

## **WHY DO MANAGERS ENGAGE IN TRUSTWORTHY BEHAVIOR? A MULTILEVEL CROSS-CULTURAL STUDY IN 18 COUNTRIES**

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Drawing on theories of generalized exchange and the norm of indirect reciprocity, we conceptualize subordinates' organizational citizenship behavior directed toward the organization (OCBO) and directed toward peers (OCBI) as antecedents of managerial trustworthy behavior and examine how managers' affective trust in subordinates mediates this relationship. We also investigate the extent to which this mediation is moderated by the level of collectivism in a society. Data were collected from 741 managers and 2,111 subordinates in 18 countries representing all major cultural regions of the world. We find support for our hypothesized moderated mediation in that managers' affective trust in subordinates mediates the relationships between both subordinates' OCBO and managerial trustworthy behavior, and subordinates' OCBI and managerial trustworthy behavior across the different countries

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studied. Further, managers' affective trust in subordinates only mediates the relationships between both types of citizenship behavior and managerial trustworthy behavior when collectivism is low to medium but not when it is high. Implications for research on cross-cultural psychology, trust, and organizational citizenship behavior are discussed.

It has been common to draw on social exchange theory (Blau, 1964) to explain why an actor would engage in discretionary behavior as a response to positive treatment received from another individual (e.g., Eisenberger, Armeli, Rexwinkel, Lynch, & Rhoades, 2001; Fulmer & Gelfand, 2012). However, the theory usually focuses on actors exchanging resources with *each other* and therefore does not provide a rationale for why an actor would engage in behavioral responses toward individuals whose behaviors primarily benefit others. We move beyond such restricted, direct social exchange and turn to theories on generalized exchange and the norm of indirect reciprocity (Ekeh, 1974; Nowak, 2006; Yamagishi & Cook, 1993) to conceptualize why managers engage in trustworthy behavioral responses toward employees that direct their organizational citizenship behaviors (OCBs) at the organization or their peers.

Several theories conceptualize why individuals are rewarded for being generous to someone else. For example, theories of costly signaling (Zahavi, 1995) assume that individuals engage in costly behaviors to signal certain underlying qualities or traits that otherwise cannot be readily assessed by observers, with the aim of finding more attractive mates or exchange partners. Scholars have argued that OCBs may serve such signaling purposes (Deutsch Salamon & Deutsch, 2006). Similarly, theories of image scoring (Nowak & Sigmund, 1998) and image standing (Panchanathan & Boyd, 2004) examine how prosocial behaviors elicit reputational benefits, whereas generalized exchange theorists have discussed how actors select recipients for acts of indirect reciprocity, for example, by evaluating each potential recipient's prosocial behaviors (Takahashi, 2000). **A core tenet of these theories is that individuals with more prosocial reputations obtain benefits through indirect reciprocity, and we conceptualize managerial trustworthy behavior as such an act of indirect reciprocity.**

Trust is increasingly studied by organizational researchers (Colquitt, Scott, & LePine, 2007; Mayer, Davis, & Schoorman, 1995) and is an important concept for generalized exchange (Molm, 2010; Yamagishi & Cook, 1993). However, in the context of manager-subordinate relationships, scholars have traditionally considered managers as passive subjects, focusing on their role as trustees (Chen, Eberly, Chiang, Farh, & Cheng, in press; Korsgaard, Brodt, & Whitener, 2002). Research examining the antecedents of trust, especially of managers' trust in subordinates, hence remains relatively scarce (Brower, Lester, Korsgaard, & Dineen, 2009). To address this gap, we propose that subordinates' OCBs targeted

at the organization and other individuals serve as particular sources of managers' affective trust in subordinates because they signal altruistic motives and a genuine interest in the well-being of others (Bolino, Turnley, & Bloodgood, 2002; Meeker, 1971). In turn, managers' affective trust in these subordinates acts as an emotional assurance that subordinates' OCBs are more driven by genuine concern for others than pure self-interest and justifies why managers indirectly reciprocate these behaviors.

Scholars have also begun to consider the extent to which trust varies in different cultural contexts (e.g., Chua, Morris, & Ingram, 2009). Although initial evidence suggests that cultural differences affect individuals' propensity to trust (Huff & Kelley, 2003) and their evaluation of trustees (Doney, Cannon, & Mullen, 1998), it is less clear how cultural differences influence the role of trust-related perceptions and behaviors between managers and subordinates. At the same time, indirect reciprocity is inherently related to the cultural dimension of collectivism, which refers to the degree to which people in a culture prefer to subordinate their individual goals to those of the group (Hofstede & Hofstede, 2005). Specifically, collectivist societies consider prosocial behaviors, including OCBs and trustworthy behaviors, as a social obligation rather than a voluntary act (Triandis, 1995) and have a stronger preference for generalized exchange compared to individualist societies (Flynn, 2005).

Our study makes several contributions to the literature. First, we expand the theoretical bases that conceptualize the antecedents and outcomes of trust (Fulmer & Gelfand, 2012), and we contribute to social exchange theoretical explanations of manager-subordinate relationships by examining trust as a mechanism through which managers respond to beneficial acts targeted at other referents than themselves (Molm, 2010). Second, we seek to remedy the scant attention paid to managers as trustors in their relations with subordinates. We conceptualize trust as an affective state (McAllister, 1995) and examine how managers' affective trust perceptions toward subordinates mediate the relationship between subordinates' OCBs and managerial trustworthy behavior. In doing so, we explicitly study the link between behaviors and affective states in manager-subordinate relationships. We also develop and validate a comprehensive scale of managerial trustworthy behavior based on Whitener, Brodt, Korsgaard, and Werner (1998).

Third, we study the boundary conditions of manager-subordinate trust relationships and generalized exchange by testing our model across 18 countries that represent the different regions of the world. In particular, we examine collectivism as a condition that determines *when* managers' affective trust in subordinates will mediate their indirect reciprocation of subordinates' OCBs in the form of trustworthy behavior. Fourth, we address calls for more research on outcomes of OCB (e.g., Spitzmuller, Van Dyne, & Ilies, 2008) and conceptualize OCBs as antecedents of

attitudinal vis-à-vis behavioral outcomes. We begin by elaborating our conceptual model before discussing the research context, methods, and results of our multicountry study.

### *Theoretical Background*

Generalized exchange concerns indirect giving and receiving of benefits among actors that belong to the same group, organization, or network and differs from the direct exchange of resources within a dyad (Ekeh, 1974; Yamagishi & Cook, 1993). The literature has distinguished different forms of generalized exchange. Whereas network-generalized exchange follows a circular pattern in which benefits move in one direction among a group of actors, group-generalized exchange involves transactions between an individual and a group with the responsibility of contributing to the group's objectives moving from one individual to the next (Ekeh, 1974). In this study, we focus on what Takahashi (2000) refers to as pure generalized exchange. This form of generalized exchange is less structured because each transaction involves an individual benefiting another unilaterally without knowing when, in what form, or from whom indirect reciprocation will come. Unlike other forms of generalized exchange, givers can explicitly choose their recipients, as in the case of subordinates choosing whom to help or managers deciding to indirectly reciprocate toward subordinates whose behaviors benefit others. Given the potential of free riding in generalized exchange, scholars have pointed to the role of selective incentives (Cheshire, 2007), fairness judgments (Takahashi, 2000), and, less explicitly, trust (Yamagishi & Cook, 1993) as mechanisms that facilitate exchange. Trust is a central characteristic of manager-subordinate relationships (e.g., Brower et al., 2009), which form the basis of the generalized exchange setting we study here.

Growing scholarly interest in the concept of trust has led to a wealth of different definitions (e.g., Mayer et al., 1995; McAllister, 1995) and a view of trust as a multidimensional construct (Dirks & Ferrin, 2002). Although Mayer et al.'s (1995, p. 712) model of trust is the most commonly cited, scholars have pointed to problems in their definition of trust as "the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor." For example, Ferrin, Bligh, and Kohles (2008) point to two separate concepts of trust inherent in this definition—*willingness* to be vulnerable and the *expectation* that the other party will perform a specific action—that are themselves thought to be interrelated. This, they argue, limits its use as a concept definition in a narrow sense and poses challenges for operationalization. Further, Mayer et al.'s (1995) view of trust as a behavioral intention is conceptually close to the behavioral

antecedents and outcomes that we intend to explicitly study. We therefore conceptualize trust as an attitude that involves positive expectations toward the actions of another party (McAllister, 1995).

It has also been common to differentiate between an affective and a cognitive dimension of trust (Lewis & Weigert, 1985; McAllister, 1995). Whereas affective trust entails an emotional bond between actor and referent that may cause the referent to demonstrate concern about the actor's welfare, cognitive trust concerns a belief or expectation that the referent is reliable, has integrity, and/or will act in a predictable manner (Dirks & Ferrin, 2002). We focus on trust as an affective state because cognitive trust reflects the benefit aspects of a relationship and is therefore less suitable as a mediator of the type of beneficial behaviors that we intend to study (Colquitt, Long, Halvorsen-Ganepola, & Baer, 2011). We are particularly interested in the prosocial and altruistic motives that subordinates signal through their discretionary behaviors in a generalized exchange setting and that have an affective rather than a cognitive component (Oswald, 1996). Similarly, given our intention to study trust-based mediation across different cultures, scholars have highlighted the cultural relativity of affect in relationships (e.g., Chen et al., in press). Consistent with McAllister's (1995) conceptualization, we define a manager's affective trust in subordinates as the extent to which the manager holds positive confident expectations about a subordinate's actions and decisions that signal genuine care or concern for others.

Trust as a psychological state is conceptually different from the trustworthiness conveyed by certain attributes of the trustee (Colquitt et al., 2007). For example, Mayer et al. (1995) define trustworthiness in terms of ability, benevolence, and integrity. Focusing on managers as trustees, Whitener et al. (1998) identified five behavioral categories along which subordinates judge managerial trustworthiness: behavioral consistency, acting with integrity, openness of communication, sharing and delegation of control, and demonstration of concern. This work mainly focuses on how these attributes *influence* a trustor's perceived trust toward the trustee. In the case of ability-related attributes (Mayer et al., 1995), this makes conceptual sense as it is not clear how perceptions of trust would influence a person's ability. However, we expect that behavioral attributes such as those conceptualized by Whitener et al. (1998) may also occur as a *response* to perceptions of trust. We build on Whitener et al.'s (1998) conceptualization because it enables us to explicitly study managers' behavioral responses of their affective trust and because it incorporates Mayer et al.'s (1995) other two dimensions of trustworthiness (in the form of acting with integrity and demonstration of concern).

Actors that reciprocate indirectly in pure generalized exchange do not anticipate direct rewards from the recipient (Molm, 2010). This is also the

case for discretionary acts such as managerial trustworthy behaviors that go beyond contractual requirements and recompense by the organization's formal reward system (Organ, Podsakoff, & MacKenzie, 2006). Because functioning generalized exchange requires that multiple members of a group engage in indirect giving, individuals will evaluate each member in terms of their contributions to the exchange and punish exploitative behavior (Takahashi, 2000; Yamagishi & Cook, 1993). Whether the manager will indirectly reciprocate subordinates' OCBs will therefore depend on the underlying motives to which the manager attributes the subordinates' behaviors (Kelley, 1967). Indeed, research on OCBs has highlighted that individuals may be driven by different motives to engage in OCBs, including impression management (Bolino, 1999) or ego-defensive motives (Lavelle, 2010), and evidence suggests that supervisors respond differently depending on whether they perceive subordinates' discretionary behaviors as self-interested or altruistic (Eastman, 1994).

In this paper, we focus on the manager as trustor and use generalized exchange theory to examine the role of managers' affective trust in their behavioral responses to subordinates' OCBs in individualist and collectivist cultures. We first develop the relationships between behaviors and affective states before hypothesizing the mediation and moderation effects.

### *Hypothesis Development*

#### *Subordinates' OCB and Managers' Affective Trust in Subordinates*

Although OCB is usually conceptualized as an outcome of *subordinates'* trust in managers (Colquitt et al., 2007), we propose that OCB is also an antecedent to *managers'* affective trust in their subordinates. Consistent with the OCB literature and our focus on generalized exchange, we distinguish between two dimensions of OCB that do not directly target the manager: OCB directed at the organization (OCBO) and OCB directed at subordinates' peers (OCBI; McNeely & Meglino, 1994; Williams & Anderson, 1991). Specifically, subordinates' OCBO and OCBI serve as particular sources of managers' affective trust in subordinates because they provide certain reputational gains to the benefactor (Deutsch Salamon & Deutsch, 2006; Nowak, 2006). OCBs perceived to be other-oriented suggest the helper's active and purposeful engagement with his or her social context (Spitzmuller & Van Dyne, 2013) and signal altruistic motives (Meeker, 1971). Other-oriented OCBs also convey benevolence on the part of the giver, which facilitates the development of affective trust (Chen et al., in press). By contrast, OCBs that are perceived to be driven by self-interest will be regarded as insincere (Bolino, 1999).

Both subordinates' OCBO and OCBI may signal a genuine concern for the well-being of others. Employees that engage in OCBO, for example, by showing loyalty to the organization, convey to others around them that they care for and are concerned about the well-being of the organization as a whole rather than simply looking out for themselves (Bolino et al., 2002). Given that this care and concern is not driven by specific role requirements and because it is less noticeable by managers than manager-directed OCB (Bolino, 1999), managers are more likely to attribute it to employees' voluntary choice (McAllister, 1995). This will prompt managers to develop affective trust toward these employees. Similarly, when employees engage in OCBI, for example, by helping their coworkers, they show a deliberate interest in taking care of their peers' work-related problems, help with coordinating team activities, and reduce intergroup conflict (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). OCBI may also reflect employees' natural expression of affect at work (Lee & Allen, 2002). In sum, we would expect that both subordinates' OCBO and OCBI serve as signals of trustworthiness based on which managers develop affective trust perceptions toward their subordinates.

*Hypothesis 1a:* Subordinates' OCBO will positively relate to managers' affective trust in subordinates.

*Hypothesis 1b:* Subordinates' OCBI will positively relate to managers' affective trust in subordinates.

#### *Managers' Affective Trust in Subordinates and Managerial Trustworthy Behavior*

We also propose that managers' affective trust in subordinates will positively relate to managerial trustworthy behavior. The few studies that have investigated effects of managers' trust in subordinates have mainly focused on subordinate outcomes, such as performance and intention to quit (Brower et al., 2009). Here, we conceptualize managerial trustworthy behavior as a particular and more immediate behavioral response of managers.

Discretionary behaviors such as trustworthy acts imply uncertain reward (Whitener et al., 1998), especially in the case of indirect reciprocity in which the receiving subordinate owes no direct debt to the giver (Molm, 2010). Theoretically, we would expect that actors expressing high levels of affective trust in another individual would also direct greater amounts of discretionary behaviors toward this individual for two reasons. First, affective trust makes managers more attentive to their subordinates and motivates them to look for opportunities to assist subordinates in meeting their work-related needs (McAllister, 1995; Wang, Tomlinson, & Noe,

2010). Second, affective trust increases the desire to maintain relationships (Fredrickson, 1998). Because discretionary acts such as trustworthy behaviors are relational in nature, managers that affectively trust their subordinates will associate greater value or social reward with these behaviors relative to individually rewarded tasks. The manager may also expect the subordinate to *directly* reciprocate the discretionary behavior in the future (Blau, 1964), for example, through manager-directed OCB. From that perspective, affective trust serves as a filter that helps managers to initiate direct social exchange and select subordinates that are most likely to return benefits.

Empirical research supports our contention. For example, evidence suggests that when managers develop affect-based trust toward their subordinates, they may reveal more accurate and sensitive information to them (Andrews & Delahaye, 2000), offer psychosocial support (Wang et al., 2010), and provide care and assistance (McAllister, 1995). These behaviors are what Whitener et al. (1998) define as managerial trustworthy behaviors. By contrast, managers who do not trust their subordinates may hide or alter relevant information and avoid sharing ideas and feelings they believe will increase their exposure. They may even impose controls on subordinate behavior and closely monitor their conduct and performance (McEvily, Perrone, & Zaheer, 2003). In sum, managers that have greater affective trust in their subordinates should be more willing to engage in trustworthy behaviors toward them.

*Hypothesis 2:* Managers' affective trust in subordinates will positively relate to managerial trustworthy behavior.

#### *Managers' Affective Trust in Subordinates as a Mediator*

Taken together, Hypotheses 1 and 2 suggest that managers' affective trust in subordinates mediates the relationships between subordinates' OCBs and managerial trustworthy behavior. This is in line with theories of generalized exchange and the norm of indirect reciprocity (Ekeh, 1974; Nowak, 2006; Yamagishi & Cook, 1993). Specifically, OCBO and OCBI are both discretionary behaviors that provide benefits for the wider organization. For example, OCBI helps to even out workflow, contributes to team cohesion, and reduces intergroup conflict (Podsakoff et al., 2000), thereby facilitating organizational functioning. Similarly, OCBO is thought to promote the development of social capital (Bolino et al., 2002), improving information flows. As a result, subordinates engaging in these behaviors will develop a reputation of deliberate care and concern that will be rewarded by others, including managers (Nowak, 2006). By indirectly reciprocating subordinates' OCBs, managers may also explicitly signal

the relevance of these OCBs, which may lead subordinates to compete for developing an altruistic reputation, a phenomenon Roberts (1998) has called competitive altruism. Similarly, Cheshire (2007) has shown that social approval, which may involve trustworthy behavior by the manager, acts as a selective incentive to encourage further generalized exchange. Responding to OCBs that are not directed specifically at them may therefore be a rational strategy for managers.

However, for their decision to reciprocate indirectly with trustworthy behavior, managers will evaluate the credibility of subordinates' behaviors because less credible OCBs will generate fewer benefits for the organization and thus contribute less to a functioning generalized exchange. A behavior can be considered credible if it conveys a cost that is linked to the underlying motive being advertised and that others lacking this motive cannot afford (Deutsch Salamon & Deutsch, 2006). In the case of OCBs, regular helping toward different individuals or clear displays of loyalty toward the organization in different situations may send a more credible signal than ambiguous and infrequent acts (Bolino, 1999; Kelley, 1967). Given the uncertainty in evaluating the true underlying motive of an altruistic act (e.g., Roberts, 1998), managers' affective trust toward subordinates serves as an emotional assurance that the subordinates' OCBs are more driven by genuine care and concern for others. Together, we would therefore assume managers' affective trust in subordinates to mediate the relationships between subordinates' OCBO and managerial trustworthy behavior, and between subordinates' OCBI and managerial trustworthy behavior.

*Hypothesis 3:* Managers' affective trust in subordinates will mediate the positive relationships between (a) subordinates' OCBO and managerial trustworthy behavior, and (b) subordinates' OCBI and managerial trustworthy behavior.

#### *Collectivism as a Moderator*

Although scholars have conceptualized norms of direct and indirect reciprocity as a universal principle (e.g., Gouldner, 1960), the ways in which different forms of social exchange and reciprocity are conceived vary across cultures (Morris, Leung, Ames, & Lickel, 1999). We focus on the cultural value of collectivism because it differentiates societies in terms of their relative preference for affective relationships and their relational orientation toward others (Chen et al., in press). These differences are central for the type of manager-subordinate relationships that we study. Scholars have also singled out collectivism as a cultural dimension that

is thought to influence the norms of and preferences for different types of social exchanges (Flynn, 2005).

In conceptualizing the moderating effect of collectivism, we are interested in the cultural norms and values at the societal level rather than the individual's own cultural values for two reasons. First, societal norms shape the expectations concerning what is considered appropriate behavior in a society and reward individuals for adhering to these norms (Doney et al., 1998). As a result, societal norms will also influence why individuals engage in discretionary behaviors and indirectly reciprocate beneficial acts. Specifically, individuals may adopt certain behaviors not only as a result of their *internalized* values but also because they *identify* with other individuals or because they engage in *instrumental compliance* to attain certain rewards (Kelman, 2006). Second, exclusive attention to individual values assumes that individuals choose to engage in behaviors solely based on their own values and preferences. However, research suggests that this is not necessarily the case, especially in collectivist societies (Bond & Smith, 1996).

We expect that collectivism will moderate the indirect relationships between subordinates' OCBs and managerial trustworthy behavior via managers' affective trust such that affective trust will be a less salient mediator between OCBs and trustworthy behavior. Specifically, people in collectivist societies tend to have a more interdependent worldview that leads them to place a stronger emphasis on nurturing relationships with others (Chen, Chen, & Meindl, 1998). This relational orientation toward others corresponds to a sense of collective identity and a relative preference for generalized exchange over other forms of social exchange in collectivist societies (Flynn, 2005). If the prevailing social norms favor generalized exchange, managers will more likely contribute to such generalized exchange by indirectly reciprocating subordinates' OCBO and OCBI, irrespective of whether they affectively trust the subordinates.

Further, collectivist societies foster an interdependent self in their members (Markus & Kitayama, 1991), leading individuals to derive their sense of self from a larger social group such as a team or an organization. To the extent that OCBs occur within one's in-group, people in collectivist societies will more likely perceive themselves as direct beneficiaries even if the benefactor's original behavior was targeted at a different referent. Because in collectivist societies prosocial behaviors, including trustworthy behaviors, tend to be considered an obligation rather than a voluntary action (Triandis, 1995), managers' indirect reciprocation of OCBs will depend less on the affective trust they have developed toward their subordinates. Similarly, Yamagishi and Yamagishi (1994) found trust to be less important in collectivist Japan than in the U.S. because Japanese society has extensive assurance structures, which entail the benefits from

being part of a close in-group and hence ensure functioning generalized exchange.

By contrast, people in individualist societies have a more independent worldview in which relationships are based on equity, self-interest, and immediacy of returns (Chen et al., 1998). As a result, subordinates' discretionary behaviors that benefit other peers or the wider organization may be more driven by self-interest than prosocial motives and a contribution to generalized exchange. For managers in individualist societies to indirectly reciprocate subordinates' OCBs, affective trust serves as a necessary emotional assurance toward subordinates. In sum, a preference for generalized exchange and the existence of assurance structures in collectivist societies suggest that affective trust will play a less salient role for managers' decisions to indirectly reciprocate subordinates' OCBs.

*Hypothesis 4:* The level of collectivism will moderate the positive and indirect relationships between (a) subordinates' OCBO and managerial trustworthy behavior through managers' affective trust in subordinates, and (b) subordinates' OCBI and managerial trustworthy behavior through managers' affective trust in subordinates, respectively. Specifically, the mediation of managers' affective trust in subordinates will be weaker when collectivism is high compared to when it is low.

Implicit to Hypotheses 4a and b is that collectivism also weakens the direct relationships between subordinates' OCBs (in terms of both OCBO and OCBI) and managers' affective trust in subordinates, and between managers' affective trust and managerial trustworthy behavior. Theoretically, we would assume direct moderation to occur at the first and second stage. First, the preference for generalized exchange and a higher sense of duty and obligation in collectivist societies (Flynn, 2005; Triandis, 1995) will require subordinates to demonstrate higher levels of OCBs. As a result, subordinates will face a higher threshold of demonstrated OCBs for managers to attribute this to altruistic motives and develop affective trust in them. Second, the preference for generalized exchange and the existence of alternative assurance structures in collectivist societies (Flynn, 2005; Yamagishi & Yamagishi, 1994) also suggest that managers' decision to engage in discretionary behaviors with uncertain rewards, such as trustworthy behavior, will depend less on their affective trust in the recipient.

## *Method*

### *Sample and Procedure*

To test our hypothesized model, we collected data from manager–subordinate dyads in 18 countries, which reflected Schwartz' (2008) eight cultural regions of the world. Table 1 provides details about the sample sizes and the key variable mean scores and standard deviations per country, as well as the corresponding region.

To reduce the risk of common method bias, we used two separate sources for data collection: a manager and a subordinate questionnaire. Managers were contacted directly by the researchers. In each country, managers were recruited as participants in open-enrollment, nondegree granting executive education programs. This approach had two advantages. First, as these programs did not involve any grading of participants, their contribution in the study was completely voluntary. Second, the open nature of these programs avoided overrepresentation of respondents from specific organizations and sectors. For each country in our study, less than 10% of respondents came from the same company and less than 20% from the same sector. Each country collaborator explained to participants face-to-face the aims and structure of the survey, and participants were able to voice any potential questions. Each manager was then asked to identify up to three subordinates, answer the manager survey with respect to each subordinate, and subsequently forward the subordinate survey to them. In the manager survey, managers had to rate their subordinates' OCBs and their affective trust in subordinates. In the subordinate survey, subordinates rated their manager's trustworthy behaviors.

Questionnaires were developed in English and then translated to the local language, using back translation (Brislin, 1986). Each country collaborator subsequently verified the quality of the translation. We collected data through either paper-and-pencil or online surveys. Packs of paper questionnaires were directly distributed in class and contained one manager survey that was completed immediately and three subordinate surveys together with return envelopes that managers were asked to distribute to their subordinates. Online surveys were distributed by emailing all participating managers a link to the manager survey. In both versions, managers were asked to enter their own names and those of their subordinates on the manager survey for matching purposes. Subordinates entered their own name on the subordinate survey. All questionnaires were returned directly to the researchers, either into the online database or through sealed return envelopes. Managers therefore had no access to the completed subordinate surveys.

TABLE 1  
*Sample Size, Mean Scores, and Standard Deviations for the Main Variables per Country*

Country	Region	Number of managers	Number of subordinates	Subordinate OCBO	Subordinate OCBI	Manager affective trust in subordinates	Managerial trustworthy behavior	Collectivism
Brazil	Latin America	42	126	4.19 (.76)	4.24 (.61)	4.29 (.61)	4.17 (.58)	.02
China	Confucian	51	153	3.76 (.89)	3.70 (.71)	3.78 (.76)	3.73 (.71)	.86
Colombia	Latin America	35	93	4.30 (.73)	4.26 (.62)	4.33 (.63)	4.27 (.55)	1.19
Germany	Western Europe	37	92	4.20 (.86)	4.31 (.57)	4.27 (.60)	3.91 (.59)	-1.34
Greece	Western Europe	46	138	3.66 (.97)	3.57 (.84)	3.70 (.81)	3.65 (.67)	.16
Ireland	English speaking	30	76	4.07 (.65)	3.55 (.70)	4.28 (.64)	4.30 (.51)	-1.48
Mexico	Latin America	50	135	4.02 (.94)	4.15 (.54)	4.20 (.73)	4.20 (.77)	.39
Norway	Western Europe	40	111	4.02 (.87)	4.12 (.61)	4.02 (.62)	3.79 (.59)	-1.43
Pakistan	Southeast Asia	49	141	3.65 (.72)	3.83 (.66)	3.52 (.85)	3.62 (.65)	1.14
Peru	Latin America	41	112	3.63 (.71)	3.47 (.67)	3.95 (.71)	4.11 (.60)	1.05
Philippines	Southeast Asia	47	138	4.24 (.78)	3.91 (.68)	4.19 (.66)	4.16 (.61)	.30
Poland	Central Europe	31	83	3.85 (.93)	4.18 (.53)	4.04 (.77)	4.11 (.73)	-1.01
Romania	Eastern Europe	51	153	3.92 (.63)	3.88 (.72)	4.12 (.58)	4.13 (.43)	.39
Russia	Eastern Europe	52	156	4.07 (.91)	4.04 (.76)	4.04 (.88)	3.97 (.69)	-.03
Spain	Western Europe	42	126	3.68 (.70)	3.94 (.50)	4.06 (.75)	4.09 (.54)	-.59
Thailand	Confucian	32	89	3.82 (.93)	3.73 (.85)	3.58 (.86)	3.88 (.70)	.86
United States	English speaking	38	114	3.79 (.75)	3.92 (.72)	3.96 (.69)	4.02 (.62)	-2.46
West Africa	Middle East/Africa	27	75	3.72 (.71)	3.97 (.63)	3.68 (.84)	3.98 (.54)	.86
Total		741	2,111	3.92 (.79)	3.93 (.71)	4.00 (.77)	4.00 (.68)	.00 (1.00)

*Note.* OCBO = organizational citizenship behavior directed toward the organization; OCBI = organizational citizenship behavior directed toward peers. Standard deviations are shown in brackets. Data collected from Nigeria and Ivory Coast are combined in the analyses under the label of West Africa. Collectivism scores are based on Hofstede and Hofstede (2005); scores are standardized and reverse coded such that a higher score indicates a higher level of collectivism.

Our choice of survey medium was driven by the technical capabilities and preferences of the respondents being surveyed. The layout of the two surveys (paper pages and web pages) was identical. We conducted an analysis of variance to test whether there were any significant differences in any of our four substantive variables between online respondents and paper respondents (0 = *online respondents*, 1 = *paper respondents*). Online respondents did not significantly differ from paper respondents in terms of subordinates' OCBO ( $F = 3.47, p > .05$ ), subordinates' OCBI ( $F = 2.67, p > .05$ ), managers' affective trust in subordinates ( $F = .27, p > .05$ ), and managerial trustworthy behavior ( $F = 1.04, p > .05$ ). Overall, this indicates that there are no significant differences in our study with regard to the choice of survey medium.

In total, 2,140 manager surveys were sent, yielding 741 manager responses (a 34.6% response rate). All 741 managers forwarded the subordinate survey to three of their subordinates each, resulting in 2,111 subordinates (a 96.3% response rate) to complete the questionnaire across all 18 countries. The 741 managers in our sample had an average age of 39.7 years and an average organizational tenure of 8.9 years. Nearly 70% (69.5%) of all managers were male, whereas 44.3% were middle managers and 50.1% occupied a top-management position. The 2,111 subordinates in our sample had an average age of 34.4 years and on average had been with the organization for 6.4 years. Over 50% (53.4%) of subordinates were male. On average, the managers and subordinates in our study had worked together for 3.9 years.

### *Measures*

All variables were measured using multi-item, five-point Likert scales. Items were placed in random order in the questionnaire.

To measure *subordinates' OCBO*, we used six items from Lee and Allen (2002), including "This subordinate shows pride when representing the organization in public" and "This subordinate expresses loyalty toward the organization" (1 = *totally disagree* to 5 = *totally agree*). Following tests for measurement invariance reported below, we had to reduce the scale to 3 items, which were subsequently averaged to create a scale score ( $\alpha = .79$ ). Similarly, we used six items from Lee and Allen (2002) to operationalize *subordinates' OCBI*, including "This subordinate helps others who have been absent" and "This subordinate shows genuine concern and courtesy toward coworkers, even under the most trying business or personal situations" (1 = *totally disagree* to 5 = *totally agree*). All six items showed sufficient levels of measurement invariance across the 18 cultures and were hence averaged to create a scale score ( $\alpha = .87$ ).

To operationalize *managers' affective trust in subordinates* we used four items from McAllister's (1995) affective trust scale (1 = *totally disagree* to 5 = *totally agree*). As the original scale focused on affective trust toward peers, we adapted it to the context of managers' affective trust perceptions toward *subordinates*. Two example items include "We have a sharing relationship. We can freely share our ideas, feelings, and hopes" and "I feel secure about the decisions that this subordinate makes at work." In line with tests for measurement invariance reported below, we had to reduce the scale to three items and then averaged these three items to create a scale score ( $\alpha = .76$ ).

Although previous research has operationalized trustworthiness (e.g., Mayer & Davis, 1999), these measures usually involve trustworthiness attributes that serve as antecedents but not as responses to trust. Further, Mayer and Davis' (1999) measure of trustworthiness in the form of integrity also taps into attitudinal rather than the behavioral aspects in which we are interested. Given our focus on trustworthy behavioral responses to affective trust, we built on Whitener et al.'s (1998) framework of trustworthiness. As no validated scale was available for the five-dimensional construct of *managerial trustworthy behavior*, we developed a new scale (Hinkin, 1995). First, we interviewed 29 middle managers from different companies (average age 35.8 years, 17% female) to identify specific trustworthy behaviors that their immediate supervisors had engaged in along the five dimensions conceptualized by Whitener et al. (1998). Based on the interviews, we developed an initial set of 30 items (six per dimension). To assess the measure's content validity, we subjected these items to a panel of 18 doctoral students who served as judges. Under the supervision of expert faculty, the students were given definitions of the five dimensions of managerial trustworthy behavior. They were then asked to classify each scale item into one of the five dimensions or to an "other" category to reduce biases (Schriesheim, Powers, Scandura, Gardiner, & Lankau, 1993). Any items that were not assigned to the a priori dimension by at least 75% of the judges were deleted from the scale. This resulted in a 25-item scale (five per dimension).

In a second study, we administered the questionnaire to 120 managers (average age 36 years, 15% female) from different companies to evaluate the scale's reliability and factor structure. Using these survey data, the 25 items were subjected to an exploratory factor analysis using oblimin rotation. Based on eigenvalues and the screeplot, five distinct factors emerged that corresponded to the five dimensions of managerial trustworthy behavior. For each of the five dimensions, we then retained those three items that had the highest respective factor loadings. The primary factor loadings ranged from .51 to .91, and there were no cross-loadings above .40 for any of the items. The Cronbach alphas of the five

dimensions ranged from .75 to .85, and the confirmatory factor analysis (CFA) revealed an acceptable fit (RMSEA = .08, CFI = .93). The full scale is reproduced in Appendix A.

To assess the adequacy of the five-factor structure of our construct with the current data set, we ran a CFA in which each of the three respective items were set to load on their corresponding dimension of managerial trustworthy behavior, and the five dimensions were set to correlate with each other. Overall, the model fit the data well ( $\chi^2 = 677.74$ ,  $df = 80$ ,  $p < .01$ , RMSEA = .06, CFI = .96; TLI = .94). All factor loadings on specified factors were significant ( $p < .01$ ), corresponding to the five dimensions of behavioral consistency, integrity, communication, delegation, and concern. Given these results and because the five dimensions address the same overall construct (Korsgaard et al., 2002; Levin, Whitener, & Cross, 2006), we averaged all five dimensions to form a single-scale score. Following tests for measurement invariance reported below, we had to reduce the scale to 12 items ( $\alpha = .92$ ).

Following our theoretical arguments, collectivism as a *social norm* rather than an individual value may moderate the proposed indirect effect because this norm affects the perception of what is considered appropriate behavior toward other individuals in a society. Hence, in line with recent research we focused on the country-level scores of collectivism (e.g., Atwater, Wang, Smither, & Fleenor, 2009). We operationalized *collectivism* through the respective country-level scores provided by Hofstede and Hofstede (2005; for a list of countries and their respective mean scores of collectivism, see Table 1). Our choice was guided by the fact that Hofstede and Hofstede's (2005) data are available for all countries in our study, whereas the GLOBE study (House, Hanges, Javidan, Dorfman, & Gupta, 2004) does not cover Norway, Pakistan, Peru, and West Africa (corresponding to 666 subordinates) and Schwartz (2008) data are unavailable for Pakistan and Ivory Coast (corresponding to 174 subordinates). In Hofstede and Hofstede's (2005) original study, a high level of collectivism was expressed by a low score. Therefore, to improve the interpretation of our results, we reverse coded the variable.

We controlled for several variables to improve our model estimation. As the relationship duration between trustor and trustee may influence trust (Levin et al., 2006), we controlled for the period of time the manager and subordinate have worked together in a hierarchical relationship. *Relationship duration* was self-reported by the manager (measured in years). In addition, demographic variables have been shown to influence trust (Brower et al., 2009). We therefore controlled for *manager age* and *subordinate age* (both measured in years), and *manager gender* and *subordinate gender* (both 1 = *male*; 2 = *female*). We also examined possible response differences across the 18 countries and computed ICC

scores for each of our four substantive variables to assess the within- and between-group variance. The ICC(1) scores have values of .071, .119, .096, and .095 (OCBO, OCBI, managers' affective trust, and managerial trustworthy behavior, respectively). Although these scores are moderate, they are above the recommended value of .05 (Bliese & Hanges, 2004). We therefore included 17 country dummies to control for fixed country-level effects. Similarly, we examined whether our data at the subordinate level are nested within managers. The ICC(1) scores have values of .53, .49, .37, and .36 (OCBO, OCBI, managers' affective trust, and managerial trustworthy behavior, respectively), which is why we accounted for manager as a random effect in our analyses.

### *Data Analyses*

We tested our hypotheses in two interlinked steps. We first tested the simple mediation model (Hypotheses 1–3) and then tested the proposed moderation of the indirect effect (Hypotheses 4a–b). To test the hypothesized relationships, we ran a multilevel general least squares regression model using STATA 10.0 (Rabe-Hesketh & Skrondal, 2008). For each regression, we estimated a random intercept model to account for the fact that subordinates are nested within managers. In addition, given the number of countries in our data set is insufficient for modeling random effects (Raudenbush & Bryk, 2002), we accounted for country in each regression as a fixed effect using 17 dummy variables. To facilitate the interpretation of the moderation effects and avoid problems of multicollinearity, we first standardized the moderator variable of collectivism and then constructed interaction terms (Jaccard, Turrisi, & Wan, 1990).

## *Results*

### *Preliminary Analyses*

To assess the discriminant validity of all variables measured on the surveys (OCBO, OCBI, managers' affective trust, managerial trustworthy behavior) we first conducted a series of CFAs. As shown in Table 2, the fit indices reveal that the hypothesized four-factor model fit our data well and, importantly, was significantly better fitting than any of the alternative nested models, indicating support for the distinctiveness of the constructs in our study.

To conduct meaningful cross-national comparisons, the measures have to be invariant across all countries considered (Vandenberg & Lance, 2000). First, configural invariance needs to be established by testing

TABLE 2  
*Results of Confirmatory Factor Analysis for the Survey Measures*

Model	$\chi^2$	<i>df</i>	TLI	CFI	RMSEA
Four-factor model	1,486.90	246	.94	.95	.05
Three-factor model: Subordinates' OCBO and OCBI combined	2,015.53	247	.91	.93	.06
Three-factor model: Managers' affective trust in subordinates and managerial trustworthy behavior combined	2,562.02	247	.88	.90	.07
Two-factor model: Subordinates' OCBO, OCBI, and managers' affective trust in subordinates combined	2,068.23	249	.91	.93	.06
Two-factor model: Subordinates' OCBO, OCBI, and managerial trustworthy behavior combined	2,832.23	249	.87	.89	.07
One-factor model	2,853.99	252	.87	.89	.07

*Note.*  $n = 2,111$ . OCBO = organizational citizenship behavior directed toward the organization; OCBI = organizational citizenship behavior directed toward peers; TLI = Tucker-Lewis index; CFI = the comparative fit index; and RMSEA = the root-mean-square error of approximation.

whether the specified measurement model with zero loadings on non-target factors fits the data well across all 18 countries, all salient factor loadings are significantly and substantially different from zero, and the correlations between the factors are significantly below unity. Second, metric invariance exists when the model in which factor loadings are constrained to be equal across all 18 groups does not have a significantly worse fit than the unconstrained model for each variable (Steenkamp & Baumgartner, 1998). Due to the large number of cultural groups in our sample, the multigroup CFAs that simultaneously and freely estimate factor loadings according to our specified measurement model and for each of our four substantive variables across all 18 countries, respectively, failed to converge. We therefore followed other similar studies of numerous cultural groups to conduct less restrictive tests for measurement invariance (e.g., Euwema, Wendt, & Van Emmerik, 2007).

First, we performed a separate CFA of our four-variable measurement model for each of the 18 countries. To find a factor structure that holds across all 18 samples, we followed Cheung and Rensvold (1999) to delete items that did not load on the same constructs across all groups or cross-loaded on different constructs in at least one of the groups (for a list of all dropped items see Appendix B). Specifically, we dropped one item of our managers' affective trust in subordinate scale and three items of our

subordinates' OCBO scale. Further, the three-item measure for the dimension of delegation of our managerial trustworthy behavior scale did not show invariance. We therefore dropped this dimension from all remaining analyses, resulting in a 12-item variable of managerial trustworthy behavior. This is in line with research that has investigated partial models of managerial trustworthy behavior (Korsgaard et al., 2002). With these items excluded, our specified measurement models showed acceptable fit for all 18 countries (country-specific RMSEAs ranged from .05 to .09) and were significantly better fitting than any of the alternative nested models specified in Table 2.

Second, we ran separate, multiple-group CFAs in which we constrained all factor loadings to be equal across all 18 countries for each of our four substantive variables. Our three-item scale of OCBO produced a  $\chi^2$  of 152.20 ( $df = 68$ ). The RMSEA was .06, the CFI and TLI were .90 and .92, respectively. The six-item factor structure of subordinates' OCBI led to a  $\chi^2$  of 717.11 ( $df = 332$ ), RMSEA of .05, CFI of .92, and TLI of .94, whereas the three-item factor structure of managers' affective trust in subordinate resulted in a  $\chi^2$  of 139.06 ( $df = 68$ ), RMSEA of .05, CFI of .89, and TLI of .91. We also found similar results for the four dimensions of managerial trustworthy behavior, including consistency ( $\chi^2 = 115.10$ ,  $df = 68$ , RMSEA = .05, CFI = .88, TLI = .90), integrity ( $\chi^2 = 121.25$ ,  $df = 68$ , RMSEA = .05, CFI = .93, TLI = .94), communication ( $\chi^2 = 122.98$ ,  $df = 68$ , RMSEA = .05, CFI = .93, TLI = .95), and concern ( $\chi^2 = 104.28$ ,  $df = 68$ , RMSEA = .05, CFI = .96, TLI = .96). Finally, the overall measurement model of our 12-item, four-factor measure of managerial trustworthy behavior produced a  $\chi^2$  of 313.50 ( $df = 138$ ), with an RMSEA of .06, CFI of .90, and TLI of .92. In addition, all of the above measurement models demonstrate a ratio of  $\chi^2/df$  below 3, a typical cutoff for model fit (Kline, 2010). Although we cannot explicitly compare these constrained models with their corresponding unconstrained models, each respective constrained model demonstrated acceptable fit (e.g., McDonald & Ho, 2002). Taken together, we conclude that our data do not suggest any evidence of substantial measurement variance. Table 3 presents descriptive statistics, correlations, and alpha coefficients for the variables at the subordinate and manager levels.

### *Tests of Hypotheses*

To test Hypotheses 1a and b, we regressed managers' affective trust on five controls (relationship duration, manager age and gender, and subordinate age and gender) while accounting for the country dummies (entered in step one), and subordinates' OCBO and subordinates' OCBI (entered

TABLE 3  
Descriptive Statistics and Correlations Among the Study Variables at the Subordinate and Manager Levels

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Subordinates' OCBO	3.92	.79	.79	.61**	.63**	.33**	-.04	.14**	.19**	-.01	.11**	.04
2. Subordinates' OCBI	3.93	.71	.58**	.87	.73**	.34**	-.15**	.05	.08*	.08*	.05	.03
3. Managers' affective trust in subordinates	4.00	.77	.57**	.63**	.76	.41**	-.14**	.11**	.13**	.01	.17**	.01
4. Managerial trustworthiness	4.00	.68	.28**	.30**	.31**	.92	-.02	.02	.04	-.03	.05	-.04
5. Collectivism	.00	1.00	-.05*	-.12**	-.11**	-.03	—	-.03	-.10*	.03	-.17**	-.04
6. Relationship duration	3.87	4.56	.12**	.06*	.12**	.00	-.02	—	.36**	-.02	.43**	.02
7. Manager age	39.73	8.46	.16*	.07*	.12**	.05*	-.10**	.28**	—	-.02	.45**	.05
8. Manager gender	1.31	.46	-.01	.04	-.00	-.03	.01	-.01	-.03	—	-.05	.32**
9. Subordinate age	34.42	8.94	.10**	.01	.12**	.04	-.15**	.34**	.37**	-.06*	—	-.06
10. Subordinate gender	1.47	.50	.01	.02	-.00	-.02	-.05	-.02	.03	.24**	-.07**	—

Note. Gender is coded 1 = male, 2 = female. OCBO = organizational citizenship behavior directed toward the organization; OCBI = organizational citizenship behavior directed toward peers. Alpha coefficients appear in italics on the diagonal. Correlations below the diagonal are at the subordinate level ( $n = 2,111$ ), correlations above the diagonal are at the manager level ( $n = 741$ ).  
\* $p < .05$ . \*\* $p < .01$ .

in step two). As shown in Table 4, Model 2, both subordinates' OCBO and subordinates' OCBI were significantly positively related to managers' affective trust in subordinates, supporting Hypotheses 1a and b. Table 4, Model 4, reveals that managers' affective trust in subordinates positively related to managerial trustworthy behavior when the two independent variables and our controls were accounted for. This supports Hypothesis 2.

To test Hypotheses 3a and b, we conducted a formal significance test of the indirect relationships between subordinates' OCBs and managerial trustworthy behavior through managers' affective trust in subordinates. To avoid power problems due to asymmetric and other non-normal sampling distributions of an indirect effect (MacKinnon, Lockwood, & Williams, 2004), we computed bootstrapped confidence intervals (CIs). Bootstrap results (bootstrap sample size = 5,000) of the formal two-tailed significance test, controlling for subordinates' OCBI, showed a significant indirect effect of subordinates' OCBO on managerial trustworthy behavior ( $value = .04$ , bootstrapped  $SE = .01$ ,  $z = 3.72$ ,  $p < .01$ ), with a bootstrapped 95% CI around the indirect effect not containing zero (.02, .06). Controlling for subordinates' OCBO, we also found a significant indirect effect of subordinates' OCBI on managerial trustworthy behavior ( $value = .05$ , bootstrapped  $SE = .01$ ,  $z = 4.02$ ,  $p < .01$ ), with a bootstrapped 95% CI around the indirect effect not containing zero (.03, .08). Taken together, these results support Hypotheses 3a and b.

Hypotheses 4a and b predicted that the indirect and positive relationships between subordinates' OCBs and managerial trustworthy behavior through managers' affective trust would be weaker at high levels of collectivism. As this proposed moderated mediation effect implies a direct moderation of collectivism, we first simultaneously tested for the possibility of direct, first-stage and second-stage moderation of collectivism (Edwards & Lambert, 2007). In the case of subordinates' OCBO, bootstrap results (bootstrap sample size = 5,000) demonstrated a significant second-stage moderation of collectivism on the relationship between managers' affective trust in subordinates and managerial trustworthy behavior ( $value = -.05$ , bootstrapped  $SE = .03$ ,  $z = -2.02$ ,  $p < .05$ ) but nonsignificant moderation effects of collectivism on the relationships between OCBO and managers' affective trust in subordinates ( $value = -.04$ , bootstrapped  $SE = .02$ ,  $z = -1.55$ ,  $p > .05$ ) and between OCBO and managerial trustworthy behavior ( $value = .02$ , bootstrapped  $SE = .03$ ,  $z = .57$ ,  $p > .05$ ). In the case of subordinates' OCBI, bootstrap results revealed a significant second-stage moderation of collectivism on the relationship between managers' affective trust in subordinates and managerial trustworthy behavior ( $value = -.05$ , bootstrapped  $SE = .03$ ,  $z = -1.99$ ,  $p < .05$ ) but nonsignificant moderation effects of collectivism on

TABLE 4  
Regression Results for Simple Mediation

Variable	Managers' affective trust in subordinates						Managerial trustworthy behavior					
	Model 1		Model 2		Model 3		Model 4		Model 5			
	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>
Constant	-.17	-.07	-.25	-1.49	.14	.62	.17	.76	.16	.71	.16	.71
Relationship duration	.03**	5.85	.01**	3.19	-.01	-1.11	-.01	-1.48	-.01	-1.54	-.01	-1.54
Manager age	.01	1.75	.00	.60	.00	.43	.00	.39	.00	.42	.00	.42
Manager gender	.05	.74	-.01	-.30	-.02	-.38	-.02	-.37	-.02	-.38	-.02	-.38
Subordinate age	.00	1.41	.01**	3.03	.00	.38	.00	.08	.00	.11	.00	.11
Subordinate gender	-.05	-1.06	-.03	-.83	-.03	-.74	-.03	-.66	-.03	-.60	-.03	-.60
Subordinates' OCBO			.32**	14.34	.16**	5.49	.12**	3.94	.12**	3.88	.12**	3.88
Subordinates' OCBI			.39**	17.65	.13**	4.48	.08**	2.62	.08*	2.56	.08*	2.56
Managers' affective trust							.13**	4.27	.14**	4.49	.14**	4.49
Affective trust × collectivism									-.05*	-2.05		
$\Delta R^2$							.02*		.01*			
$R^2$	.14		.46		.16		.18		.19			
$\chi^2$	197.58**		1,445.70**		247.90**		272.82**		280.63**			

Note.  $n = 2,111$ . OCBO = organizational citizenship behavior directed toward the organization; OCBI = organizational citizenship behavior directed toward peers. Standardized regression coefficients reported. Controls for country are included but not reported. As collectivism does not vary within country, this variable is fully accounted for in the fixed effects model and therefore dropped from the analysis.

\* $p < .05$ . \*\* $p < .01$ .

the relationships between OCBI and managers' affective trust in subordinates ( $value = .01$ , bootstrapped  $SE = .02$ ,  $z = .95$ ,  $p > .05$ ) and between OCBI and managerial trustworthy behavior ( $value = -.03$ , bootstrapped  $SE = .04$ ,  $z = -1.14$ ,  $p > .05$ ). Model 5 of Table 4 reports the results of regressing managerial trustworthy behavior on our independent and mediator variables while taking into account second-stage moderation.

Controlling for second-stage moderation of collectivism, we then tested the conditional indirect effects of OCBO on managerial trustworthy behavior (controlling for OCBI), and of OCBI on managerial trustworthy behavior (controlling for OCBO), through managers' affective trust in subordinates respectively. Table 5 reports the conditional indirect effect at three values of collectivism (see upper half of Table 5): the mean (.00), one standard deviation above the mean (1.00), and one standard deviation below the mean (-1.00). Bootstrap results (bootstrap sample size = 5,000) revealed that two of the three conditional indirect effects (based on moderator values at the mean and at -1 standard deviation) were positive and significantly different from zero for OCBO, and that all three conditional indirect effects were positive and significantly different from zero for OCBI. Further, the direct and positive relationship between subordinates' OCBO and managerial trustworthy behavior remained significant at low ( $value = .13$ , bootstrapped  $SE = .05$ ,  $z = 2.96$ ,  $p < .01$ ), medium ( $value = .12$ , bootstrapped  $SE = .03$ ,  $z = 3.66$ ,  $p < .01$ ), and high ( $value = .10$ , bootstrapped  $SE = .04$ ,  $z = 2.48$ ,  $p < .05$ ) levels of collectivism. Similarly, the direct and positive relationship between subordinates' OCBI and managerial trustworthy behavior remained significant at low ( $value = .06$ , bootstrapped  $SE = .04$ ,  $z = 1.89$ ,  $p < .05$ ), medium ( $value = .08$ , bootstrapped  $SE = .03$ ,  $z = 2.53$ ,  $p < .05$ ), and high ( $value = .11$ , bootstrapped  $SE = .05$ ,  $z = 2.25$ ,  $p < .05$ ) levels of collectivism.

We also computed conditional indirect effects at different arbitrary values of the moderator within the range of the data (see lower half of Table 5). This computation extends the more typical probing of interaction effects at one standard deviation above and below the mean and helps to identify at which level of the moderator the conditional indirect effect becomes statistically significant at  $p = .05$ . Results showed that the conditional indirect effect was significant for any value of collectivism equal or lower than .82 for subordinates' OCBO and 1.02 for subordinates' OCBI on this standardized scale. For the countries in our study, this means that the conditional indirect effect for subordinates' OCBO is not significant in Colombia, Pakistan, and Peru, with Thailand, China, and West Africa very close to the threshold level of nonsignificance (see Table 1). For subordinate's OCBI, the conditional indirect effect is nonsignificant in Colombia and Pakistan, with Peru very close to the threshold level. This supports Hypotheses 4a and b in that the indirect and positive

TABLE 5  
Regression Results for Conditional Indirect Effects

Collectivism	Boot indirect effect		Boot SE		Boot z		Boot p		Boot indirect effect		Boot SE		Boot z		Boot p	
	OCBO	OCBI	OCBO	OCBI	OCBO	OCBI	OCBO	OCBI	OCBO	OCBI	OCBO	OCBI	OCBO	OCBI	OCBO	OCBI
-1 SD (-1.00)	.062	.062	.015	.015	4.10	4.10	.000	.000	.078	.078	.018	.018	4.32	4.32	.000	.000
M (0.00)	.043	.043	.011	.011	3.99	3.99	.000	.000	.054	.054	.013	.013	4.29	4.29	.000	.000
+1 SD (1.00)	.024	.024	.015	.015	1.93	1.93	.056	.056	.030	.030	.017	.017	2.12	2.12	.038	.038
-2.46	.090	.090	.028	.028	3.17	3.17	.002	.002	.112	.112	.033	.033	3.36	3.36	.001	.001
-2.04	.082	.082	.025	.025	3.30	3.30	.001	.001	.102	.102	.029	.029	3.53	3.53	.000	.000
-1.62	.074	.074	.021	.021	3.52	3.52	.000	.000	.092	.092	.025	.025	3.76	3.76	.000	.000
-1.21	.066	.066	.017	.017	3.92	3.92	.000	.000	.083	.083	.020	.020	4.13	4.13	.000	.000
-.87	.060	.060	.015	.015	4.09	4.09	.000	.000	.074	.074	.017	.017	4.33	4.33	.000	.000
-.53	.053	.053	.012	.012	4.31	4.31	.000	.000	.067	.067	.015	.015	4.54	4.54	.000	.000
.14	.040	.040	.011	.011	3.76	3.76	.000	.000	.050	.050	.013	.013	3.99	3.99	.000	.000
.65	.031	.031	.013	.013	3.21	3.21	.000	.000	.038	.038	.014	.014	3.63	3.63	.000	.000
.82	.027	.027	.014	.014	2.76	2.76	.012	.012	.034	.034	.016	.016	3.15	3.15	.006	.006
1.02	.024	.024	.015	.015	1.93	1.93	.057	.057	.029	.029	.018	.018	2.06	2.06	.040	.040
1.08	.022	.022	.016	.016	1.76	1.76	.080	.080	.028	.028	.018	.018	1.87	1.87	.070	.070
1.19	.020	.020	.017	.017	1.51	1.51	.128	.128	.025	.025	.019	.019	1.69	1.69	.093	.093

Note.  $n = 2,111$ . OCBO = organizational citizenship behavior directed toward the organization; OCBI = organizational citizenship behavior directed toward peers. Standardized regression coefficients reported. Bootstrap sample size = 5,000. Range of values in the bottom half of the table reflects the range of the standardized variable of collectivism.

relationships between subordinates' OCBs and managerial trustworthy behavior through managers' affective trust in subordinates were observed when collectivism was low to moderate but not when collectivism was high.

### *Discussion*

In line with theories of generalized exchange and the norm of indirect reciprocity (Ekeh, 1974; Nowak, 2006; Yamagishi & Cook, 1993), our results suggest that managers' affective trust in subordinates mediates the relationships between subordinates' OCBs and managerial trustworthy behavior. We also considered conditions under which trust may be less salient as a mediator of the relationships between OCBs and managerial trustworthy behavior. Specifically, we found that societal-level collectivism moderated the indirect link between subordinates' OCBs and managerial trustworthy behavior through managers' affective trust in subordinates such that the indirect effect was weaker in collectivist cultures. Further, collectivism also moderated the direct link between managers' affective trust in subordinates and managerial trustworthy behavior. Although we theoretically expected that collectivism might also moderate the direct link between subordinates' OCBs and managers' affective trust (i.e., first-stage moderation), the effect was nonsignificant. It is possible that collectivist societies not only expect subordinates to demonstrate higher levels of OCBs, thereby reducing the link between OCBs and affective trust, but also that benevolent behaviors induce more positive emotions given the greater importance of affect for social interactions in collectivist cultures (Chen et al., in press). Overall, our findings are consistent with our predictions that the mediating effect of managers' affective trust in subordinates depends on the degree of collectivism in society.

In addition, the direct and positive relationships between both types of subordinates' OCBs and managerial trustworthy behaviors remained significant irrespective of the level of collectivism. First, it appears that the affective trust-based mediation of managers' indirect reciprocation of subordinates' OCBs is more culturally specific than manager's indirect reciprocation of subordinates' OCBs per se. Second, our results also suggest that affective trust in subordinates is *not* a necessary condition for managers to behave trustworthily as a response to subordinates' OCBs. It is hence possible that other mechanisms mediate the indirect reciprocation of subordinate behaviors. For example, scholars have highlighted the role of impersonal, generalized trust embedded within the organizational culture that may encourage benevolent behaviors irrespective of whether

organizational members maintain personal trust with each other and that may vary across different organizations (Leana & Van Buren, 1999).

### *Theoretical Implications*

Our study contributes to the literatures on trust, cross-cultural psychology and OCB. First, we expand the trust literature by further developing the theoretical bases that link interpersonal trust to its antecedents and outcomes (Fulmer & Gelfand, 2012). Specifically, we move beyond a focus on restricted, direct social exchange in the literature to examine how affective trust mediates the indirect reciprocity of discretionary behaviors. Our study shows that sources of trust are not only limited to behaviors and the transfer of resources within a dyad but also involve third parties. Although previous research has examined third parties as providers of trust-related information (Burt & Knez, 1995), the role of third parties as recipients of beneficial acts for affective trust perceptions has been less studied. Specifically, we argued that subordinates' OCBs directed at their peers and the wider organization signal altruistic and prosocial motives based on which managers develop affective trust in subordinates and, in turn, indirectly reciprocate.

We also contribute to the wider generalized exchange literature by proposing an additional mechanism through which pure generalized exchange may occur. Although scholars have discussed selective incentives (Cheshire, 2007) and fairness-based selective giving (Takahashi, 2000), trust has received less explicit consideration (see Yamagishi & Cook, 1993). We suggested that affective trust is not only an outcome of indirect reciprocity (Molm, 2010) but also an antecedent because it serves as an emotional assurance for selecting recipients of indirect reciprocity. Further, the trust literature to date has mainly dealt with only one type of trust, that is, subordinate trust in managers (see Korsgaard et al., 2002). However, trust is a relational process that involves at least two parties. As Dirks and Ferrin (2002) have indicated, this requires models that capture the dynamics of trust relationships. From a generalized exchange perspective, we argued that managers consciously choose to engage in indirect reciprocity toward subordinates when subordinates' behaviors trigger affective trust in managers. We may speculate that managers' indirect reciprocations, in turn, also serve to develop subordinates' trust in managers. This would imply that subordinates can contribute to and reinforce their trust relationship with managers not only through beneficial acts directed at the manager as social exchange theory suggests (e.g., Brower et al., 2009) but also by benefiting the wider organization.

In addition, we developed a new scale to measure the five-dimensional construct of managerial trustworthy behavior proposed by Whitener et al. (1998). Although previous research has empirically investigated trustworthy behaviors (e.g., Korsgaard et al., 2002; Levin et al., 2006), we are not aware of any study that has developed a scale capturing the complete construct. Our data supported a five-factor structure of the construct. Although one dimension—sharing and delegation of control—showed insufficient comparability across cultures, the other four dimensions (i.e., behavioral consistency, acting with integrity, openness of communication, and demonstration of concern) were robust across all 18 cultures. Therefore, we believe that our scale provides a useful initial instrument to measure managerial trustworthy behavior across cultures.

Second, by raising awareness of possible cultural variation in generalized exchange, our study offers a long overdue understanding of how the role of trust-based perceptions differs across cultural contexts. Although scholars have been recognizing the impact of culture on human behavior for decades (Hofstede & Hofstede, 2005), most trust research is conducted in a Western context, with few serious efforts in taking culture into account. In their review of the field of organizational behavior, Tsui, Nifadkar, and Ou (2007) found that cross-cultural studies on trust are scarce. This phenomenon reflects perhaps an unstated individualist assumption underlying our understanding of different forms of social exchange, despite some evidence that the underlying principles governing exchange expectations, fairness, and justice differ greatly across cultures (e.g., Morris et al., 1999). Further, although scholars have pointed to culture-driven preferences for different types of exchange (Flynn, 2005), very little empirical research in organizational psychology has examined whether these relative preferences also translate into different mechanisms through which exchange-based reciprocation occurs. Specifically, our results suggest that generalized exchange may be more prominent in collectivist societies because affective trust is less necessary to enable indirect reciprocity.

The few cross-cultural studies of trust we identified are limited because they focus mainly on the variation of a general level of trust across cultures (e.g., Huff & Kelley, 2003), include a limited set of cultures (e.g., Chua et al., 2009), or entail only conceptual propositions (e.g., Doney et al., 1998). Our study extends the trust literature cross-culturally by explicitly testing how cultural values such as collectivism may alter the role of trust and demonstrates that such cultural variation deserves further attention. We found that the level of collectivism weakens the mediation role of affective trust in the relationship between OCBs and managerial trustworthy behavior. We also found that managers' affective trust does not at all mediate the relationship between OCBs and managerial trustworthy

behavior at high levels of collectivism (e.g., in cultures such as Colombia, Peru, and Pakistan in the case of OCBO). This is an important finding for cross-cultural psychology because it expands previous research by more explicitly specifying the levels of collectivism at which exchange norms and behaviors will change.

We also contribute to the literature on cross-cultural psychology by applying moderated mediation analysis. Although this method is increasingly used in organizational psychology (e.g., Cole, Walter, & Bruch, 2008), it remains largely absent in cross-cultural research. Integrating moderation and mediation analysis in a multilevel framework as we have done here may allow researchers to further theorize about the distinct effects that culture has on work outcomes.

Third, we contribute to research on OCB. Although most scholars focus on its antecedents in terms of subordinates' attitudes and personality (Podsakoff et al., 2000) or leaders' behaviors in soliciting OCB from subordinates (Ilies, Nahrgang, & Morgeson, 2007), ours is one of the first studies addressing both behavioral and affective outcomes of OCB. Specifically, we extend previous conceptual arguments (e.g., Bolino et al., 2002) by demonstrating empirically that affective and behavioral outcomes of OCB are related. Further, whereas the notion of reputational benefits of discretionary behaviors is implicit to generalized exchange (Nowak, 2006), it has received little empirical attention in organizational research, with most work being conceptual in nature (Deutsch Salamon & Deutsch, 2006; Spitzmuller & Van Dyne, 2013). Our study provides an empirical test of other-directed OCBs as a source of managers' indirect reciprocity in a multicountry context. Further, given that the true underlying motives of discretionary behaviors may be difficult to evaluate for those reciprocating indirectly, especially in a manager-subordinate context (Bolino, 1999), it is possible that subordinates may invest in altruism as a strategic signal (e.g., Roberts, 1998). Although our study did not explicitly examine the antecedents of subordinates' OCBs, we would encourage future research to study subordinates' motives for performing OCBs and how these are perceived by relevant others (see Lavelle, 2010).

Finally, we found that, compared to subordinates' OCBO, managers' affective trust mediated the relationship between subordinates' OCBI and managerial trustworthy behavior to a stronger extent, whereas collectivism had a weaker moderating effect on this mediated relationship. This suggests that (a) citizenship behavior directed at specific other individuals is more likely to trigger affective trust from the manager and (b) that this relationship appears to be more culturally universal than for OCBO. Our findings thus provide cross-cultural support for the notion that peer-directed OCB correlates more strongly with affective work attitudes

and behaviors (Lee & Allen, 2002) and that, compared to OCBO, OCBI may be a stronger expression of other-oriented motives underlying citizenship behavior (Lavelle, 2010).

### *Practical Implications*

Our study offers several suggestions for managerial practice. First, the prevailing wisdom in the trust literature has been that trustworthy behaviors are risky in the sense that they make managers vulnerable and therefore require special encouragement (Whitener et al., 1998). However, our results suggest that managerial trustworthy behaviors may imply less vulnerability than previously assumed. Specifically, in environments in which subordinates engage in OCBs, trustworthy behaviors may only make managers vulnerable to the extent that they are extended to subordinates that perform OCBs for impression management or other opportunistic motives. This requires managers to more carefully assess employees' underlying motives, for example, by comparing their perceptions with other managers. However, to the extent that managers' trustworthy behavior serves to indirectly reciprocate and signal the relevance of subordinates' OCBs for the organization, even subordinates' satisfaction of self-oriented motives, which Spitzmuller and Van Dyne (2013) call proactive helping, entails positive benefits and hence should encourage managerial trustworthy behavior.

Second, given the growth of global work, an increasing number of managers need to deal with cultural diversity in their daily interactions. In this regard, our findings have practical value for companies that aim to develop global managers. Specifically, global managers need to be able to interpret various social norms governing the interactions with their subordinates such that the expectations of both sides are properly understood. Our findings suggest that in individualist societies, whether managers trust their subordinates will determine the extent to which they indirectly reciprocate subordinates' OCBs with trustworthy behaviors. Because affective trust appears less important as a mediator of generalized exchange in collectivist settings, managers from individualist cultures will need to deal with their likely discomfort of indirectly reciprocating beneficial acts even before having developed trust in a collectivist culture. This is contrary to the common assumption that a lack of affective trust limits effective cross-cultural interactions. Instead of investing in trust building per se, managers from individualist cultures will need to convey their intentions for contributing to and sustaining generalized exchange. Cross-cultural training that provides knowledge derived from our research may help managers to respond better to different cues in different types

of social exchange and make them more effective in working in different cultures.

Third, our results suggest that employees not only contribute to organizations through their immediate performance but also by demonstrating OCBs and, in turn, fostering managers' trust and helping managers to develop a trusting leadership style. In other words, by inducing trust and trustworthy behaviors, OCB contributes to the development of a trusting culture. Indeed, contributions to generalized exchange, both through subordinates' OCBs and managers' indirect reciprocation, may generate stronger integrative bonds than other forms of social exchange (Molm, 2010) and may hence create long-term effects on individual and organizational performance. Consequently, organizations need to place more emphasis on individuals engaging in generalized exchange, both through role modeling among senior staff and by explicitly taking into account such behavior in the selection and appraisal systems.

#### *Limitations and Future Research*

Our contributions have to be seen in the light of some limitations. One of our study's strengths concerns the multisource nature of our dyadic data. The use of data from both managers and subordinates reduces the likelihood that the relationships found in the study could be attributed to common source bias. However, although a time lag existed in the data collection process (i.e., the managers answered the questionnaires first before distributing the employee survey to their subordinates), our data remain cross-sectional in nature. We are thus not able to establish causal relationships among the study's constructs. Theoretically, we would not assume managerial trustworthy behavior to predict managers' affective trust in subordinates because, from a generalized exchange perspective, trustworthy behaviors of one actor are thought to affect trust perceptions of the recipient but not those of the same actor (Molm, 2010). This suggests that potential reverse causality of our full moderated mediation model is not a critical issue. However, it is possible that managers' affective trust in subordinates relates to subordinates' OCBs (Brower et al., 2009) or that managerial trustworthy behavior relates to subordinates' OCBs (Korsgaard et al., 2002). Future research may use longitudinal research designs to better explore the causal nature of our proposed relationships.

In addition, our study explicitly adopted multilevel techniques to reflect the different levels at which the variables in our study operate. Specifically, our use of existing cultural value scores reflects our theorizing that focused on cultural norms at the societal level rather than individual values. This

is consistent with other recent cross-cultural comparative research (e.g., Atwater et al., 2009), and this approach also addresses the potential of social desirability biases and defective self-perceptions inherent in self-reported cultural value scores (Cheng, Chua, Morris, & Lee, 2012). Still, whenever it is theoretically justifiable, it may be fruitful for future research to also explicitly measure cultural values at the individual level. We also note possible limitations related to the fact that subordinates were sampled by managers themselves. However, we would argue that if managers selectively chose subordinates who they trusted, our study constitutes a conservative test of the hypothesized relationships.

Further, our study is limited to one specific subordinate behavioral cue. Future research would benefit from a more comprehensive investigation of potential behaviors that influence trust. In addition, although we explicitly considered the effect of national culture for our trust model, other organizational contexts (Hill, Bartol, Tesluk, & Langa, 2009) are likely to influence trust and the expectations toward generalized exchange. The fact that the length of the hierarchical relationship played an important role in explaining managers' affective trust in subordinates further leads to the question of whether there is an optimal time span for trust to develop or whether there is a threshold after which trust degenerates. Research suggests that relationship length may have a nonlinear interaction effect with trustworthy behaviors on trust formation (Levin et al., 2006), but it is less clear to which extent this holds across cultures.

Finally, although in line with similar research (e.g., Euwema et al., 2007), we acknowledge that we were unable to provide more stringent tests of measurement invariance given the large number of cultural groups in our sample. We also had to drop a few items of our original scales to improve the comparability of our measurement model across the cultures studied. Although this practice is justifiable (see Cheung & Rensvold, 1999), it is not without controversy. The only way to address this shortcoming would be to develop culture-specific measures, which however would make the comparability of constructs across contexts more difficult. We realize that, given our study's aim to examine the universality of the proposed relationships, we shifted the necessary balance between cultural idiosyncrasy and cross-cultural comparability toward the latter. In particular, the dimension of delegation in our measure of trustworthy behavior failed to show invariance, suggesting that this dimension is more culturally distinct. It would be fruitful for future research to further examine to which extent the concept of managerial trustworthy behavior and its underlying dimensions are culturally universal. We also note that it would have been preferable to use separate samples for evaluating the reliability and factor structure of our managerial trustworthy behavior scale.

Despite these limitations, based on the findings of our multilevel cross-cultural study in 18 countries we hope to encourage future research to explore in more detail the underlying culture-specific nature of affective trust in manager–subordinate relationships and help to advance our understanding of the antecedents and consequences of trust in organizational settings.

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## APPENDIX A

### *Managerial Trustworthy Behavior Scale*

The following items refer to your *personal* appraisal of your manager's behavior and to your relationship with him/her. Read them carefully. Please try to sincerely appraise your manager's behavior in your relationship with him/her.

Response format: (1 = *totally disagree* to 5 = *totally agree*)

#### *Behavioral Consistency*

- (1) The behavior of my supervisor is predictable.
- (2) The behavior of my supervisor follows a logic.
- (3) My supervisor reacts in a similar way every time he/she faces the same type of problem.

#### *Integrity*

- (1) My supervisor always fulfills his/her promises.
- (2) My supervisor deals with me honestly.
- (3) My supervisor always tells the truth.

#### *Communication*

- (1) My supervisor asserts his/her opinions in a convincing way.
- (2) My supervisor presents the ideas in an organized manner.
- (3) My supervisor explains his/her decisions with transparency.

#### *Delegation*

- (1) My supervisor gives his/her people autonomy in their job.
- (2) My supervisor does not exercise an excessive control over my work.
- (3) My supervisor lets me participate in decision making.

#### *Concern*

- (1) My supervisor actively searches for the well-being of his/her people.
- (2) My supervisor takes into account the interests of other people in his/her job.
- (3) My supervisor shows concern for the problems of his/her subordinates.

## APPENDIX B

*Items Dropped Due to Measurement Invariance Tests**Subordinates' OCBO*

- (1) This subordinate attends functions that are not required but that help the organizational image.
- (2) This subordinate keeps up with the developments in the organization.
- (3) This subordinate frequently offers ideas to improve the functioning of the organization.

*Managers' Affective Trust in Subordinates*

- (1) We would both feel a sense of loss if one of us was transferred and we could no longer work together.

*Managerial Trustworthy Behavior Scale (Delegation)*

- (1) My supervisor gives his/her people autonomy in their job.
- (2) My supervisor does not exercise an excessive control over my work.
- (3) My supervisor lets me to participate in decision making.