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# Relationships of stressors and opportunism in cross-border exchange partnership contexts: When and how monitoring matters

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**Abstract**

Transaction cost economics work has argued that monitoring procedures are needed to evaluate the extent to which overseas partners comply with their obligations. We posit that the transactional theory of stress can also inform on how to distinguish opportunists from non-opportunists. Synthesizing these two theories and using a three-study, multimethod design, we examine whether different types of stressors influence opportunism, and how and under what conditions such links are moderated by monitoring. Based on separate surveys of 209 Chinese subsidiaries' and 232 Chinese suppliers' cross-border intrafirm and interfirm partnerships with headquarters and buyers, respectively – in conjunction with an add-on experimental study conducted in the US – the results suggest challenge and hindrance stressors impact opportunism differently. The former exhibits a U-shaped, and the latter a positive, relationship with opportunism. We thus observe the importance of both the level and type of stress. Further, the international exchange context matters for monitoring's efficacy. Monitoring steepens the U-shaped challenge stressors–opportunism relationship in intrafirm (not interfirm) partnerships. It however weakens the positive hindrance stressors–opportunism relationship in interfirm (not intrafirm) partnerships. The findings inform managers on when and how to use monitoring to control challenge and hindrance stressors' links to opportunism in these contexts.

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## INTRODUCTION

Exchange partnerships are of critical importance in our globalized economy (Samiee, Chabowski, & Hult, 2015). Yet, many firms face the issue of having to prevent opportunism in scores of internal, intrafirm (headquarters–subsidiary), and external, interfirm (buyer–

supplier) partnerships.<sup>1</sup> Work on multinational corporations (MNCs) has long highlighted problems with subsidiary opportunism (Obadia & Vida, 2006), and channels research has established that buyers are exposed to their overseas suppliers' opportunism (Katsikeas, Skarmas, & Bello, 2009). Both settings involve mixed-motive partnerships. That is, a subsidiary/supplier is trying to optimize its own agenda while contributing to that of the headquarters/buyer (Ambos & Birkinshaw, 2010). As the aftermath of opportunism is trading difficulties that restrict profit opportunities for these exchange partnerships (Sheng, Zhou, Li, & Guo, 2018), it is crucial that managers understand the factors that promote or constrain such behavior (Wu, Sinkovics, Cavusgil, & Roath, 2007; Zhou & Xu, 2012).

Grounded in transaction costs economics (TCE), work on domestic and cross-border exchanges has focused on formal governance or control mechanisms as antecedents of opportunism (Heide, Wathne, & Rokkan, 2007; Luo, 2007a) (see Table 1). TCE views monitoring as a key governance mechanism that, despite imposing its own transaction costs (e.g., auditing costs) (Fung, Zhou, & Zhu, 2016) is often used by firms to curb opportunism – reducing overall transaction costs (Jean, Sinkovics, & Cavusgil, 2010). Still, few studies have examined whether monitoring reduces the likelihood of a partner's opportunism (Heide et al., 2007), or conditions other factors' links to opportunism (Kashyap, Antia, & Frazier, 2012). Our review also reveals a set of studies that have extended TCE's premise that transactional advantages are driven by an economic cost–benefit analysis, by locating these costs in the larger social context in which transactions are embedded (Heide et al., 2007). Here, scholars have focused on ways partner firms can build rapport levels to increase the perceived moral costs of misbehavior (e.g., opportunism reduces as relationship age increases) (Jap, Robertson, Rindfleisch, & Hamilton, 2013; Luo, 2007b). Studies using social processes to modify outcomes predicted by TCE have yet to consider the *psychological costs* of being influenced by the partner. A more complete view of the transaction would take into account psychological factors in interactions between a focal partner's executive team and that of the partner, which it finds itself appraising.

The transactional theory of stress maintains that stress resulting from work demands imposed by the partner that task the focal firm's resources, can trigger negative behavioral outcomes such as strain

and opportunism (Lazarus & Folkman, 1984). Indeed, firms seeking to reduce opportunism in scores of international exchanges could instead be driving it by imposing stress on their partners. An allied issue facing firms is how to differentiate opportunists from non-opportunists, a task rendered more difficult by the opacity of opportunism in remote, cross-border transactions (Katsikeas et al., 2009). Although imposed stress and whether the partner is showing signs of this is a useful gauge of potential opportunism, studies have yet to examine the relationship of stress with opportunism. We also do not know if monitoring can control stress to opportunism linkages.

Given that not all stress is bad, the work stress literature distinguishes between challenge and hindrance stressors. The former are work demands that, while pressure-laden, present opportunities for development or rewards (e.g., overseas suppliers with delivery responsibilities). The latter are work demands that do not present any opportunity for growth or reward, but rather, interfere with goal achievement (e.g., subsidiaries receiving poor guidance) (Cavanaugh, Boswell, Roehling, & Boudreau, 2000). Although both stressors can be experienced by a firm's top managers, collectively, studies of stress in organization-level exchanges have focused on hindrance stressors (e.g., Dong, Ju, & Fang, 2016; Ralston, Lee, Perrewé, Deusen Van, Vollmer, Maignan, & Rossi, 2010) (see Web Appendix: Theme 1); perpetuating a fixation on level and not type of stress and our incomplete understanding of stressors' behavioral consequences in international work (Shenkar & Zeira, 1992; Yang, Spector, Sanchez, Allen, Poelmans, Cooper, & Antoniou, 2012). Firms react to stressful work demands set by partners either by striving to meet the challenge, or by engaging in avoidance and self-protection, depending on whether the demands are seen as beneficial or detrimental (cf. Menguc, Auh, Yeniaras, & Katsikeas, 2017). Hence, there is an intriguing possibility that challenge and hindrance stressors' paths to opportunism counteract each other, to some unknown degree, in cross-border partnerships.

International business researchers (e.g., Jean et al., 2010; Wu et al., 2007) have asserted that the role of monitoring is likely to be interpreted differently and vary depending on the exchange context in which it takes place. Still, Heide, Kumar, and Wathne (2014) is the only opportunism study (in Table 1) to show empirically that the efficacy of monitoring is shaped by internal and external

**Table 1** Empirical contributions on drivers of opportunism in exchange partnerships

Source	Relationship	Sample	Antecedents	Moderators	Summary of key findings
John (1984) <sup>a</sup>	Interfirm	Mail survey of 151 franchised retail dealers of a major oil company supplier, in the US	Attitudinal orientation; reward influence attributions; coercive influence attributions; bureaucratic structure	–	Attitudinal orientation is negatively related to opportunism. Reward influence attributions is positively related to opportunism. Coercive influence attributions and bureaucratic structure are not related to opportunism
Provan and Skinner (1989) <sup>a</sup>	Interfirm	Mail survey of 226 farm and power equipment dealers in relation to their suppliers, in the US	Dependence (service dependence, number of suppliers, availability of alternatives); control over decisions (formalization, centralization)	–	Dealer dependence on supplier is negatively related to opportunism, bar the availability of alternatives component. Supplier control over dealer decisions is positively related to opportunism
Parke (1993)	Interfirm	Mail survey of 111 interfirm alliances in multiple industries, involving at least one U.S firm	Cooperative history	–	Cooperative history is negatively related to perception of opportunistic behavior
Deeds and Hill (1999) <sup>a</sup>	Interfirm	Structured interviews (in person or by phone) with US biotechnology firms involved in 109 research alliances	Age of relationship; background congruence; frequency of contact; number of alliances with partner; equity investment of partner; contractual safeguards	Importance of the alliance	There is an inverted U-shaped relationship between age of relationship and opportunism and this relationship is moderated by importance of the alliance (the honeymoon period lengthens). Background congruence and frequency of contact are negatively related to opportunism. Number of alliances with partner, equity investment, and contractual safeguards are not related to opportunism
Brown et al. (2000) <sup>a</sup>	Intrafirm	Mail survey of 395 hotels in relation to corporate HQ, in North America	Hotel investment in transaction-specific assets; norms of relational exchange; HQ ownership	Simultaneous mechanisms (two- and three-way interactions)	Investment in transaction-specific assets is positively related to opportunism. Norms of relational exchange is negatively related to opportunism. Ownership is not related to opportunism. Increasing levels of relational exchange weaken the positive link between transaction-specific assets and opportunism
Skarmeas et al. (2002) <sup>a</sup>	Interfirm	Mail survey of UK importers in relation to manufacturing exporter suppliers in multiple industries; 292 at T1 and 216 at T2 (1-year lag)	Supplier cultural sensitivity; environmental volatility	–	Supplier cultural sensitivity is negatively related to supplier opportunism. Environmental volatility is positively related to supplier opportunism
Rokkan et al. (2003) <sup>a</sup>	Interfirm	Mail survey or phone interview of manufacturers of building materials and their distributors, resulting in 198 supplier–buyer dyads, in the US	Buyer-specific investments	Solidarity norms; relationship extendedness	Buyer-specific investments is positively related to opportunism. Such an effect strengthens solidarity norms. In the buyer and not the supplier sample, the interaction between buyer-specific investments and relationship extendedness also is negative
Heide et al. (2007)	Interfirm	Mail survey or phone interview of manufacturers of building materials in relation to their buyers, in the US; 342 at T1 and 105 at T2 (3-year lag)	Output monitoring; behavior monitoring	Social contract for output; social contract for behavior	Output monitoring reduces opportunism, while behavior monitoring increases opportunism. A strong social contract enhances the negative effect of output monitoring on opportunism and allows behavior monitoring to suppress opportunism
Obadia and Vida (2006)	Intrafirm	Inductive study of ten SMEs that had entered a foreign market using a fully owned subsidiary. Used qualitative data – secondary data compiled by a consulting firm and 13 interviews (by phone) with primary informants	SME's foreign subsidiary assets; inadequate incentives policy; inadequate monitoring	Information asymmetry	SME's foreign subsidiary assets and inadequate incentives policy are positively related to opportunism. Both relationships are positively moderated by information asymmetry. Inadequate monitoring is positively linked to information asymmetry

**Table 1** (Continued)

Source	Relationship	Sample	Antecedents	Moderators	Summary of key findings
Luo (2007a)	Interfirm	Mail survey of 188 international joint ventures from multiple industries, in China; integrated with some archival data	Environmental volatility (perceived information unverifiability, perceived law unenforceability, industry structural instability)	Industry growth; local dependence	Information unverifiability is positively related to opportunism (foreign). Law unenforceability is positively related to opportunism (foreign and local). Industry structural instability is not related to opportunism (foreign and local). These links are generally weaker when the ventures operate in faster-growing industries and stronger when the ventures depend more on the host country environment
Luo (2007b)	Interfirm	Mail survey of 192 international joint ventures from multiple industries, in China	Contractual ordering (contractual inclusiveness, contractual obligatoriness); structural ordering (managerial governance, equity captiveness); relational ordering (interparty attachment, boundary-spanner ties); justice ordering (procedural justice, distributive justice)	Individualism–collectivism	For partners from individualist cultures, contractual- and structural-ordering components are stronger than relational- and justice-ordering components in their negative links to opportunism, while the opposite is the case for partners from collectivistic cultures. Equity captiveness alone has no relationship with foreign or local partner opportunism
Morgan et al. (2007) <sup>a</sup>	Interfirm	Mail survey of 11 supermarket's buying offices in relation to 75 suppliers across 35 product categories, in the UK	Supplier influence; retailer monitoring ability; retailer dependency on supplier; supplier dependency on retailer; retailer punitive capacity	–	Supplier influence is positively related to supplier opportunism. Retailer monitoring ability is negatively related to supplier opportunism. Retailer dependency on supplier, supplier dependency on retailer, and retailer punitive capability have no impact on supplier opportunism
Palmatier et al. (2007) <sup>a</sup>	Interfirm	Three successive annual mail surveys, resulting in 396 dyadic cases of relationships of a large US company (seller) and its local distributors	Seller relationship-specific investments; relational norms; interdependence; dependence asymmetry; communication	–	Seller relationship-specific investments and relational norms reduce opportunism. Interdependence, dependence asymmetry, and communication are not drivers of opportunism
Wu et al. (2007)	Interfirm	Mail survey of 142 US exporting manufacturers in multiple industries, in relation to their foreign distributors	Trust; knowledge sharing; formal contract	–	Trust is negatively related to distributor opportunism. Knowledge sharing is positively related to distributor opportunism. Formal contract is not related to distributor opportunism
Liu et al. (2009) <sup>a</sup>	Interfirm	Mail survey of distributors and manufacturers of household appliances, resulting in 225 buyer–supplier dyads, in China	Transactional mechanisms (contract, transaction-specific investment); relational mechanisms (trust, relational norms)	Simultaneous mechanisms (two-way interactions)	Contract, transaction-specific investment, trust, and relational norms are negatively related to opportunism. Opportunism is curbed more effectively when both contract and trust, and transaction-specific investment and trust, and transaction-specific investment and relational norms, are used jointly
Katsikeas et al. (2009)	Interfirm	Mail survey of UK importers in relation to manufacturing exporter suppliers in multiple industries; 292 at T1 and 214 at T2 (1-year lag)	Transaction-specific assets; interfirm psychic distance; external uncertainty; internal uncertainty	–	Supplier transaction-specific assets is negatively related to supplier opportunism. Interfirm psychic distance and external uncertainty are positively related to opportunism. Internal uncertainty is not related to supplier opportunism
Tangpong et al. (2010) <sup>a</sup>	Interfirm	Study 1: US classroom experiment using buyer–supplier scenarios (103 MBAs). Study 2: Online experiment (83 purchasing managers), with interviews (18 purchasing managers)	Relational norms (organizational perspective); agent cooperativeness (individualist perspective)	Interactionist perspective	Relational norms and agent cooperativeness positively interact in reducing opportunism. This interactionist perspective produced the highest explained variance in opportunism compared to organizational and individualist perspectives, which yielded inconsistent effects on opportunism

Table 1 (Continued)

Source	Relationship	Sample	Antecedents	Moderators	Summary of key findings
Handley and Benton (2012) <sup>a</sup>	Interfirm	Online survey of large US firms in multiple industries and their domestic and overseas business process suppliers, resulting in 102 buyer-provider dyads	Exchange hazards (buyer relationship-specific investments, provider relationship-specific investments, technological uncertainty); buyer power (mediated power, non-mediated power)	-	Buyer relationship-specific investments is positively related to provider shirking (not poaching). Provider relationship-specific investments is negatively related to provider shirking (not poaching). Technological uncertainty is not related to either form of opportunism. Buyer reliance on mediated power is positively related to provider shirking and poaching, while non-mediated power is negatively related to provider shirking (not poaching)
Kashyap et al. (2012)	Interfirm	Mail survey of 206 franchised automotive dealers in relation to eight franchisors (makes), in the US; integrated with some archival data	Behavior monitoring; output monitoring; enforcement	Behavior monitoring; output monitoring	Output monitoring weakens the positive link of franchisor behavior monitoring and franchisee opportunism. Behavior monitoring weakens the negative link of franchisor enforcement and franchisee opportunism. The monitoring and enforcement constructs individually are not related to opportunism
Zhou and Xu (2012)	Interfirm	Structured interviews (in person) with 168 foreign manufacturing subsidiaries from multiple industries, in relation to their local suppliers, in China	Detailed contracts; centralized control	Relational governance	Detailed contracts is positively related to supplier opportunism when relational governance is low, but negatively related when such governance is high. Centralized control is negatively related to opportunism when relational governance is low, but positively related when such governance is high
Jap et al. (2013)	Interfirm	Study 1: US classroom experiment using supplier-buyer scenarios (325 executive MBAs). Study 2: US/UK classroom experiment using scenarios (93 executive MBAs). Study 3: US lab experiment (104 undergraduates)	Stakes (payoffs)	Rapport (face-to-face communication, established relationships)	High-stakes opportunism occurs only when rapport is low. When rapport is high, opportunism is more likely when the stakes are low than when they are high
Wang et al. (2013) <sup>a</sup>	Interfirm	Structured interviews (in person) with 400 manufacturing firms from multiple industries in relation to their suppliers, in China	Focal firm relationship-specific investments; partner behavioral uncertainty; social interactions; identification-based trust; shared values	Social interactions; identification-based trust; shared values	Relationship-specific investments and behavioral uncertainty are positively related to partner opportunism. Social interactions, identification-based trust, and shared values are negatively related to partner opportunism. Social interactions weaken the positive link of relationship-specific investments and opportunism. Social interactions and shared values weaken, and identification-based trust strengthens, the positive link of behavioral uncertainty and opportunism
Heide et al. (2014)	Interfirm	Study 1: Mail survey of 497 US apparel manufacturers in relation to their suppliers. Study 2: Mail survey of 81 US retailers in relation to apparel manufacturers	Buyer monitoring; solidarity norms	Concurrent sourcing context; singular sourcing context	In a concurrent sourcing context, buyer monitoring is negatively linked to supplier opportunism. In a singular sourcing context, buyer monitoring is not linked to opportunism. Solidarity norms reduce opportunism in a singular (not concurrent) sourcing context

Table 1 (Continued)

Source	Relationship	Sample	Antecedents	Moderators	Summary of key findings
Awate et al. (2015)	Intrafirm	Comparative case study of two MNCs (Indian and Danish). Used qualitative data – 6 semi-structured interviews (in person or by phone) and available secondary data – with quantitative patents data	Knowledge levels of emerging economy and advanced economy MNC HQs vis-à-vis overseas R&D subsidiaries	–	As the emerging economy MNC HQ usually is at a lower knowledge level than its R&D subsidiaries, the chances of subsidiary opportunism are high. As the advanced economy MNC HQ usually is at a higher knowledge level than its R&D subsidiaries, the chances of subsidiary opportunism are low
Handley and Angst (2015)	Interfirm	Online survey of large US firms in multiple industries and their domestic and overseas business process suppliers, resulting in 102 buyer–provider dyads	Contractual governance; relational governance	Individualism–collectivism; uncertainty avoidance	The negative link of contractual governance and provider opportunism strengthens in individualistic and low uncertainty avoidance cultures. The negative link of relational governance and provider opportunism strengthens in collectivistic cultures. Relational, not contractual, governance is negatively linked to provider opportunism
Wang et al. (2016) <sup>a</sup>	Interfirm	Structured interviews (in person) with Chinese manufacturing firms from multiple industries and multiple methods to collect data from their suppliers, resulting in 232 domestic buyer–local supplier and 61 foreign buyer–local supplier dyads	Contract; trust	Regulatory uncertainty; relationship structure	The negative link of contract and supplier opportunism strengthens when regulatory uncertainty is high (not low) and in domestic (not international) relationship structures. The negative link of trust and supplier opportunism strengthens in international (not domestic) relationship structures
Mellewigt et al. (2018) <sup>a</sup>	Interfirm	Online survey of 137 buyers from two large German automotive manufacturers, in relation to their suppliers	Transaction hazard (asset specificity, technological uncertainty, performance ambiguity); governance mechanisms (contractual complexity, formal governance, relational governance)	Configurational approach that links multiple hazards and mechanisms	Across a range of transaction hazard conditions, using any of the mechanisms creates the possibility of avoiding high opportunism. Still, achieving low opportunism needs a combination of governance mechanisms as they are not broadly interchangeable. For instance, relational governance mechanisms are not sufficient in isolation and form a synergistic combination with contractual complexity
Sheng et al. (2018)	Interfirm	Structured interviews (in person) with Chinese manufacturing firms in multiple industries and multiple methods to collect data from their suppliers, resulting in 420 buyer–supplier dyads; integrated with some archival data	Contractual governance; relational governance	Government support	Contractual governance and relational governance are negatively related to opportunism. Contractual governance is better at constraining opportunism when government support is high (not low), and relational governance is better at constraining opportunism when government support is low (not high)
Zhao et al. (2021) <sup>a</sup>	Interfirm	Structured interviews (in person) with manufacturing firms from multiple industries, in relation to their channel partners (supplier or distributor), in China	Network embeddedness	Formalization; government relations	Network embeddedness is negatively associated with partner's weak form opportunism but it is not related to partner's strong form opportunism. Both formalization and government relations strengthen the negative link between network embeddedness and partner's strong form opportunism. Government relations strengthens the negative link of network embeddedness and partner's weak form opportunism



Table 1 (Continued)

Source	Relationship	Sample	Antecedents	Moderators	Summary of key findings
Our study	Interfirm; intrafirm	Study 1: Online survey of 209 Chinese firms from multiple manufacturing industries, in relation to their overseas buyers. Study 2: Online survey of 232 Chinese subsidiaries from multiple manufacturing industries, in relation to their HQ overseas. Study 3: Experiment with 300 managers	Challenge stressors; hindrance stressors	Monitoring	There is a U-shaped relationship between challenge stressors and opportunism and a positive relationship between hindrance stressors and opportunism, in both interfirm and intrafirm partnerships. Monitoring steepens the U-shaped challenge stressors to opportunism link in intrafirm partnerships, but weakens the positive hindrance stressors to opportunism link in interfirm partnerships

<sup>a</sup> Reference appears in Web Appendix: Theme 11.

exchange contexts. They found that for concurrent, not singular, domestic sourcing settings (i.e., use of external supply plus internal production vs. purely external), monitoring is negatively linked to supplier opportunism. There is a pressing need to understand monitoring's efficacy in internal (intrafirm) versus external (interfirm), cross-border partnerships. Geographic separation and variations across social and legal facets of the business environment cause high levels of bounded rationality and behavioral uncertainty, making it more difficult for firms to monitor foreign partners (Dow, Baack, & Parente, 2020; Katsikeas et al., 2009). Yet international business work has not examined the matter.

Against this backdrop, the current study seeks to answer the question: To what extent and in what ways do challenge and hindrance stressors affect opportunism in the presence of monitoring in cross-border intrafirm and interfirm partnerships? We conducted studies in two exchange contexts – MNC headquarters–subsidiary and international buyer–supplier partnerships – that, prima facie, face the risk of an exchange partner's exploitation of uncertainties.

We address the research question using a three-study multimethod design (i.e., two surveys conducted in China and an add-on experiment in the US), making three main contributions. First, our study adds to the stream of work (e.g., Zhou & Xu, 2012) that has sought to broaden understanding of the extent to which economic organization minimizes transaction costs. Specifically, we extend the limited TCE-based research that has tested monitoring's role in preventing partners' opportunism (Heide et al., 2007), by examining how the psychology of work demands within the transaction can also drive opportunism. Drawing upon the transactional theory of stress (Lazarus & Folkman, 1984), we propose new antecedent roles of stressors. We show that part of the efficacy of monitoring is that it helps a headquarters/buyer to assess and manage the stressful demands imposed upon its subsidiary/supplier that could, if left unchecked, drive opportunism. It is important that practitioners' strategies for reducing opportunism in cross-border exchange partnerships heed monitoring's ability to condition psychological processes set into motion by stressors.

Second, we examine for the first time how challenge and hindrance stressors differentially impact opportunistic behavior in partnerships. In this, we reveal nuances arising from both the level

and type of stress. Straightforwardly, role ambiguity – framed as a principal hindrance stressor – provokes opportunism. Still, while the literature has advocated ‘*a more is better*’ philosophy with regard to opportunity-presenting challenge stressors (Pear-sall, Ellis, & Stein, 2009; Rodell & Judge, 2009), we unveil a novel U-shaped link between challenge stressors and opportunism in both intrafirm and interfirm cross-border partnerships. Although moderate levels of challenge are beneficial, there is a tipping point beyond which the challenge would be viewed as insurmountable.

Third, we extend previous TCE research on the contextual relevance of monitoring (Heide et al., 2014) by showing that monitoring’s influence on the partner’s reactions (i.e., engaging in opportunistic behavior or not) in coping with stressful work demands depends on the international exchange context (i.e., intrafirm or interfirm) in which it is deployed. We observe that while the MNC headquarters’ monitoring of its subsidiary is linked to a steeper U-shaped relationship of challenge stressors and opportunism, the buyer’s monitoring is a more appropriate means of policing its overseas supplier’s opportunistic exploitation of role ambiguity. We also ran post hoc analyses, using psychic distance and subsidiary helplessness, to test assumptions regarding the efficacy of monitoring in cross-border ties (Dow et al., 2020). The psychic distance results corroborate those for monitoring in intrafirm and interfirm contexts. Helplessness conditions challenge stressors’ U-shaped link with opportunism in intrafirm settings, but not role ambiguity-linked opportunism in interfirm settings.

## THEORETICAL BACKGROUND

### Transaction Costs Economics, Opportunism, and Monitoring

TCE asserts that opportunism, or self-interest seeking with guile (Williamson, 1975), is a quality inherent in managers and firms involved in transactions. The rise of opportunism as a dependent variable of interest is linked to its prevalence in exchange partnerships, and to early consensus on how it should be conceptualized and operationalized – as a global/unidimensional construct. Inspired by Wathne and Heide’s (2000) seminal conceptual study, which updated TCE with ideas from social exchange to identify more and less blatant forms of opportunism in partnerships, there

is a nascent empirical literature on different forms of the construct. Notably, Seggie, Griffith, and Jap (2013) examined the aftermath of active (firm engages in behaviors) versus passive (firm refrains from behaviors) opportunism. However, with few exceptions – such as Handley and Angst (2015) that tapped shirking and poaching dimensions that resonate in foreign outsourcing settings – the prior literature on drivers of opportunism has consistently treated opportunism as a global construct (see Table 1). Our TCE-based study follows this dominant view.

The opportunity to behave opportunistically is created by uncertainties in situations that arise that are not addressed in the agreement for the exchange, which is incomplete due to managers’ bounded rationality (Poppo & Zhou, 2014). Indeed, cross-cultural conflicts (e.g., over interpretation of the shared agenda) and uncertainties (e.g., the difficulty of detecting opportunism) in international partnerships further increase the likelihood of opportunism (Luo, 2007b).

Given the potential for opportunism in partnerships, TCE scholars have asserted that monitoring procedures of some form are required to evaluate the extent to which a partner complies with obligations (Heide et al., 2007). A second theory of the economics of organization, agency theory, also supports that monitoring reduces opportunism by pressuring the partner to comply with agreements (Morgan, Kaleka, & Gooner, 2007) (for comparison, see Web Appendix: Theme 2). Yet monitoring’s efficacy depends on the exchange context. In interfirm partnerships across borders, it is standard practice to specify obligations contractually. But in intrafirm partnerships within the MNC, the agreement against which opportunism occurs, is the delegation of supply and allied tasks to the foreign subsidiary by headquarters (Obadia & Vida, 2006). Ownership precludes the need for governance via a legally enforceable agreement (Dunning, 1988).

Two parts of the same organization are obliged to resolve agreement disputes internally via their judgement, rather than by seeking external arbitration and legal recourse. Williamson’s implicit contract arguments within TCE maintain that there are inherent benefits of ownership, insofar as this increases the availability of more, and more sensitive, enforcement mechanisms (Williamson, 1975, 1991). If there are severe opportunism measurement problems, external modes of exchange are expected to give way to internal hierarchy



(Anderson, 1988). Still, the MNC literature has long asserted the need for mechanisms to reduce headquarters' exposure to subsidiaries' opportunism (e.g., Foss, Foss, & Nell, 2012). Cross-border differences create endemic tensions between headquarters and subsidiaries in MNC settings (Hoenen & Kostova, 2015). Subsidiaries can and do exploit uncertainties using dysfunctional behaviors (see Web Appendix: Theme 3). It is surprising that Awate, Larsen, and Mudambi (2015) and Obadia and Vida (2006) are the only studies investigating drivers of subsidiary opportunism in intrafirm ties with the MNC headquarters (Table 1).

Therefore, in line with TCE, we propose that: (1) headquarters/buyers employ monitoring to collect information about subsidiaries/suppliers to limit the likelihood of opportunistic behaviors (O'Donnell, 2000; Short, Toffel, & Hugill, 2016); and (2) the nature of monitoring varies across these exchange contexts due to the presence or otherwise of an explicit contract. Monitoring within the intrafirm context of the MNC is defined as a governance process based on the review of information collected by headquarters regarding the subsidiary's actions and outcomes (O'Donnell, 2000). For interfirm partnerships in the external supply chain, monitoring refers to a governance process enacted by the buyer firm to evaluate the supplier's compliance with actions and outcomes stipulated in the supply contract (Bello, Katsikeas, & Robson, 2010; Griffith & Zhao, 2015; Heide et al., 2007).

Building upon domestic TCE research, we posit that the different contexts of intrafirm and interfirm partnerships across borders condition monitoring's efficacy. Anderson's (1988) study was the first to assess empirically drivers of opportunism across internal and external exchange contexts. Her study juxtaposed integration (i.e., use of own sales employees vs. manufacturers' representatives) and monitoring as drivers of opportunism in domestic channels, but stopped short of examining the intersection of these drivers. Her work was also restricted to the individual level and transaction costs of enacting the selling function. Heide et al.'s (2014) study of opportunism in exchange partnerships is alone in examining empirically the intersection of integration and monitoring (see Table 1).

### The Transactional Theory of Stress and Challenge and Hindrance Stressors

The transactional theory of stress explicates how work demands can provoke opportunism. This

theory has often been used to frame stress as pressure experienced by an individual or team when work demands spike (Lazarus & Folkman, 1984). However, a set of scholars conceptualized work-related stress at the organization level (Web Appendix: Theme 1). We suggest that a partnering organization can experience stress. Exchange relations are run by executive teams, comprising top managers who follow the same organizational goals and form similar cognitive appraisals of work demands (Drach-Zahavy & Freund, 2007). Boundedly rational subsidiary/supplier executives would combine their views on the partner's task-related demands with top-team members facing the same demands, and sharing task outcomes (cf. Savelsbergh, Gevers, van der Heijden, & Poell, 2012).

The transactional theory of stress holds that teams react to stresses triggered by work demands based on whether they perceive the demands as an opportunity for development or harmful (Lazarus & Folkman, 1984). If a team perceives demands generated by the working relationship with the counterpart as beneficial, they will pursue a problem-solving coping strategy that results in increased motivation and effort (Pearsall et al., 2009). If a team perceives the work demands as a threat to their progress, frustration is triggered and they will employ more emotional methods of coping – such as avoidance and self-protection – resulting in decreased motivation and effort (Ralston et al., 2010; Rodell & Judge, 2009). Such coping links to opportunism in cross-border exchanges.<sup>2</sup> Further, studies applying TCE to partnerships have emphasized the dilemma between behaving in fully or nominally cooperative ways (Parkhe, 1993). Partners either endorse common goals and forbear from opportunism or prioritize self-preservation, retreat from the agreed task, and fail to honor agreements. They cooperatively problem-solve to increase the size of the pie for both (low opportunism), or they tacitly avoid joint obligations and compete to take more of the existing pie (high opportunism).

The transactional theory of stress categorizes work demands into challenge and hindrance stressors that connect differently to behavioral outcomes (Cavanaugh et al., 2000). Studies have argued that the same work demand may be appraised by employees and teams as a challenge and/or a hindrance (Menguc et al., 2017). Yet, the challenge–hindrance stressors framework has been deployed extensively at the individual and team levels to show that both stressors are differentially

linked to an array of motivational, emotional, and other outcomes (LePine, Zhang, Crawford, & Rich, 2016). Despite this, organization-level stress studies (Dong et al., 2016; Zhang, Henke, & Griffith, 2009) have yet to prioritize type over level and examine separate effects of challenge and hindrance stressors.

We conceptualize challenge stressors as a global construct covering a set of demands (e.g., time pressure, task complexity, work overload, and high levels of responsibility) that headquarters/buyers generate for subsidiaries/suppliers. In practice, overseas subsidiaries/suppliers are of varying importance to the headquarters/buyer (Katsikeas et al., 2009). They understand that taking on extra workload and duties and competently fulfilling them, can improve their status and outcomes. Indeed, challenge stressors enhance motivation via heightened perceptions of expectancy, whereby the subsidiary or supplier believes that with some extra effort they can meet work demands and doing so will provide them with growth opportunities and rewarding experiences (Pearsall et al., 2009).

Role ambiguity and role conflict are work demands that potentially constitute hindrance stressors in intrafirm and interfirm exchanges (Ralston et al., 2010; Zhang et al., 2009). Our study focuses on role ambiguity, specifically, which occurs when the subsidiary/supplier faces a lack of clarity regarding role expectations, due to insufficient information on headquarters-/buyer-assigned tasks. The logic for this focus is that cross-border assignments typically face problematic levels of role ambiguity and the associated stress hinders their success (Kawai & Mohr, 2015). Further, while role ambiguity has been proven extensively to have detrimental effects on work outcomes, both at individual and firm levels (Agarwal, 1993; Dong et al., 2016), the same cannot be claimed of role conflict. A lack of consensus on the negative impact of role conflict on desirable outcomes is clear from our literature review (Web Appendix: Theme 1). For instance, role conflict is shown to be positively linked to international joint venture performance (Gong, Shenkar, Luo, & Nyaw, 2001). Such findings cast doubt on the validity of role conflict as a hindrance stressor (cf. Menguc et al., 2017). Usually, hindrance stressors provoke adverse coping strategies as they are linked to feelings of frustration and refusal to work together and adapt (cf. Rodell & Judge, 2009).

Our research extends previous applications of the transactional theory of stress at an organization

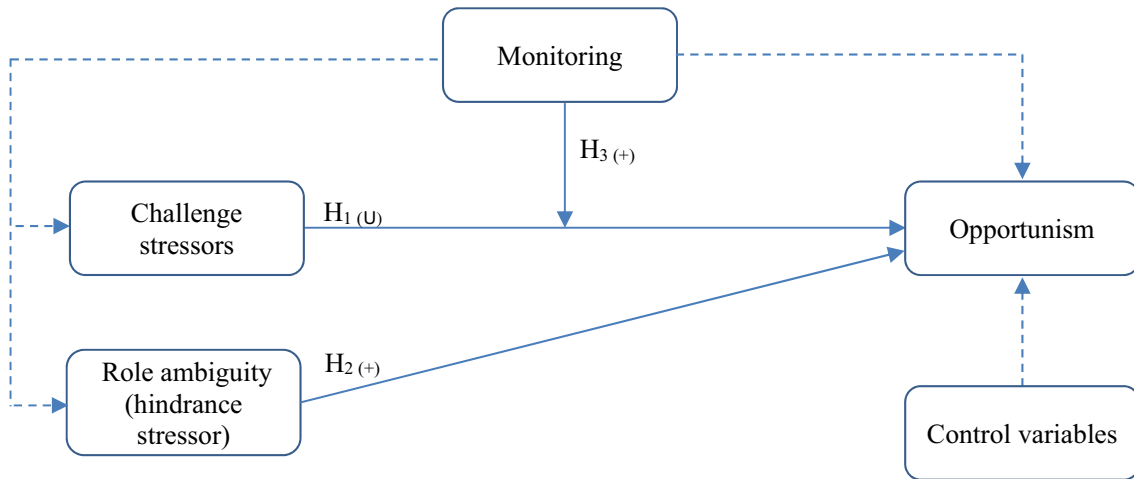
level by reconciling positive and negative consequences of challenge and hindrance stressors. Specifically, we propose a U-shaped relationship between challenge stressors and opportunism. When subsidiaries/suppliers are exposed to this type of stressor, they respond positively by engaging in problem-solving coping, which precludes opportunism. Still, such a mechanism presupposes that new goals are viewed as attainable (cf. LePine et al., 2016). High levels of challenge stressors are likely to be seen as detrimental by the partner, curbing its expectancy of a successful outcome and motivation to problem solve. We also suggest a positive link between role ambiguity (hindrance stressor) and opportunism in both cross-border exchange settings. As role ambiguity is a barrier to achievement, it leads to frustration and misrepresentation of a partnership's productive potential (Qian, Cao, & Takeuchi, 2013), driving avoidant coping in the form of opportunism.

Synthesizing the transactional theory of stress with TCE, our study focuses on opportunism as the outcome of the problem-solving versus avoidant coping dilemma and argues that effects of challenge and hindrance stressors on opportunism are contingent on the level of monitoring. Based on the logic that the efficacy of monitoring in contract law varies across governance mechanisms (Williamson, 1991), and pre-study interviews,<sup>3</sup> we posit that monitoring's role in shaping how the psychological costs of stress drive opportunism *differs* across international intrafirm and interfirm contexts. Our model is summarized in Figure 1.

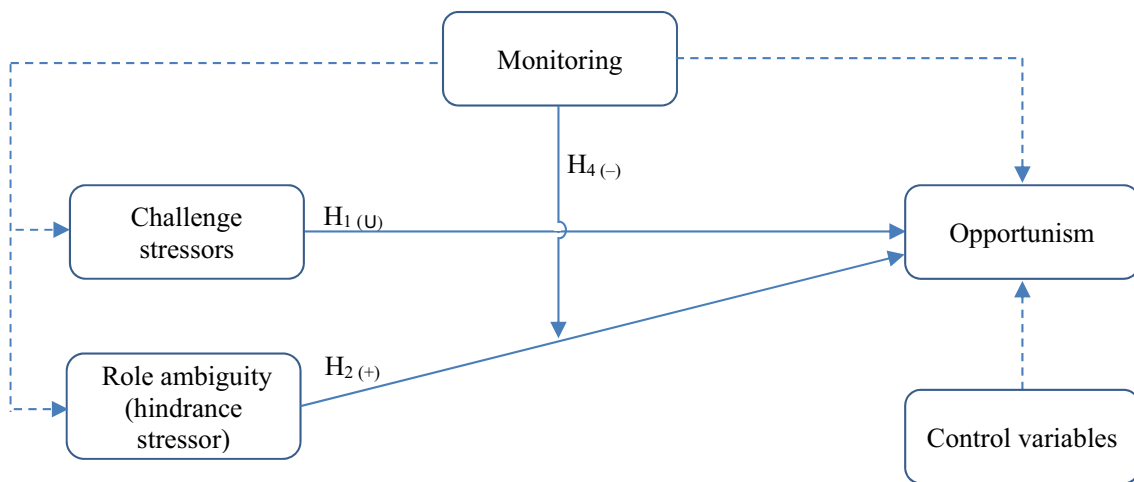
## HYPOTHESES

### The Impact of Challenge Stressors

Work on MNCs and cross-border channels (e.g., Ambos & Birkinshaw, 2010) has long highlighted problems with subsidiary and supplier mixed-motives, respectively. From the standpoint of TCE, such partners have their own agendas and will selfishly prioritize these, unless they see better opportunities and benefits connected to the collaborative agenda of the partnership. Perceived benefits would be lower in the absence of challenge stressors, raising the prospect of opportunism. When asked specifically about the low challenge stressors condition, one pre-study interviewee noted, "*We devote more time and labor to projects that have a high success rate and for those we are unsure about, we expend less effort.*" Still, it is not



(Study 1) MNC-subsidary context



(Study 2) Buyer-supplier context

Note: Control variables vary across headquarters-subsidary and buyer-supplier contexts;

- > Hypothesized links;
- - -> Control links

Figure 1 Conceptual model.

purely a matter of motivation to exert effort on behalf of the overseas partner. Subsidiaries and suppliers are aware that it is unusual to avoid the imposition of challenge stressors. They are likely to take the opportunity, while they can, to do things secretively that are a “*must-do to get business in the*

*local market*”, but that would be unacceptable to the partner.

The transactional theory of stress posits that challenge stressors, when introduced into a workplace, usually stimulate positive cognitions linked to achievement and potential fulfilment that result

in enhanced motivation (Cavanaugh et al., 2000). Indeed, a subsidiary/supplier facing moderate challenge demands (e.g., reasonable time pressures set, and the allocation of several but not numerous tasks, by its partner) would see the value of actively managing challenge stressors by engaging in problem-solving coping, which reduces the need for engaging in opportunism (cf. Pearsall et al., 2009). In the case of a MNC subsidiary, moderate challenge stressors are expected to be viewed as furnishing opportunities to showcase its capabilities and – after impressing headquarters – improve its position within the MNC (Ambos, Andersson, & Birkinshaw, 2010). The likelihood of learning and then implementing headquarters' knowledge and skills, would be linked to opportunities to meet the subsidiary's local market needs (Nell & Ambos, 2013). Similarly, a supplier facing a moderate level of foreign buyer-imposed challenge stressors is likely to appraise the demands as productive – that is, the meeting of these can result in learning and developmental opportunities and even preferential status. In line with this argument, Ueki (2016) observed that reasonable pressures on suppliers from downstream buyers to adopt quality standards encouraged problem-solving processes of collaboration.

Further, we theorize that, at a certain level of challenge stressors, there is a tipping point beyond which the costs (i.e., resources and time) of addressing challenge demands surpass expected future benefits. Challenge stressors deploy expectancy-based mechanisms and firms are strategically alert to these (Qian et al., 2013). Indeed, when the predicted costs of meeting imposed challenge demands exceed the predicted gains, the exchange partner would become less motivated to effectively and proactively deal with its overseas counterpart's demands. It is not worth investing in meeting unachievable standards that could deplete resource stocks without providing sufficient gain. The exchange partner would, if needed, use guileful means to minimize costs (cf. Rodell & Judge, 2009).

Within the MNC context, when headquarters' demands hinder a subsidiary's ability to effectively deal with requirements of its local environment, the subsidiary might deliberately and covertly refrain from meeting headquarters' expectations (Holm, Decreton, Nell, & Klopff, 2017). Excessive levels of challenge stressors would encourage subsidiaries to equate an avoidant coping strategy that triggers opportunism, with the need for a self-protective focus on allocating resources to its core

activities. Likewise, suppliers view acute challenge stressors, such as a buyer with unrealistic delivery time requirements, as additional costs that offset the benefits of the exchange (Thomas, Esper, & Stank, 2010). Because of the possibility of zero-sum rivalry in an interfirm context – compared to the more naturally interdependent climate of intrafirm partnerships – a supplier facing harsh time pressures could be prone to opportunism if it assumes its overseas buyer has violated expectations of shared responsibility and gain in the exchange (Thomas, Fugate, & Koukova, 2011).

In sum, we expect that exchange partners appraise increases in imposed challenge stressors to moderate levels as an opportunity for fully cooperative, problem-solving coping and lower opportunism. But excessive challenge stressors would be seen as a costly threat or barrier to growth and, as such, the partner would pursue nominally cooperative, avoidant coping and higher opportunism. Taking these mechanisms together, we propose that:

**Hypothesis 1:** Within cross-border intrafirm/interfirm partnerships, challenge stressors exhibits a U-shaped relationship with opportunism, with opportunism decreasing at a decreasing rate from low to moderate levels of challenge stressors and increasing at an increasing rate from moderate to high levels of challenge stressors.

### The Impact of Role Ambiguity

For an exchange partner, role ambiguity as a hindrance stressor occurs mainly due to the lack of relevant and useful information framing authority, responsibilities, or expectations in relation to its counterpart (Nygaard & Dahlstrom, 2002). Such ambiguity can jeopardize goal achievement and trigger frustration and emotional forms of coping strategy, resulting in negative behavioral outcomes (LePine et al., 2016). Here, for both cross-border intrafirm and interfirm partnerships, we suggest frustration-related mechanisms that contribute to the link between role ambiguity and opportunism.

When a subsidiary/supplier is unclear about its role responsibilities and what it should be doing to meet the expectations of its headquarters/buyer, it is almost certain to lose confidence in its ability to be successful in this (Dong et al., 2016). The lack of confidence serves to create negative emotions, such as frustration, anxiety, and tension (Shen, Tang, & Chen, 2014), thereby lessening the exchange partner's motivation to invest sufficient time and effort



in the relationship (Agarwal, 1993; Dubinsky, Michaels, Kotabe, Lim, & Moon, 1992; Yang et al., 2012). A cross-border partner without an understanding of its exact role and confidence that its activities will achieve common goals (Dong et al., 2016; Schmitz & Ganesan, 2014), is likely to react negatively by filling role gaps in a way that discretely prioritizes its own self-interest goals.

Further, role ambiguity creates a lack of clarity and direction that can precipitate frustrations over cognitive resource exhaustion. To deal with uncertainties regarding responsibilities, managers must “dedicate more cognitive resources to identify role expectations. Because cognitive resources are limited, resources allocated to clarifying responsibilities cannot be dedicated to pragmatic, goal-based action” (Nygaard & Dahlstrom, 2002: 66). It has been shown that a subsidiary’s cognitive efforts to seek feedback to clarify its duties and authority within the MNC, would be deemed a wasteful distraction (Fischer, Ferreira, Meurs Van, Gok, Jiang, Fontaine, & Hassan, 2019; Gupta, Govindarajan, & Malhorta, 1999). Similarly, Dong et al. (2016) asserted that buyers that are experiencing role ambiguity in their dealings with institutionally distant suppliers use available internal and external resources to better understand their role, which reduces the perceived efficiency of collaboration. For a subsidiary/supplier, the nuisance of having to commit intellectual resources to improve the predictability of its own behavior, would be a source of ill-will that engenders self-seeking, opportunistic tendencies (cf. Ralston et al., 2010).

In sum, a frustrated exchange partner lacking in confidence about meeting the expectations of its overseas counterpart and in the position of having to waste cognitive resources on reducing uncertainties regarding its work, may infer that opportunism is a natural response to the imposition of such ambiguity. Accordingly:

**Hypothesis 2:** Within cross-border intrafirm/interfirm partnerships, role ambiguity (hindrance stressor) is positively related to opportunism.

### The Moderating Role of Monitoring

We theorize that monitoring makes the U-shaped link between challenge stressors and opportunism more pronounced (i.e., steeper). It is likely to do so within intrafirm settings, not interfirm ones. We propose that coping with challenge stressors is shaped by the climate of headquarters–subsidiary relationships and the level of support available

therein. Subsidiaries have a corporate parent and require its supportive attention to develop (Ambos et al., 2010). Headquarters’ monitoring would be seen to play a role in facilitating the subsidiary’s opportunities to excel and impress, or otherwise, within the MNC. Rather than support challenge stressors’ efficacy, monitoring plays a straightforward role in policing opportunism in remote, cross-border buyer–supplier exchanges (Heide et al., 2014). It is unlikely that a foreign supplier with a clear sense of sovereignty will view the buyer’s monitoring as anything but a control mechanism that could result in it losing the contract (Griffith & Zhao, 2015).

As explained in H1, a subsidiary is likely to perceive a moderate level of challenge stressors as an opportunity for development. The initial downward slope in the relationship between challenge stressors and opportunism is driven by perceived benefits subsidiaries gain such as learning and harnessing opportunities, which motivates them to proactively deal with headquarters’ demands rather than engage in opportunism. When the headquarters monitors subsidiaries, it provides cues that signal behavioral and performance priorities of the MNC (cf. Mero, Guidice, & Werner, 2014). Considering the positive climate created by moderate challenge stressors, it is unlikely that the subsidiary will view headquarters’ monitoring as intrusive. In fact, stringent monitoring would be seen as a feedback mechanism that assists the subsidiary in managing added work pressures (cf. Mero et al., 2014). Moreover, a high level of monitoring can create perceptions of role importance in employees, as these employees and their activities and outcomes are at the center of the attention of their line managers (Liao & Chun, 2016). As subsidiaries usually vie for the attentions of their headquarters, monitoring may be taken as indication of the subsidiary’s importance to, and influence within, the MNC (Ambos et al., 2010). By contrast, when the level of monitoring is low, a subsidiary will lack this perceived source of headquarters’ support, consider itself unimportant to its corporate parent, and become less motivated to effectively manage imposed moderate challenge demands. In sum, under the spotlight of headquarters’ monitoring, moderate challenge demands enhance the subsidiary’s motivation to engage in problem-solving, which boosts the initial negative link of challenge stressors and opportunism.

The subsequent positive slope between challenge stressors and opportunism, in H1, is also



strengthened by a high level of monitoring. After a certain tipping point, the challenge is not considered as an opportunity, but rather as an obstacle that exhausts firms' resources and limits their ability to achieve goals (cf. Rodell & Judge, 2009). The post-tipping point, upward slope in the challenge stressors–opportunism relationship is driven by negative perceptions regarding the benefits-to-costs ratio of effectively addressing the heightened work demands. The firm's reduced expectancy would boost its tendency to deploy adverse, emotion-focused coping strategies such as opportunism. A high level of monitoring can provide the subsidiary with feedback regarding its tasks and the performance priorities of the MNC (cf. Liao & Chun, 2016). Still, there is no guarantee that a subsidiary will perceive monitoring as supportive when the imposed challenge increases to high levels. MNCs have ownership advantages and can deploy additional methods (e.g., use of expatriates or the meetings structure) to ensure subsidiaries' actions are consistent with those of the corporation (Nell & Ambos, 2013). Compared to monitoring, such methods may be better placed to avoid negative subsidiary responses as they are natural to the setting of a single corporation.

Negative emotions resulting from excessive challenge pressures can cloud the subsidiary's perception of its headquarters' monitoring routines. An over-challenged subsidiary facing a high level of headquarters' monitoring, could view this as unnecessarily intrusive (Wathne & Heide, 2000) and as a sign of corporate bad faith and greed (Goranova, Priem, Ndofor, & Trahms, 2017). An adverse monitoring climate may cause perceptions of unfairness (Husted & Folger, 2004), psychological reactance (Heide et al., 2007), and even withdrawal from asking for help (Poppo & Zhou, 2014). Such a negative climate skews the subsidiary's evaluation of total benefits versus the total costs of tackling challenge stressors and reduces its motivation to engage in problem-solving coping. By contrast, despite the presence of acute challenge stressors, a low level of monitoring would signal that headquarters has a measure of belief in the subsidiary's work (Goranova et al., 2017). Perceptions of equity and cohesion in the relationship would reduce the subsidiary's tendency to avoid severe challenge stressors by engaging in a less than fully cooperative way, weakening the positive link between challenge stressors and opportunism. Therefore:

**Hypothesis 3:** Within cross-border intrafirm (not interfirm) partnerships, the higher the level of monitoring, the steeper the U-shaped relationship will be between challenge stressors and opportunism.

We expect that monitoring negatively moderates the linear relationship between role ambiguity and opportunism. As explained in H2, role ambiguity is a hindrance stressor that causes work-related uncertainties that frustrate the exchange partner into opportunistic behavior by reducing its confidence and wasting its cognitive resources. Here, we propose that monitoring is an effective tool in addressing these uncertainties in the interfirm context alone. Within international buyer–supplier exchanges, due to the likelihood of disturbances in relationships between separately owned firms, and the lack of alternative information-gathering tools, monitoring remains a key means of controlling possible partner frustrations within a stringent contract. In contrast, the MNC's ownership of a subsidiary enables the headquarters to gather information and provide guidance via an array of modes, including expatriate secondments and socialization mechanisms (Ambos & Schlegelmilch, 2007). Such methods enhance face-to-face interactions across the MNC structure and, compared to monitoring, present richer information on ambiguity issues. Because of alternative ways of lessening the effects of role uncertainty in MNCs, the efficacy of monitoring in this respect declines. Indeed, intrafirm agreements can be more incomplete than interfirm ones, as resolving internal disputes by fiat is easier than through external arbitration and litigation (Williamson, 1991).

Serving as an information-gathering tool, monitoring creates value by highlighting shortcomings and issues in interfirm relationships (Heide et al., 2014). A high level of monitoring means that the buyer dedicates more time and effort to collecting information on the actions and outcomes of their suppliers (Poppo & Zhou, 2014). Regular monitoring helps buyers and suppliers to not only detect role-related uncertainties in their cross-border exchanges, but also mitigate the negative consequences of such uncertainties by responding appropriately – for example, providing detailed explanations of expected work plans. A foreign buyer's monitoring routines should enhance the supplier's confidence that its activities will achieve common goals, and also reduce the supplier's cognitive efforts to build a clear sense of knowing



what it should be doing in the partnership. In the absence of these sources of frustration, the supplier would be better able to refrain from emotion-focused coping and opportunistic behaviors. Conversely, when the level of monitoring is low, the buyer would lack a timely and accurate understanding of its cross-border supplier's role uncertainties (Heide et al., 2014), which in turn hinders its ability to detect and arrest the supplier's frustrations and nominally cooperative behaviors. The undirected supplier would view opportunism as a viable response to the frustrations of role ambiguity. As such:

**Hypothesis 4:** In cross-border interfirm (not intrafirm) partnerships, the higher the level of monitoring, the weaker the positive relationship between role ambiguity (hindrance stressor) and opportunism.

## METHOD

To test our model, we used a multimethod research design consisting of survey studies in two exchange contexts, complemented with a scenario-based experiment. The main test of our hypotheses – the generic hypotheses, H1 and H2, and context-specific H3 and H4 – is through two studies in China's manufacturing sector. Study 1 focuses on intrafirm ties between wholly owned, Chinese subsidiaries and their overseas headquarters, whereas Study 2 focuses on interfirm ties of Chinese suppliers with their international buyers. We surveyed suppliers in Study 2 to ensure comparability with Study 1, given that Chinese subsidiaries usually are tasked with producing goods to export to parts of the MNC. In Study 3, we constrained our effort to establishing causality for our generic, direct-effects hypotheses (H1 and H2). Our main experiment was conducted in the US.

## SURVEY STUDIES: STUDY 1 AND STUDY 2

### Sampling and Data Collection

The current study could be conducted in any market engaged in international trade and with MNC subsidiary presence. We selected China for two main reasons. First, China has sizeable populations of firms involved in intrafirm and interfirm partnerships. It is one of the major hosts of foreign direct investment, due to deregulation of rules on foreign MNCs' market access. Many MNCs leverage their know-how through investing in subsidiary

activities in China, using China to access fast-growing South-East Asia (Lu Jin, Zhou, & Wang, 2016). China's manufacturing- and exporting-led economy has grown significantly over the last two decades. Chinese exports reached US\$ \$2723 trillion in 2020, which accounts for 12.1% of world exports (World Bank, 2020). Second, in terms of trade and foreign direct investment, China is one of the largest partners for Western economies such as US and EU (Murray, Gao, & Kotabe, 2011). In the absence of public data on Chinese manufacturing firms' internal and external partnerships, we conducted a survey for Study 1 and Study 2.

The sampling frame for Study 1 was a commercial list provided by the China Foreign Enterprise Dictionary with the details of 12,000 wholly owned subsidiaries operating in the manufacturing sector based in China, but with overseas headquarters. We recruited and trained a local researcher with experience of conducting survey research in China. Our researcher contacted 2000 subsidiaries (randomly selected from the list) by phone to assess their eligibility for the study, explain its purpose, and identify the most appropriate informant. As a result of this preliminary contact, we identified 1249 eligible informants. Reasons for ineligibility included that the subsidiary was co-owned, had no overseas headquarters, and was not currently operating in the manufacturing sector. We targeted subsidiary CEOs, CXOs, and Vice Presidents as the key informants and, to encourage participation, guaranteed the confidentiality of the data and their anonymity. We then developed a list of 644 eligible informants who also expressed an interest in the study, after which our researcher sent them the link to the online survey (i.e., the Mandarin or English version). Two weeks later, a second email was sent to nonrespondents. We received 225 completed responses from subsidiaries, for an 18.1% response rate (i.e., 225 of the 1249).

To ensure the competence of the respondents, we used two seven-point scales to assess their knowledge about the subsidiary's relationship with the headquarters, and their confidence in answering the survey questions. We removed 16 cases answering 4 or below on either of these questions, reducing the number of observations to 209. The mean score for respondents' knowledge was 6.2 and the mean for their confidence was 6.3. Next, we sent our local researcher to visit a small subset of the respondents to check the quality of their responses. No issues emerged from this check. In the final sample, the headquarters of the Chinese

subsidiaries are spread globally, with: 104 in Europe (e.g., 38 in the UK, 18 in Germany, and 11 in France); 59 in North America (e.g., 54 in the US); 28 in other parts of Asia (e.g., 21 in Japan); and 18 in Oceania (e.g., 16 in Australia).

In Study 2, we partnered with Qualtrics to form a purified sampling frame of 1000 top business managers eligible for our research. Comparable to Study 1, they were CEOs, CXOs, and Vice Presidents of currently operating Chinese manufacturing suppliers, with overseas buyers. With Qualtrics' support, we were able to deploy a temporal separation by splitting the questionnaire into two parts and introducing a four-week time lag between measurement of the predictor and criterion variables. In the first phase, we sent the web link for the first part of our questionnaire to all informants and captured their views on both stressor constructs. The instructions informed the participants that in one month's time they would receive a link to the second part of the questionnaire. We received 635 completed responses. The second phase of our survey included the measurement scales for opportunism and monitoring. We received 232 completed responses from the first-phase respondents targeted, giving a final response rate of 23.2% (i.e., 232 of the 1000).

We asked Study 2 informants to report on a partnership with an overseas buyer with which their firm has had an ongoing business relationship for at least 1 year and does not have any ownership affiliation. This instruction enabled a clear demarcation between our intrafirm and interfirm samples. To ensure the buyer's prominence to them and add an element of variability, we randomly asked informants to consider their firm's first, second, or third largest overseas buyer in terms of dollar value of sales. Using Qualtrics' support, we were able to eliminate respondents scoring four or below on our two seven-point scales for knowledge and confidence, in both phases. The two-phase mean for each post hoc question was 6.3. The international buyers of the Chinese manufacturing suppliers are also spread across the globe: 70 in Europe (e.g., 32 in the UK, 12 in France, and six in Germany); 62 in North America (e.g., 61 in the US); 89 in other parts of Asia (e.g., 40 in Korea and 31 in Japan); eight in Oceania; and three in Africa.

In both studies, we developed an English version of the survey instrument, and then translated it into Mandarin using a native-speaker translator. We back-translated our questionnaires into English using another native-speaker. Both translators were

experts in the subject matter covered. Implementation of the surveys used the Mandarin version, with the exception of cases where the respondent was not Chinese. We examined nonresponse bias for both studies by comparing the firms in our samples with nonparticipating ones from the original list of 2000 subsidiaries for Study 1, and from the 1000 recruited participants from Qualtrics for Study 2, on demographical factors such as firm age, number of employees, and product type. We found no bias.<sup>4</sup>

We also followed recommended steps (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) to limit common method artifacts, ex ante, in both studies. First, we used a systematic approach in developing the questionnaire and modifying the measures to ensure clarity. We adapted existing measures and pre-tested our questionnaire in semi-structured interviews with 20 senior executives of Chinese subsidiaries or suppliers (i.e., ten for each). The pre-study interviews scrutinized the nature of the constructs, appropriateness of our reflective scales, and clarity of instructions given. These interviews also confirmed the appropriateness of using CEOs, CXOs, and vice presidents as knowledgeable key informants in both studies. We received further feedback from five academic experts, who scrutinized the instrument for clarity purposes. Second, although most of the theorized relationships between the study variables are nonlinear and difficult to predict, we structured the questionnaire to remove any temptation to speculate on links of dependent and independent variables. For example, we placed items of different constructs together within general topic categories.

### Measures

We drew our reflective, multi-item scales from established measures (see Web Appendix: Theme 4 and Theme 5 for the items for Study 1 and Study 2, respectively). Any minor modifications were based on our extensive pre-testing. Scale anchors for the constructs were (1) "strongly disagree" and (7) "strongly agree", unless stated otherwise. The five-item *opportunism* measure was adapted from Wuyts and Geyskens (2005) and Katsikeas et al. (2009). Headquarters' *monitoring* was tapped using seven items adapted from the scale of O'Donnell (2000), and the buyer's monitoring items are based on those used by Griffith and Zhao (2015) and Heide et al. (2007).<sup>5</sup> The pre-study interviews suggested that, as monitoring is shaped by the presence or absence of an explicit contract, the

actions and outcomes being monitored by headquarters and buyers are likely to differ. Thus, monitoring measures apposite to the demands of the particular type of partnership (i.e., intrafirm or interfirm) are required to test our context-specific H3 and H4. The seven-item *challenge stressors* scale was adapted from Cavanaugh et al. (2000). We drew from Nygaard and Dahlstrom's (2002) scale for our five *role ambiguity (hindrance stressor)* items. The stem question suggesting our stressor items potentially influence the level of stress in the working relationship, was modified from Rodell and Judge (2009).

We controlled for several potential sources of heterogeneity. In Study 1, we controlled for headquarters–subsidiary relationship history, measured as *subsidiary age* in years (Heide et al., 2014). To reflect the scale of operations, we measured *subsidiary size* in terms of the number of employees (log), *subsidiary number of foreign employees* in its top management team (log), and *subsidiary sales performance* (in tens of million US dollars) and *R&D expenditure* (in tens of million US dollars). Next, we used the percentage of the subsidiary's *sales within corporation*, (intrafirm sales), and the percentage of the subsidiary's *purchases within corporation* (intrafirm purchases) as proxy measures to control for transaction-related dependency (Mudambi, Pedersen, & Andersson, 2014). We used a dummy variable to control for subsidiary product type: *industrial goods* or *consumer goods*. We also employed a categorical measure to control for whether a subsidiary has a *regional headquarters role*, since such a position of responsibility could link to opportunism.

Relationships between suppliers and their international buyers are prone to power asymmetry when they contrast in terms of size (Jean et al., 2010). To control for such asymmetry, in Study 2, we captured *supplier size* and *buyer size* in terms of the number of employees (log). We measured *supplier age*, and buyer–supplier relationship history as *relationship age*, both in years. *Overseas market age* is the number of years the supplier had a market presence overseas. We also captured the number of *years left in contract*, as contracts are finite. Following TCE logic, we included *buyer ordering frequency* (scale from (1) “more than 2 times a day” to (8) “once a year”) and *supplier sales performance* (in tens of million US dollars) to reflect transaction conditions (Heide et al., 2014). We used a dummy variable to capture whether a supplier produces *industrial* or *consumer goods*. Additionally, we included a categorical measure to tap whether a

supplier is *privately owned*, as ownership might influence the self-seeking behavior of a Chinese supplier.

In both studies, we controlled for two constructs, *psychic distance* and *helplessness*, used in our post hoc analyses. The former pertains to perceived cultural issues and problems in the business environment and with practices, making it difficult for a firm to understand the foreign market (Obadia, Bello, & Gilliland, 2015). We tapped psychic distance with measures modified from Sousa and Bradley (2006) (scale from (1) = “very similar” to (7) = “very different”). Helplessness is the extent to which a subsidiary/supplier has fallen short of the headquarters'/buyer's current goals for actions and outcomes (cf. Boichuk, Bolander, Hall, Ahearne, Zahn, & Nieves, 2014). The items were adapted from Prahinski and Benton (2004) (scale from (1) = “not at all” to (7) = “to a great extent”).

### Measure Validation

Analysis of the distribution of our data suggests that our explanatory variables are non-normally distributed. We thus performed robust confirmatory factor analyses using non-normal estimators to validate the measures in Study 1 and Study 2. Specifically, we obtained consistent results with maximum likelihood robust, elliptical, and heterogeneous kurtosis estimation; we report results for the former (Web Appendix: Theme 4 and Theme 5). Items loaded highly – ranging from 0.649 to 0.823 in Study 1, and from 0.607 to 0.891 in Study 2 (all at  $p = 0.01$ ) – on pre-identified constructs; after we removed three items from Study 1, and two from Study 2, due to loadings below 0.600. The goodness-of-fit indices show that both measurement models fit the data well (Study 1:  $\chi^2$  ( $df = 183$ ) = 281.785; RMSEA = 0.051; CFI = 0.975; IFI = 0.975; NNFI = 0.971; SRMR = 0.058; Study 2:  $\chi^2$  ( $df = 203$ ) = 374.955; RMSEA = 0.061; CFI = 0.967; IFI = 0.967; NNFI = 0.963; SRMR = 0.070). The values of RMSEA in our studies fall below the acceptability threshold of 0.08 (Tasheva & Nielsen, 2020). Composite reliabilities for all the measures are equal to or above 0.840 in Study 1 and 0.876 in Study 2, exceeding the 0.70 cutoff and indicating good internal reliability. Study constructs' average variance extracted (AVE) scores exceed the 0.50 benchmark, ranging from 0.511 to 0.618 in Study 1, and from 0.580 to 0.720 in Study 2. Taken together, the measurement model results suggest strong convergent validity (Fornell & Larcker, 1981). We assessed discriminant validity by



**Table 2** Correlations and descriptive statistics for headquarters–subsidiary context (Study 1)

Construct	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Opportunism	<b>0.786</b>															
2. Monitoring	<u>0.330</u>	<b>0.715</b>														
3. Challenge stressors	0.175	0.382	<b>0.740</b>													
4. Role ambiguity	0.155	0.440	0.677	<b>0.716</b>												
5. Subsidiary age	-0.008	-0.022	0.049	-0.008	-											
6. Subsidiary size	0.256	-0.268	0.171	0.146	-0.068	-										
7. Number of foreign employees	0.071	0.106	0.028	-0.026	0.151	-	-0.011	-								
8. Sales performance	-0.066	-0.143	-0.113	-0.128	-0.003	0.115	-0.006	-								
9. R&D expenditure	-0.042	-0.106	-0.099	-0.098	0.083	0.127	-0.031	0.478	-							
10. Sales within corporation	-0.024	0.170	0.093	0.049	0.207	-0.105	0.176	-0.103	-0.098	-						
11. Purchases within corporation	-0.022	0.139	0.084	0.043	0.115	-0.101	0.093	0.056	-0.067	0.598	-					
12. Industrial goods	0.149	-0.141	-0.181	-0.213	0.030	-0.111	0.013	-0.017	0.072	0.029	0.024	-				
13. Consumer goods	-0.033	0.042	0.009	0.002	0.678	0.120	0.855	0.810	0.325	0.686	0.738	-				
14. Regional HQ role	-0.149	0.141	0.181	0.213	-0.030	0.111	-0.013	0.017	-0.072	-0.029	-0.024	-1.000	-			
15. Psychic distance	-0.270	0.175	0.216	0.317	-0.088	0.120	0.855	0.810	0.325	0.686	0.738	0.000	0.271	-		
16. Helplessness	-0.042	0.328	0.522	0.504	-0.003	-0.039	-0.224	-0.213	0.081	-0.030	-0.112	0.000	0.215	0.000	-	
Mean	3.883	3.396	4.291	4.467	14.602	2.651	1.393	7.417	0.807	30.742	29.13	0.684	0.047	0.046	0.104	0.101
Standard deviation	1.209	0.773	0.741	0.892	7.756	0.569	0.517	13.556	1.496	20.487	20.045	0.465	0.465	0.266	0.266	0.977

*n* = 209; *p* values in parentheses; bold and underlined numbers on the diagonal are the square root of the AVE.



**Table 3** Correlations and descriptive statistics for buyer–supplier context (Study 2)

Construct	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Opportunism	<b>0.849</b>																
2. Monitoring	-0.179 (0.006)	<b>0.762</b>															
3. Challenge stressors	-0.176 (0.007)	0.044 (0.505)	<b>0.766</b>														
4. Role ambiguity	0.381 (0.000)	-0.240 (0.000)	-0.442 (0.000)	<b>0.767</b>													
5. Supplier size	-0.122 (0.063)	0.041 (0.535)	0.144 (0.028)	-0.186 (0.004)	-												
6. Buyer size	-0.208 (0.001)	0.208 (0.117)	0.103 (0.000)	-0.247 (0.000)	0.656 (0.000)	-											
7. Supplier age	-0.064 (0.330)	0.142 (0.030)	-0.093 (0.158)	-0.002 (0.975)	0.179 (0.006)	0.074 (0.260)	-										
8. Relationship age	-0.069 (0.296)	0.101 (0.125)	-0.003 (0.963)	-0.083 (0.205)	0.125 (0.057)	0.151 (0.021)	0.349 (0.000)	-									
9. Overseas market age	-0.144 (0.028)	0.137 (0.038)	0.027 (0.682)	-0.094 (0.153)	0.207 (0.002)	0.185 (0.005)	0.579 (0.000)	0.545 (0.000)	-								
10. Years left in contract	0.035 (0.594)	-0.101 (0.125)	-0.035 (0.594)	0.018 (0.781)	0.094 (0.153)	0.049 (0.459)	0.102 (0.120)	0.214 (0.001)	0.158 (0.016)	-							
11. Ordering frequency	-0.073 (0.268)	0.080 (0.226)	0.127 (0.053)	-0.175 (0.008)	0.009 (0.894)	0.141 (0.032)	0.037 (0.576)	0.080 (0.226)	0.066 (0.314)	-0.133 (0.044)	-						
12. Sales performance	-0.101 (0.125)	-0.011 (0.867)	0.077 (0.243)	-0.138 (0.036)	0.418 (0.000)	0.226 (0.000)	0.085 (0.198)	0.134 (0.042)	0.156 (0.018)	0.016 (0.809)	-0.063 (0.340)	-					
13. Industrial goods	0.033 (0.614)	-0.099 (0.132)	0.112 (0.088)	0.084 (0.202)	-0.079 (0.231)	-0.134 (0.041)	0.074 (0.261)	-0.094 (0.153)	0.059 (0.369)	-0.013 (0.840)	0.024 (0.719)	0.036 (0.587)	-				
14. Consumer goods	-0.033 (0.614)	0.099 (0.132)	-0.112 (0.088)	-0.084 (0.202)	0.079 (0.231)	0.134 (0.041)	-0.074 (0.261)	0.094 (0.153)	-0.059 (0.369)	0.013 (0.840)	-0.024 (0.719)	-0.036 (0.587)	-1.000 (0.000)	-			
15. Privately owned	0.136 (0.039)	-0.137 (0.038)	0.153 (0.019)	-0.107 (0.103)	-0.087 (0.187)	-0.053 (0.422)	-0.177 (0.007)	-0.183 (0.005)	-0.141 (0.032)	0.000 (0.998)	0.076 (0.250)	-0.154 (0.019)	0.003 (0.963)	-			
16. Psychic distance	0.060 (0.362)	0.139 (0.035)	-0.087 (0.186)	0.072 (0.272)	0.046 (0.486)	-0.030 (0.645)	-0.030 (0.114)	-0.045 (0.497)	-0.003 (0.963)	0.039 (0.557)	-0.162 (0.013)	-0.049 (0.455)	0.015 (0.817)	-0.015 (0.817)	-0.037 (0.572)	-	
17. Helplessness	0.257 (0.000)	-0.079 (0.231)	0.054 (0.413)	0.038 (0.565)	0.098 (0.138)	0.003 (0.963)	-0.019 (0.773)	0.109 (0.098)	0.075 (0.255)	0.053 (0.421)	-0.192 (0.003)	-0.068 (0.304)	-0.104 (0.114)	-0.048 (0.464)	0.256 (0.000)	-	
Mean	2.836	5.854	4.991	2.340	2.723	2.626	15.922	6.034	8.918	3.500	3.957	11.13	0.556	0.444	0.681	4.369	3.532
Standard deviation	1.520	0.898	1.163	0.954	0.449	0.600	7.493	3.366	4.675	3.038	1.312	30.99	0.498	0.498	0.467	1.401	1.889

*n* = 232; *p* values in parentheses; bold and underlined numbers on the diagonal are the square root of the AVE.

verifying that the shared variance for every construct pair is smaller than the associated AVEs for that pair. Tables 2 and 3 present descriptive statistics of, and correlations between, the constructs of the two studies.

Despite our *ex ante* steps to limit common method bias in the data, including use of a temporal separation in Study 2, we examined *ex post* the presence of such bias in both studies. Specifically, we deployed Lindell and Whitney's (2001) marker variable test. We used number of years of working experience in the firm as the marker variable (cf. Dean, Griffith, & Calantone, 2016). Number of years of working experience has a small correlation with our dependent variable, opportunism, in Study 1 ( $r = 0.008$ ) and Study 2 ( $r = 0.016$ ). We partialled out this coefficient, computing the adjusted correlation for each pair of study constructs, and compared the results with those of the unadjusted bivariate correlations. As the unadjusted correlations maintained their size and pattern of significance, we can conclude that method bias is not a major concern in our study.

### Analysis and Results

To examine our hypotheses, we used regression analysis. For each construct we used standardized item loadings from our confirmatory factor analysis as the weights to create an aggregate-level indicator that consisted of the weighted average of all related items. This *statistical composite* approach ensures that items with greater measurement error and smaller standardized loadings make smaller contributions to the composite construct measure (Dou, Li, Zhou, & Su, 2010). Considering the distributional properties of our explanatory variable measures, we used the PROCESS macro in SPSS for regression models including interaction terms and obtained  $p$  values by bootstrapping with 10,000 samples. As the PROCESS macro in SPSS does not include a main effect model estimation, we used coding in STATA and confirmed the robustness of our main effect models with 10,000 iterations of bootstrapping. The regression results appear in Tables 4 and 5.

We checked for multicollinearity by evaluating variance inflation factor (VIF) scores for our predictors. The highest VIF is reported for each model in Tables 4 and 5. The highest VIFs (i.e., 2.642 in Study 1 and 2.509 in Study 2) fall below the 5.0 threshold. In testing H1, which predicted a U-shaped link between challenge stressors and opportunism in international intrafirm and

interfirm partnerships, we followed a three-step procedure proposed by Lind and Mehlum (2010) to ensure correct interpretation of the results (see Haans, Pieters, & He, 2016). The first step involves showing that the beta coefficient for the quadratic term is significant and of the expected sign. Our regression results support this in both studies (Study 1:  $\beta = 0.263$ ;  $p = 0.001$  in Model 1, and  $\beta = 0.269$ ;  $p = 0.001$  in Model 4; Study 2:  $\beta = 0.220$ ;  $p = 0.001$  in Model 1, and  $\beta = 0.183$ ;  $p = 0.006$  in Model 4).

The second step is to observe that the slope is sufficiently steep at both ends of the data range. Using Model 1 specifications and supposing  $CS_L$  and  $CS_H$  are at the low and high ends of the range for our challenge stressors variable, the slope at  $CS_L$  can be computed as  $\beta_{CS} + 2\beta_{CS^2} \times CS_L$ . The slope at  $CS_H$  can be computed as  $\beta_{CS} + 2\beta_{CS^2} \times CS_H$ . For Study 1,  $CS_L = -1.980$  and  $CS_H = 2.000$  and for Study 2,  $CS_L = -2.790$  and  $CS_H = 1.510$ . The presence of a U-shaped relationship implies  $\beta_{CS} + 2\beta_{CS^2} \times CS_L < 0$  and  $\beta_{CS} + 2\beta_{CS^2} \times CS_H > 0$ . We tested the joint significance of the slopes at each end, in Study 1 and Study 2, separately (Study 1: Slope at  $CS_L = -1.005$ ;  $p = 0.000$ ; and Slope at  $CS_H = 1.088$ ;  $p = 0.000$ ; Study 2: Slope at  $CS_L = -1.119$ ;  $p = 0.000$ ; and Slope at  $CS_H = 0.773$ ;  $p = 0.000$ ).

The third step is to ensure that the turning point is located within the data range. The turning point for our Model 1 can be found at  $-\beta_{CS}/2\beta_{CS^2}$ . We estimated the turning point of the effect of challenge stressors in both studies and calculated the confidence interval based on Fieller's standard error (Lind & Mehlum, 2010). The turning point for challenge stressors is  $-0.137$  (equivalent to 4.154 on a seven-point scale), confidence interval =  $(-0.401, 0.052)$ ; equivalent to 3.890, 4.343 on a seven-point scale) for Study 1; and  $-0.495$  (equivalent to 4.496 on a seven-point scale), confidence interval =  $(-0.788, -0.244)$ , equivalent to 4.203, 4.747 on a seven-point scale) for Study 2. Given the results of the three steps, we can conclude that the U-shaped link is present, and H1 is supported, in both studies.

In line with H2, we found that role ambiguity has a positive relationship with opportunism in both international intrafirm and interfirm partnerships (Study 1:  $\beta = 0.347$ ;  $p = 0.004$  in Model 1, and  $\beta = 0.351$ ;  $p = 0.006$  in Model 4; Study 2:  $\beta = 0.589$ ;  $p = 0.001$  in Model 1, and  $\beta = 0.628$ ;  $p = 0.001$  in Model 4). H3, which proposed a moderating effect of monitoring on the U-shaped effect of challenge stressors in international intrafirm (not interfirm)

**Table 4** Regression results for headquarters–subsidiary context (Study 1)

	Opportunism							
	Model 1		Model 2		Model 3		Model 4	
<b>Predictors</b>								
Challenge stressors (CS)	0.036 (0.116)	[− 0.193, 0.266] 0.755	− 0.026 (0.117)	[− 0.257, 0.206] 0.828	0.023 (0.117)	[− 0.209, 0.254] 0.848	− 0.026 (0.118)	[− 0.258, 0.206] 0.827
CS <sup>2</sup>	0.263 (0.067)	[0.130, 0.396] 0.001	0.269 (0.075)	[0.120, 0.417] 0.001	0.282 (0.070)	[0.144, 0.421] 0.001	0.269 (0.075)	[0.120, 0.417] 0.001
Role ambiguity (RA)	0.374 (0.127)	[0.124, 0.623] 0.004	0.353 (0.126)	[0.104, 0.602] 0.006	0.356 (0.128)	[0.103, 0.609] 0.006	0.351 (0.127)	[0.101, 0.601] 0.006
Monitoring (M)	0.279 (0.132)	[0.019, 0.539] 0.036	0.149 (0.140)	[− 0.127, 0.425] 0.288	0.298 (0.133)	[0.035, 0.562] 0.027	0.155 (0.143)	[− 0.126, 0.437] 0.278
<b>Interactions</b>								
CS × M			− 0.117 (0.156)	[− 0.425, 0.191] 0.454			− 0.088 (0.196)	[− 0.475, 0.299] 0.653
CS <sup>2</sup> × M			0.205 (0.076)	[0.055, 0.354] 0.008			0.201 (0.077)	[0.049, 0.353] 0.010
RA × M					− 0.154 (0.163)	[− 0.475, 0.167] 0.345	− 0.049 (0.202)	[− 0.449, 0.350] 0.807
<b>Control variables</b>								
Subsidiary age	− 0.007 (0.008)	[− 0.022, 0.009] 0.396	− 0.008 (0.008)	[− 0.023, 0.007] 0.321	− 0.006 (0.008)	[− 0.022, 0.009] 0.403	− 0.008 (0.008)	[− 0.023, 0.007] 0.319
Subsidiary size	0.313 (0.142)	[0.033, 0.593] 0.028	0.298 (0.140)	[0.023, 0.574] 0.034	0.312 (0.142)	[0.032, 0.592] 0.029	0.299 (0.140)	[0.023, 0.576] 0.034
Number of foreign employees	0.132 (0.128)	[− 0.121, 0.384] 0.305	0.112 (0.126)	[− 0.137, 0.360] 0.375	0.129 (0.128)	[− 0.124, 0.381] 0.316	0.112 (0.126)	[− 0.137, 0.361] 0.375
Sales performance	− 0.007 (0.005)	[− 0.017, 0.002] 0.128	− 0.004 (0.005)	[− 0.014, 0.006] 0.446	− 0.007 (0.005)	[− 0.017, 0.002] 0.134	− 0.004 (0.005)	[− 0.014, 0.006] 0.442
R&D expenditure	0.017 (0.041)	[− 0.064, 0.099] 0.675	− 0.002 (0.041)	[− 0.083, 0.079] 0.963	0.022 (0.042)	[− 0.060, 0.104] 0.598	0.000 (0.042)	[− 0.083, 0.083] 0.997
Sales within corporation	− 0.003 (0.003)	[− 0.010, 0.004] 0.398	− 0.003 (0.003)	[− 0.010, 0.004] 0.358	− 0.003 (0.003)	[− 0.010, 0.004] 0.390	− 0.003 (0.003)	[− 0.010, 0.004] 0.356
Purchases within corporation	0.001 (0.003)	[− 0.006, 0.008] 0.840	0.002 (0.003)	[− 0.005, 0.009] 0.513	0.001 (0.004)	[− 0.006, 0.008] 0.827	0.002 (0.003)	[− 0.005, 0.009] 0.516
Consumer goods	− 0.292 (0.127)	[− 0.542, − 0.041] 0.023	− 0.268 (0.125)	[− 0.514, − 0.021] 0.034	− 0.296 (0.127)	[− 0.547, − 0.045] 0.021	− 0.269 (0.126)	[− 0.517, − 0.021] 0.034
Regional HQ role	− 1.402 (0.338)	[− 2.070, − 0.735] 0.001	− 1.393 (0.338)	[− 2.061, − 0.726] 0.000	− 1.425 (0.339)	[− 2.095, − 0.756] 0.001	− 1.412 (0.347)	[− 2.097, − 0.726] 0.001
Psychic distance	− 0.188 (0.094)	[− 0.374, − 0.001] 0.048	− 0.160 (0.093)	[− 0.344, 0.025] 0.089	− 0.200 (0.095)	[− 0.388, − 0.012] 0.037	− 0.165 (0.096)	[− 0.354, 0.025] 0.088

Table 4 (Continued)

	Opportunism							
	Model 1		Model 2		Model 3		Model 4	
Helplessness	0.201 (0.068)	[0.067, 0.336] <i>0.004</i>	0.169 (0.069)	[0.031, 0.306] <i>0.016</i>	0.187 (0.070)	[0.049, 0.325] <i>0.008</i>	0.167 (0.070)	[0.029, 0.305] <i>0.018</i>
F	6.358	<i>0.000</i>	6.262	<i>0.000</i>	6.012	<i>0.000</i>	5.883	<i>0.000</i>
R <sup>2</sup>	0.366		0.395		0.370		0.395	
Adjusted R <sup>2</sup>	0.309		0.332		0.308		0.328	
Highest VIF	2.459		2.588		2.498		2.642	

*n* = 209; two-tailed tests; unstandardized coefficients are reported; standard errors in parentheses; bias-corrected confidence interval in square brackets; *p* values in italics; excluded for dummy variable test: Industrial goods. Results are robust when the model is tested with 10,000 iterations of bootstrapping.

partnerships, was supported. The relevant coefficient is positive in Study 1 ( $\beta = 0.205$ ;  $p = 0.008$  in Model 2, and  $\beta = 0.201$ ;  $p = 0.010$  in Model 4), but nonsignificant in Study 2 ( $\beta = 0.122$ ;  $p = 0.227$  in Model 2, and  $\beta = 0.124$ ;  $p = 0.210$  in Model 4). We validated the nonsignificant result in Study 2, using G\*Power to compute the statistical power achieved in our regression. Our model with seven explanatory variables, a sample size of 232, and the probability of Type I error being 0.05, achieved power of 0.999 ( $1 - \beta$  error probability) that seems sufficient to reject the null hypothesis. As monitoring is naturally considered to be a contextual component of buyer–supplier partnerships (e.g., Heide et al., 2014; Poppo & Zhou, 2014),<sup>6</sup> the supplier would appear less likely to take extreme views on its supportiveness or intrusiveness when dealing with buyer-imposed challenge stressors. Rather, in settings with clear organizational boundaries, monitoring is seen as a straightforward way of policing that may eventually threaten the continuity of an ongoing transaction (Griffith & Zhao, 2015).

Monitoring as a moderator can affect the U-shaped relationship between challenge stressors and opportunism in two different ways. First, it could shift the turning point of the curve and, second, it could flatten or steepen the curve. We discuss both of these possibilities. To assess the potential shift in turning point, we followed the recommendation of Haans et al. (2016) and derived the turning point, challenge stressors\* of Model 4 by taking the first derivative with respect to challenge stressors and setting it to zero:

$$\text{Challenge stressors}^* = \frac{-\beta_{CS} - \gamma_{CS \times M} \times M}{2\beta_{CS^2} + 2\gamma_{CS^2 \times M} \times M} \quad (1)$$

As the turning point depends on the moderator, we took the derivative of this equation with respect to monitoring (*M*) to show how the turning point changes as monitoring changes:

$$\frac{\delta \text{Challenge stressors}^*}{\delta M} = \frac{\beta_{CS} \times \gamma_{CS^2 \times M} - \beta_{CS^2} \times \gamma_{CS \times M}}{2(\beta_{CS^2} + \gamma_{CS^2 \times M} \times M)^2} \quad (2)$$

Equation (2) suggests that the direction of the shift depends only on the sign of the numerator because the denominator is strictly greater than zero. The results of our analysis (see Model 4 from Table 4) suggest that the value for  $\beta_{CS} \times \gamma_{CS^2 \times M} - \beta_{CS^2} \times \gamma_{CS \times M}$  in our Study 1 is  $[(-0.026 \times 0.201) - (0.269 \times -0.088)] = 0.018$ , indicating that the turning point shifts to the right. To examine whether the shift in turning point is significant, we used the *nlcom* command in STATA for three specific values of monitoring (the minimum value for monitoring, which is  $-1.510$ , the mean, which is  $0.0$ , and the maximum value for monitoring, which is  $1.115$ ). In all three cases, the results are not significant, suggesting the shift in turning point is negligible. We then assessed whether monitoring has a flattening or steepening effect on our U-shaped relationship. In Model 4, flattening or steepening solely depends on the sign of the beta coefficient for the interaction involving the quadratic term (i.e.,  $CS^2 \times M$ ). Given that the corresponding coefficient is positive in Study 1 (see

**Table 5** Regression results for buyer–supplier context (Study 2)

	Model 1		Model 2		Model 3		Model 4	
<b>Predictors</b>								
Challenge stressors (CS)	0.109 (0.106)	[- 0.099, 0.317] <i>0.303</i>	0.108 (0.112)	[- 0.113, 0.329] <i>0.336</i>	0.097 (0.105)	[- 0.109, 0.303] <i>0.356</i>	0.139 (0.110)	[- 0.078, 0.357] <i>0.209</i>
CS <sup>2</sup>	0.220 (0.065)	[0.091, 0.349] <i>0.001</i>	0.199 (0.067)	[0.066, 0.332] <i>0.003</i>	0.210 (0.065)	[0.082, 0.338] <i>0.001</i>	0.183 (0.066)	[0.052, 0.314] <i>0.006</i>
Role ambiguity (RA)	0.589 (0.112)	[0.369, 0.809] <i>0.001</i>	0.597 (0.112)	[0.375, 0.818] <i>0.001</i>	0.598 (0.110)	[0.381, 0.816] <i>0.001</i>	0.628 (0.111)	[0.410, 0.846] <i>0.000</i>
Monitoring (M)	0.046 (0.124)	[- 0.197, 0.290] <i>0.709</i>	- 0.039 (0.142)	[- 0.319, 0.241] <i>0.784</i>	- 0.008 (0.124)	[- 0.252, 0.237] <i>0.952</i>	- 0.117 (0.142)	[- 0.396, 0.162] <i>0.410</i>
<b>Interactions</b>								
CS × M			0.052 (0.175)	[- 0.293, 0.398] <i>0.766</i>			- 0.147 (0.184)	[- 0.510, 0.216] <i>0.424</i>
CS <sup>2</sup> × M			0.122 (0.101)	[- 0.077, 0.321] <i>0.227</i>			0.124 (0.099)	[- 0.071, 0.319] <i>0.210</i>
RA × M					- 0.347 (0.144)	[- 0.631, - 0.062] <i>0.017</i>	- 0.489 (0.160)	[- 0.805, - 0.173] <i>0.003</i>
<b>Control variables</b>								
Supplier size	0.223 (0.224)	[- 0.218, 0.664] <i>0.320</i>	0.207 (0.225)	[- 0.236, 0.650] <i>0.358</i>	0.158 (0.223)	[- 0.282, 0.597] <i>0.480</i>	0.131 (0.222)	[- 0.306, 0.568] <i>0.555</i>
Buyer size	- 0.286 (0.156)	[- 0.594, 0.022] <i>0.068</i>	- 0.267 (0.157)	[- 0.577, 0.042] <i>0.090</i>	- 0.253 (0.155)	[- 0.559, 0.053] <i>0.105</i>	- 0.215 (0.155)	[- 0.521, 0.091] <i>0.167</i>
Supplier age	0.006 (0.011)	[- 0.016, 0.029] <i>0.578</i>	0.008 (0.011)	[- 0.015, 0.030] <i>0.503</i>	0.007 (0.011)	[- 0.015, 0.029] <i>0.516</i>	0.009 (0.011)	[- 0.013, 0.030] <i>0.447</i>
Relationship age	0.007 (0.025)	[- 0.042, 0.055] <i>0.787</i>	0.009 (0.025)	[- 0.040, 0.058] <i>0.716</i>	- 0.001 (0.024)	[- 0.049, 0.048] <i>0.983</i>	0.003 (0.024)	[- 0.045, 0.050] <i>0.916</i>
Overseas market age	- 0.028 (0.020)	[- 0.068, 0.011] <i>0.159</i>	- 0.031 (0.020)	[- 0.071, 0.009] <i>0.125</i>	- 0.022 (0.020)	[- 0.061, 0.018] <i>0.282</i>	- 0.022 (0.020)	[- 0.061, 0.018] <i>0.279</i>
Years left in contract	0.000 (0.023)	[- 0.046, 0.046] <i>0.999</i>	0.000 (0.023)	[- 0.046, 0.046] <i>0.994</i>	- 0.006 (0.023)	[- 0.052, 0.039] <i>0.781</i>	- 0.005 (0.023)	[- 0.050, 0.041] <i>0.839</i>
Ordering frequency	0.037 (0.055)	[- 0.071, 0.145] <i>0.498</i>	0.036 (0.055)	[- 0.072, 0.144] <i>0.512</i>	0.038 (0.054)	[- 0.069, 0.144] <i>0.488</i>	0.041 (0.054)	[- 0.065, 0.147] <i>0.444</i>
Sales performance	- 0.008 (0.025)	[- 0.057, 0.042] <i>0.760</i>	- 0.006 (0.025)	[- 0.055, 0.044] <i>0.824</i>	- 0.009 (0.025)	[- 0.058, 0.040] <i>0.730</i>	- 0.005 (0.025)	[- 0.053, 0.044] <i>0.849</i>
Industrial goods	- 0.084 (0.139)	[- 0.190, 0.359] <i>0.545</i>	0.076 (0.140)	[- 0.200, 0.352] <i>0.587</i>	0.112 (0.138)	[- 0.161, 0.385] <i>0.420</i>	- 0.096 (0.137)	[- 0.175, 0.367] <i>0.484</i>
Privately owned	0.473 (0.149)	[0.179, 0.767] <i>0.002</i>	0.450 (0.150)	[0.154, 0.746] <i>0.003</i>	0.446 (0.148)	[0.154, 0.738] <i>0.003</i>	0.399 (0.148)	[- 0.107, 0.691] <i>0.008</i>



Table 5 (Continued)

	Model 1		Model 2		Model 3		Model 4	
Psychic distance	- 0.045 (0.051)	[- 0.145, 0.056] <i>0.381</i>	- 0.044 (0.051)	[- 0.145, 0.056] <i>0.384</i>	- 0.048 (0.050)	[- 0.147, 0.051] <i>0.342</i>	- 0.048 (0.050)	[- 0.147, 0.051] <i>0.338</i>
Helplessness	0.191 (0.038)	[0.115, 0.267] <i>0.001</i>	0.197 (0.039)	[0.120, 0.274] <i>0.001</i>	0.187 (0.038)	[0.112, 0.262] <i>0.001</i>	0.189 (0.038)	[0.113, 0.264] <i>0.001</i>
F	6.189	<i>0.000</i>	5.601	<i>0.000</i>	6.295	<i>0.000</i>	6.004	<i>0.000</i>
R <sup>2</sup>	0.317		0.323		0.335		0.352	
Adjusted R <sup>2</sup>	0.266		0.266		0.282		0.293	
Highest VIF	2.343		2.508		2.379		2.509	

*n* = 232; two-tailed tests; unstandardized coefficients are reported; standard errors in parentheses; bias-corrected confidence interval in square bracket; *p* values in italics; excluded for dummy variable test: Consumer goods. Results are robust when the model is tested with 10,000 iterations of bootstrapping.

Model 4 in Table 4), we can conclude that monitoring steepens the U-shaped relationship between challenge stressors and opportunism in headquarters–subsidiary settings.

As per H4, we observe that in cross-border interfirm (not intrafirm) settings, monitoring negatively moderates the path from role ambiguity to opportunism. The relevant coefficient is significant in Study 2 ( $\beta = - 0.347$ ;  $p = 0.017$  in Model 3, and  $\beta = - 0.489$ ;  $p = 0.003$  in Model 4). As regards Study 1, we found that monitoring does not moderate the impact of role ambiguity on opportunism ( $\beta = - 0.154$ ;  $p = 0.345$  in Model 3, and  $\beta = - 0.049$ ;  $p = 0.807$  in Model 4). We conducted a G\*Power check of our failure to reject the null hypothesis (relating to H4) in Study 1. With seven explanatory variables, a sample size of 209, and the probability of Type I error being 0.05, the model achieved power of 0.999 ( $1 - \beta$  error probability) that appears sufficient to reject the null hypothesis.

To aid interpretation, we plotted our significant moderation findings (see Web Appendix: Theme 6). Plot (a) illustrates how monitoring steepens the U-shaped relationship between challenge stressors and opportunism. To further assess the moderating effect of monitoring, we used the extension of the Johnson–Neyman technique to models with curvilinear effects (Miller, Stromeyer, & Schwieterman, 2013). This technique calculates the significance region of the effect of challenge stressors on opportunism across values of monitoring. Plot (b) shows the simple slope of challenge stressors on opportunism when challenge stressors is fixed at - 1 standard deviation (0.741) and monitoring is allowed to vary across its range. The significance region entails values of monitoring greater than

- 0.275 (equivalent to 3.121 on a seven-point scale); that is, when challenge stressors is fixed at - 1 SD, and monitoring exceeds 3.121, an increase in challenge stressors has a significant, negative impact on opportunism. In contrast, when challenge stressors is fixed at + 1 SD (Plot (c)), it has a significant, positive effect on opportunism when monitoring is bigger than 0.017 (equivalent to 3.413 on a seven-point scale). Plot (d) reveals that the H4 results can be attributed to the low monitoring condition. Suppliers view opportunism as a viable response to the frustrations of role ambiguity, when they are not being policed or directed via buyers’ monitoring routines.

Finally, we unveil significant control variable effects in Study 1 and Study 2 that shed further light on the cross-border exchange contexts. For instance, a regional headquarters role is negatively linked to subsidiary opportunism ( $\beta = - 1.412$ ;  $p = 0.001$  in Table 4, Model 4), whereas a supplier’s private ownership (e.g., as opposed to state owned) is positively linked to opportunism ( $\beta = 0.399$ ;  $p = 0.008$  in Table 5, Model 4). The latter finding seems inconsistent with the narrative that appears in media framings of state-owned Chinese firms’ trustworthiness in exchange partnerships.

**Additional Analyses**

As a post hoc analysis, we examine assumptions underpinning the efficacy of monitoring. First, the influence of monitoring assumes that a firm might believe that monitoring is necessary and is able to evaluate accurately its international partner’s behaviors. Psychic distance makes the partner’s behaviors less readily interpretable, which reduces the precision of the firm’s evaluation efforts (Dow

et al., 2020). Cross-border partnerships are shaped by “a fuller set of transaction characteristics” that include TCE attributes “plus psychic distance, capturing the international dimension” (Katsikeas et al., 2009: 136). We thus tested for the conditioning influence of psychic distance on stressors’ opportunism relevance. Second, monitoring employs rules, procedures, and goals that shift risk (i.e., of falling short) to the foreign partner (Aulakh, Kotabe, & Sahay, 1996). A more complete view of this risk would entail tapping not only if the firm is being kept on track via stringent monitoring, but also if it has moved off track and is failing to meet set goals for actions and outcomes. It is one thing to be evaluated as having met the partner’s standards; it is another to be exposed as having fallen short of what was expected. Hence, we examined the moderating role of this form of subsidiary/supplier perceived helplessness (Boichuk et al., 2014).

We added both sets of variables (e.g., psychic distance, challenge stressors  $\times$  psychic distance, challenge stressors<sup>2</sup>  $\times$  psychic distance, and role ambiguity  $\times$  psychic distance) to our full regression models. Our hypothesized paths all remain stable.<sup>7</sup> Moreover, like monitoring, psychic distance steepens the U-shaped relationship between challenge stressors and opportunism in headquarters–subsidiary settings (Study 1:  $\beta = 0.177$ ;  $p = 0.016$ ), but not in buyer–supplier settings (Study 2:  $\beta = -0.053$ ;  $p = 0.249$ ). Likewise, while psychic distance does not moderate the role ambiguity to opportunism link in headquarters–subsidiary settings (Study 1:  $\beta = -0.074$ ;  $p = 0.444$ ), its impact becomes significant in buyer–supplier settings (Study 2:  $\beta = 0.183$ ;  $p = 0.040$ ).

As expected, helplessness negatively moderates the U-shaped relationship between challenge stressors and opportunism in headquarters–subsidiary settings (Study 1:  $\beta = -0.195$ ;  $p = 0.012$ ) and not in buyer–supplier settings (Study 2:  $\beta = -0.021$ ;  $p = 0.633$ ). But it does not moderate the role ambiguity to opportunism path in either setting (Study 1:  $\beta = 0.116$ ;  $p = 0.3823$  and Study 2:  $\beta = -0.001$ ;  $p = 0.983$ ). Thus, helplessness does not replicate monitoring’s role in tempering role ambiguity-linked opportunism among suppliers. Finally, it is noteworthy that helplessness is positively associated with opportunism for both international intrafirm and interfirm partnerships (Study 1:  $\beta = 0.269$ ;  $p = 0.002$ ; Study 2:  $\beta = 0.189$ ;  $p = 0.001$ ). Psychic distance is only negatively associated with opportunism in intrafirm settings (Study 1:  $\beta = -0.216$ ;  $p = 0.033$ ). The lack of a

direct effect in interfirm settings mirrors monitoring, providing further evidence that psychic distance behaves like a TCE attribute in foreign supply settings (Katsikeas et al., 2009). Taken together, these analyses lend support to our findings regarding the differential moderating effects of monitoring in intrafirm and interfirm partnerships. Given that when psychic distance is high versus low – approximating domestic exchanges – there is evidence that both stressors’ opportunism effects differ, we also provide insights into whether our findings are affected by the international dimension.

We investigated the robustness of our regression findings using structural models (Katsikeas, Samiee, & Theodosiou, 2006). Specifically, we used partial least squares–structural equation modeling (PLS–SEM), which is fully coherent with our measurement method (i.e., accounts for measurement error). As a nonparametric method, PLS can deal with the distributional properties of our explanatory variable measures. We obtained  $p$  values and confidence intervals by bootstrapping with 5000 samples. The pattern of significance of coefficients pertaining to the hypotheses is the same for this rival statistical approach (for results, see Web Appendix: Theme 7).<sup>8</sup> The quadratic effect of challenge stressors remains positive for Study 1 (0.191,  $p = 0.019$ , confidence interval [0.014, 0.338],  $f^2 = 0.039$ ) and Study 2 (0.245,  $p = 0.017$ , confidence interval [0.015, 0.424],  $f^2 = 0.046$ ). Role ambiguity also has a positive association with opportunism in both Study 1 (0.228,  $p = 0.036$ , confidence interval [0.011, 0.441],  $f^2 = 0.057$ ) and Study 2 (0.306,  $p = 0.000$ , confidence interval [0.137, 0.462],  $f^2 = 0.094$ ). For cross-border intrafirm partnerships alone, monitoring steepens the U-shaped relationship between challenge stressors and opportunism (Study 1:  $\beta = 0.219$ ,  $p = 0.018$ , confidence interval [0.037, 0.404],  $f^2 = 0.056$ ). Monitoring negatively moderates the association between role ambiguity and opportunism only in cross-border interfirm partnerships (Study 2:  $\beta = -0.238$ ,  $p = 0.003$ , confidence interval [–0.368, –0.049],  $f^2 = 0.061$ ).

### Endogeneity

The lack of common method variance, the temporal separation used in Study 2, our use of weighted averages that account for measurement error in the hypothesis testing, and the inclusion of control variables, reduce concerns regarding endogeneity bias (Ullah, Aktar, & Zaefarian, 2018). Nevertheless,

it remains possible that challenge stressors and role ambiguity are correlated with the error term of opportunism (Semadeni, Withers, & Trevis Certo, 2014). We thus conducted two additional analyses to check our study's robustness to endogeneity. First, Gaussian copula estimation (Park & Gupta, 2012) can be used, in the absence of recognizable instrument variables, to directly model links between potentially endogenous independent variables and the regression error term with a copula. Using the *REndo* package in R (Gui, 2019), we computed the Gaussian copulas for each of our explanatory variables.<sup>9</sup> Nonsignificant copula coefficients confirm that none of our explanatory variables are subject to endogeneity bias (Hult, Hair, Proksch, Sarstedt, Pinkwart, & Ringle, 2018) (for results, see Web Appendix: Theme 8). Second, although it is unlikely that challenge stressors and role ambiguity are choice variables, we confirmed that our analyses are not subject to random selection bias using Garen's (1984) two-stage procedure for continuous choice variables (see Web Appendix: Theme 9). In sum, we can safely conclude that no critical endogeneity issue is present in our study.

### EXPERIMENTAL STUDY: STUDY 3

The survey results support our expectations regarding causal links of stressors to opportunism in exchange partnerships. Nevertheless, since cross-sectional surveys cannot prove causality, we conducted an additional, experimental study to confirm that challenge stressors and role ambiguity cause opportunism, as per our context-generic H1 and H2. As our main goal is to check causality, and due to the difficulty of discriminating between socially rich contexts in experimental testing, we exclude the context-specific moderation effects, H3 and H4, from our experiment. Our Study 3 also enabled us to check the generalizability of the survey findings outside of China.

#### Subjects and Procedures

The aim of Study 3 was to test the effects of intensity (i.e., low, medium, or high) of stressors – be it challenge stressors or role ambiguity – on opportunism. Since it is impossible to manipulate intensity in the same way (i.e., using the exact same words) for both stressors as they are different in nature, and we are not interested in different levels of intensity between different stressors,<sup>9</sup> we decided to test the impact of intensity levels of stressors on opportunism in two separate experiments. Study 3a

used a between-subjects design with one factor (intensity level: low, medium, or high) to test effects of intensity of challenge stressors on intentions to behave opportunistically. Study 3b used the same design to appraise effects of low, medium, and high intensity of role ambiguity on opportunism.

With the support of Qualtrics, we accessed a panel of US-based marketing managers with cross-border management experiences in manufacturing industries. The firm randomly recruited subjects for the two between-subjects experiments. We randomly assigned 300 subjects (mean age of 39.960 (SD = 5.816) and an average of 8.366 years of cross-border management experience) across the three treatment conditions in Study 3a and Study 3b. That is, 50 per cell for low, medium, and high challenge stressors (Study 3a), and for low, medium, and high role ambiguity (Study 3b).<sup>11</sup> All subjects received a web link for the questionnaire, which started with a paragraph describing a hypothetical supplier and situation concerning an overseas buyer, followed by the randomly assigned treatment condition and the measures (for details, see Web Appendix: Theme 10).

#### Measures

We developed new scenarios to tap challenge stressors and role ambiguity. Still, for manipulation check purposes, in Study 3a challenge stressors was also captured with the same seven-item, seven-point Likert scale (Cronbach  $\alpha = 0.895$ ), and in Study 3b role ambiguity with the same five-item, seven-point Likert scale ( $\alpha = 0.830$ ), used in Study 1 and Study 2. Because opportunism is socially undesirable, it is difficult to measure accurately in hypothetical situations that require active interpretation rather than drawing from actual experiences. We thus followed Jap et al. (2013) in using scenario-measures to present acts of self-seeking interest with guile and capture opportunism in a realistic but nonthreatening manner. We developed a four mini-scenario measure scale that captured globally the main manifestations of opportunism (i.e., evasion, violation, refusal to adapt, and forced renegotiation) suggested by Wathne and Heide (2000). Participants indicated the likelihood that they would engage in the behavior described on a seven-point scale anchored by (1) "not at all" and (7) "to a great extent" ( $\alpha = 0.833$  for Study 3a; and  $\alpha = 0.734$  for Study 3b).

An initial version of the hypothetical situations, treatments, and measures was revised through in-

depth discussions with three academic experts on the subject matter. In particular, this step proved important in confirming that our newly developed mini-scenarios capture opportunistic acts rather than bad judgement of, or misunderstanding over, self-interest.

### Pre-test Study

We ran a formal pre-test with a sample of 56 students on the global executive MBA program of a major business school in Western Europe, to carry out manipulation and reliability checks for our (mini-) scenarios. The subjects had a mean age of 38.05 (SD = 6.530) and an average of 5.7 years of management experience. Our analysis confirmed that challenge stressors ( $\alpha = 0.932$ ) is greater in the medium ( $M = 4.752$ ) and high ( $M = 5.931$ ) conditions than in the low condition ( $M = 3.414$ ,  $p = 0.022$  and  $p = 0.004$ , respectively), and that challenge stressors is greater in the high than in the medium condition ( $p = 0.031$ ). We also confirmed that role ambiguity ( $\alpha = 0.909$ ) is greater in high ( $M = 3.651$ ) than in low ( $M = 1.022$ ,  $p = 0.000$ ) and medium ( $M = 2.321$ ,  $p = 0.043$ ) conditions, and that role ambiguity is greater in the medium than in the low condition ( $p = 0.041$ ).

The Cronbach  $\alpha$  for our new measure of opportunism is 0.707, exceeding the cut-off of 0.7. To further confirm the reliability of our newly developed mini-scenarios for measuring opportunism, we had captured opportunism using the exact same

five-item, seven-point Likert scales that we used in Study 1 and Study 2. We observed a high correlation between the two constructs to capture opportunism ( $r = 0.764$ ,  $p = 0.000$ ).

### Manipulation Check

We performed a manipulation check for challenge stressors in Study 3a and for role ambiguity in Study 3b. We confirmed that challenge stressors is greater in the medium ( $M = 5.006$ ) than in the low condition ( $M = 3.594$ ,  $p = 0.000$ ), and that challenge stressors is greater in the high ( $M = 5.571$ ) than in the medium condition ( $p = 0.013$ ). Role ambiguity is greater in high ( $M = 2.617$ ) than in low ( $M = 0.853$ ,  $p = 0.000$ ) and medium ( $M = 1.723$ ,  $p = 0.000$ ) conditions, and is greater in the medium than in the low condition ( $p = 0.000$ ).

### Results

We performed a one-way ANOVA, with planned contrasts within the one-way ANOVA, to test for causality in our main effects (challenge stressors–opportunism in Study 3a, and role ambiguity–opportunism in Study 3b; see Table 6). The overall model statistics suggest there is a main effect of the intensity of stressors (high vs. medium vs. low) on opportunism ( $F = 6.272$ ,  $p = 0.002$ ). Moreover, the results of the planned contrast in Study 3a suggest that among subjects exposed to the challenge stressors scenarios, there is a difference between those in the high condition ( $M = 3.675$ ) compared

**Table 6** ANOVA replication of relationship between different types of stressors and opportunism (Study 3)

	Cells means of opportunism	
	Challenge stressors (Study 3a)	Role ambiguity (Study 3b)
Low intensity	3.360 <sup>b</sup>	2.850 <sup>c</sup>
Medium intensity	2.635 <sup>a,c</sup>	3.135
High intensity	3.675 <sup>b</sup>	3.425 <sup>a</sup>

$n = 300$ .

<sup>a</sup> Significantly different than low intensity.

<sup>b</sup> Significantly different than medium intensity.

<sup>c</sup> Significantly different than high intensity.



to the medium condition ( $M = 2.635$ ,  $F = 14.780$ ,  $p = 0.000$ ), and a difference between those in the low condition ( $M = 3.360$ ) compared to the medium condition ( $F = 7.181$ ,  $p = 0.008$ ). There is no significant difference between the high and low intensity conditions ( $F = 1.364$ ,  $p = 0.245$ ). These findings support the U-shaped relationship of challenge stressors and opportunism predicted in H1.

Among subjects exposed to the role ambiguity scenarios in Study 3b, we found that opportunism is significantly greater ( $F = 4.521$ ,  $p = 0.034$ ) in the high ( $M = 3.425$ ) than in the low condition ( $M = 2.850$ ), with opportunism from medium role ambiguity ( $M = 3.135$ ) falling nominally between the low and high conditions and not being significantly different to either (at  $p = 0.05$ ). In line with H2, role ambiguity has a positive linear relationship with opportunism. As shown in the plot of Table 6, the pattern of effects for both challenge stressors and role ambiguity with opportunism corresponds exactly to those found in Study 1 and Study 2. Supplementing the survey data with experimental data enhances confidence in the causal logic behind H1 and H2. We also provide evidence that our results generalize beyond Sino–foreign exchange partnerships.

## DISCUSSION

Drawing on both TCE and the transactional theory of stress, our study developed and tested a model of how challenge and hindrance stressors influence opportunism, and whether these links are shaped by monitoring, in cross-border exchange partnerships. We also examined how monitoring differs in its role as a safeguard against stress effects on opportunism in different international exchange contexts. The findings have important theoretical contributions, which fall under two main themes.

### Psychological Costs Matter in Exchange Partnerships

Existing studies have often employed TCE to investigate antecedents of opportunism in exchange partnerships (Katsikeas et al., 2009; Wu et al., 2007). Scholars have sought to broaden understanding of the extent to which economic organization minimizes transaction costs – such as, in the presence or absence of perceived moral costs (Heide et al., 2007) and fairness and interparty attachment (Luo, 2007b). Still, a more complete view of transaction risks would heed psychological

costs stemming from the interaction between a partner's management team and the exchange climate it finds itself appraising. In response to this lacuna in knowledge, we synthesized TCE with the transactional theory of stress to explain drivers of opportunism. While TCE logic suggests firms rationally decide to engage in opportunism if economic benefits exceed costs (Griffith & Zhao, 2015), the transactional theory of stress supports the view that opportunism is a coping mechanism triggered by psychological costs. We thus challenge the TCE assumption that economic opportunism operates in a detached social context, wherein the counterpart is not necessarily a social partner (Sakalaki, Richardson, & Thépaut, 2007), by showing that opportunism is a way of defending against an abusive overseas partner that is ramping up work pressures. Future studies on this tension between the rational and emotional origins of opportunism would nicely complement our research.

An enduring issue for partners is how to understand behavioral uncertainties in cross-border exchanges (Dow et al., 2020). In this endeavor, monitoring is necessary but not sufficient. Reading an overseas partner's stress in the relationship is a crucial means of distinguishing opportunists from non-opportunists. Against the backdrop of empirical research largely overlooking monitoring's role in reducing partners' opportunism, our results suggest that part of the hitherto unknown efficacy of monitoring is that it helps a firm detect and arrest stressful work demands imposed upon partners that could, if left unchecked, provoke opportunism.

Under the aegis of the transactional theory of stress, the challenge–hindrance stressors framework has been deployed widely at individual and team levels to show that both stressors are linked with a range of desirable and undesirable work outcomes (LePine et al., 2016). By contrast, available organization-level stress studies have focused exclusively on hindrance stressors (e.g., role ambiguity) and their outcomes (e.g., Dong et al., 2016). Such work creates the impression that level and not type of stress is what matters (Pearsall et al., 2009). To date, no intrafirm or interfirm partnerships study has observed joint effects of challenge stressors and role ambiguity on opportunism. We reveal that different types of stress cause problem-solving and avoidant coping behaviors, which manifest in low versus high opportunism, respectively.

Previous empirical work on challenge stressors has tended to advance a: the more the better view,



where the focus is placed upon its positive consequences (Pearsall et al., 2009). Few studies have observed negative outcomes of challenge stressors (e.g., Thomas et al., 2011). The current study is novel in unifying these logics to unveil that challenge stressors has a U-shaped relationship with opportunism in cross-border intrafirm and interfirm settings. A moderate level of challenge stressors is viewed as a growth opportunity and welcomed by the subsidiary or supplier, whereas a high level of challenge stressors results in resource exhaustion and is seen as a barrier to growth. By contrast, our observation that the hindrance stressor, role ambiguity, has negative outcomes is consistent with prior work (LePine et al., 2016). Yet, the literature has focused on increased anxiety levels and reduced performance as negative outcomes (e.g., Dong et al., 2016). We reveal new negative consequences of role ambiguity in terms of raised opportunism in international intrafirm and interfirm settings. TCE scholars have argued that dealing with ambiguity is a reality for headquarters–subsidiary ties, particularly (Luo, 2005). Internal contracts can be less complete as judgement is used to resolve role ambiguity issues (Williamson, 1991).<sup>12</sup> Despite the near certainty of facing role ambiguity within the hierarchy and being punished if caught exploiting it (e.g., dismissals), there is a positive role ambiguity–opportunism link in intrafirm settings. Regardless of the context, ambiguity and the loss of confidence in meeting the overseas partner’s expectations and nuisance of having to commit resources to improve the predictability of one’s own behaviors, encourage opportunism.

### Exchange Context Matters for Monitoring Practices

The TCE literature has emphasized at length the role of monitoring as a mechanism for reducing information asymmetry and dampening opportunism, but has rarely considered the exchange context within which monitoring is deployed. Extending the findings of select studies (Anderson, 1988; Heide et al., 2014) that concluded that the functioning of monitoring varies for integrated versus independent, domestic channels, our study observes that monitoring plays a different moderating role in stressors to opportunism links in internal and external cross-border partnerships. Monitoring moderates the challenge stressors to opportunism link for headquarters–subsidiary partnerships, and the role ambiguity to opportunism

link for buyer–supplier partnerships. These findings – reinforced by those of our post hoc analysis – contribute to a new paradigm on the limits and efficacy of monitoring in international exchange contexts.

Subsidiaries have a need for feedback (Jean et al., 2010; Luo, 2003) and, when facing moderate challenge stressors, would deem monitoring to be supportive of their efforts to gain by improving their status within the MNC. High levels of challenge stressors instead cause resentment of the headquarters’ vigilant monitoring. The subsidiary would become defensive and avoidant, stop asking for help from the headquarters, and withdraw from problem-solving coping, to preserve its resources (Hoenen & Kostova, 2015; Luo, 2003). We conducted post hoc interviews with three subsidiary executives to check our interpretation of this effect. One interviewee told us: *“When facing high pressure of work challenges, headquarters’ monitoring makes us anxious and less confident about our work efficacy. We are deeply concerned that we [...] may get punished or criticized by the headquarters once we make mistakes. Thus, we no longer focus on how to properly tackle problems but instead we seek ways to stay away from the problems without being criticized by the headquarters. We go for efficient intermediate solutions”*. This finding (and reasoning) adds to emerging work that has observed a dark side of monitoring within internal hierarchies that attempt to combine stringent supervisory routines with collaborative advisory ones (Goranova et al., 2017; Jean et al., 2010).

Interfirm settings, unlike intrafirm ones, are not used to role ambiguity’s effects as they typically engage in more complete forms of contracting, and lack alternatives to monitoring (e.g., socialization mechanisms are harder to deploy across separate firms) in dealing with role ambiguity effects. If left unmonitored, a supplier would view opportunism as a viable response to the frustrations of role ambiguity in cross-border interfirm ties. The importance of monitoring arresting role ambiguity effects in interfirm partnerships is underscored by the negative correlation ( $r = -0.442$ ) we observe between challenge stressors and role ambiguity.<sup>13</sup> By contrast, in the challenge–hindrance stressors literature, the two types often have a moderate positive association (LePine et al., 2016).

### Managerial Implications

As was evident from the pre-study and post hoc interviews, and the surveys, subsidiaries and suppliers usually face considerable counterpart-



imposed stress; the stress can take different forms and these drive opportunism in different ways; and monitoring may or may not prove helpful in arresting such effects, depending on the partnership context. Our findings take an important step toward helping managers of international exchange partnerships comprehend these nuances and only use stress in productive ways. The current study should spur practitioners to recognize that role ambiguity can be relied upon to drive opportunism in cross-border intrafirm and interfirm partnerships. Headquarters and buyer firms should redouble their efforts to set and manage expectations of, and explain authority levels and responsibilities to, subsidiaries and suppliers, respectively. This interventionist approach contrasts the practice of giving the overseas partner space to resolve role ambiguity issues for themselves, which our data imply is more prevalent in internal hierarchies.

It is also important that managers are sensitive about the extent to which they impose challenging work demands on subsidiaries or suppliers overseas. Moderate challenge stressors are seen as productive and deter opportunism, but intense levels of such demands have the consequence of precipitating opportunism. Beyond a certain challenge stressors threshold, the partner would switch from a strategy of facing the challenge to avoidance and self-protection, via opportunism. Managers imposing challenging work demands should be mindful of whether subsidiaries/suppliers have taken too much on. Here, perspective taking is crucial as it will be difficult for managers to see the downside lurking in what they might view as routine and beneficial work demands (e.g., task complexity and deadlines) placed on a partner. Although the effects of challenge stressors are largely psychological, because these stressors are imposed by the headquarters/buyer it at least has a head-start in assessing their level, and picking up warning signs, among subsidiaries/suppliers.<sup>14</sup> According to our interviews, the partner should show signs of a change from a positive work attitude (“*we need to learn a lot from headquarters [...] and we do this by frequently liaising with them*”) to one characterized by it appearing evasive, drained, pessimistic, and/or on edge. Still, managers need to be aware that some partners may signal the threshold for challenge overload, while others could direct such stress inward and shift unseen from problem-solving to avoidant coping behaviors.

The intrafirm versus interfirm exchange context determines monitoring’s role in moderating

stressors to opportunism relationships. Crucially, monitoring can be a double-edged sword. On the one hand, monitoring is beneficial: in the cross-border intrafirm context by strengthening the negative link of challenge stressors and opportunism at low to moderate levels of challenge stressors; and in the interfirm context by dampening the positive association between role ambiguity and opportunism. On the other, monitoring reinforces the positive link of challenge stressors and opportunism for moderate to high levels of challenge stressors in intrafirm settings. In sum, headquarters should use monitoring to arrest the impact of stress on opportunism for low to moderate levels of subsidiary challenge stressors, but have other procedures ready to enforce its priorities when such stressors reach high levels – where the very same monitoring practices would be seen as intrusive and a sign of corporate bad faith by an over-challenged subsidiary. Buyers should instead focus their monitoring on policing supplier role ambiguity. Finally, we would recommend for headquarters’ and buyers’ managers to reappraise the function of monitoring from its current use to control the quality of the subsidiaries’ and suppliers’ work actions and outcomes. It might also serve as a mechanism through which to read and relieve a partner’s (co)vert stress circumstances, thereby reducing its opportunism.

#### Limitations and Directions for Future Research

Our study has limitations that provide opportunities for future research. First, while conducting Study 3 in the US extended the generalizability of the main-effect findings of our China-based survey work, there is a need to test the generalizability of our full findings in other contexts. Second, we show that moderate levels of challenge stressors reduce opportunism in our Study 1 and Study 2 cross-sectional surveys, and in the Study 3 experiment used to establish causality. Still, it is unclear if this relationship will remain the same when the moderate challenge persists for a long period of time. While moderate levels of challenge stressors motivate the partner, it is possible that sustained pressures even at moderate levels can precipitate burnout, leading to increased opportunism and other forms of avoidant coping. Further research should test this. Third, as monitoring controls can take different forms that are more or less intrusive for an exchange partner (Bello & Gilliland, 1997; Jean et al., 2010), it would be beneficial for scholars to reassess our model using multiple control

components. The current study examines whether the monitoring that occurs, presumably innocuously, can be an issue for stress to opportunism links. Future research could move beyond examining standard processes used by management to focus on stricter types of surveillance that have the potential to interfere with the decisions of the international partner and cause loss of autonomy and a sense of sovereignty being infringed upon (Obadia & Robson, 2021). Fourth, our additional analyses surfaced significant moderation effects on stressor to opportunism relationships for psychic distance and helplessness, which might also be included in an expanded theoretical model.

Fifth, the results support our predictions among exchange partnerships that have the characteristic of importance – ensured via our sampling and experimental procedures. However, special projects may be assigned by headquarters to subsidiaries or by buyers to suppliers that ramp up levels of stress and engagement in opportunism. Special project roles can be built into attempts to extend the current study. Sixth, the results suggest that opportunism is reasonably prevalent in cross-border intrafirm exchanges (for explanation, see Web Appendix: Theme 3). Still, a well-run MNC might deploy an internal command structure that gives the subsidiary no choice but to follow headquarters' directives. It would be fruitful for future studies of subsidiary stress to opportunism links to comprehensively consider the role played by different MNC governance structures.

## NOTES

<sup>1</sup>We use the term partnership as an abbreviation of exchange partnership, for both contexts. Indeed, although a subsidiary is a unit within the MNC, it is also an incorporated firm in the host country. The MNC and its subsidiary can thus be considered as partnering firms. These internal partnerships exchange substantial goods and services (roughly 30% of subsidiary sales/purchases in our data), but also trade flows of knowledge and other resources. Despite equity affiliation to the parent, subsidiary opportunism occurs in the course of agreed exchange (Awate et al., 2015).

<sup>2</sup>That opportunism can be a coping mechanism was endorsed in pre-study interviews with senior executives of subsidiaries/suppliers. For example,

one interviewee told us: *“If we cannot do anything until our buyer clarifies and permits us to, our local partners would be long gone. These days this American buyer lacks the personnel to deal with our requests and they make us wait [...]. So we just do what we want and cover it up, even if we know they would not approve it and it is not good for the relationship.”*

<sup>3</sup>Given the dearth of research examining the link between exchange partners' stress and opportunism, discussions with senior executives were used to confirm the merits of hypothesizing generic direct effects and differential moderation effects for the two contexts.

<sup>4</sup>The *t*-tests of group means revealed no differences between respondents and nonrespondents for firm age (Study 1:  $t = -0.898$ ,  $p = 0.370$ ; Study 2:  $t = 0.429$ ,  $p = 0.668$ ), number of employees (Study 1:  $t = 0.660$ ,  $p = 0.510$ ; Study 2:  $t = 0.929$ ,  $p = 0.354$ ), and product type (i.e., industrial goods or consumer goods) (Study 1:  $t = -0.463$ ,  $p = 0.644$ ; Study 2:  $t = 0.105$ ,  $p = 0.917$ ).

<sup>5</sup>We used global measures for opportunism and monitoring rather than conceptualize them as comprising multiple components. Pre-study interviews with executives suggested separating active and passive opportunism (Seggie et al., 2013) and actions and outputs monitored (Heide et al., 2007), would not make a difference to the relationships studied. Hence, to avoid additional complexity in the model, we used global measures in both Study 1 and Study 2.

<sup>6</sup>We observe mean scores for the headquarters' monitoring and buyer's monitoring of 3.396 and 5.854, respectively. These scores imply that monitoring via an explicit contract (i.e., for suppliers) has extra intensity.

<sup>7</sup>The complete output of our post hoc analysis is available upon request.

<sup>8</sup>PLS-SEM reduces the effects of measurement error substantially because of the very act of generating composites (i.e., proxies) of weighted indicators (Rigdon, 2016; Schuberth, Rademaker, & Henseler, 2022). While factor analysis ensures the reliability and validity of the construct used in the regression, by performing the two steps of conducting a factor analysis and then using the factor scores for a regression analysis, the researcher may lose information. This is because the first step focuses solely on the measurement model (i.e., construct and indicators), and the second step focuses solely on relationships between the constructs. In contrast, PLS-SEM simultaneously estimates the relationships in the measurement model

and structural model. The goal is to minimize the error terms in both the measurement model and structural model at the same time by considering the entire nomological network of the model. Although use of PLS-SEM can lead to more accurate estimates, because in our study measurement error is on the low side, and given that the PLS-SEM approach and the statistical composite approach we used for our regressions produce similar proxies, the pattern of significance of coefficients is expected to remain consistent across the two statistical approaches.

<sup>9</sup>The data meet distributional assumptions required for the use of a copula. Specifically, we checked for the non-normality of our explanatory variables using a Kolmogorov–Smirnov test with Lilliefors correction. In both Study 1 and Study 2, challenge stressors ( $p = 0.002$ ;  $p = 0.000$ ), challenge stressors-squared ( $p = 0.000$ ;  $p = 0.000$ ), role ambiguity ( $p = 0.007$ ;  $p = 0.000$ ), monitoring ( $p = 0.020$ ;  $p = 0.000$ ), and the cross-products challenge stressors  $\times$  monitoring ( $p = 0.000$ ;  $p = 0.000$ ), challenge stressors-squared  $\times$  monitoring ( $p = 0.000$ ;  $p = 0.000$ ), and role ambiguity  $\times$  monitoring ( $p = 0.000$ ;  $p = 0.000$ ), all passed the test.

<sup>10</sup>We observe a nonsignificant association between the interaction term challenge stressors  $\times$  role ambiguity and opportunism in both Study 1 ( $\beta = 0.031$ ;  $p = 0.784$ ) and Study 2 ( $\beta = 0.039$ ;  $p = 0.721$ ).

<sup>11</sup>While capturing the medium level of challenge stressors allows Study 3a to corroborate the U-shaped relationship with opportunism observed in the surveys, capturing medium role ambiguity in Study 3b helps to rule out nonlinear effects.

<sup>12</sup>Although cross-border exchanges preclude day-to-day interactions and should suffer from role ambiguity irrespective of context (cf. Anderson, 1988), our data align with the TCE view. The mean scores for subsidiary's role ambiguity and supplier's role ambiguity are 4.467 and 2.340, respectively.

<sup>13</sup>We attribute the contrasting correlations ( $r = 0.677$  and  $r = -0.442$ ) of challenge stressors and role ambiguity in our intrafirm and interfirm studies, respectively, to the characteristic of role ambiguity posing a greater threat in partnerships that use explicit contracts and in which exchange partners have a clear sense of sovereignty. Future work might build fruitfully upon this finding and reasoning.

<sup>14</sup>Headquarters/buyers should be especially vigilant when assigning risky project assignments to subsidiaries/suppliers (e.g., developing new technologies or introducing new products). Such projects have the potential to force the exchange partner beyond moderate levels of challenge stressors. We thank an anonymous reviewer for this insight.

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