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Is the theory of trust and commitment in marketing relationships incomplete?

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ARTICLE INFO	A B S T R A C T
Keywords:	Trust and commitment are central to the relational mediators model of relationship marketing. Extant research
Trust	suggests that trust enhances commitment, as a trusted partner is so highly valued that a channel member will
Commitment	invest in the relationship and put forth efforts to maintain that relationship. This study re-examines the causality
Relationship marketing	between trust and commitment by comparing alternative models across three datasets (including the seminal
Causality	Morgan and Hunt 1994 data). The results indicate that while trust enhances commitment, commitment can also
Longitudinal research	erode trust. Several viable, theoretically-driven explanations for this negative effect are discussed, and propo-
	sitions are developed for future research.

1. Introduction

Trust and commitment are key constructs in the study of relationship marketing (Palmatier, Dant, Grewal, & Evans, 2006). Along with satisfaction, they are known as relational mediators and are central to the relational mediators model of relationship marketing (Morgan & Hunt, 1994; Palmatier et al., 2006; Palmatier, Dant, & Grewal, 2007). In this model, the relational mediators are shaped by various antecedents (e.g., relationship benefits, communication, shared values) and result in various outcomes such as cooperation, loyalty, and performance (Morgan & Hunt, 1994; Palmatier et al., 2006). The focus of our research is on the relationship between the key mediators of trust and commitment.

Conventional wisdom suggests that trust leads to commitment because a trusted channel partner is so highly valued that a channel member will put forth "maximum efforts" to maintain the relationship (Morgan & Hunt, 1994, p. 23, referred to hereafter as MH). In addition, a channel firm is more willing to invest financial, temporal, and emotional resources in a trusted partner because it believes that its partner will not take undue advantage of such investments (cf. Dwyer, Schurr, & Oh, 1987).

This theoretically compelling perspective of the trust-commitment relationship tends to dominate marketing channels research (e.g., Caceres & Nicholas, 2007; Geyskens, Steenkamp, & Kumar, 1998; Morgan & Hunt, 1994; Palmatier et al., 2006); however, some researchers have flirted with the idea that commitment impacts trust positively (e.g., Anderson & Weitz, 1992; Dyer & Chu, 2000; Fredendall, Hopkins, & Bhonsle, 2005; Ganesan, 1994). Both Dyer and Chu (2000) and Ganesan (1994), for example, argue that specific investments dedicated to a channel relationship represents a commitment to that relationship, and this commitment in turn signals that the investing party can be trusted. Similarly, Anderson and Weitz (1992) suggest that a channel member who perceives its channel partner as committed to the relationship places more confidence in that partner.

Given these arguments, Seppänen, Blomqvist, and Sundqvist (2007, p. 260) have recommended that "[f]uture research on inter-organizational trust should consider testing the reciprocal loops ... of trust and commitment." Yet, few researchers have followed this recommendation (for an exception, see Dickey, McKnight, & George, 2007), leaving a gap in our understanding of the complexities of relationship marketing. With this paper, we hope to close that gap by reexamining the nature of the trust-commitment relationship; specifically, we investigate the possibility that trust and commitment are reciprocally linked and we explore theoretical explanations that might account for this relationship.

Unlike most published empirical studies that focus on the verification of theoretical hypotheses, this study is conducted in the context of discovery—the development of scientific hypotheses, laws, and theories (Hunt, 2002). This approach is often how interesting theory is discovered (Van Maanen, Sørensen, & Mitchell, 2007). Indeed, one of the

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ways in which interesting theory can be developed is to question whether a dependent variable is in fact an independent variable (Davis, 1971; Tellis, 2017). Therefore, our overarching research question is: In addition to trust impacting commitment, does commitment affect trust in marketing relationships?

The aim of this research, therefore, is to reexamine the commitment-trust theory of relationship marketing. The contributions of our study are three-fold. First, using MH's data, we find support for both: (a) the trust-to-commitment relationship that they uncover, but also (b) a nonrecursive model where trust and commitment have reciprocal relationships. The nonrecursive model fits the data better than the alternatives, suggesting that commitment does indeed impact trust in B2B relationships. As a second contribution, we analyzed two additional datasets to determine whether the statistically significant commitmentto-trust link uncovered in the MH reanalysis was an anomaly, and we found the commitment-to-trust relationship to be negative across the three datasets. The results suggest dark-side effects of commitment in long-term relationships. Third, we offer a number of alternative and viable explanations for this negative effect. These alternative explanations represent an agenda for future research. Finally, we explore the implications of our research for practitioners.

The paper is organized as follows. First, we provide a brief overview of the relational mediators model of relationship marketing and its two central constructs—trust and commitment. Next, we analyze alternative models (a trust \Longrightarrow commitment model, a commitment \Longrightarrow trust model, and a nonrecursive, trust \Leftrightarrow commitment model) using two different, cross-sectional datasets, one of which is Morgan and Hunt's (1994) data. Furthermore, we check the robustness of the negative commitment \Longrightarrow trust effect with a longitudinal dataset. Third, we offer plausible explanations for the negative reciprocal effects of commitment on trust. We conclude with a discussion of implications for future research and managerial practice.

2. Relational mediators model of relationship marketing

Relationship marketing has emerged as a dominant paradigm in both business practice and marketing research (Sheth, Parvatiyar, & Sinha, 2015). MH (p. 22) define relationship marketing as "all marketing activities directed toward establishing, developing, and maintaining successful relational exchanges." Similarly, Beck and Palmatier (2012, p. 294) define it as "the process of identifying, developing, maintaining and terminating relational exchanges with the purpose of enhancing performance." The goal of relationship marketing is to enhance mutual value by increasing the effectiveness and efficiency of all parties involved in the exchange (Sheth et al., 2015). This approach to understanding marketing exchange differs from earlier perspectives in that it emphasizes bilateral cooperation between exchange partners to achieve desired outcomes rather than the unilateral exercise of power to compel desired ends (Heide, 1994; Morgan & Hunt, 1994).

In their seminal article on trust and commitment in relationship marketing, MH argue that trust and commitment are central constructs in relationship marketing efforts. In particular, the relationship marketing literature sees trust and commitment as mediating the effects of such factors as communication, dependence and interdependence, opportunistic behavior, and relationship benefits on key outcomes such as cooperation, performance, loyalty, and conflict (MH as well as Palmatier et al., 2006, 2007). This perspective on trust and commitment is sometimes termed the relational mediators model of relationship marketing (Palmatier et al., 2006).

In this paper, we define *trust* as the belief that one's channel partner can be relied on to fulfill its obligations and to behave in a benevolent manner (Doney & Cannon, 1997; Lee, Sirgy, Brown, & Bird, 2004; Scheer, 2012). A reliable channel partner is one that stands by its word (Geyskens et al., 1998) and fulfills its obligations (Scheer, 2012). A benevolent channel partner is one that is "genuinely interested in the other partner's welfare and motivated to seek joint gain" (Doney &

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Cannon, 1997, p. 36); hence, a benevolent channel partner forgoes immediate self-interest for longer-term joint gains (Geyskens et al., 1998). In short, a firm's trust in its partner is its belief that its partner will honor its promises, perform its roles competently, and will not knowingly harm its channel partner (cf. Boersma, Buckley, & Ghauri, 2003). In this way, trust enhances cooperation and performance (Beck & Palmatier, 2012; Hibbard, Brunel, Dant, & Iacobucci, 2001; MH). Our research focuses on overall trust in the marketing relationship rather than the various trust components.

Commitment is the belief that a channel relationship is so valued that it warrants "maximum efforts" to maintain it (Morgan & Hunt, 1994, p. 23; Palmatier et al., 2006). Commitment is considered the "highest stage of relational bonding" (Dwyer et al., 1987, p. 23). Similar to trust, commitment facilitates cooperation and acquiescence (Morgan & Hunt, 1994), enhances performance (Brown, Lusch, & Nicholson, 1995; Ramaseshan, Yip, & Jae, 2006), and quells opportunism (cf. Beck & Palmatier, 2012).¹

Various types of organizational commitment have been identified, including calculative (or continuance) commitment and affective commitment (Allen & Meyer, 1990; Ganesan, Brown, Mariadoss, & Ho, 2010). With *calculative commitment*, a firm's commitment to its partner is rooted in its assessment of the benefits and costs of continuing with the relationship (Allen & Meyer, 1990; Ganesan et al., 2010; Kim, Hibbard, & Swain, 2011). A firm's emotional attachment to its partner refers to *affective commitment*; it is characterized by the firm's identification with as well as loyalty and allegiance to its partner (Allen & Meyer, 1990; Ganesan et al., 2010; Kim et al., 2011).² The focus of the empirical analysis in this study is largely on affective commitment, although we discuss calculative commitment in the propositions.

In the relational mediators model, trust is typically viewed as an antecedent to commitment (for example, Geyskens et al., 1998; Hadjikhani & Thilenius, 2009; Kingshott & Pecotich, 2007; MH; Palmatier et al., 2007). Firms will not commit to partners that do not honor their promises, are incompetent in performing their roles, and may potentially harm their counterparts.

However, some researchers speculate that commitment influences trust positively (Anderson & Weitz, 1992; Dyer & Chu, 2000; Fredendall et al., 2005; Ganesan, 1994) and that there may be reciprocal effects between these two constructs (Seppänen et al., 2007). Dickey et al. (2007, p. 260) argue that "[c]ommitment builds trust by reducing uncertainty about fulfilling future interdependent needs." Indeed, their empirical results support this contention; they found that franchisor commitment is related positively to franchisees' trusting beliefs in the franchisor's competence and honesty.

Other researchers, however, speculate that commitment may have a dark side (e.g., Achrol & Gundlach, 1999; Palmatier, Houston, Dant, & Grewal, 2013). The dark side of a close relationship refers to negative forces that operate "beneath the surface" to undermine that relationship (Abosag, Yen, & Barnes, 2016; Anderson & Jap, 2005). Grandinetti (2017) has identified these forces as "traps" (i.e., lock-in situations resulting from various sources of asymmetric dependence) and "secrets" (i.e., asymmetries in pertinent information available to the relationship partners). High levels of trust and commitment can lead firms to become myopic and/or complacent about their exchange relationship and, hence, vulnerable to channel partners who take advantage of these traps and secrets (cf. Baker, Dant, & Weaven, 2019). In other words,

¹ Consistent with the literature, we define opportunism as "self-interest seeking with guile" which includes misrepresenting facts, withholding critical information, violating agreements, or evading obligations (Wathne & Heide, 2000).

² Studied less frequently in the marketing channels context is normative commitment. This form of commitment refers to a firm's attachment to its channel partner based on a feeling of obligation, duty, or moral code (Allen & Meyer, 1990; Kim et al., 2011). Normative commitment is not investigated in this research.

commitment can undermine the exchange relationship.

For example, asymmetrical commitment may lead to opportunistic behaviors (Achrol & Gundlach, 1999; Ross, Anderson, & Weitz, 1997) and negative commitment velocity³ may impede performance (Palmatier et al., 2013). Further, Palmatier et al. (2006) report that of all the relational mediators examined (i.e., trust, commitment, relationship satisfaction, and relationship quality), commitment yielded the weakest relationship with objective performance. Given these findings, we re-examine the MH relationship marketing model to gain additional insights on the trust-commitment relationship.

3. Reanalysis of the MH data

We first replicate MH's trust-to-commitment model. Then, we develop two alternative models to explore the causal ordering of trust and commitment: a commitment-to-trust model and a non-recursive model where trust and commitment have reciprocal relationships. We chose to analyze the MH data as a starting point for our study because their paper represents the foundation for subsequent work on the trust-commitment relationship in marketing. MH examine antecedents and consequences of trust and commitment (i.e., the relational mediators model), emphasizing the causal link from trust to commitment (see Table 1 for some specifics about MH's construct definitions and operationalizations). Their empirical results, based on a sample of 204 independent automobile tire retailers reporting on their channel relationships, are reproduced in Table 2.

We re-analyzed MH's covariance-variance matrix (see MH, Table 1 on p. 29) using LISREL 8.8, the same statistical program but a different version than they employed. We used the same method as MH, structural equation modeling, to test the three alternative models. To account for measurement error, the error variance for each construct measure was set at $(1 - \alpha)$ multiplied by the variance of the construct, where α is the construct measure's reliability coefficient (Hayduk, 1987). As can be seen in Table 2 (Model MH1), our replication of the trust-to-commitment model demonstrates a good fit with the data $(\chi_{(43)}^2 = 141.7, p < .001, CFI = 0.94, RMSEA = 0.11, AIC = 221.8)$. Both the model fit and parameter estimates of our replication closely align with original findings $(\chi_{(43)}^2 = 140.26, CFI = 0.89, RMSEA = 0.11, and AIC = 210.26)$ (Table 2).

Our next step was to estimate the commitment-to-trust model. In Table 2, Model MH2 shows that this model fits the data adequately $(\chi_{(43)}^2 = 178.93, p < .001, CFI = 0.92, RMSEA = 0.12, AIC = 245.85)$ and that the commitment \implies trust link is statistically significant ($\beta = 0.15, p < .05$). Thus, the commitment-to-trust model represents a viable alternative to MH's original trust-to-commitment model. Because Models MH1 and MH2 suggest bidirectional causality between trust and commitment, we estimated a non-recursive model, labelled MH3 (see Baggozi 1980).⁴Table 2 shows that this model fits the data acceptably ($\chi_{(42)}^2 = 135.16, p < .001, CFI = 0.95, RMSEA = 0.11, AIC = 218.20)$ and that both the trust \Longrightarrow commitment and commitment \Longrightarrow trust paths are statistically significant at the 0.05 level ($\beta = 0.69$ and $\beta = -0.22$, respectively).

Based on the Akaike Information Criterion (AIC) values, the nonrecursive model (MH3) best fits our reanalysis of MH's data (see Table 2, Models MH1–3). Further, the chi-square difference test suggests that Model MH3 fits the data better than Model MH1 ($\Delta \chi^2 = 6.54$, $\Delta df = 1, p < .05$). Model MH3 suggests a positive, significant trust-tocommitment relationship, consistent with MH's trust-to-commitment model. A negative, significant commitment-to-trust path is also observed in Model MH3. The MH3 parameter estimates suggest that while trust enhances commitment, commitment erodes trust. Given this surprising empirical finding, we embark on the process of discovery to determine whether this result is an anomaly or an empirical regularity heretofore overlooked.

4. Replications of the negative commitment \rightarrow trust PATH

We began our process of discovery by testing whether these surprising results from the MH data were robust across other samples. We examined the trust-commitment relationship with data from two additional studies: (1) a meta-analysis of marketing channel relationships and (2) a longitudinal study of retailer-supplier relationships. Our goal was to see if we could replicate the results of MH3.

Researchers have identified three forms of replication: (1) literal replication, the exact duplication of the original study (Madden, Franz, & Mittelstaedt, 1979); (2) close or operational replication, a study that tries to be as faithful to the original study's methodology as possible (Lindsay & Ehrenberg, 1993; Madden et al., 1979; Uncles & Kwok, 2013); and (3) differentiated or constructive replication, where the researcher deliberately alters aspects of the original study's methods (Lindsay & Ehrenberg, 1993; Madden et al., 1979; Uncles & Kwok, 2013).

The literature on replications persuasively argues that empirical generalization depends upon obtaining similar results under different conditions (Lindsay & Ehrenberg, 1993; Madden et al., 1979; Uncles & Kwok, 2013). Our MH1 study represents a literal or exact replication, the only difference being the newer version of the statistical package that we used. The following meta-analytic study represents a close or operational replication, and, finally, the longitudinal study represents a differentiated or constructive replication of the MH3 results. By varying aspects of the reseach method (e.g., primary vs. secondary data, differing sets of independent variables) as done here, evidence for the robustness of the MH3 findings can be uncovered.

4.1. Meta-analytic study

To investigate whether the unexpected negative commitment-totrust relationship was anomalous, we attempted to replicate the results with data from a meta-analytic study conducted across various marketing contexts (e.g., sales, marketing channels). A meta-analytic study can provide more robust results since it relies on findings from multiple studies in multiple contexts instead of those from a single study (Rosenthal & Dimatteo, 2001). The approach used here was similar to that employed in other meta-analyses of marketing relationships (e.g., Cao & Lumineau, 2015; Crosno & Brown, 2015; Geyskens, Steenkamp, & Kumar, 1999, 2006; Palmatier et al., 2006).

The studies included in this analysis were gleaned from a four-step search process. First, we conducted a keyword search (e.g., trust, commitment, communication, opportunism) on ABI/Global Inform and Business Source Premier databases to identify relevant studies. Second, we performed electronic and manual searches on the following journals: Academy of Management Journal, Administrative Science Quarterly, European Journal of Marketing, Industrial Marketing Management, International Journal of Research in Marketing, Journal of International Marketing, Journal of Management, Journal of Marketing, Journal of Marketing Research, Journal of Retailing, Journal of the Academy of Marketing Science, Journal of the Market Research Society, Marketing Letters, Marketing Science, Psychology and Marketing, and Strategic Management Journal. These journals were selected because they are major outlets for relationship marketing research. Third, we contacted authors researching in the focal area and requested unpublished studies examining the relationships of interest. Lastly, we employed an ancestry approach, where we examined the references of the articles uncovered in the previous three steps.

Studies that were generated from the search process were included only if they met the following three criteria. First, the study had to

³ Commitment velocity is the "rate and direction of changes in" commitment (Palmatier et al., 2013, p. 14).

⁴ All of the models estimated in this manuscript are statistically identified according to both the rank and order conditions.

Table 1

Construct and conceptual definition	Operationalization/ measurement source(s) ^a	Construct aliases	Relationship with trust and/or commitment
Relational mediators Trust: exists "when one party has confidence in an exchange partner's reliability and integrity" (MH, p. 23).	MH: Overall trust (Larzelere & Huston, 1980) MAS: Overall trust (e.g., Jap & Anderson, 2003; Yilmaz & Hunt, 2001) LRSS: Overall trust in the sup-plier (Seppänen et al., 2007)		Commitment \implies + Trust (Dickey et al., 2007; Dyer & Chu, 2000; Fredendall et al., 2005; Hausman & Johnston, 2010)
Relationship Commitment: " an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship is worth working on to ensure that it endures indefinitely" (MH, p. 23).	MH: Affective commitment (Meyer & Allen, 1984; Mowday, Steers, & Porter, 1979) MAS: Primarily affective commitment (e.g., Joshi & Stump, 1999) but also includes continuance commitment (e.g., Skarmeas, Katsikeas, & Schlegelmilch, 2002) LRSS: Affective commitment to the retailer- supplier relationship (Kim & Frazier, 1997)	Expectation of Relationship Continuation; Long-term Orientation	Trust ⇒ + Commitment (Caceres & Nicholas, 2007; Geyskens et al., 1998; Hadjikhani & Thilenius, 2009; Kingshott, 2006; Kingshott & Pecotich, 2007; MH; Palmatier et al., 2007)
Antecedents Relationship Termination Costs: " all expected losses from termination and result from the perceived lack of comparable potential alternative partners, relationship dissolution expenses, and/or substantial switching costs" (MH, p. 24).	MH: (Meyer & Allen, 1984) MAS: Specific investments that cannot be easily redeployed (e.g., Wuyts & Geyskens, 2005)	Switching Costs	Relationship Termination Costs \Rightarrow + Commitment (Jones, Reynolds, Mothersbaugh, & Beatty, 2007; Lancastre & Lages, 2006; MH; de Ruyter et al., 2001)
Dependence: "the need to maintain a relationship with another party in order to achieve one's goals" (Scheer et al., 2015, p. 695)	LRSS: Extent to which the retailer relies on the supplier (Scheer et al., 2015)		Dependence \implies + Trust (Kumar et al., 1995; Palmatier et al., 2006; Van Bruggen, Kacker, & Nieuwlaat, 2005) Dependence \implies + Commitment (Andaleeb, 1996; Geyskens et al., 1996a, 1996b; Palmatier et al., 2006; Van Bruggen et al., 2005)
Relationship Benefits: receipt of superior benefits from the partnership relative to that received from other options (MH, pp. 24–25)	 MH: Benefits obtained from current supplier as compared to an alternate supplier (Anderson & Narus, 1990) MAS: Relationship effectiveness (e.g., Moore & Cunningham, 1999); Joint performance (e.g., Jap & Anderson, 2003). 	Comparison Level for Alternatives	Relationship Benefits \implies + Trust (Geyskens et al., 1998; Moore & Cunningham, 1999; Palmatier et al., 2006;) Relationship Benefits \implies + Commitment (Moore & Cunningham, 1999; MH; Mukherjee & Nath, 2007)
Satisfaction: " an affective response of individual channel members toward salient aspects of the channel organization" (Schul, Little Jr., & Pride, 1985, p. 13.)	LRSS: The retailer's overall satisfaction with the supplier (Lewis & Lambert, 1991)		Satisfaction \implies + Trust (Caceres & Nicholas, 2007; Geyskens et al., 1999; Wagner, Eggert, & Lindemann, 2010) Satisfaction \implies + Commitment (Caceres & Nicholas, 2007; Doucette, 1997; Geyskens et al., 1999)
Shared Values: " the extent to which partners have beliefs in common about what behaviors, goals, and policies are important or unimportant, appropriate or inappropriate, and right or wrong" (MH, p. 25).	MH: Extent of agreement on ethical values (Enz, 1988; Hunt, Wood, & Chonko, 1989) MAS: Relational norms (e.g., Brown et al., 2000; Joshi & Arnold, 1997)	Relational Norms	Shared Values \implies + Commitment (MH; Sarkar, Echambadi, Cavusgil, & Aulakh, 2001) Shared Values \implies + Trust (Anderson & Weitz, 1989; MH; Sarkar et al., 2001; Smith & Barclay, 1997; Nicholson, Compeau, & Sethi, 2001; Yilmaz & Hunt, 2001)
Communication: the sharing of meaningful and timely infor-mation within the relationship (MH)	 MH: Frequency, quality, and timeliness of communi-cation (Anderson, Lodish, & Weitz, 1987) MAS: Sharing of information (e.g., Gassenheimer, Baucus, and Baucus, 2006; Mohr & Sohi, 1995) LRSS: Extent to which the supplier promotes open communication with the retailer (Mohr & Sohi, 1995) 	Information Sharing; Information Exchange	Communication \implies + Trust (Doney, Barry, & Abratt, 2007; MH; Palmatier et al., 2006; Palmatier et al., 2007; Yilmaz & Hunt, 2001) Communication \implies + Commitment (Anderson & Weitz, 1992; Doney et al., 2007; Palmatier et al., 2007)
Opportunistic Behavior: "the essence of opportunistic behavior is the deceit-oriented violation of implicit or explicit promises about one's appropriate or required role behavior" (John, 1984, p. 279).	MH: Supplier (other party) opportunism (John, 1984) MAS: Both own and partner opportunism (Brown et al., 2000; Rokkan, Heide, & Wathne, 2003)		Opportunistic Behavior ⇒ - Trust (MH; Palmatier et al., 2007; Yilmaz & Hunt, 2001)
Relationship Duration: "length of time that the relationship between the exchange partners has existed" (Palmatier et al., 2006, p. 138).	LRSS: Number of years the retailer has been affiliated with the supplier		Duration \implies + Trust: (Anderson & Weitz, 1989; Palmatier et al., 2006; Poppo, Zhou, and Ryu 2008; Sako & Helper, 1998) Duration \implies + Commitment: (Anderson & Weitz, 1989; Palmatier et al., 2006;)
Consequences Acquiescence: " the degree to which a partner accepts or adheres to another's specific requests or policies" (MH, p. 25).	MH: Likelihood of complying with supplier's marketing policies in the future (Developed by MH for their study)	Compliance	Commitment \implies + Acquiescence (Hausman & Johnston, 2010 (mediated effect); MH) Trust \implies + Compliance (Davies, Lassar, Manolis, Prince, & Winsor, 2011; Hausman & Johnston, 2010; Hewett & Bearden, 2001; Smith & Barclay, 1997)
Propensity to Leave: " the perceived likelihood that a partner will terminate the	MH: Chances of terminating the relationship (Bluedorn, 1982)		Commitment \implies - Propensity to Leave (Friend, Hamwi, & Rutherford, 2011; Jap & Anderson,

(continued on next page)

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Table 1 (continued)

Construct and conceptual definition	Operationalization/ measurement source(s) ^a	Construct aliases	Relationship with trust and/or commitment
relationship in the (reasonably) near future" (MH, p. 26).		Repurchase intention; Expectations of future collaboration	2003; Hewett, Money, & Sharma, 2002; MH; Ryu, Park, & Min, 2007; Wagner et al., 2010
Cooperation: " situations in which parties work together to achieve mutual goals" (MH, p. 26).	MH: Level of cooperation over various channel functions (Brown, 1979) MAS: Purposive organization of activities and resources between partners (e.g., Li & Ng, 2002)		Trust ⇒ + Cooperation (Fredendall et al., 2005; Hausman & Johnston, 2010; Lancastre & Lages, 2006; MH; Palmatier et al., 2006; Palmatier et al., 2007) Commitment ⇒ + Cooperation (Hausman & Johnston, 2010; Lancastre & Lages, 2006; MH; Palmatier et al., 2006; Palmatier et al., 2007)
Functional Conflict: extent to which disagreements within the relationship are resolved amicably (MH).	MH: Future differences of opinion will likely benefit both parties (Developed by MH for their study)		Trust ⇒ + Functional Conflict (Massey & Dawes, 2007; MH)
Uncertainty: "Uncertainty in decision making refers to the extent to which a partner (1) has enough information to make key decisions, (2) can predict the consequences of those decisions, and (3) has confidence in those decisions" (MH p. 26).	MH: Decision-making uncertainty: (a) information adequacy, and (b) confidence in ability to make future decisions (Achrol & Stern, 1988) MAS: Demand, volume, or technological uncertainty (e.g., Joshi & Stump, 1999; Wuyts & Geyskens, 2005)		Trust → - Uncertainty (Jap & Anderson, 2003; MH; and Pavlou, Liang, & Xue, 2007; Spralls III, Hunt, & Wilcox, 2011)

^a MH: Morgan and Hunt (1994); MAS: meta-analysis study; and LRSS: longitudinal retailer-supplier study.

measure at least one of the antecedents (e.g., communication, opportunism) or consequences (e.g., cooperation) and at least one relational mediator (trust or commitment) to be included. Second, we only considered empirical studies that provided sufficient information to calculate an effect size. Lastly, we only included studies that had independent samples. When multiple studies were based on the same sample, we only included the study that was first published.

In total, two-hundred and sixty-two empirical papers were identified in the search and included in the analysis. This meta-analysis dataset contained most of the constructs reported in MH's relational mediators model: trust, commitment, and their antecedents and consequences. The data used for model estimation was a matrix of pairwise construct correlations (see Table 3). For each pairwise relationship, we calculated the mean Pearson's product moment correlation, r, using

Table 2

Alternative model comparison.

Path/model	H&M (1994) original findings	M&H (1994) replication			Meta-analysis stu	1y ^c	
		MH1	MH2	MH3	MAS1	MAS2	MAS3
$\text{TR} \rightarrow \text{COMM}^{d}$	0.53 ^a	0.53 ^a	-	0.69 ^a	0.24 ^a	-	0.51 ^a
$COMM \rightarrow TR$	-	-	0.15 ^a	-0.22^{a}	-	-0.11^{a}	-0.36^{a}
$RTC \rightarrow COMM$	0.37 ^a	0.37 ^a	0.31 ^a	0.39 ^a	0.01	0.02	-0.01
$RB \rightarrow COMM$	-0.01	-0.01	0.17 ^a	-0.06	0.29 ^a	0.34 ^a	0.24 ^a
$SV \rightarrow COMM$	0.19 ^a	0.19 ^a	0.46 ^a	0.12	0.17 ^a	0.29 ^a	0.08 ^a
$SV \rightarrow TR$	0.19 ^a	0.22 ^a	0.18 ^a	0.29 ^a	0.33 ^a	0.38 ^a	0.49 ^a
$IS \rightarrow TR$	0.18 ^a	0.21 ^a	0.16 ^a	0.28 ^a	0.49 ^a	0.52 ^a	0.69 ^a
$OPP \rightarrow TR$	-0.62^{a}	-0.58^{a}	-0.56^{a}	-0.62^{a}	-0.37^{a}	-0.36^{a}	-0.33^{a}
$COMM \rightarrow AQ$	0.56 ^a	0.55 ^a	0.54 ^a	0.54 ^a	-	-	-
$COMM \rightarrow PL$	-0.55^{a}	-0.54^{a}	-0.53^{a}	-0.53^{a}	-	-	-
$COMM \rightarrow CP$	0.25 ^a	0.25 ^a	0.26 ^a	0.26 ^a	0.24 ^a	0.26 ^a	0.26 ^a
$TR \rightarrow CP$	0.51 ^a	0.49 ^a	0.49 ^a	0.48 ^a	0.52 ^a	0.53 ^a	0.51 ^a
$TR \rightarrow FC$	0.45 ^a	0.44 ^a	0.43 ^a	0.44 ^a	-	-	-
$\mathrm{TR} \rightarrow \mathrm{UN}$	-0.33^{a}	-0.32^{a}	-0.31^{a}	-0.32^{a}	-0.16^{a}	-0.16^{a}	-0.16^{a}
Goodness-of-fit measures							
Chi-Square (χ^2)	140.26	141.7	178.93	135.16	916.61	964.61	744.08
df	43	43	43	42	19	19	18
р	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RMSEA	0.11 ^d	0.11	0.12	0.11	0.15	0.16	0.14
CFI	0.89	0.94	0.92	0.95	0.88	0.88	0.90
AIC	210.26 ^b	221.8	245.85	218.20	933.93	986.60	769.19
n	204	204	204	204	1946	1946	1946

 a Denotes p < .05 level. (r) Propensity to leave was reverse-coded.

^b RMSEA and AIC are not reported in Morgan and Hunt (1994) and are calculated using the following formulas: $RMSEA = \frac{\sqrt{(\chi^2 - df)}}{\sqrt{df(n-1)}}$ and $AIC = \chi^2 + k$

(k + 1) - 2df, where k is the number of variables.

^c The error terms of cooperation and functional conflict were allowed to be correlated in the meta-analytic study.

 d TR = Trust, COMM = Commitment, RTC = Relationship termination costs, RB = Relationship benefits, SV = Shared values, IS = Communication, OPP = Opportunistic behavior, AQ = Acquiescence, PL = Propensity to leave, CP = Cooperation, FC = Functional conflict, UN = Uncertainty.

Table 3

Correlation table for the meta-analytic study.

	-									
		1	2	3	4	5	6	7	8	9
1	Trust	0.88								
2	Commitment	0.37	0.87							
3	Relationship termination cost	0.14	0.10	0.84						
4	Relationship benefits	0.34	0.41	0.17	0.84					
5	Shared values	0.48	0.43	0.14	0.51	0.84				
6	Communication	0.59	0.47	0.12	0.34	0.15	0.77			
7	Opportunistic behavior	-0.58	-0.20	0.08	-0.28	-0.22	-0.35	0.81		
8	Cooperation	0.52	0.42	0.27	0.35	0.22	0.48	-0.32	0.82	
9	Uncertainty	-0.12	-0.13	-0.01	-0.02	0.03	-0.24	0.08	-0.40	0.77

Entries below the diagonal are the weighted, mean correlation coefficients. The diagonal entries are the weighted, mean Cronbach alpha coefficients.

Table 4

Correlation matrix for the longitudinal study.^a

	Construct measure	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Time 1 v	ariables											
1.	Trust	1.00										
2.	Commitment	0.49	1.00									
3.	Open communication	0.66	0.39	1.00								
4.	Dependence	0.42	0.65	0.36	1.00							
5.	Satisfaction	0.70	0.54	0.59	0.46	1.00						
Time 2 v	ariables											
6.	Trust	0.64	0.38	0.54	0.39	0.50	1.00					
7.	Commitment	0.46	0.60	0.37	0.50	0.50	0.57	1.00				
8.	Open communication	0.45	0.33	0.60	0.34	0.41	0.68	0.46	1.00			
9.	Dependence	0.37	0.43	0.36	0.57	0.42	0.52	0.69	0.47	1.00		
10.	Satisfaction	0.48	0.44	0.43	0.43	0.57	0.74	0.67	0.62	0.61	1.00	
11.	Relationship duration	-0.02	0.10	-0.03	0.08	0.08	0.01	0.13	-0.02	0.07	0.05	1.00
	Mean	4.38	4.31	3.42	3.60	3.88	4.12	4.47	3.31	3.71	3.71	16.88
	Std dev	0.84	0.69	0.86	0.82	0.66	0.90	0.80	0.85	0.94	0.75	9.70
	Composite reliability	0.93	0.92	0.86	0.82	0.79	0.94	0.93	0.85	0.84	0.90	N/A
	Average variance explained	0.65	0.58	0.68	0.61	0.56	0.68	0.60	0.66	0.64	0.69	N/A
	<i>n</i> = 760											

^a Correlations in bold, italic font are statistically significant (p < .05).

conventional meta-analytic procedures (e.g., Geyskens et al., 1998; Hunter & Schmidt, 1990; Rosenthal, 1991). Where the correlation coefficient was not available but other indicators of effect size were (e.g., *t*-values, *z*-scores), we converted these effect size indicators to correlation coefficients (Rosenthal, 1991) (see Technical Appendix for conversion formulae). When studies used multiple measures of one construct, the mean *r* of those measures was used in the analysis. Measurement error for each construct measure was fixed at $(1 - \overline{\alpha})$, where $\overline{\alpha}$ is the sample-size-weighted average reliability coefficient for that construct.

With these data, we estimated the three theoretical models examined in the MH study discussed above. The trust-to-commitment model (MAS1 in Table 2) suggests a mediocre fit with the data ($\chi_{(19)}^2$ = 916.61, p < .001, CFI = 0.88, RMSEA = 0.15, AIC = 933.93). Consistent with the findings in Models HM1, Model MAS1 suggests a positive and significant trust \implies commitment link (β = 0.24, p < .05). The fit of the commitment-to-trust model (MAS2 in Table 2) was also mediocre ($\chi_{(19)}^2$ = 964.61, p < .001, CFI = 0.88, RMSEA = 0.16, AIC = 986.60). But, unlike the results in Model HM2, the commitment \implies trust link in MAS2 is negative (β = -0.11, p < .05). In comparison with Models MAS1 and MAS2, the non-recursive model (MAS3 in Table 2) seems to fit to the data better ($\chi_{(18)}^2$ = 744.08, p < .001, CFI = 0.90, RMSEA = 0.14, AIC = 769.19).⁵ Model MAS3's trust \implies

commitment path is positive and significant at the 0.05 level ($\beta = 0.51$) and, thus, is consistent with Model MH3. Model MAS3 also shows a negative and significant commitment \implies trust path ($\beta = -0.36$, p < .05), as did MH3.

The non-recursive model (MAS3) has the lowest AIC value among all models based on the meta-analysis data (Table 2, Models MAS1–3); therefore, MAS3 best fits the meta-analytic data. Additionally, the chi-square difference test suggests that Model MAS3 is a better fitting model than Model MAS1 ($\Delta \chi^2 = 172.53$, $\Delta df = 1$, p < .05). Model MAS3 suggests a positive, significant path from trust to commitment and a negative, significant path from commitment to trust. These results again suggest that, while trust enhances commitment, commitment undermines trust.

Our analysis of the meta-analytic study provides an operational or close replication of MH3. MAS3's findings corroborate those of MH3, supporting the notion that the MH3 findings are not anomalous. We further examine the reciprocal nature of the trust-commitment relationship using a longitudinal data set.

⁵ The CFI and RMSEA fit indices for MAS3 appear contradictory. The CFI (0.90) is indicative of an "adequate" fit while the RMSEA of 0.14 suggests "poor" fit (Bagozzi & Yi, 2012). Lai and Green (2016) argue that this is not unusual and provide conditions under which this contradiction could validly

⁽footnote continued)

occur. Our contradictory CFI and RMSEA fit indices meet Lai and Green's (2016) conditions. CFI is based on the proposed model fit relative to the base model (i.e., model of complete independence). RMSEA is determined by the proposed model fit relative to the proposed model *df*. Thus, while the CFI shows that the proposed model represents an adequate improvement in fit over the base model, the RMSEA indicates that having more degrees of freedom, given the proposed model fit, would improve its value. Having more constructs in the model, for example, would be one way to increase the *df*.

Table 5

Non-recursive model for the longitudinal study.

Parameter	Estimate	Parameter	Estimate
Simultaneous causality bet commitment	ween trust and	Other estimates	
$TR_1 \rightarrow COMM_1^{b,c}$	-0.46^{a}	$OC_1 \rightarrow TR_1$	0.66 ^a
$TR_1 \rightarrow TR_2$	0.31 ^a	$OC_2 \rightarrow TR_2$	0.47 ^a
$TR_1 \rightarrow COMM_2$	0.17 ^a	$SAT_1 \rightarrow COMM_1$	1.13 ^a
$TR_2 \rightarrow COMM_2$	-0.46^{a}	$SAT_2 \rightarrow COMM_2$	0.71 ^a
$\text{COMM}_1 \rightarrow \text{TR}_1$	0.46 ^a	$\text{DEP}_1 \rightarrow \text{COMM}_1$	0.73 ^a
$\text{COMM}_1 \rightarrow \text{COMM}_2$	0.17 ^a	$\text{DEP}_2 \rightarrow \text{COMM}_2$	0.38 ^a
$\text{COMM}_1 \rightarrow \text{TR}_2$	-0.24^{a}	$YRS_1 \rightarrow TR_1$	-0.05
$\text{COMM}_2 \rightarrow \text{TR}_2$	0.60 ^a	$\text{YRS}_1 \rightarrow \text{TR}_2$	-0.02
		$\text{YRS}_1 \rightarrow \text{COMM}_1$	-0.01
Model fit		$\text{YRS}_1 \rightarrow \text{COMM}_2$	0.04
χ^2	203.95 ^b	$\text{YRS}_1 \times \text{TR}_1 \rightarrow \text{COMM}_2$	-0.02
df	24	$\text{YRS}_1 \times \text{COMM}_1 \rightarrow \text{TR}_2$	0.03
р	< 0.0001	Inverse Mills Ratio \rightarrow TR ₂	0.00
GFI	0.96	Inverse Mills Ratio →	-0.09
		COMM ₂	
RMSEA	0.10		
CFI	0.97		
NFI	0.97		
AIC	365.95		
Explained variance			
R_{TR1}^2	0.57	R_{COMM1}^2	0.55
R_{TR2}^2	0.71	R ² _{COMM2}	0.66

 a p < 0.01.

^b Subscripts refer to survey waves.

^c TR = Trust, COMM = Commitment, OC = Open Communication, SAT = Relationship Satisfaction, DEP = Dependence, YRS = Relationship Duration.

4.2. Longitudinal study

As mentioned, the following longitudinal study represents a differentiated or constructive replication of the MH3 results, in that the methods and variables studied vary considerably from the original MH research as well as the MAS study (see Table 1). If the longitudinal study's results corroborate those of the MH3 and MAS3 studies, these differences in research methods and variables provide additional evidence for the robustness of the nonrecursive model uncovered in the MH3 and MAS3 studies (cf. Lindsay & Ehrenberg, 1993; Madden et al., 1979; Uncles & Kwok, 2013).

To investigate the causal nature of the commitment-to-trust relationship, we used data collected from the same set of 760 hardware retailers (i.e., building supplies and home improvement retailers) over two waves sixteen months apart.⁶ These retailers were relatively modest in size (i.e., median annual sales revenue of between \$750 K and \$1 M) and had been affiliated with their major suppliers for a median of 16 years. The major supplier accounted for an average of 85% of the retailers' annual purchases at the time of the study. We used established 5-point, Likert scales for all the variables in the model (see the Appendix for scale items).⁷

Before replicating the models, we confirmed the reliability and validity of the constructs included in the model using procedures outlined by Anderson and Gerbing (1988) and Fornell and Larcker (1981) (see Table 4). The measurement models for both waves demonstrate good fit to the data (Time 1: $\chi_{(310)}^2 = 1357.29$, p < .001, CFI = 0.93, RMSEA = 0.07, AIC = 1493.29; Time 2: $\chi_{(310)}^2 = 1319.18$, p < .001, CFI = 0.94, RMSEA = 0.07, AIC = 1435.18). For both models, all factor loadings are statistically significant and all average variance extracted (AVE) values are above 0.50, indicating convergent validity of constructs. The discriminant validity of the construct measures is also observed in the models. Each construct has an AVE value greater than its squared correlations with other constructs. Composite reliability of constructs ranges from 0.79 to 0.94, suggesting that the construct measures are reliable.⁸ Having established reliability and validity of the constructs used in this study, we estimated a nonrecursive model.⁹

Table 5 shows that the longitudinal model with the retailer-supplier data has a good fit with the data $(\chi_{(24)}^2 = 203.96, p < .001,$ CFI = 0.97, RMSEA = 0.10, AIC = 365.96). Because our focus is on the trust-commitment relationship, we will restrict our discussion to the trust-commitment relationship results, although the full model results are reported in Table 5. As expected, the path estimate for $Trust_1 \implies$ Trust₂ is both positive and significant ($\beta = 0.31, p < .01$), showing the carryover effect of trust. The Commitment₁ \implies Commitment₂ path also demonstrates a positive, significant carryover effect ($\beta = 0.17$, p < .01). The Trust₁ \implies Commitment₁ path is negative ($\beta = -0.457$, p < .01), as is the Trust₂ \implies Commitment₂ path ($\beta = -0.463$, p < .01). This is in contrast to the significant and positive Trust \Longrightarrow Commitment paths uncovered in the cross-sectional MH and MAS studies. The Commitment₁ \implies Trust₁ path (β = 0.464, p < .01) as well as the Commitment₂ \implies Trust₂ path (β = 0.600, p < .01) are both significant and positive. These results are consistent with those found in MH2, but contrast with the negative ones found in MH3, MAS2, and MAS3. Further, the $Trust_1 \implies Commitment_2$ path is positive and significant ($\beta = 0.169$, p < .01). This finding is consistent with MH's original findings (MH1 and MH3), as well as those for the meta-analysis data (MAS1 and MAS3). The Commitment₁ \implies Trust₂ relationship is negative ($\beta = -0.237$, p < .01), and consistent with those shown in MH3, MAS2, and MAS3. Note that this result confirms the potential dark side effects of commitment over time.

5. Summary

In comparing three alternative models, we found that the nonrecursive model fits the data the best in both the MH and MAS studies. Therefore, these two studies taken together show a reciprocal causality between commitment and trust (Table 2). The significant, positive trust-to-commitment relationship that has been previously seen was also found in these two studies. However, the significant, negative commitment-to-trust linkage uncovered in this research was unexpected and further replicated with a longitudinal dataset (Table 5), suggesting some potential dark side effects of commitment.

The three studies discussed above seem to back the notion that a negative commitment \implies trust link exists along with the widely-supported, positive trust \implies commitment relationship. However, even the latter relationship is called into question by our longitudinal study. Our next step is to develop plausible explanations for the commitment \implies trust relationships—both negative and positive.

⁶ We are grateful to XXX for making these data available to us for this study. ⁷ Because logitudinal studies suffer from attrition across the two data collection waves, we followed Heckman's (1979) two-step procedure for controlling for selection bias. In the first step, we estimated a probit model using the first wave data to predict the presence of a response to the second wave data. We found no evidence of selection bias in the retailer-supplier study. In particular, neither relationship length (i.e., the duration of the retailers' relationship with their major supplier) nor retailer size (i.e., the retailer's sales volume) could distinguish those retailers who responded to both questionnaire waves from those who responded to the Wave 1 questionnaire only.

⁸ For this study, we investigated measurement invariance across the two waves of data collection to examine the validity of our construct measures. We found support for the partial metric invariance of our measures across the two waves, assuring us that our measurement models were reliable and valid over time (cf. Steenkamp & Baumgartner, 1998).

⁹We employed Lindell and Whitney's (2001) method to detect potential common method bias. The second smallest correlation of all the items was used to adjust all the correlations between items. The significance of correlation coefficients did not change after the adjustment. We conclude that common method bias is unlikely to affect the interpretation of the results.



Fig. 1. Propositions.

6. Plausible explanations

MH's seminal finding that trust builds commitment in marketing relationships has driven theoretical and empirical research for nearly twenty-five years. Perhaps this has led marketing scholars to overlook the possibility of reverse causality between these two key mediators of relational behavior. Using three separate datasets (including MH's original data), we found some evidence for the positive causal link between trust and commitment (i.e., trust \Longrightarrow commitment) uncovered by MH. However, all three data sets also evidenced a negative link between commitment and trust (i.e., commitment \Longrightarrow trust). Thus, the relationship between trust and commitment appears to display both a "bright side" and a "dark side."

The bright side effects of this relationship are well known (e.g., de Ruyter, Moorman, & Lemmink, 2001; Geyskens, Steenkamp, Scheer, & Kumar, 1996a, 1996b; Gilliland & Bello, 2002; Goodman & Dion, 2001). Its dark side effects, however, have not been explored sufficiently. As another key contribution of our study, we develop five plausible reasons for the negative commitment \implies trust dark side result.

One reason concerns the committed firm's vulnerability (Moorman, Zaltman, & Deshpande, 1992), while a second, related explanation for the dark side of trust and commitment is the asymmetry of commitment (e.g., Achrol & Gundlach, 1999). A third reason for this result deals with the firm's opportunity losses due to its commitment (e.g., Dant & Gleiberman, 2011). A fourth reason is based on the motivation for maintaining the relationship (Jain, Khalil, Johnston, & Cheng, 2014). The final rationale for this phenomenon is the differences between the drivers of trust and commitment across the exchange relationship's life cycle (Palmatier et al., 2013). Each of these reasons will be discussed in more detail below.

6.1. Vulnerability

Vulnerability is defined as a firm's susceptibility "to harm by the actions of one's relational partner" (Baker et al., 2019, p. 8). The more committed a firm is to its exchange relationship, the more vulnerable it is to its partner's potential opportunism (Hausman & Johnston, 2010; Moorman et al., 1992; Ross et al., 1997). Channel firms cannot help but be aware of this situation and, therefore, become leery of their partner's motives (Anderson & Weitz, 1989). A mere suspicion of partner opportunism may lead a firm to "hold back from the relationship" by withholding important resources and withdrawing its support of the relationship (Jap & Anderson, 2003, p. 1688; see also Jap, 2001). In short, a firm's commitment makes it vulnerable and that vulnerability leads the firm to question its partner's motives (i.e., question its partner's benevolence or, more broadly, trustworthiness). In this way, firms that are highly committed to the exchange relationship are less trusting of their partners (cf. Moorman et al., 1992). This discussion suggests that vulnerability, therefore, mediates the relationship between commitment and trust, as Proposition 1 more formally states (Fig. 1A).

 P_1 . The commitment-to-trust relationship is mediated by the committed firm's perceived vulnerability to its partner's opportunistic tendencies. Higher levels of commitment are associated with greater perceived vulnerability. Greater perceived vulnerability subsequently erodes the level of trust (i.e., decreased perceptions of partner reliability and benevolence).

However, higher levels of commitment may not always lead to a greater sense of vulnerability and a subsequent loss of trust. In the next section, we argue that this mediating relationship is moderated by the extent of the partner's commitment to the relationships.

6.2. Commitment symmetry

A related, plausible explanation for the negative commitment \Longrightarrow trust relationship pertains to the symmetry of commitment in the relationship. As Achrol and Gundlach (1999, p. 116) state, "[a]symmetry in commitment in an exchange increases the likelihood and motivation for opportunism by a less committed partner." In other words, the more committed partner feels vulnerable because it sees itself as overcommitted relative to its partner. Thus, the mediated relationship between a firm's commitment and its trust in its partner, as proposed in P₁, is moderated by the partner's commitment to the relationship. Stated somewhat differently, the more symmetric the commitment in the relationship, the less vulnerable the firm is to the partner's opportunistic tendencies (Achrol & Gundlach, 1999) and, hence, the more the firm can trust its partner. Thus, lower (greater) partner commitment represents a condition under which commitment heightens (lessens) a firm's perceived vulnerability. We state these arguments more formally in our second proposition (see Fig. 1B).

 P_2 . The mediated relationship described in P1 is moderated by the partner's commitment to its relationship with the firm. In other words, a firm's vulnerability to its partner's opportunistic behavior is related positively to the asymmetry of commitment in that relationship; the

greater the firm's vulnerability, the less it will trust its partner. Alternatively, a firm's vulnerability to its partner's opportunism is negatively related to the symmetry commitment in the relationship; the less the firm's vulnerability, the more it will trust its partner.

6.3. Opportunity losses

A third plausible explanation pertains to the role of "lock in" (i.e., the difficulty in replacing the exchange partner). A heightened level of commitment leaves a firm "locked-in"-if not economically due to investments in specific assets,¹⁰ then emotionally due to the affective attachment of the firm to its exchange partner (cf. Pick & Eisend, 2014). Locked-in firms face prohibitive, unrealized financial and emotional costs of terminating an exchange relationship or switching to another (Scheer, Miao, & Palmatier, 2015). In such situations, a firm may wonder if it would receive more benefits from an alternative exchange relationship (cf. Anderson & Jap, 2005; Dant & Gleiberman, 2011; Noordhoff, Kyriakopoulos, Moorman, Pauwels, & Dellaert, 2011). In this questioning process, locked-in firms may begin to doubt whether their partners are looking out for their best interests. In other words, firms start to suspect their partner's benevolence and reliability (i.e., their partner's trustworthiness). Thus, by definition, they trust their partners less.

Specifically, when a firm views the cost of switching to a different relationship to be high, the more locked-in it is to the current relationship (i.e., the higher its calculative or continuance commitment) (Ganesan et al., 2010; Kim et al., 2011). In such a situation, however, the firm may view alternative relationships as being attractive; in other words, it perceives potential opportunity losses because it cannot switch to these presumably more attractive, alternative relationships. When a firm faces low switching costs, the level of commitment will dampen its perceptions of opportunity losses. In this situation, the firm can more freely leave the relationship but remains in it because of reasons other than lock-in (i.e., the benefits of the relationship exceed the costs of switching). In other words, the firm has little to gain from leaving the relationship; hence, its opportunity losses for remaining are low. Regardless of the level of switching costs, perceived opportunity losses will negatively affect the firm's trust in its exchange partner.

These thoughts are more formally stated as our third proposition (see Fig. 1C).

P₃. The commitment \implies trust relationship is mediated by the extent to which a firm perceives the possibility of opportunity losses, and that mediating effect is moderated by the extent to which a firm perceives itself to be locked in to that relationship. Specifically, when the firm sees itself as being locked into the relationship (i.e., perceives higher switching costs), higher levels of commitment lead to greater perceptions of opportunity loss; this in turn results in the firm trusting its exchange partner less. When the firm perceives lower switching costs (i.e., less lock-in), increasing levels of commitment will lead to reduced perceptions of opportunity losses, which in turn boosts its trust in its partner.

6.4. Type of commitment

The relationships specified in Proposition 3 may depend on the type of commitment. As noted earlier, *calculative (or continuance) commitment* occurs when a firm remains in an exchange relationship because the benefits of doing so exceed the gains of leaving it (Allen & Meyer, 1990; Ganesan et al., 2010; Kim et al., 2011; Liu, Su, Li, & Liu, 2010). In contrast, a firm's *affective (or loyalty) commitment* pertains to its

emotional attachment to its exchange partner (Allen & Meyer, 1990; Ganesan et al., 2010; Kim et al., 2011; Liu et al., 2010).

Firms with higher levels of calculative commitment relative to their levels of affective commitment will be more sensitive to potential economic opportunity losses (Fullerton, 2005; Liu et al., 2010).¹¹ In these relationships, the link between commitment and perceptions of being "locked-in" are stronger than in relationships characterized by more affective commitment. Conversely, firms with higher levels of affective commitment compared to their levels of calculative commitment will have a higher emotional attachment to the relationship. This emotional attachment is likely to temper the "lock-in" effect (i.e., the erosion of trust due to perceived opportunity losses). Thus, the predominant type of commitment in the relationship will heighten or dampen the "lock-in" effect. These notions are stated more formally as Proposition 3'.

 $P_{3'}$. The strength of the commitment \implies potential opportunity loss linkage varies according to the type of commitment. This linkage will be stronger for firms that are more committed to their exchange relationships in a calculative fashion, and weaker for those that are more affectively committed to their exchange relationships.

6.5. Motivation

Another potential explanation is the motivation for maintaining the relationship. Affective commitment is based on a desire to maintain the relationship resulting from identification, enjoyment, and/or an emotional attachment (Jain et al., 2014). When firms are affectively committed, they are positively and internally motivated to maintain the relationship (Jain et al., 2014). Calculative commitment, in contrast, is based on pragmatic considerations of the benefits and costs of continuing with the relationship. Firms with a high level of calculative commitment need to maintain the relationship to avert losses (Jain et al., 2014). Hence, the drive for maintaining the relationship is negative (Jain et al., 2014; Scheer et al., 2015), and this negative motivation is likely to "poison" the relationship (Scheer et al., 2015, p. 707).

Concerns about loss of benefits or high switching costs "over-ride any positive feelings emerging from identification and attachment" (Fullerton, 2005, p. 1378). In other words, calculative commitment undermines affective commitment to the relationship (Fullerton, 2005; Liu et al., 2010), which in turn adversely affects relationship sentiments and ultimately leads to lower trust (Fullerton, 2005; Gilliland & Bello, 2002; Morgan & Hunt, 1994). We believe, however, that this effect only occurs after the honeymoon period (Blut et al., 2011).

Levinthal and Fichman (1988) argue that exchange relationships begin with a stock of positive assets (e.g., favorable prior beliefs, trust, goodwill, financial resources, and affective commitment). This initial stock of assets protects the relationship from early unfavorable outcomes, such as poor performance or partner opportunism (Deeds & Hill, 1999; Levinthal & Fichman, 1988). It also forms the basis for the relationship's growth, as trust allows for continuing financial and psychological investment in the relationship (cf. Dwyer et al., 1987). Thus, trust and commitment (both affective and calculative) grow together in the early stages of an exchange relationship.

Calculative commitment does not crowd out the positive effects of affective commitment in the early stages of a relationship due to the buffer provided by the initial stock of goodwill and favorable beliefs about the relationship (Fichman & Levinthal, 1991). As the relationship matures, however, the initial stock of goodwill erodes and can no longer insulate the relationship from any negative relationship evaluations (Blut et al., 2011; Fichman & Levinthal, 1991). Thus, we expect calculative commitment (i.e., the perceived need to maintain the

¹⁰ Transaction specific assets are "... assets that are uniquely dedicated to another firm ... such as training, dedicated employees, administrative procedures, tools, and equipment" (Rokkan et al., 2003, p. 210).

¹¹ The relationship between calculative and affective commitment will be discussed further in the next section.

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relationship) to adversely affect the relationship outcomes as the honeymoon period wanes. Specifically, the negative motivation for maintaining the relationship (e.g., to prevent loss of benefits or to minimize switching costs) will undermine the positive motivation (i.e., attachment and identification) for doing so (Fullerton, 2003, 2005).

In other words, relationship duration moderates the relationship between calculative and affective commitment. We anticipate that, in mature relationships, increases in a firm's calculative commitment will crowd out its affective commitment, simultaneously causing the firm to trust its channel partner less (see Fig. 1D).

P4. The relationship between commitment and trust varies based on the motivation for maintaining the relationship. Specialized investments and other forms of switching costs increase a firm's negative motivation to maintain the relationship (i.e., calculative commitment), which undermines a firm's positive motivation to sustain the relationship (i.e., affective commitment) in mature relationships. In other words, calculative commitment in mature relationships erodes affective commitment, resulting in lower trust of the channel partner.

6.6. Relationship duration

Consistent with these arguments, Palmatier et al. (2013) aver that the processes underlying commitment and trust (as well as other relational constructs) vary over the age of the relationship. Their empirical findings support this assertion in that they found commitment to be described by an inverted U-shape across the life of the relationships that they studied, while trust followed "a positive linear trajectory" (Palmatier et al., 2013, p. 27). Thus, they found trust and commitment to be positively correlated for newer relationships, but negatively so for relatively older relationships. In other words, relationship age moderates the commitment-trust relationship.

One reason for this may be the changing velocity of commitment as the relationship matures. In other words, growth in a firm's financial, temporal, and emotional investments in the exchange relationship slows down and even becomes negative as the relationship ages, while trust velocity stays consistently positive (Palmatier et al., 2013). Because the velocities of trust and commitment vary as the relationship matures, they lead to, first, a positive relationship between the two constructs and, then, a negative relationship.

Another reason may be due to the different aspects of commitment. For instance, Liu et al. (2010) found that, as an exchange relationship evolves, the firm's calculative commitment declines (Liu et al., 2010). Calculative commitment declines over time for three reasons. First, the firm's heaviest investment in assets to support the relationship occurs early in the relationship as start-up costs. These investments taper off as the relationship matures. Second, because early investments are written-off as the relationship matures, the firm becomes less locked-in to its exchange relationship. Third, experience effects in mature relationships provide the firm with the resources to explore potential, alternative exchange partners. The development of alternative exchange partners is another way in which the firm reduces its lock-in (or calculative commitment).

However, Palmatier et al. (2013) found that trust increases linearly over time. Thus, calculative commitment declines over time while trust grows over time, implying a negative relationship between commitment and trust.

In contrast, Liu et al. (2010) found that a firm's affective commitment expands as its exchange relationship matures. This result, coupled with Palmatier et al.'s (2013) finding that trust increases over time, suggests that affective commitment and trust likely feed off of each other. The more the firm trusts its partner, the more it becomes emotionally attached to and identifies with its partner. The more affectively committed it is, the more likely the firm trusts its exchange partner.

This discussion suggests that over time calculative commitment is negatively linked with trust while affective commitment is positively associated with it. Thus, our fifth proposition states that:

 P_5 . The relationship between commitment and trust within an exchange relationship is moderated by the length of that relationship (Fig. 1E). That is, the relationship between both calculative and affective commitment and trust will be positive for newer relationships. As the relationship matures, this association will continue to be positive for affective commitment, but will become negative for calculative commitment. Further, the velocity of commitment is related positively to the velocity of trust in newer relationships, but is negatively so in older relationships.

7. Implications of this research

7.1. For managers

Our research reinforces the conclusions of prior studies that trust allows commitment to grow. Indeed, trust (or, when direct experience in the relationship is missing, trust substitutes such as reputation and knowledge of the partner's past relationships) has been found as a necessary pre-condition for affective commitment to develop (e.g., Boersma et al., 2003). Trust in the partner mitigates the firm's vulnerability to partner exploitation that comes with relationship commitment; thus, increasing trust enables the level of relational commitment to grow (MH). Firms wishing to build committed relationships should be reliable (i.e., make good on their word) in dealing with their partners, perform their roles competently, and be benevolent toward their partners (cf. Boersma et al., 2003).

Our research also indicates that increased commitment can undermine trust. Our propositions suggest that this results from the vulnerability an exchange partner perceives by being committed to the firm. Being vulnerable leads the partner to be uncertain as to whether it can fully trust the firm not to take advantage of this situation; hence, the partner's trust in the firm can decline. The firm can mitigate its partner's perceptions of vulnerability by openly communicating its intentions to the partner.

Our research suggests that firms should strive for high levels of both calculative and affective commitment over the course of the relationship. A firm can build its partner's calculative commitment to that relationship by ensuring that the partner's benefits from staying in the relationship exceed its costs. This aids in limiting any opportunity losses that the partner might see as a result of its relationship with the firm. Building calculative commitment can also buffer any mild transgressions that the firm might perpetrate in the course of the relationship (Ganesan et al., 2010; Kim et al., 2011).

However, high levels of calculative commitment may crowd out affective commitment (Fullerton, 2005; Liu et al., 2010). Therefore, firms should strive to maintain their partners' affective commitment by communicating openly in a timely fashion and developing shared values (Table 1). In addition, firms whose partners are affectively committed to the exchange relationship would do well to avoid blatant opportunism if they wish the relationship to continue. This is because affective commitment, according to Ganesan et al. (2010) and Kim et al. (2011), increases the likelihood that a firm will leave the relationship when faced with severe opportunism. However, these same researchers found affective commitment to buffer the effects of lower levels of firm opportunism, thereby lessening the partner's probability of leaving the relationship.

In summary, our research suggests that firms become committed to their exchange relationships by trusting their partners. However, being overly committed causes a partner to feel vulnerable and makes alternative exchange arrangements appear more attractive, resulting in lower levels of trust in the firm. Firms can combat this negative commitment \implies trust relationship in several ways: (1) they can offer relational benefits that are superior to their competitors'; (2) they can engage in open, timely, and honest communication to assuage their

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Table 6

Potential factors shaping the Negative commitment \implies Trust relationship.

Factor	Proposition	Independent variable	Moderator	Mediator
Vulnerability	P1 & P2			х
Partner commitment	P2		Х	
Opportunity losses	P3			х
Switching costs as an indicator of "lock-in"	P3		Х	
Relationship duration or length	P4, P5		Х	
Calculative and affective commitment	P3', P4, & P5	Х		

partners' feelings of vulnerability; (3) they can try to develop within their partners a sense of attachment and belonging by, for example, building shared values; and (4) they can follow through on their contractual obligations to their partners and avoid violating their exchange agreements. These steps may help limit the dark side effects of relationship commitment.

7.2. For researchers

The three empirical studies that we investigated herein systematically demonstrated a negative commitment \implies trust relationship, in addition to the positive trust \implies commitment relationship that predominates the literature. We advanced several plausible explanations as to why the negative commitment-trust relationship emerged from our empirical analysis. Table 6 summarizes the factors discussed in the propositions that could plausibly shape the negative commitment \Longrightarrow trust relationship. Regrettably, the studies whose data we used to show the robustness of the relationship across research studies did not provide sufficient detail to examine these factors. These propositions are tentative but can be tested, and therefore provide a roadmap for future research.

Optimally, future research will be longitudinal to test the causality between trust and commitment (P_1 - P_5). It would also be useful for investigating relationship duration, although not necessary (P_5). A longitudinal research design will enable the velocity of these constructs as well as their levels to be measured (P_5). In addition, future research should collect dyadic data so that commitment (as)symmetry can be assessed (P_2). Uncovering the boundaries of this negative commitment \implies trust, dark side effect would also provide a useful contribution from future research.

Additional variables such as long-term orientation (Wang, Shi, & Barnes, 2015; Wang, Siu, & Barnes, 2008); governance mechanisms, such as relational norms, monitoring, and explicit contracting (Brown, Dev, & Lee, 2000; Wathne & Heide, 2000); interdependence asymmetry (Gundlach & Cadotte, 1994; Scheer et al., 2015); and fairness (Kumar, Scheer, & Steenkamp, 1995; Samaha, Palmatier, & Dant, 2011) might be included as possible explanations as to why commitment affects trust in a negative fashion. The findings of Wang et al. (2008, 2015) suggest that cultural contexts matter in understanding trust and its relationship with other constructs. Thus, cross-cultural studies of the trust-commitment relationship might shed additional light as to how these two constructs are linked.¹²

7.3. Limitations

Our study has a number of limitations that future research might address. First, the three data sets used for the empirical analysis were collected for other purposes not directly related to the aim of this study. As previously noted, future research should gather data specifically to test the five propositions developed above. Another limitation of this research is that two of the data sets contained cross-sectional data: MH and the meta-analysis study (MAS). Further, the data pertained to only one side of the buyer-seller dyad. While the data in the longitudinal study were collected at two points in time, they too were gathered from only one side of the buyer-seller dyad. Ideally, future research should collect data at more than two points in time and from both sides of the dyad. Moreover, utilizing an experimental research design would provide a more rigorous test of the causality of the trust-commitment relationship.

Another potential limitation of this research is endogeneity bias. Endogeneity bias refers to the condition in regression (or structural equation modeling) whereby "... an explanatory variable correlates with the disturbance term of the regression equation ..." (Sande & Ghosh, 2018, p. 185). It can produce "... inconsistent estimates (i.e., not tend to be the true value as sample size increases), which potentially leads to wrong inferences, misleading conclusions and incorrect theoretical interpretations" (Ullah, Akhtar, & Zaefarian, 2018, p. 69).

Endogeneity bias is caused by measurement errors, simultaneous causality, and omitted variables (Sande & Ghosh, 2018; Ullah et al., 2018; Zaefarian et al., 2017) as well as common method variance (Ullah et al., 2018). All of the measures used in this paper met the usual criteria for reliability and validity. In addition, we found no evidence of common method bias in the measures used herein (see footnote 9). Further, the MH, MAS, and longitudinal studies used the instrumental variable (IV) approach to estimating the non-recursive SEM equations. Moreover, lagged effects of the endogenous variables were incorporated into the longitudinal model. Both the IV approach and the use of lagged variables are appropriate techniques for minimizing the impact of endogeneity (Sande & Ghosh, 2018; Zaefarian et al., 2017). While a number of explanatory variables were included in these models, all possible variables that might be related to trust and commitment were not. In summary, we undertook a number of steps to minimize the impact of endogeneity; however, its effects (especially from omitted variables) may not have been completely eliminated.

The MAS and longitudinal studies differ from MH in terms of the types of data and the independent variables used. As such, they are not exact replications of MH, which some view as a limitation of this research. However, in spite of the differences in methods, the empirical results are consistent across the MH, MAS, and longitudinal studies, which suggests that our findings are robust.

Finally, a limitation endemic to meta-analyses is the grouping of different operationalizations of the variables (e.g., affective and continuance commitment, demand and technological uncertainty) into one, overarching construct (e.g., commitment and uncertainty, respectively); as a result, the authors' coding of these multi-dimensional constructs can influence the results and interpretation. As we outline in Propositions 4 and 5, future research should examine the potential moderating effects of these operationalizations separately.

8. Summary and conclusions

Starting with Morgan and Hunt (1994), substantial empirical research has found support for the positive trust \implies commitment relationship. Our reanalysis of their data (Table 2) uncovered a nonrecursive relationship between these two constructs. Understanding the possible reasons for the surprising, negative commitment \implies trust

 $^{^{12}\,\}rm We$ thank the anonymous reviewers for suggesting these additional issues for future research.

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linkage was the goal of this research.

The process that we used began with existing theory to interpret empirical findings. We found results that were counter to the existing theory, and this required developing a new framework to explain these surprising results. As noted above, we viewed our reanalysis of the MH data through the lens of the received view that trust affects commitment positively in marketing exchange relationships. But, the unexpected, negative commitment \implies trust linkage required explanation.

Before developing a plausible explanation for this result, we examined whether the negative commitment \implies trust linkage was an empirical anomaly. Data from two additional studies—a meta-analysis and a longitudinal empirical study—provided further support for this finding. Using the literature, we next developed five related propositions that represent plausible explanations for this result.

These explanations for the dark side effects of commitment on trust in marketing relationships pertain to: (a) vulnerability, (b) commitment asymmetry, (c) possible opportunity losses, (d) motivation for maintaining the relationship, (e) the type of commitment (i.e., calculative or affective), as well as the interplay between them, and (f) relationship duration. We stress that these propositions are tentative and require subsequent empirical testing.

In summary, this research contributes to the literature on marketing exchange relationships in three ways. First, using MH's data, we find support for both: (a) the positive trust-to-commitment relationship that they uncover, but also (b) a negative commitment-to-trust relationship—a dark side effect of close relationships. As a second contribution, we provide further evidence for the statistically significant, negative commitment-to-trust link uncovered in the MH reanalysis by the analysis of additional datasets. We offer a number of alternative and viable explanations for this negative effect to be tested in future research, which is the third contribution of this study.

Appendix A. Appendix

Measurement items for longitudinal study

Trust (see Seppänen et al., 2007)

Please rate the performance of Supplier X on each of the following areas over the last 12 months (1 = Strongly Disagree and 5 = Strongly Agree):

TR1	Operates with integrity.
TR2	Is always faithful.
TR3	Can be counted on to do what is right.
TR4	Can be trusted.
TR5	Is honest and truthful.
TR6	Cannot be trusted at times. (reverse-coded)
TR7	Is believable.

Commitment (see Kim & Frazier, 1997)

To what extent do you agree with the following statements (1 = Strongly Disagree and 5 = Strongly Agree). Our relationship to Supplier X:

CMT1	Is something that my store is committed to.
CMT2	Is very important to my store.
CMT3	Is of little significance to my store. (reverse coded)
CMT4	Is something my store intends to support indefinitely.
CMT5	Is much like being part of a family.
CMT6	Is something my store really cares about.
CMT7	Deserves my store's maximum effort.
CMT8	I plan to work hard to support Supplier X's marketing efforts.
CMT9	I will make every effort to support Supplier X.

Open communication (see Mohr & Sohi, 1995)

Please rate the performance of Supplier X on each of the following areas over the last 12 months (1 = Strongly Disagree and 5 = Strongly Agree):

OC1	Listens to our complaints and suggestions.
OC2	Promotes open communication.
OC3	Provides justification for their policies.

Dependence (see Scheer et al., 2015)

To what extent do you agree with the following statements (1 = Strongly Disagree and 5 = Strongly Agree).

DEP1	We are dependent on Supplier X.
DEP2	Supplier X would be difficult to replace.
DEP3	It would be costly to lose Supplier X as a wholesale source.

Satisfaction (see Lewis & Lambert, 1991)

Please rate the performance of Supplier X on each of the following areas over the last 12 months (1 = Strongly Disagree and 5 = Strongly Agree):

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SAT1	Considering everything, we are pleased with the economic rewards we have received from our relationship with Supplier X.
SAT2	Considering everything, we are pleased with the non-economic rewards (such as our work, sharing ideas with other affiliates of this supplier, and attending seminars) we
	have received from be associated with Supplier X

- sociated with Supplier X SAT3
- Considering everything, if I had it to do over again I would become affiliated with Supplier X.
- SAT4 Considering everything, I am satisfied with our relationship with Supplier X.

Relationship Duration

How many years have you been affiliated with Supplier X? AGE

Technical appendix

The weighted mean correlation for each pair of constructs is calculated using the meta-analytical procedures outlined by Rosenthal (1991). Specifically,

$$\overline{z}_{r_w} = \frac{\sum (N_j - 3) z_{r_j}}{\sum (N_j - 3)}$$

where \overline{z}_{r_0} is the weighted mean z_r , N_i is the sample size for study *j*, and z_r is the Fisher z_r for study *j*. The pooled Fisher z-transformations (i.e., \overline{z}_{r_0}) are reconverted into correlation coefficients to obtain the weighted mean r (Rosenthal, 1991).

When correlation coefficients were not reported in the articles, we converted the reported F-values, t-scores, p-values, and z-scores into correlation coefficients using the following equations.

$$r = \sqrt{\left(\frac{F(1)}{F(1) + df_{error}}\right)}$$
$$r = \sqrt{\left(\frac{t^2}{t^2 + df}\right)}$$

 $r = Z/\sqrt{N}$

To obtain the correlation coefficient from p-values, we find the corresponding values of z using the probabilities of the normal distribution. Studies that did not include sufficient information (i.e., did not include an F-value, t-score, p-value, z-score) to calculate the correlation coefficients were excluded from the analysis.

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