damage on a channel partner or its outcomes were developed to measure dealer and supplier punitive capability (Gaski and Nevin 1985; Lawler and Bacharach 1987).

Interdependence. In accordance with Gaski's (1987) exhortation for channels researchers to incorporate both of Emerson's (1962) facets of dependence in their measures, we view a firm's dependence as flowing from (1) the value received by the firm through its relationship with the partner and (2) the extent to which the partner and the value received are irreplaceable. The value received from the relationship by the dealer was measured with three items that assessed the percentage of sales and profits the supplier's line provided and the importance of the supplier's line to the achievement of the dealer's goals. Irreplaceability of the supplier was measured by three items inspired by El-Ansary and Stern's (1972) study and the replaceability items used by Heide and John (1988). The dealer's perception of the supplier's dependence was measured using similar, mirror-image items, with one exception. The "percentage of profit" item was replaced by an item that assessed the extent to which the supplier considered the dealer's trade area a key territory (Frazier and Rody 1991), because individual dealers are unlikely to know how much of the supplier's total profits are generated by their efforts, but they do have a more confident estimate of their territory's importance to the supplier.[4]

Following precedent (Frazier, Gill, and Kale 1989; Frazier and Rody 1991), we conceptualized dependence as a multidimensional composite index (Howell 1987). Consistent with how such formative indicators are interpreted (Bollen and Lennox 1991), we posit that higher scores on each of the dependence items causes higher dependence (the construct). Each item represents a dimension of dependence, and the construct of dependence is defined as the total of the scores across all of these items and *not* as the joint intercorrelations among the items (Howell 1987). Because dependence can be created in alternative ways, we do not anticipate that an increase in dependence will simultaneously increase all items. As Bollen and Lennox (1991, p. 312) note, internal consistency is not a criterion for assessing the validity of such multidimensional composites, but rather "to assess validity we need to examine other variables that are effects of the latent construct." Support for our hypotheses provides evidence of the nomological validity of our dependence measures.

To create the dependence composites, we first converted the items requiring percentage responses into seven-point scales, following Frazier and Rody's (1991) precedent. The correlations of these recoded items with the raw percentage scores are extremely high, ranging from .987 to .996. As an alternative to converting these items in this manner, we considered standardizing the raw dependence scales before computing the dependence composites. Because the relative distribution inherent in standardization results in many dealers appearing to be relatively more powerful than is indicated by the raw, unstandardized scales, we adopted the more conservative, unstandardized approach.[5] For both dealer and supplier dependence, we then separately aggregated the three items that measured each facet of dependence (value received and irreplaceability). Finally, we averaged the two facets to produce composite measures of dealer dependence and supplier dependence.

Measure Validation

Punitive actions. In an exploratory factor analysis of the six items measuring the dealer's punitive actions, both the eigenvalue test and the scree test indicated that only one underlying factor was present. Similar results were obtained from a factor analysis of the six items measuring supplier use of punitive actions. The lowest factor loading in either analysis was .43. Furthermore, a factor analysis of all twelve items demonstrated a clear separation, with each item loading highest on the factor it was hypothesized to measure. Cronbach's alpha was .72 and .74 for the dealer's and supplier's punitive actions, respectively.

Punitive capability. In an exploratory factor analysis of the four items measuring dealer punitive capability, eigenvalue and scree tests indicated only one underlying factor. A similar factor analysis of the four supplier punitive capability items revealed the same. In both cases, all factor loadings were greater than .50. Furthermore, a factor analysis of all eight items demonstrated a clear separation between the dealer's and supplier's punitive capability, with each item loading highest on the factor it was hypothesized to measure. Cronbach's alpha was .78 and .73 for the dealer's and supplier's punitive capability, respectively.

Dependence. Given our formative logic for the dependence items, conducting factor analysis on them was not appropriate. We checked for convergent validity of our dependence scales and found that the correlations of single-item global assessments of dealer and supplier dependence (e.g., "How dependent is this supplier on your dealership?") with their respective composite dependence scales were both greater than .40 and significant ($p < .001$).

Confirmatory factor analysis. Finally, using confirmatory factor analysis, we analyzed the six constructs of dealer and supplier dependence, dealer and supplier punitive capability, and dealer and supplier punitive actions. To derive one indicator of supplier dependence and one of dealer dependence for this analysis, we averaged the scores of the three items pertaining to each dimension of dependence (value received and irreplaceability). As recommended by Anderson and Gerbing (1988), the error for these two measures was set at .10 each.

The six-factor model (22 indicators) yielded an adequate overall fit: $\chi 2_{(196)} = 306.42$, goodness-of-fit index (GFI) =

[4]Correlations between our six-item dependence measure and a five-item dependence measure that omits the nonparallel item are .948 for dealer dependence and .957 for supplier dependence. Regression results also are substantively the same.

[5]Correlations of the composite dependence measures, using standardized scores with the composites constructed with the converted items, are .988 for dealer dependence and .905 for supplier dependence.

.90, and comparative fit index (CFI) = .97. The GFI and CFI indices are at or above the generally recommended .90 level. All factor loadings were significant ($p < .0001$), demonstrating convergent validity (Anderson and Gerbing 1988), and all factor intercorrelations were significantly below unity ($p < .0001$), demonstrating discriminant validity (Anderson and Gerbing 1988). We therefore conclude that our measures demonstrate adequate unidimensionality, convergent validity, discriminant validity, and reliability.

Hypothesis-Testing Procedures

Scale items were averaged to obtain composites measuring the dealer's reported punitive capability (DPunCap), dependence (DDep), and punitive acts (DPunAct) and dealer perceptions of its supplier's punitive capability (SPunCap), dependence (SDep), and punitive acts (SPunAct). Total punitive capability (TotPunCap) was constructed by summing dealer and supplier punitive capability scores. Total interdependence (TotDep) was constructed by summing dealer and supplier dependence scores. Means, deviations, and correlations appear in the Appendix.

To examine the asymmetry hypotheses, we sought a method that allows for changes in asymmetry to have different effects when the firm has a power advantage, versus a power deficit, on that dimension. Using a single variable to assess asymmetry does not permit this. For example, if a "dealer relative dependence" measure (DDep minus SDep) is used, a decrease in that variable could involve (1) a reduction in asymmetry (dealer dependence deficit is reduced), (2) no change in asymmetry (shift from dealer dependence deficit to advantage), or (3) an increase in asymmetry (dealer dependence advantage is increased). We needed an analysis procedure that enabled us to test whether the effects of interdependence asymmetry are as predicted by bilateral deterrence theory, relative power theory, or neither and whether conflict spiral theory, relative power theory, or neither is supported for punitive capability asymmetry.

Spline regression analysis (Johnston 1984) enables us to incorporate the direction of asymmetry. To do this, we must construct the linear splines that represent the dealer power advantage and the dealer power deficit positions and then incorporate each spline segment as a separate variable in our regression equation (Johnston 1984). For interdependence asymmetry, we need two variables: dealer power advantage based in dependence (AdvDep) and dealer power deficit based in dependence (DefDep). AdvDep is equal to SDep – DDep when SDep > DDep and zero when DDep ≥ SDep. Similarly, DefDep is equal to DDep – SDep when DDep > SDep and zero when SDep ≥ DDep. Therefore, when the dealer is less dependent than the supplier (i.e., has a power advantage), AdvDep reflects the degree of asymmetry and DefDep is zero; when the dealer is more dependent than the supplier (i.e., has a power deficit), DefDep reflects the degree of asymmetry and AdvDep is zero. The baseline is channel symmetry (SDep = DDep), where both AdvDep and DefDep are zero. Similar computations were used to construct dealer advantage in punitive capability (AdvPunCap) and dealer deficit in punitive capability (DefPunCap).[6]

[6]The single variable approach is simply a special case of the spline approach, in which the effect of DefDep is constrained to be –1*AdvDep and the effect of DefPunCap is constrained to be –1*AdvPunCap. Spline analysis is more flexible and provides more information about the nature of the effects of asymmetry. This precision is needed to test our hypotheses.

All hypotheses were tested simultaneously by estimating the regression equation:

$$\begin{aligned}\text{DPunAct} = {} & \beta 1\ \text{TotDep}\ (H_1) \\ & + \beta 2\ \text{AdvDep} + \beta 3\ \text{DefDep}\ (H_2) \\ & + \beta 4\ \text{TotPunCap}\ (H_3) \\ & + \beta 5\ \text{AdvPunCap} + \beta 6\ \text{DefPunCap}\ (H_4) \\ & + \beta 7\ \text{SPunAct}\ (H_5) \\ & + \beta 8\ \text{AdvDep*SPunAct} + \beta 9\ \text{DefDep*SPunAct}\ (H_6) \\ & + \beta 10\ \text{AdvPunCap*SPunAct} + \\ & \quad \beta 11\ \text{DefPunCap*SPunAct}\ (H_7).\end{aligned}$$

As the regression equation demonstrates, we test seven main effects, including two main effects for dependence asymmetry (AdvDep and DefDep), two main effects for asymmetry in punitive capability (AdvPunCap and DefPunCap), and the main effect of supplier punitive actions (SPunAct). The four interactions involve supplier punitive actions and the four power asymmetry variables. The predictor variables involved in the interactions were mean-centered, a procedure commonly recommended to reduce multicollinearity and provide unbiased parameter estimates (Aiken and West 1991; Jaccard, Turrisi, and Wan 1990). To check if this was successful, we employed two widely used measures of multicollinearity (Judge et al. 1988). The maximum variance inflation factor of 1.88 and the maximum condition index of 19.61 were well below the levels (10 and 30, respectively) that commonly signal detrimental multicollinearity (Mason and Perrault 1991).

RESULTS

We report our results in Table 1. Consistent with bilateral deterrence theory, a dealer's perception of greater total channel interdependence has a negative impact on its punitive actions ($\beta_1 = -.105$, $p = .05$). Consistent with conflict spiral theory, greater perceived total punitive capability has a positive effect on punitive actions ($\beta_4 = .128$, $p < .05$). H_1 and H_3 are supported.

Compared with symmetric relations, increased interdependence asymmetry did not have a significant effect on punitive actions, neither when the asymmetry was in the firm's favor ($\beta_2 = .047$, n.s.) nor when it was in favor of the

Table 1
REGRESSION RESULTS

	Dealer Punitive Actions
Independent Variables	*Betas*
TotDep	–.105[b]
AdvDep	.047
DefDep	–.004
TotPunCap	.128[b]
AdvPunCap	.157[b]
DefPunCap	–.131[b]
SPunAct	.361[a]
AdvDep*SPunAct	.114[c]
DefDep*SPunAct	.037
AdvPunCap*SPunAct	.141[b]
DefPunCap*SPunAct	–.075
R-Squared	.271[a]
$F_{(11,277)} = 9.378$, $p < .001$.	

[a]$p < .001$, two-sided.
[b]$p \leq .05$, two-sided.
[c]$p = .06$, two-sided.

supplier ($\beta_3 = -.004$, n.s.). Because neither of the two main effects of dependence asymmetry is significant, both H_2 and H_{2alt} must be rejected.[7]

The main effects of punitive capability asymmetry support the relative power theory hypothesis (H_{4alt}). Compared with symmetric relations, as the dealer's perceived punitive capability advantage increases, the dealer is more likely to use punitive actions ($\beta_5 = .157$, $p < .05$); in contrast, as its perceived punitive capability deficit increases, the dealer is less likely to use punitive actions ($\beta_6 = -.131$, $p < .05$).[8]

The reciprocation hypothesis (H_5) is supported. The dealer's perception of supplier punitive actions has a strong positive effect on its own punitive acts ($\beta_7 = .361$, $p < .001$). This main effect is moderated by the interdependence and punitive capability asymmetry. A dealer is more likely to reciprocate a supplier's punitive actions as its perceived advantage in either dependence ($\beta_8 = .114$, $p = .06$) or punitive capability ($\beta_{10} = .141$, $p < .05$) increases. There is no moderating effect when the dealer has a perceived deficit in dependence ($\beta_9 = .037$, n.s.) or punitive capability ($\beta_{11} = -.075$, n.s.). H_{6a} and H_{7a} are supported, but H_{6b} and H_{7b} are rejected.

DISCUSSION

In summary, perceived total interdependence has a negative effect on the dealer's punitive actions; perceptions of total punitive capability and supplier punitive actions have positive effects on the dealer's punitive actions; and interdependence asymmetry has no effect on punitive actions. Increased perceived punitive capability asymmetry increases punitive actions by dealers that have an advantage in punitive capability and decreases punitive actions by dealers that have a deficit in punitive capability. Finally, dealers that perceive an advantage in either dependence or punitive capability are more likely to reciprocate punitive actions as their advantage widens.

Contributions

Power asymmetry analysis approach. Research has moved toward examining the effects of the dyadic channel power structure (Anderson and Narus 1990; Buchanan 1992; Gundlach and Cadotte 1994). Building on these precedents, we distinguish between total power and power asymmetry and conduct a comprehensive investigation of both the direction of the asymmetry (as Buchanan does) and the degree of asymmetry (as Gundlach and Cadotte do).

The spline approach enables us to estimate two regression coefficients for the effects of power asymmetry: one coefficient estimates the effects of power asymmetry when it is in favor of the focal firm, and the other estimates the effects of power asymmetry when it is favor of the partner. An analysis that does not consider the direction of asymmetry cannot identify whether bilateral deterrence, conflict spiral, or relative power theory is supported, if any. The predictions for the regression coefficients representing power advantage versus power deficit follow a distinct pattern for each of these theories, as we demonstrate in Table 2.

Table 2
EFFECTS ON PUNITIVE ACTIONS PREDICTED

	Spline Regression Variables		*Single Variable*
Theory	*Power Advantage*	*Power Deficit*	*Power Difference*
Bilateral Deterrence	+	+	0
Conflict Spiral	–	–	0
Relative Power	+	–	+

In contrast, for an alternative construction using a single variable, such as the partners' relative power difference (e.g., supplier dependence minus dealer dependence), to assess the effects of asymmetry, the predictions for that single variable's regression coefficient would be zero for both the bilateral deterrence and conflict spiral theories (as the opposing bidirectional effects cancel each other) and positive for the relative power theory. With the single variable approach, we would be unable to determine whether a nonsignificant coefficient indicates (1) support for the bilateral deterrence theory, (2) support for the conflict spiral theory, or (3) that asymmetry has no effect. The theoretical and managerial implications of these three scenarios clearly are completely different. Only spline regression provides the additional information that enables us to determine which explanation is correct. To the best of our knowledge, this is the first study to conduct such an asymmetry analysis.

Interdependence and punitive capabilities. Previous studies investigating total power and power asymmetry have focused exclusively on dependence (e.g., Buchanan 1992; Geyskens et al. 1996; Gundlach and Cadotte 1994; Heide 1994; Kumar, Scheer, and Steenkamp 1995b; Lusch and Brown 1996). Because dependence is based in the value a firm receives through the channel relationship and the extent to which that value is not available through alternatives (Emerson 1962), interdependence forms a structural backdrop for the channel relationship. But channel firm behavior also is affected by the human element. Power based in a partner's dependence is essentially neutral, as it can be used either to facilitate collaboration or to wound or extract concessions from the partner. Firms facing identical interdependence structures might have diverse dispositional or situational characteristics that lead them to differ in their punitive actions. Regardless of the interdependence structure, a channel firm might or might not choose to invest in and cultivate the mechanisms, attitudes, and personnel required to inflict damage on a channel partner. Developing punitive capability is therefore of a very different character than promoting a partner's dependence, for stockpiling punitive capability has no purpose other than to be able to deploy it through punitive actions.

This is the first channels study to examine total punitive capability and punitive capability asymmetry in addition to interdependence. Our results confirm that punitive capability has a distinct effect on channel firm behavior, beyond that of interdependence. Adding the three punitive capability variables (TotPunCap, AdvPunCap, and DefPunCap) to a regression equation, which includes only the three interdependence variables (TotDep, AdvDep, and DefDep), significantly increases the variance explained in dealer punitive actions from .025 to .106.

[7]Moreover, the effects of AdvDep and DefDep are not significantly different ($p > .10$).

[8]A follow-up test on the regression coefficients indicates that the effect of AdvPunCap is significantly different from that of DefPunCap ($p < .01$), which provides further support for H_{4alt}.

Because punitive actions are affected by *both* channel partners' interdependence and punitive capabilities, failure to consider punitive capability can misrepresent the channel partners' concerns and options. An assessment of both the channel interdependence structure and the partners' punitive capability is needed to gain a more comprehensive understanding of the channel relationship.

We find that the effect of total channel interdependence on dealer punitive actions was as predicted by bilateral deterrence theory, the effect of total punitive capability was as predicted by conflict spiral theory, and the effect of punitive capability asymmetry was as predicted by relative power theory. Although each theory adds to our understanding of channels, none offers a complete picture. We also find no direct relationship between interdependence asymmetry and dealer punitive actions. Gundlach and Cadotte (1994) similarly report no effect of asymmetry on the use of threats and punishments. Although caution is advisable when interpreting null effects, the near-zero beta values in our study strongly suggest that interdependence asymmetry has no direct impact on dealer punitive actions. Just as power based in a partner's dependence can be used either positively or negatively, interdependence asymmetry, in and of itself, will neither promote nor inhibit the use of punitive actions. The decision to use punitive actions versus other available courses of action will be based on elements other than the interdependence asymmetry, such as punitive capabilities, the partner's punitive acts, and other situational, interpersonal, and personal factors that have yet to be researched.

Moderation of the reciprocity effect. Although the underlying channel interdependence and punitive capabilities can instigate or inhibit dealer punitive actions, the strongest predictor of a dealer's punitive acts is its supplier's use of punitive tactics. Adding the main effect of supplier punitive actions to a regression equation that includes the six interdependence and punitive capability variables (TotDep, AdvDep, DefDep, TotPunCap, AdvPunCap, and DefPunCap) significantly increases the variance explained in dealer punitive actions from .106 to .234. This result emphasizes that channel firms are not prisoners of the underlying power structure in which they are embedded (Kumar, Scheer, and Steenkamp 1995b); the human element or other factors can override the dictates of the underlying interdependence and punitive capabilities, either to a beneficial or detrimental effect.

Although, similar to previous channels studies, we find a reciprocity effect, we break new ground by demonstrating that reciprocity is moderated by the channel interdependence structure and punitive capabilities. Adding the four terms that estimate the interaction between asymmetry and supplier punitive actions significantly increases the variance explained in dealer punitive acts from .234 to .271. Our finding that a firm is more likely to reciprocate its partner's punitive acts as its power advantage increases provides empirical support for the contention that reciprocity is affected by the power structure (Frazier, Gill, and Kale 1989; Frazier and Rody 1991).

Study setting. We build on the insights derived from Gundlach and Cadotte's (1994) experimental study by examining the effects of total interdependence and interdependence asymmetry through a field study conducted in the Netherlands. Few channel studies are in non-U.S. settings, with the notable exception of those conducted in India by Kale (Frazier, Gill, and Kale 1989; Kale 1986). As firms become increasingly international in character, it becomes important to investigate channels in different cultural contexts.

Limitations

Several limitations of this study must be noted. First, we gathered data from only one side of the dyad. This is consistent with our dependent variable—a dealer's punitive actions will be based on its perceptions. However, examining the supplier's perceptions and its reported use of punitive actions deserves further study. Having data from only dealers precluded any examination of the effects of interdependence and punitive capabilities on the supplier's punitive actions. We also cannot address whether or how the supplier's and dealer's perceptions differ in the channel dyad. Investigating both channel partners' perceptions of interdependence, punitive capabilities, and punitive actions would add greater insights.

Second, because we developed new measures of punitive capability and punitive actions for this study, additional refinement is needed to clarify the distinctions between dependence, punitive capability, and punitive actions. Consistent with Gaski and Nevin's (1985) study, the low correlations between punitive capability and punitive actions suggest that the informants in this study were able to differentiate between the potential to exercise power and its actual use. Additional research is needed to develop more precise measures of the various types of potential punitive actions (e.g., contingent/noncontingent, threats/punishments), so as to examine whether they have differential effects.

Third, our research was conducted in a particular setting—automobile dealerships in the Netherlands. Questions of generalizability, both with respect to channels other than automobiles and countries other than the Netherlands, remain.

Fourth, negative affect might account for part of the apparent relationship between punitive capability and punitive actions, but this is more likely for attitudes than for structural variables such as interdependence and punitive capability. It is unlikely that this was a problem in this study, as a four-item measure of negative affect (anger, hostility, frustration, and resentment) was not significantly correlated ($p < .05$) with supplier or dealer punitive capability.

Future Research Directions

The current emphasis on close relationships or partnerships has led some researchers to contend that power is now irrelevant in channel relationships, particularly the negative aspects of power and its use (e.g., Morgan and Hunt 1994, pp. 33–34). In part, this might be due to an implicit assumption that power is an inherently ominous force. Yet power can be used to lead, coordinate, and collaborate, just as it can be used to exploit and dominate. Although we do not want to downplay the importance of relationships, power continues to play a central role. Even in highly enmeshed channel relationships, punitive actions frequently arise. When managers are asked about channel partners' activities, punitive tactics and coercion often quickly come to mind. Even when the actual incidence of punitive actions is low, an undercurrent nevertheless remains regarding the punitive capability that each channel partner holds. Partnerships and punitive actions both belong in the mainstream of channels inquiry, for both involve the exercise of power and are

important issues for marketing practitioners. As Brown, Lusch, and Nicholson (1995) observe, it is premature to close the book on power in marketing channels.

Although punitive actions are affected by both channel partners' interdependence and punitive capabilities, these underlying channel power elements do not control the partners' destiny. Firms can overcome a channel structure that incites conflict, just as they can squander a channel structure that promotes cooperation. Research is needed to investigate situational elements in the relationship that can promote, inhibit, or moderate punitive behavior, such as cultural factors, relational norms, environmental conditions, channel firms' procedural fairness, relationship-building activities, personal inclinations or agendas, or interpersonal aspects.

Even in long-term cooperative relationships, firms sometimes make justifiable strategic decisions in one arena of operations that coincidentally injure some of their partners. For example, McDonald's opens new stores as part of a legitimate growth strategy to increase corporate sales and profits. Many longtime McDonald's franchisees blame their falling per-store sales volumes on the franchisor's relentless push to open new outlets ever closer to their existing stores. Although these negative consequences are not intentional on the part of McDonald's, and thus do not indicate punitive actions by our definition, the franchisees nevertheless are injured. This suggests that it is important for a firm to consider the extent to which its actions will have *collateral effects* on its partners. Failure to account for these ramifications is particularly problematic when there are negative consequences, for the channel partner's attitudes and actions will be affected not only by the firm's intentional punitive actions, but also by actions that coincidentally damage the partner. We believe this is another area for further research.

And finally, an especially intriguing avenue for additional research is the examination of a firm's *strategic motivations* for punitive actions and the long-term effects of using

Appendix*

*Dealer punitive actions***

1. Our firm undermines or punishes the supplier when they don't follow our guidelines and recommendations.
2. If the supplier doesn't do what we want, we provide poorer service and become difficult to work with.
3. When the supplier rejects our suggestions, they receive harsher treatment from our firm.
4. Our firm penalizes the supplier without any warning at times.
5. Sometimes, without any prior notice, we withhold information or services that we previously provided to the supplier.
6. Some of our firm's actions have a negative effect on the supplier, but they cannot do anything to prevent it.

*Dealer punitive capability***

If we wanted to, we have the capability to
1. severely penalize the supplier if they are uncooperative.
2. hurt the supplier's ability to serve their customers effectively.
3. make things difficult for them.
4. tie the supplier up in an expensive legal battle.

Dealer dependence

a. Value received
1. Approximately, what percentage of your firm's sales are accounted for by this supplier's line?***
2. Approximately, what percentage of your firm's profits are accounted for by this supplier's line?***
3. Our relationship with the supplier is very important to the achievement of our organizational goals.

b. Irreplaceability
1. There are other suppliers who could provide us with comparable product lines. (R) †
2. Our total costs of switching to a competing manufacturer's line would be prohibitive.
3. It would be difficult for our firm to replace the sales and profits generated from this supplier's line.

Supplier dependence

a. Value received
1. To the best of your knowledge, approximately what percentage of the supplier's sales in this trading area are accounted for by your firm?***
2. The supplier considers our trade area a key market for their products.
3. The supplier's relationship with us is very important to the supplier's achievement of their goals.

b. Irreplaceability
1. In our trade area, there are other firms who could provide the supplier with comparable distribution.(R)
2. In our trade area, the supplier would incur minimal costs in replacing our firm with another dealer.(R)
3. It would be difficult for the supplier to replace the sales and profits our dealership generates.

Means, Standard Deviations, and Correlations

Variable	*Mean*	*Standard Deviations*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1. Dealer Punitive Actions (DPunAct)	2.60	.93	1.00							
2. Total Interdependence (TotDep)	9.56	1.39	−.15[b]	1.00						
3. Dealer Power Advantage in Interdependence (AdvDep)	.38	.62	.03	.04	1.00					
4. Dealer Power Deficit in Interdependence (DefDep)	.61	.76	−.02	−.08	−.49[c]	1.00				
5. Total Punitive Capability (TotPunCap)	7.94	1.91	.24[c]	.11	−.05	.04	1.00			
6. Dealer Advantage on Punitive Capability (AdvPunCap)	.15	.48	.05	0.00	.09	−.17[b]	−.13[a]	1.00		
7. Dealer Deficit in Punitive Capability (DefPunCap)	1.79	1.47	−.12[a]	.07	−.16[b]	.28[c]	−.02	−.38[c]	1.00	
8. Supplier Punitive Actions (SPunAct)	3.89	1.08	.40[c]	−.09	−.09	.15[a]	.32[c]	−.15[b]	.19[b]	1.00

*Seven-point scales, with "strongly disagree" and "strongly agree" as the anchors, unless noted otherwise.
**The supplier items were identical except for changes to reflect the supplier.
***These items invoked percentage responses, which were converted to seven-point scales.
†Items marked (R) are reverse-scored.
[a]$p < .05$.
[b]$p < .01$.
[c]$p < .001$.

punitive actions to achieve the implementation of a strategy. To transform an intended marketing strategy into a realized strategy, firms must work with partners to implement those plans. Although, particularly in interdependent relationships, there are strong motivations to use positive and collaborative methods to gain a partner's cooperation, there will be times when such mechanisms cannot get the job done. For example, a manufacturer might have to use punitive actions to discipline some partners that are not performing according to the agreed norms and thereby are injuring other partners. Such punitive actions might increase the manufacturer's standing with these other partners. Although extant channels literature recommends that channel firms avoid punitive actions, this recommendation is based solely on the reaction of the actor that is the target of the punitive action. However, the impact on other observers or what could be termed the "observer effect" might be more critical to the manufacturer's overall strategy. Dyadic relationships are embedded in a larger network of relationships, and the anticipated constructive effects of punitive actions in certain circumstances also must be considered.

REFERENCES

Aiken, Leona S. and Stephen G. West (1991), *Multiple Regression: Testing and Interpreting Interactions*. Newbury Park, CA: Sage Publications.

Anderson, Erin and Barton A. Weitz (1992), "The Use of Pledges to Build and Sustain Commitment in Distribution Channels," *Journal of Marketing Research*, 29 (February), 18–34.

Anderson, James C. and David W. Gerbing (1988), "Structural Equation Modeling in Practice: A Review and Recommended Two-Step Approach," *Psychological Bulletin*, 103 (3), 411–23.

——— and James A. Narus (1990), "A Model of Distributor Firm and Manufacturer Firm Working Relationships," *Journal of Marketing*, 54 (January), 42–58.

Armstrong, J. Scott and Terry S. Overton (1977), "Estimating Nonresponse Bias in Mail Surveys," *Journal of Marketing Research*, 14 (August), 396–402.

Bacharach, Samuel B. and Edward J. Lawler (1981), *Bargaining: Power, Tactics, and Outcomes*. San Francisco: Jossey-Bass.

Bollen, Kenneth A. and Richard Lennox (1991), "Conventional Wisdom on Measurement: A Structural Equation Perspective," *Psychological Bulletin*, 110 (2), 305–14.

Brown, James R., Robert F. Lusch, and Carolyn Y. Nicholson (1995), "Power and Relationship Commitment: Their Impact on Marketing Channel Member Performance," *Journal of Retailing*, 71 (4), 363–92.

Buchanan, Lauranne (1992), "Vertical Trade Relationships: The Role of Dependence and Symmetry in Attaining Organizational Goals," *Journal of Marketing Research*, 29 (February), 65–75.

Cook, Karen S. and Richard M. Emerson (1978), "Power, Equity and Commitment in Exchange Networks," *American Sociological Review*, 43 (October), 721–39.

Dwyer, F. Robert (1984), "Are Two Better than One? Bargaining Behavior and Outcomes in an Asymmetrical Power Relationship," *Journal of Consumer Research*, 11 (September), 680–93.

———, Paul H. Schurr, and Sejo Oh (1987), "Developing Buyer-Seller Relationships," *Journal of Marketing*, 51 (April), 11–28.

El-Ansary, Adel I. and Louis W. Stern (1972), "Power Measurement in the Distribution Channel," *Journal of Marketing Research*, 9 (February), 47–52.

Emerson, Richard M. (1962), "Power-Dependence Relations," *American Sociological Review*, 27 (February), 31–41.

Frazier, Gary L., James D. Gill, and Sudhir H. Kale (1989), "Dealer Dependence Levels and Reciprocal Actions in a Channel of Distribution in a Developing Country," *Journal of Marketing*, 53 (January), 50–69.

——— and Raymond C. Rody (1991), "The Use of Influence Strategies in Interfirm Relationships in Industrial Product Channels," *Journal of Marketing*, 55 (January), 52–69.

——— and John Summers (1986), "Perceptions of Interfirm Power and Its Use Within a Franchise Channel of Distribution," *Journal of Marketing Research*, 23 (May), 169–76.

French, John R.P., Jr., and Bertram Raven (1959), "The Bases of Social Power," in *Studies in Social Power*, Dorwin Cartwright, ed. Ann Arbor, MI: University of Michigan Press, 150–67.

Gaski, John F. (1987), "The History of the Measurement of Power in Marketing Channels," in *Review of Marketing 1987*, Michael Houston, ed. Chicago: American Marketing Association, 67–89.

——— and John R. Nevin (1985), "The Differential Effects of Exercised and Unexercised Power Sources in a Marketing Channel," *Journal of Marketing Research*, 22 (May), 130–42.

Geyskens, Inge, Jan-Benedict E.M. Steenkamp, Lisa K. Scheer, and Nirmalya Kumar (1996), "The Effects of Trust and Interdependence on Relationship Commitment: A Trans-Atlantic Study," *International Journal of Research in Marketing*, 13 (4), 303–17.

Gundlach, Gregory T. and Ernest R. Cadotte (1994), "Exchange Interdependence and Interfirm Interaction: Research in a Simulated Channel Setting," *Journal of Marketing Research*, 31 (November), 516–32.

Heide, Jan B. (1994), "Interorganizational Governance in Marketing Channels," *Journal of Marketing*, 58 (January), 71–85.

——— and George John (1988), "The Role of Dependence Balancing in Safeguarding Transaction-Specific Assets in Conventional Channels," *Journal of Marketing*, 52 (January), 20–35.

——— and ——— (1992), "Do Norms Matter in Marketing Relationships?" *Journal of Marketing*, 56 (April), 32–44.

Howell, Roy (1987), "Covariance Structure Modeling and Measurement Issues: A Note on Interrelations Among a Channel Entity's Power Sources," *Journal of Marketing Research*, 24 (February), 119–26.

Hunt, Shelby D. and John R. Nevin (1974), "Power in a Channel of Distribution: Sources and Consequences," *Journal of Marketing Research*, 11 (March), 186–93.

Jaccard, James, Robert Turrisi, and Choi K. Wan (1990), *Interaction Effects in Multiple Regression*. Newbury Park, CA: Sage Publications.

John, George (1984) "An Empirical Investigation of Some Antecedents of Opportunism in a Marketing Channel," *Journal of Marketing Research*, 21 (August), 278–89.

Johnston, J. (1984), *Econometric Methods*, 3rd ed. New York: McGraw-Hill.

Judge, George C., R. Carter Hill, William E. Griffiths, Helmut Lutkepohl, and Tsoung-Chao Lee (1988), *Introduction to the Theory and Practice of Econometrics*, New York: John Wiley & Sons.

Kale, Sudhir (1986), "Dealer Perceptions of Manufacturer Power and Influence Strategies in a Developing Country," *Journal of Marketing Research*, 23 (November), 387–93.

Kumar, Nirmalya (1996), "The Power of Trust in Manufacturer-Retailer Relationships," *Harvard Business Review*, 74 (November/December), 92–106.

——— Lisa K. Scheer, and Jan-Benedict E.M. Steenkamp (1995a), "The Effects of Supplier Fairness on Vulnerable Resellers," *Journal of Marketing Research*, 32 (February), 54–65.

———, ——— and ——— (1995b), "The Effects of Perceived Interdependence on Dealer Attitudes," *Journal of Marketing Research*, 32 (August), 348–56.

Lawler, Edward J. (1986), "Bilateral Deterrence and Conflict Spiral: A Theoretical Analysis," in *Advances in Group Processes*,

Edward J. Lawler, ed. Greenwich, CT: JAI Press, 107–30.

——— and Samuel B. Bacharach (1987), "Comparison of Dependence and Punitive Forms of Power," *Social Forces*, 66 (2), 446–62.

———, Rebecca S. Ford, and Mary A. Blegen (1988), "Coercive Capability in Conflict: A Test of Bilateral Deterrence Versus Conflict Spiral Theory," *Social Psychology Quarterly*, 51 (2), 93–107.

Lusch, Robert F. (1976), "Sources of Power: Their Impact on Intrachannel Conflict," *Journal of Marketing Research*, 13 (November), 382–90.

——— and James R. Brown (1996), "Interdependency, Contracting, and Relational Behavior in Marketing Channels," *Journal of Marketing*, 60 (October), 19–38.

Mason, Charlotte H. and William D. Perreault (1991), "Collinearity, Power, and Interpretation of Multiple Regression Analysis," *Journal of Marketing Research*, 28 (August), 268–80.

Molm, Linda D. (1989), "Punishment Power: A Balancing Process in Power-Dependence Relations," *American Journal of Sociology*, 94 (6), 1392–418.

Morgan, Robert M. and Shelby D. Hunt (1994), "The Commitment–Trust Theory of Relationship Marketing," *Journal of Marketing*, 58 (July), 20–38.

Rubin, Jeffrey Z. and Bert R. Brown (1975), *The Social Psychology of Bargaining and Negotiation*. New York: Academic Press.

Scheer, Lisa K. (1993), "Fairness and Influence: Building on a Classical Foundation," in *Marketing Theory and Applications*, Vol. 4, Rajan Varadarajan and Bernard Jaworski, eds. Chicago: American Marketing Association, 219–25.

——— and Louis W. Stern (1992), "The Effect of Influence Type and Performance Outcomes on Attitude Toward the Influencer," *Journal of Marketing Research*, 29 (February), 128–42.