




Exchange through emoting: An emotional model of leader–member resource exchanges

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Abstract

Despite research suggesting that emotional interactions pervade daily resource exchanges between leaders and members, the leader–member exchange (LMX) literature has predominantly focused on the interplay between general affective experiences and the overall relationship quality. Drawing upon the affect theory of social exchange, we examine why and how discrete exchange imbalance engenders distinct emotions and shapes downstream work behaviors of the members. Results from a preregistered experimental study with 247 participants and an experience sampling study with time-lagged reports from 79 leaders and 145 members show that a positively imbalanced exchange increases members' subsequent leader-directed helping via gratitude (but not via shame) and that a negatively imbalanced exchange increases members' subsequent risk-taking via pride (but not via anger). Moreover, the intensity of such effects hinges upon the average level of resource contributions of leader–member dyads. Our research casts light on the role of transient emotions in dynamic resource exchanges between leaders and members and enriches our knowledge of within-dyad fluctuations of social exchanges.

KEYWORDS

emotions, imbalance, leader-directed helping, leader–member exchange interactions, risk-taking

1 | INTRODUCTION

Leader–member exchange (LMX), which encompasses a sequence of interdependent *resource exchanges* that accumulatively generate certain levels of dyadic *relationship quality* (Cropanzano & Mitchell, 2005; Liden et al., 1997), is an emotionally tinged interpersonal process¹. Despite the integral role of emotions in LMX, they have not yet received sufficient scholarly attention (Cropanzano et al., 2017). Since Dienesch and Liden's (1986) seminal work, only a handful of studies have examined the interplay between affect and LMX relationship formation, revealing that interpersonal differences in general affective experiences, such as member affection toward the leader (Liden et al., 1993; Sears & Hackett, 2011) and leader–member affectivity (Bauer & Green, 1996), are of particular importance for the formation of high LMX relationships. Extending this line of work, Cropanzano et al. (2017) have theorized specific patterns of emotional interactions that leaders and members experience across different stages of LMX relationships.

Although extant research has greatly informed our knowledge of the role of affect in developing and maintaining LMX relationships, it remains elusive what discrete emotions may emerge from daily, recurring resource exchange interactions and how these emotions shape ensuing exchange behaviors. This is surprising, given the fundamental premise of emotional interactions for the development of LMX relationships. Through “a series of affectively charged exchange interactions” (Cropanzano et al., 2017, p. 248), leaders and members may experience the ebb and flow of the nature and amount of exchanged resources that accumulatively define their relationship quality (Liao et al., 2019; Liden et al., 1997). More important, they may often encounter “one exchange or a short sequence of exchanges marked by extreme emotional content” (Ballinger & Rockmann, 2010, p. 373) that may move beyond the affective tone underlying a given LMX relationship and spur exchange behaviors unexpectedly deviating from the habitual reciprocation pattern accounted for by that relationship. This manifests such that members in a low LMX relationship may make extra attempts to benefit the leader, whereas those in a high LMX relationship may engage in exploitative opportunism that likely hurts the leader (Emerson, 1976). Nonetheless, the scant scholarly attention to momentary exchange emotions may constrain our understanding of psychological mechanisms that underlie the fluctuations of exchange behaviors within leader–member dyads.

The need for studying discrete emotions emanating from tangible resource exchanges appears to be stronger if we intend to unravel the role of the *self* and the *other party* in shaping psychological experiences of discrete exchanges. The social exchange of leader–member dyads comprises interdependent transactions of valuable resources leveraged by two self-interested parties to achieve individual goals that could not be accomplished alone (Cropanzano & Mitchell, 2005; Emerson, 1976). Members may develop parallel psychological responses toward the self and the leader based upon contributions from two parties in one exchange. The self- and the leader-directed mechanisms are a theoretically interrelated tandem that warrants a joint consideration for understanding why members vary contributions from time to time. Extant research, however, has exclusively examined leader-directed mechanisms, suggesting that over-benefiting exchanges increase members' obligation to reciprocate (Liden et al., 1997). Such an asymmetric theoretical account is partly due to the cognitive-based reciprocity principle as a predominant theoretical lens, which entails mental accounting for resources received from the leader (Sparrowe, 2020). Taking an emotional approach to study how both the self- and other-directed mechanisms come into play across exchange interactions thus would enrich our knowledge of psychological pathways that underpin the recurring exchange interactions.

We draw on the affect theory of social exchange (Lawler, 2001; Lawler & Thye, 1999) to examine how exchange imbalance across exchange interactions dynamically elicits members' self- and leader-directed emotions and leads to distinct work behaviors. According to this theory, members may develop positive or negative emotions toward the self and the leader from their interpretation of the primary causes of the imbalance in one exchange (Lawler, 2001). A positive imbalance, an exchange condition in which members receive more resources than what they contribute to their leader in a resource exchange, generates member's *gratitude* toward the leader and *shame* toward the self. Conversely, a negative imbalance, an exchange condition in which members contribute more resources than what they receive from their leader, elicits member's *pride* toward the self and *anger* toward the leader. Considering that the

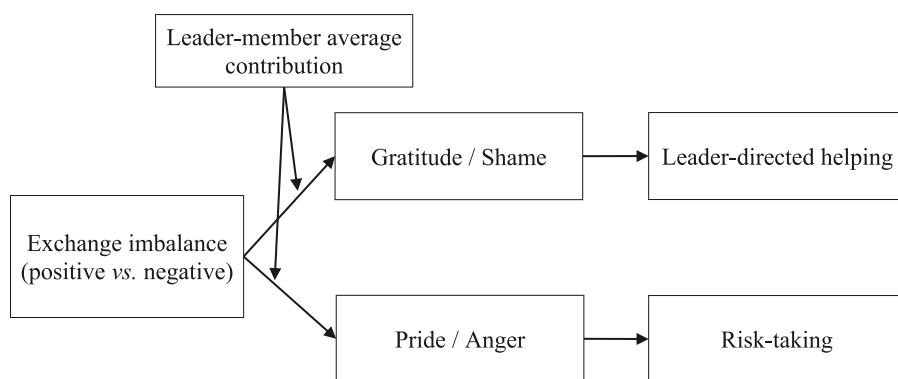


FIGURE 1 An emotional model of leader–member episodic resource exchanges

extent to which both parties contribute to resource exchanges may shape the perceived nature of the imbalance, we further posit that the intensity of exchange imbalance effects on emotions depends on the average contribution level of leader–member dyads. Moreover, the self- and leader-directed positive and negative emotions emanating from exchange imbalance prompt members to restore the exchange equity by providing their leader with “unilateral benefits without explicit demand for reciprocity” (Lawler, 2001, p. 329) or by taking exploitative actions of opportunism. We hence study *leader-directed helping* and *risk-taking* that members might engage in subsequently. As a robust test of our theoretical framework (Figure 1), we conducted a preregistered experimental study and a time-lagged, multisource experience sampling study.

Our research contributes to the literature primarily in three ways. First, we enhance the richness of the LMX literature by taking a complementary theoretical approach to understanding the role of emotions in LMX interactions. Although prior research has been informative in revealing the interplay between general affective tendencies and LMX relationship formation (Liden et al., 1993), it has sidestepped discrete emotions that may instantaneously emerge from iterative exchange interactions. Those ephemeral emotions are nevertheless pivotal in capturing subtle yet meaningful nuances that may account for members’ short-lived deviation in exchange behaviors (Ballinger & Rockmann, 2010; Liao et al., 2019). Departing from the relational lens of LMX, our work investigates how members’ transitory emotions emerge from exchange interactions and generate ensuing behavioral outcomes. In doing so, our research introduces a fine-grained knowledge of momentary exchange emotions, thereby initiating a solid step toward capturing how leaders and members dynamically exchange resources in day-to-day interactions.

Second, our research disentangles the self- and leader-directed psychological experiences that drive exchange-balance-maintaining behaviors by examining positive and negative emotions directed at both parties. Extending the commonly studied other-directed cognitive mechanisms in prior research (e.g., felt obligation to the leader, Cropanzano & Mitchell, 2005), we argue that members may concurrently develop positive and negative emotions targeted at both themselves and their leader based upon whether the exchange is positively or negatively imbalanced. More important, considering that the extent to which both parties strive to contribute resources to the exchange may shape the nature of exchange imbalance perceived by members, we propose that leader–member average contribution moderates the imbalance effects on emotions directed at distinct targets and downstream behaviors. This represents an important contribution because we advance the understanding of the role of emotions with distinct valence and targets in explicating psychological mechanisms underlying the exchange balance restoration process.

Finally, our research adds to theoretical accounts and empirical evidence of inequity resolution behaviors by studying leader-directed helping and risk-taking. We suggest that although members would make extra efforts to help their leader when overbenefited (Liden et al., 1997), when underbenefited, they take opportunistic actions to reinstate the exchange balance. Such opportunistic exploitation, despite the possibility of incurring potential costs on the leader (Adams, 1965; Hollander, 1958; Lawler, 2001), inherently differs from negative exchange behaviors predicted by the

negative reciprocity rationale such as interpersonal deviance, aggression, or retaliation in response to leader injustice treatment or abusive supervision (Cropanzano et al., 2017). We argue that members may disregard possible costs on leaders and take risky actions to retrieve deserved yet undelivered benefits accumulating from their prior contributions. As such, our research partially answers the understudied question of how exchange parties restore the exchange balance when they feel underbenefited.

2 | THEORETICAL DEVELOPMENT AND HYPOTHESES

Leader–member social exchanges involve dynamic exchanges of resources between leaders and members (Liden et al., 1997), which broadly comprise six domains: *task, information, latitude, support, attention, and influence* (Graen & Scan-dura, 1987). Leaders provide members with positional resources including developmental opportunities, professional suggestions, attention, and support (i.e., *leader contribution*). Members, in turn, contribute work resources such as well-accomplished tasks, information through the grapevine, and strong interpersonal help (i.e., *member contribution*, Wilson et al., 2010). Akin to other exchange parties, members are motivated to maintain the equity of exchange with their leader. They mentally account for the amount of valuable resources they have contributed to and received from the leader across interactions and weigh the give–take balance (Flynn, 2003; Henderson & Peterson, 1992). Notably, although members are generally aware of the value of resources provided by their leader when processing the exchange balance, due to the position difference in organizations, leaders may contribute valuable strategic resources that are possibly not appreciated by members in the short term (Wilson et al., 2010). Given our focus on members' transitory responses to exchange imbalance across a set of interactions within a certain time frame, leader contribution captured in this research primarily revolves around resources with the value that could be recognized by members immediately.

According to the affect theory of social exchange, when members perceive that their gains to inputs ratio is unequal to their leader's, they engage in an attribution process to identify the party primarily responsible for the imbalance, which triggers specific exchange emotions and subsequent equity-restoring behaviors (Lawler, 2001; Walster et al., 1978). When the leader (i.e., the other) is perceived to hold the main responsibility, members develop leader-directed emotions: gratitude following a positive imbalance and anger following a negative one (Lawler & Thye, 1999). When members ascribe themselves to be primarily responsible, they experience self-directed emotions: pride following a negative imbalance and shame following a positive one. Because exchange imbalance is a product of the relative contribution between two parties, both members' and leaders' contributions could shape emotions. The attribution process essentially reflects credit and blame assignment between the two parties (Lawler, 2001). However, because of the interdependence inherent in exchanges, members may not assign full credit or blame to one party. Instead, they might develop a sense of shared responsibility for exchange outcomes. Hence, we suggest that one exchange interaction could simultaneously trigger both leader- and self-directed emotions.

2.1 | Positive exchange imbalance and member experienced gratitude and shame

A positive imbalance captures an exchange in which members receive more resources than what they contribute to their leader. It results from leaders' over-contribution and members' under-contribution jointly, likely evoking members' gratitude toward the leader and shame toward themselves concurrently. Gratitude is "a feeling of appreciation in response to an experience that is beneficial to, but not attributable to, the self" (Fehr et al., 2017, p. 363). Its emergence entails two factors: the acknowledgment of the receipt of gratifying benefits, and the recognition that the other party is ascribed to the goodness (Watkins & Bell, 2017). In a positive imbalance, members receive a net gain of valuable resources that facilitate task completion or personal development. They recognize that the received benefits derive from their leaders' extra efforts and contributions, so they would feel grateful toward the leader.

We expect that a positive imbalance may also make members feel ashamed of themselves. As a self-conscious emotion, shame arises from an evaluation that one's actions go against widely accepted social norms or expectations and that the self is primarily responsible for the actions (Lewis, 2008). A failure in maintaining exchange equity by providing sufficient resources is a commonly recognized shame-inducing situation as it signals a violation of social norms (Daniels & Robinson, 2019; Lawler, 2001). In a positively imbalanced exchange, members may perceive that they have broken the exchange norms of equity due to their own under contributions. They would view their shortfall in resource provision, albeit likely unintentional, as the main cause of the leader's underbenefiting and thus experience shame toward themselves.

Despite the possibility that members could feel guilty following a positive imbalance, we argue that shame demonstrates stronger conceptual coherence to our theory. First, focusing on the global representation of the self (Lewis, 2008), shame dovetails with our overarching lens of the affect theory of social exchange that parallels the self and the other party as the targets of emotional reactions. Comparatively, guilt only involves evaluations of specific behaviors, not the general self-concept. Second, the sense of worthlessness and uselessness associated with shame (Lewis, 1971; Tangney, 1999) resonates with the value-based nature of leader-member resource exchanges (Graen & Scandura, 1987). Finally, the experience of shame often involves public exposure of personal failures, whereas guilt is a more private experience that arises from individual processing of one's own misbehaviors (Gehm & Scherer, 1988). Because members' failure in meeting expectations in social exchange is observed and processed by the leader, we expect members would experience shame instead of guilt. We thus propose:

Hypothesis 1 (H1): *Members experience increased (a) gratitude and (b) shame when their resource exchange with leaders involves a positive imbalance, compared to a negative imbalance and an exchange balance.*

2.2 | Negative exchange imbalance and member experienced anger and pride

A negative imbalance captures an exchange in which a member contributes more than what they receive from a leader. We suggest that such an underbenefiting condition could be ascribed to the leader's under contribution and the member's over contribution, thus simultaneously producing members' anger toward the leader and pride toward themselves. Anger involves an appraisal of the responsibility for an undesirable situation caused by the other party (Carver & Harmon-Jones, 2009). Underbenefiting exchanges for members could be anger-triggering (Gibson & Callister, 2010), because leaders' deficiency of resource provision may undesirably impede members' desired work progress, which could be avoided with leaders' attempts to contribute equivalent resources (Adams, 1965; Walster et al., 1978). Prior studies have well demonstrated the anger-triggering effect of underbenefiting exchanges. For example, Guerrero et al. (2008) found that those who perceived having a "worse deal" after comparing the inputs and gains of their own with those of their exchange partner reported higher anger toward the partner. We thus expect a negative imbalance to increase members' anger toward the leader.

Because a negative imbalance can also be caused by members' extra resource provision, we expect that it may evoke pride as well. Pride is a positive, self-conscious emotion emanating from events that signal a competent and capable self (Haidt, 2003; Williams & DeSteno, 2008). It involves a positive self-evaluation in which one credits the successful outcomes to one's own efforts and abilities (Kornilaki & Chlouverakis, 2004; Tracy & Robins, 2007). A negative imbalance denotes a situation in which members benefit their leader with extra resource gains. They could interpret it as a result of their high contributions, which would boost members' perceptions of self-value and competence, eliciting pride in the self. Indeed, prior studies have shown that benefit provision at the cost of one's own resources, such as unsolicited helping, enhances benefactors' pride toward themselves (Kornilaki & Chlouverakis, 2004).

Hypothesis 2 (H2): *Members experience increased (a) anger and (b) pride when their resource exchange with leaders involves a negative imbalance, compared to a positive imbalance and an exchange balance.*

2.3 | The moderating effects of leader–member average contribution

Whereas the nature of exchange imbalance and the perceived responsibility holder of the imbalance determine the valence and targets of emotions members experience, the intensity of such effects depends on the level of leader–member average contribution. This is because social exchanges entail joint contributions from both leaders and members who are interdependent on one another to achieve self-interested outcomes by following the principle of maintaining exchange equity. In processing the extent to which each exchange benefits both parties in an equitable fashion, members not only mentally account for and compare contributions from two parties, but also attend to the overall amount of resources exchanged (Cropanzano & Mitchell, 2005). The extent to which both parties simultaneously strive to contribute may shape members' processing of exchange imbalance with strengthened recognition of one party's efforts or weakened attribution to the other's failure in fulfilling exchange responsibility (Weiner, 2014). We hence expect that leader–member joint contribution, manifested as the level of their average contribution, moderates the main effects of exchange imbalance on members' emotions.

We first expect that when leader–member average contribution is high, the effect of a positive imbalance would be stronger on gratitude and weaker on shame. In a positive imbalance in which both parties contribute at high levels, exceeding the contribution of the other requires more time and effort than the condition where both contribute at low levels (Weiner, 2014). Thus, members are more likely to recognize that their gain of extra resources is derived from leaders' extra efforts to offer more-than-expected resources, resulting in stronger feelings of gratitude. Simultaneously, given that members have endeavored to present high-level contributions, they tend to attribute the positive imbalance to leaders' unexpectedly high contributions. They are thus less likely to perceive their failure in upholding social exchange norms of contributing equivalent resources, leading to less experienced shame.

To illustrate, consider two distinct exchange interactions within a leader–member dyad, Morgan and Jordan. In one scenario, leader Morgan needs to meet a client at a café at the end of a workday but cannot get a cab. As the café happens to be on Jordan's way home, Jordan offers Morgan this 15-min ride. On their way, Morgan shares experience and advice on work–family balance in need by Jordan, who just got married. Comparatively, in the other scenario, Morgan needs to attend an important business meeting 30 min away but in the opposite direction of Jordan's home. During the trip, Morgan not only offers valuable suggestions but also connects Jordan with important colleagues from personal networks to help Jordan solve a crucial task. Both exchanges seem positively imbalanced for Jordan, yet in the latter, despite both parties putting more on the table, Morgan's input entails a greater investment of personal resources, leading Jordan to feel greater gratitude. Simultaneously, Jordan's greater resource provision might significantly reduce perceived failure in upholding exchange responsibility, producing less shame (Weiner, 2014).

Hypothesis 3a (H3a): *Leader–member average contribution moderates the relationship between a positive imbalance and gratitude, such that the relationship is stronger when leader–member average contribution is high (vs. low).*

Hypothesis 3b (H3b): *Leader–member average contribution moderates the relationship between a positive imbalance and shame, such that the relationship is weaker when leader–member average contribution is high (vs. low).*

In a similar vein, we expect that when leader–member average contribution is high, the effect of a negative imbalance would be stronger on pride and weaker on anger. Identical to the above reasoning, when a negative imbalance comes with both parties contributing at high levels, members are more likely to consider leaders' receiving of extra resources as a result of their own exceedingly high dedication to resource provision, experiencing stronger pride. At the same time, as leaders also demonstrate high-level contribution, they are less likely to ascribe the negative imbalance to leaders' contribution deficiency, thus feeling less anger. Consider two different exchange scenarios between

Morgan and Jordan. In one exchange, member Jordan independently prepares and presents a middle-stage report of a consulting project for clients. Although leader Morgan is supposed to thoroughly engage in this task as well, Morgan barely does so due to other work commitments. In the other scenario, Jordan presents a well-developed solution for the company's operation system to top managers after months of hard work with helpful guidance from Morgan. This well-performed task would greatly strengthen Morgan's candidacy for a career award. Both exchanges seem negatively imbalanced for Jordan, but in the second exchange, Jordan competently exerts more efforts that yield greater immediate benefits to Morgan, resulting in greater pride. Concurrently, Morgan also offers great help for Jordan's achievement, making Jordan less likely to attribute exchange imbalance to Morgan's insufficient contribution and thus experience less anger.

Hypothesis 4a (H4a): *Leader-member average contribution moderates the relationship between a negative imbalance and anger, such that the relationship is weaker when leader-member average contribution is high (vs. low).*

Hypothesis 4b (H4b): *Leader-member average contribution moderates the relationship between a negative imbalance and pride, such that the relationship is stronger when leader-member average contribution is high (vs. low).*

2.4 | Momentary effects on leader-directed helping and risk-taking

Our theoretical model thus far highlights that the intensity of exchange imbalance effects on members' self- and the leader-directed emotions depends on the average level of resource contribution from both exchange parties. A more practically significant question, however, points to what downstream work behaviors members may engage in owing to their distinct emotional experiences. The affect theory of social exchange posits that emotions triggered by exchange imbalance shape ensuing behaviors that aim to restore the exchange equity (Adams, 1965; Carrell & Dittrich, 1978; Lawler, 2001). Members could either alter their own resource inputs/gains or act to adjust their leader's inputs/gains. Specifically, when members feel overbenefited, they may engage in leader-directed helping, which functions as an efficacious equity-restoring strategy. Alternatively, when they feel underbenefited, they may perform risk-taking to restore exchange balance.

2.4.1 | Leader-directed helping

Leader-directed helping refers to discretionary and affiliative efforts that go beyond formal job responsibilities and are intended to give assistance to leaders (Podsakoff et al., 2009). This behavior represents an effective approach for overbenefited members to restore exchange balance as it directly benefits leaders' welfare and task completion (Masterson et al., 2000). We expect that both gratitude and shame elicited by a positive imbalance may drive members' leader-directed helping.

Gratitude is a warm and pleasant feeling that stimulates beneficiaries to act in a manner that enhances the well-being of the benefactor (Fehr et al., 2017; McCullough et al., 2001). When members feel grateful for the leader's extra contribution, they would attend to the leader's needs and make extra efforts to provide proper facilitation without expectations for reciprocity, as doing so could help restore the exchange equity. Echoing our arguments, prior studies have documented that experienced gratitude enhances helping toward the benefactor (Ma et al., 2017). Tsang (2006), for example, showed that gratitude induced by receiving more financial support from another person led to increased financial support given back to that person. Likewise, Mikulincer and Shaver (2010) found that people who

were grateful for receiving benefits would offer more help to the benefactor afterward. Thus, gratitude evoked by a positive imbalance increases member leader-directed helping.

Shame, a negative emotion that threatens the general self-concept, would prompt individuals to take constructive actions to repair the jeopardized self-concept (Daniels & Robinson, 2019; Gausel et al., 2012). For members who are ashamed of their insufficient contribution, restoring the self-concept requires reestablishing exchange balance with the leader. Providing extra benefits for the leader via leader-directed helping helps members restore exchange balance, thus enabling self-concept restoration through rebuilding a cooperative, helpful, and capable self-concept. Past studies have well-demonstrated the positive impact of shame on helping for the purpose of self-concept restoration (Daniels & Robinson, 2019; Leach & Cidam, 2015). Hence, shame elicited by a positive balance propels members to perform leader-directed helping. Integrating our theoretical arguments presented above with H3a and H3b, we propose the following moderated mediation effects of a positive imbalance.

Hypothesis 5a (H5a): *Leader-member average contribution moderates the indirect effect of a positive imbalance on leader-directed helping behavior via gratitude, such that the indirect effect is stronger when leader-member average contribution is high (vs. low).*

Hypothesis 5b (H5b): *Leader-member average contribution moderates the indirect effect of a positive imbalance on leader-directed helping behavior via shame, such that the indirect effect is weaker when leader-member average contribution is high (vs. low).*

2.4.2 | Risk-taking

Risk-taking captures a set of work behaviors in pursuit of desirable benefits yet with a probability of incurring loss or harm on the leader (Lopes, 1987; van Kleef et al., 2021). We expect that when underbenefited, members tend to perform risk-taking to obtain deserved benefits. Although doing so may cause losses or costs on the leader, it helps restore the exchange equity from a negative imbalance by indirectly retrieving the undelivered benefits from the leader (Adams, 1965). Unlike reciprocating behaviors aiming to inflict harm on leaders who engage in unfair treatments or destructive leadership (Cropanzano et al., 2017), risk-taking is an action intended to reclaim deserved yet unprovided benefits (Malhotra & Gino, 2011; Tversky & Kahneman, 1992). Given the possibility of yielding better payoffs for both parties, this behavior is relatively neutral in its valence nature, compared to negative reciprocity behaviors such as leader-directed deviance.

Both anger and pride evoked by a negative imbalance may trigger member risk-taking. Anger is a high-activation negative emotion that promotes an effort to approach what "ought" to be (Carver & Harmon-Jones, 2009). To resolve the undesired exchange inequity due to the leader's insufficient contribution, angry members are motivated to obtain more benefits by propelling the leader to increase exchange inputs (Roseman et al., 1994). Directly asking for favors and resources may leave the leader with a calculative impression and thus hurt the exchange relationship (Flynn, 2003). Instead, angry members may take covert actions that indirectly siphon resources from the leader to boost their own benefits (Fitness, 2000). Taking certain risks at work may impose potential costs on the leader but enhance members' task performance or personal benefits (Adams, 1965; Lerner & Keltner, 2001). Thus, when underbenefited, angry members may make risky attempts at work to maximize their own benefits in resource exchanges.

Emanating from events indicating a competent self, pride motivates members to perform risky actions at work to pursue greater self-achievements (Carver et al., 2010). Having made greater contributions than their leader, proud members may feel that they deserve the latitude from the leader to try novel, albeit risky, approaches at work to pursue better performance, regardless of potential costs imposed on the leader (Frijda, 1986; Tracy & Robins, 2007). If the costs indeed occur, from members' perspective, they simply offset their credits of over contributions in prior

exchanges (Lawler, 2001). Supporting our arguments, prior studies have found that when feeling a strong sense of self-competence, individuals tend to engage in risk-taking behaviors (e.g., Anderson & Galinsky, 2006; Jordan et al., 2011). Thus, when underbenefited, the proud members would try a risky approach (e.g., use a new yet unverified method), which may yield better work outcomes that enhance self-achievements but expose the leader to potential costs. Integrating the above reasoning with H4a and H4b, we propose the following moderated mediation effects of a negative imbalance.

Hypothesis 6a (H6a): *Leader–member average contribution moderates the indirect effect of a negative imbalance on risk-taking via anger, such that the indirect effect is weaker when leader–member average contribution is high (vs. low).*

Hypothesis 6b (H6b): *Leader–member average contribution moderates the indirect effect of a negative imbalance on risk-taking via pride, such that the indirect effect is stronger when leader–member average contribution is high (vs. low).*

3 | RESEARCH OVERVIEW

We conducted two studies with complementary designs to test our hypotheses. Study 1 represents a preregistered experiment (<https://aspredicted.org/blind.php?x=c98g6p>), in which we manipulated exchange imbalance and leader–member average contribution (Farh et al., 2017; Littlepage et al., 1997). The experimental design allowed us to strengthen causal inference. In Study 2, we constructively verified and extended initial results by conducting an experience sampling study with a time-lagged and multisource design (Bolger et al., 2003), which allowed us to capture within-dyad fluctuations of discrete resource exchanges and members' momentary emotional and behavioral responses with temporal precedence. The set of two studies with disparate methodologies provides a robust test for the internal and external validity of our theory.

4 | STUDY 1: A PREREGISTERED EXPERIMENT

4.1 | Participants and experimental design

We used an estimated small-to-medium effect size of the interaction effects ($f^2 = .05$) to determine the sample size needed (Cohen, 1988). An a priori power analysis suggests that approximately 244 participants are required to achieve 80% power at an α of .05 (Cohen, 1992). Considering the possible sample attrition due to some unusable responses (e.g., failing an attention check or not understanding the task), we initially invited 274 working adults in the United States from Prolific Academic to participate in a 3 (exchange imbalance: positive vs. negative vs. balance) \times 2 (average contribution: high vs. low) between-subjects study in exchange for \$1.00 as the base incentive and \$1.50 as the bonus. Following a response screening decision made prior to data analysis, we excluded 27 participants who provided unusable data or knew experimental task answers. Analyses were conducted with data from 247 participants (average age = 35.26 years, $SD = 11.62$; 52.2% female; 70.4% White). This data collection, which occurred during the 2020–2021 academic year, was reviewed and approved by the Institutional Review Board (Washington University in St. Louis IRB#201901100: "Emotions in leader–member exchanges").

We adapted the "lost at sea" decision-making exercise (Farh et al., 2017) to simulate resource exchange interactions between leaders and members (please see the online [supplemental materials](#) (Section A) for the experiment design). Participants (in the member role) were instructed that they were part of a marketing consulting team, who

would work with another participant J. P. (a fictitious person, in the leader role) to provide advice for external business parties on product packages targeting the general public. Following prior experimental leadership studies (e.g., d'Adda et al., 2017; Mayer et al., 2013), we leveraged three procedures to enhance the realism of the leader–member hierarchical relation context in our experiment. Prior to the start of the experimental task, participants completed a short leadership assessment survey to determine whether they would be assigned to a leadership role. Approximately 15 seconds after the survey, participants were informed that they were assigned into the member role based upon their own and J. P.'s leadership assessment scores. Second, to enhance the role experience as a follower, participants received task-related information and guidance directly from J. P. throughout the exercise. Third, to strengthen perceptions of J. P.'s leadership position power and motivate high engagement in the experimental exercise, participants were further informed that J. P. would base upon their performance to determine the amount of bonus (within a range of \$0.00–\$1.00) that they could receive from the experimenter at the end of the experiment².

Participants received a new assignment from J. P. to help a recreation company design an open-water survival course as part of the sailing sports project by rank-ordering 10 items regarding the importance of aiding survival (Littlepage et al., 1997). To create a resource exchange context, participants were informed that the performance of two parties in this exercise hinged on their joint efforts and they could obtain ranking hints by answering two extra task-irrelevant questions (i.e., member contribution manipulation) or by seeking help from their leader (i.e., leader contribution manipulation). We manipulated exchange imbalance and the average contribution through the number of hints earned by members and provided by leaders. When participants finished the ranking task, they were presented with their ranking accuracy score as a performance indicator of their work (Farh et al., 2017)³. They then rated their emotions, risk-taking, and leader-directed helping, and responded to manipulation check questions and demographic items, answered exercise realism questions⁴, and were debriefed and thanked.

4.2 | Experimental materials and measures

4.2.1 | Exchange imbalance manipulation

We manipulated the exchange balance in the ranking task through the number of ranking hints contributed by two parties. To obtain the ranking hints, participants could answer two open-ended questions without standard answers (Bushman & Baumeister, 1998). They were informed that the specific number of hints they could receive depended upon the quality of their answers, which would be evaluated by a third-party grading system. We varied the number of hints received by participants to manipulate perceptions of their own contribution (i.e., member contribution). Participants were instructed that they could seek help from J. P. through emails (with two rounds), who was knowledgeable about open-ocean survival and had connections with other experienced sailors. We varied the content of J. P.'s responses and the number of ranking hints J. P. provided to manipulate participants' perceptions of leader contribution. In responses with ranking hints, J. P. offered interpersonal support by encouraging participants and expressing confidence in their capability, whereas in responses without ranking hints, J. P. indicated low commitment to the task and asked participants to complete it independently. The correspondence interface was designed in a fashion of Outlook emails, showing the subjects, sender, receiver, time sent, and quoting participants' prior email (see Section A of the online [supplemental materials](#) for study procedures). Each ranking hint suggested whether a specific item was in the top or bottom halves of the ranking along with rationale explained by Coast Guard experts (Farh et al., 2017).

Given that the task involved a total of 10 ranking items, we fixed the difference between the number of hints contributed by both parties as 4 in two imbalance conditions (see Table 1). Doing so enabled us to simultaneously maximize the manipulation effect of exchange imbalance and facilitate the manipulation of average contribution. In positive imbalance conditions, participants received more hints from J. P. than what they obtained; in the negative imbalance conditions, participants self-obtained more hints than what they received from J. P.; in the balance conditions, participants self-obtained and received (from J. P.) the same number of hints.

TABLE 1 The amounts of hints contributed by J. P. (leader) and participants (member) across six experimental conditions in Study 1

Imbalance conditions/average contribution conditions	Positive imbalance	Negative imbalance	Balance
High average contributions (averaged five hints)	Relatively high leader contribution Seven hints (J.P.) vs. three hints (participant)	Relatively high member contribution Three hints (J.P.) vs. seven hints (participant)	Equally high contributions Five hints (J.P.) vs. five hints (participant)
Low average contributions (averaged two hints)	Relatively high leader contribution Four hints (J.P.) vs. Zero hint (participant)	Relatively high member contribution Zero hint (J.P.) vs. four hints (participant)	Equally low contributions Two hints (J.P.) vs. two hints (participant)

Participants responded to two respective sets of six-resource related items to verify our exchange imbalance manipulation. Participants first compared their own and J. P.'s contributions regarding work effort, information, support, attention, influence, and latitude using a scale ranging from 1 = *I contributed much more to J. P. than what I received in return* to 7 = *J. P. contributed much more to me than what I provided in return* (Flynn, 2003; $\alpha = .92$). A one-way analysis of variance (ANOVA) revealed a significant difference in the perception of the contribution imbalance ($F(2, 244) = 30.67, p < .001$). Participants in the positive imbalance conditions credited J. P. more ($M = 3.80, SD = 1.39$) than those in the balance conditions ($M = 3.08, SD = 1.05, difference = .72, p = .001$), who credited J. P. more than those in the negative imbalance conditions ($M = 2.22, SD = 1.43, difference = .86, p < .001$). In addition, participants estimated how many units of effort (out of 100 units) that J. P. contributed to the task across six resource items ($\alpha = .94$). ANOVA results showed that the rating of J. P. efforts was significantly different across three imbalance conditions ($F(2, 244) = 41.32, p < .001$). Participants in the positive imbalance conditions rated more efforts from J. P. ($M = 49.53, SD = 23.45$) than those in the balance conditions ($M = 35.44, SD = 18.59, difference = 14.09, p < .001$), who rated more than those in the negative imbalance conditions ($M = 20.00, SD = 20.10, difference = 15.44, p < .001$)⁵. These results verified that our imbalance manipulation had intended effects.

4.2.2 | Leader-member average contribution manipulation

Within each exchange imbalance condition, we manipulated J. P. and participants' average level of contributions by fixing the difference of hints contributed by both parties but varying their average contributions (see Table 1). In the negative imbalance condition with high average contribution, participants self-obtained seven hints by extra question answering and received other three hints from J. P. (7 vs. 3); in the negative imbalance condition with low average contribution, participants self-obtained four hints but received zero from J. P. (4 vs. 0). In the positive imbalance condition with high average contribution, participants self-obtained three hints and received seven hints from J. P. (3 vs. 7); in the positive imbalance condition with low average contribution, participants self-obtained zero hints but received four from J. P. (0 vs. 4). In the balance condition with a high average contribution, both parties contributed five hints (5 vs. 5); in the balance condition with a low average contribution, both parties equally contributed two hints (2 vs. 2).

As a manipulation check of the average contribution, participants indicated their agreement with three items capturing the joint contribution to the decision-making exercise (e.g., "on average, J. P. and I contributed a lot to the task") on a scale ranging from 1 = *strongly disagree* to 7 = *strongly agree* (Gabriel et al., 2011; $\alpha = .89$). Results of a T-test showed that participants in the high-average contribution condition rated the joint contribution higher ($M = 5.64, SD = 1.06$)

than those in the low-average contribution condition ($M = 3.14$, $SD = 1.58$, $t(245) = 14.64$, $p < .001$). Our manipulation had the intended effects.

4.2.3 | Exchange emotions measures

We measured gratitude with Emmons and McCullough's (2003) three-item scale ("appreciative," "grateful," "thankful;" $\alpha = .99$), shame with Tangney et al.'s (1996) three-item scale ("ashamed," "humiliated," "disgraced;" $\alpha = .95$), anger with a three-item scale ("angry," "aggravated," "resentful;" $\alpha = .98$) adapted from Shaver et al. (1987) and Weiss et al. (1999), and pride with a four-item scale ("proud," "achieving," "accomplished," "fulfilled;" $\alpha = .84$) adapted from Dunn and Schweitzer (2005) and Tracy and Robins (2007). Participants indicated how they felt toward J. P. (gratitude and anger), or themselves (pride and shame) based on two parties' task efforts (1 = *not at all* to 7 = *extremely*).

4.2.4 | Risk-taking measure

We measured risk-taking using the adapted "ultimatum game" (Andreoni et al., 2003; Güth et al., 1982). Participants were instructed to imagine that the senior manager granted a cash award of \$100 jointly shared by them and J. P. To build a more collaborative working climate, the senior manager asked participants to make a proposal to their leader, J. P., regarding how to allocate the award. If J. P. accepted the proposal, both parties would receive the award as proposed; otherwise, neither of them would get any money. Risk-taking was measured by the amount that participants claimed for themselves—larger amounts indicated more risk-taking because they carried higher possibilities of being rejected, putting potential gains of both parties at larger risks. This behavioral measure has been widely used in prior management studies (Larney et al., 2019; Pillutla & Murnighan, 1995) and is consistent with our risk-taking conceptualization that is intended to maximize benefits for the self by dissipating those for the leader (Lawler & Thye, 1999).

4.2.5 | Leader-directed helping measure

Following Gino et al. (2015), we informed participants that J. P. was facing additional work and would like to have their help at the close of the study. They would need to take extra 5 min to complete an unrelated survey task without extra benefits. Otherwise, the study would terminate, and participants could get paid. To reduce potential confounding from J. P.'s bonus decision power, participants were assured that J. P. had submitted their study bonus and the decision of helping would not affect their bonus. We used a binary variable to measure whether participants offered help (1 = *providing help* and 0 = *not providing help*). Overall, 44.5% of participants helped J. P.

4.2.6 | Control variables

To account for alternative cognitive mechanisms, we controlled for felt obligation to reciprocate in testing positive imbalance effects and felt entitlement in testing negative imbalance effects. Felt obligation to reciprocate was measured with a seven-item scale adapted from Eisenberger et al. (2001; $\alpha = .89$). Felt entitlement was measured with a five-item scale adapted from Campbell et al. (2004; $\alpha = .86$). Results of analyses with and without two control variables yield consistent findings.

4.3 | Results and discussion

We conducted a series of confirmatory factor analyses (CFAs) to examine the dimensionality of the four emotion measures. A four-factor model with gratitude, pride, anger, and shame fit the data well ($\chi^2_{(59)} = 96.71$, $p = .001$,

TABLE 2 Means, standard deviations, and correlations among Study 1 variables

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10
1. Exchange imbalance: positive ^a	.33	.47										
2. Exchange imbalance: negative ^a	.33	.47	-.50**									
3. Average contribution level ^b	.50	.50	.00	-.03								
4. Felt obligation to reciprocate	4.20	1.47	.17**	-.21**	.27**	(.89)						
5. Felt entitlement	3.83	1.36	-.34**	.37**	-.23**	-.39**	(.86)					
6. Gratitude	3.37	2.03	.46**	-.40**	.39**	.54**	-.44**	(.99)				
7. Shame	2.05	1.55	.33**	-.24**	-.17**	.17**	-.10	.39**	(.95)			
8. Anger	3.05	2.05	-.34**	.40**	-.32**	-.45**	.60**	-.51**	-.06	(.98)		
9. Pride	4.87	1.24	-.50**	.45**	-.06	-.32**	.57**	-.53**	-.35**	.50**	(.84)	
10. Leader-directed helping ^c	.45	.50	.18**	-.08	.04	.27**	-.13*	.29**	.09	-.18**	-.15*	
11. Risk-taking	52.93	16.51	-.18**	.23**	-.25**	-.28**	.23**	-.40**	-.21**	.32**	.30**	-.21**

Note. $N = 247$.

^aExchange imbalance condition (dummy coding): positive imbalance (variable 1) was coded as 1, 0, and 0 and negative imbalance (variable 2) was coded as 0, 0, and 1 for conditions of positive imbalance, balance, and negative imbalance, respectively.

^bAverage contribution level: 1 = high and 0 = low.

^cDummy variable: 1 = providing help and 0 = not providing help. Reliability coefficients are displayed in the diagonal.

* $p < .05$.

** $p < .01$ (two-tailed).

RMSEA = .05, CFI = .99, TLI = .99, SRMR = .03), better than the alternative models (see Section D of the online supplemental materials for detailed results), demonstrating the distinctiveness of these variables. Presented in Table 2 are the means, standard deviations, and inter-correlations among study variables. We tested hypotheses about the effects of exchange imbalance on emotions with ordinary least square (OLS) regressions. Three imbalance conditions were coded with two dummy variables, one indicating the positive imbalance conditions and the other indicating the negative imbalance conditions (Cohen et al., 2003). When testing H1, we focused on the difference between the positive imbalance condition and the combination of other two conditions; when testing H2, we focused on the difference between the negative imbalance condition and the combination of other two conditions. As shown in Table 3, a positive imbalance was positively related to gratitude ($b = 1.48, t = 5.38, p < .001$) and shame ($b = .93, t = 4.11, p < .001$), supporting H1a and H1b. A negative imbalance was positively related to anger ($b = 1.32, t = 4.59, p < .001$) and pride ($b = .69, t = 4.28, p < .001$), supporting H2a and H2b.

To test the hypothesized moderating effects of leader-member average contribution, we included the binary variable of average contribution (high average = 1, low average = 0) and the respective interaction terms into regression analyses. Results showed that the interaction term between positive imbalance and average contribution was significantly related to gratitude ($b = 1.37, t = 2.82, p = .005, \Delta R^2 = .17$) but not shame ($b = -.33, t = -.73, p = .465, \Delta R^2 = .04$), supporting H3a but not H3b. The interaction term between negative imbalance and average contribution was significantly related to pride ($b = .68, t = 2.12, p = .035, \Delta R^2 = .03$) but not anger ($b = -.33, t = -.60, p = .550, \Delta R^2 = .09$), supporting H4b but not H4a. Figure 2 depicts the mean values of emotions across exchange imbalance conditions and average contribution conditions.

TABLE 3 Regression results for testing effects of exchange imbalance on member emotional and behavioral responses in Study 1

Variables	Gratitude			Shame			Anger			Pride			Leader-directed helping ^b			Risk-taking								
	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	B	SE	B	SE	B	SE						
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE						
Exchange imbalance: positive ^a	1.48**	.27	.81*	.35	.93**	.23	1.09**	.32	-.83**	.29	-.64	.39	-.96**	.16	-.81**	.23	.77*	.33	.56	.35	-2.09	2.53	.28	2.59
Exchange imbalance: negative ^a	-.97**	.27	-.91**	.34	-.32	.23	-.55	.31	1.32**	.29	1.44**	.38	.69**	.16	.36	.22	.28	.34	.40	.34	4.89	2.56	2.60	2.56
Average contribution: high	1.11**	.34					-.58	.31							-.24	.22								
Positive imbalance × average high	1.37**	.49					-.33	.45							-.31	.32								
Negative imbalance × average high	-.02	.49					.43	.45							.68*	.32								
Felt obligation to reciprocate															.38**	.10	.27*	.11						
Felt entitlement															1.88*	.82	-.41	.99						

(Continues)

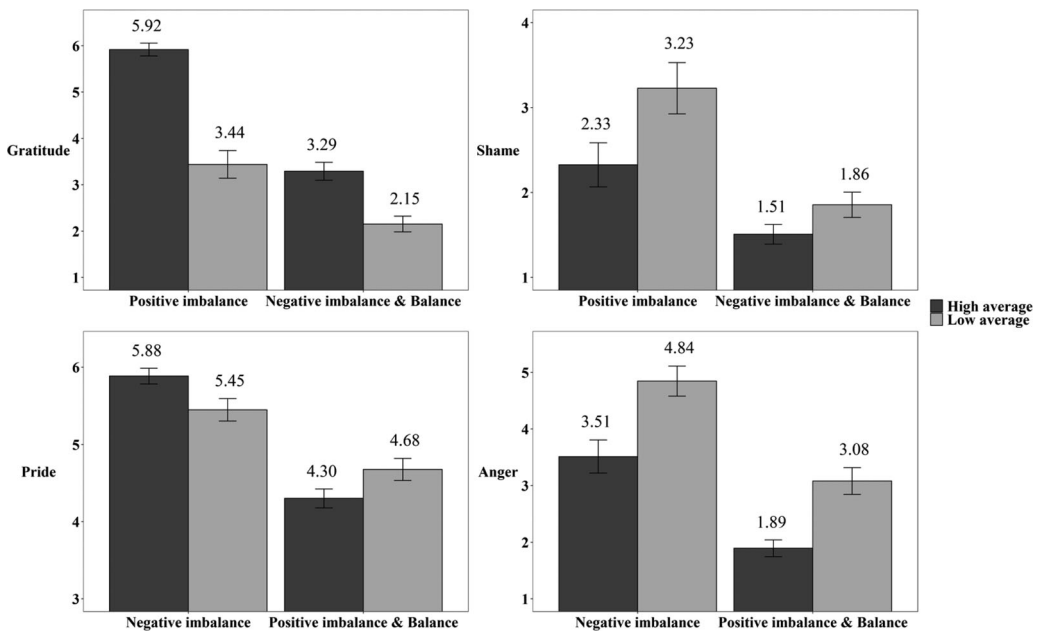


FIGURE 2 Mean values of emotions by conditions and average contribution levels in Study 1

Note: Error bars indicate ± 1 standard error. Numbers above bars are the means of emotions across conditions

Results showed that after controlling for felt obligation to reciprocate, gratitude ($\log odds = .19, z = 2.07, p = .038$), but not shame ($\log odds = -.03, z = -.35, p = .724$), was positively related to leader-directed helping; after controlling for felt entitlement, both pride ($b = 2.26, t = 2.08, p = .038$) and anger ($b = 1.88, t = 2.96, p = .003$) were positively related to risk-taking. We tested the moderated mediating effects via different emotions using the bootstrapping procedure with 10,000 samples (Hayes, 2015). Results showed that positive imbalance had a stronger indirect effect on leader-directed helping via gratitude when leader-member average contribution was high ($estimate = .88, SE = .28, 95\%CI [.38, 1.48]$), compared to when it was low ($estimate = .52, SE = .16, 95\%CI [.24, .86]$). The difference between the two indirect effects was significant ($estimate = .36, SE = .16, 95\%CI [.10, .72]$). These results support H5a. Nevertheless, the indirect effect of positive imbalance on helping via shame was not significant when leader-member average contribution was high ($estimate = .03, SE = .07, 95\%CI [-.11, .20]$) or low ($estimate = .06, SE = .11, 95\%CI [-.17, .27]$). The difference between the two indirect effects was not significant ($estimate = -.03, SE = .07, 95\%CI [-.20, .11]$). Thus, H5b does not receive support from these results.

Results showed that whereas the indirect effect of negative imbalance on risk-taking via anger was slightly stronger when leader-member average contribution was low ($estimate = 3.79, SE = 1.22, 95\%CI [1.56, 6.33]$) compared to when it was high ($estimate = 3.47, SE = 1.52, 95\%CI [.93, 6.83]$), the difference between the two indirect effects was not significant ($estimate = -.32, SE = 1.11, 95\%CI [-2.62, 1.82]$). These results do not fully support H6a. Moreover, negative imbalance had a stronger indirect effect on risk-taking via pride when leader-member average contribution was high ($estimate = 6.43, SE = 2.43, 95\%CI [2.20, 11.63]$) compared to when it was low ($estimate = 3.80, SE = 1.25, 95\%CI [1.45, 6.37]$). Supporting H6b, the difference between these two indirect effects was significant ($estimate = 2.63, SE = 1.38, 95\%CI [.54, 5.87]$).

Although the findings of Study 1 appear to be encouraging, this study has several limitations. First, the between-person experimental design only allowed us to capture a single exchange interaction, restraining us from demonstrating within-dyad fluctuations of discrete exchanges and members' immediate responses across time. A more rigorous approach necessitates capturing a series of discrete exchanges between leaders and members. Second, although the

experimental design helped strengthen casual inference, it might lack the leader–member relational context and the scope of exchanged resources might appear to be relatively narrow, resulting in the limited external and ecological validity of our findings. A more scrupulous test of our theory should take LMX relationship quality into account and measure a broader scope of exchanged resources. Third, Study 1 only captured one type of behavioral outcomes, but members may engage in various forms of leader-directed helping and risk-taking behaviors. We sought to address these concerns in Study 2 by surveying 152 leader–follower dyads over 2 weeks using the experience sampling approach.

5 | STUDY 2: LEADER–MEMBER EXPERIENCE SAMPLING STUDY

5.1 | Sample and procedure

The data collection of Study 2, which occurred during the 2017–2018 academic year, was reviewed and approved by the Departmental Ethics Review (the School of Business at the National University of Singapore #DER-18-1210: “Leader–member dynamic resource transactions and exchange emotions”). The initial sample was comprised of 84 mid-level managers and 169 immediate employees working in five regional branches of a medical examination company located in Northern China. We contacted the company’s HR department via one of the authors’ personal networks for assistance in recruiting managers and employees who frequently interacted during the study period. Based on expressed interest, managers and one to three of their immediate followers were invited for our research. Participants performed various work across different departments (e.g., clinical laboratory, R&D, administration, or marketing) and they constantly interacted on job arrangements, urgent task assignments, work progress review, and other work-related issues in daily work, providing an appropriate site for studying discrete resource exchanges. We collected data using the experience sampling approach (Bolger et al., 2003) to capture the dynamic effects of discrete exchanges. Participants were assured of the voluntariness and confidentiality of their participation prior to data collection. We received usable survey data from 79 leaders and 145 followers, yielding a 94.0% response rate for leaders and 85.7% for followers. Of the 79 leaders, 54.4% were female, 76.0% had college educations or above, the mean age was 32.2 years ($SD = 3.97$), and their organizational tenure averaged 63.17 months ($SD = 32.2$). Of the 145 followers, 69.7% were female, 51.1% had college educations or above, their average age was 27.4 years ($SD = 4.17$), and their organizational tenure averaged 34.9 months ($SD = 29.3$). The average dyadic tenure was 23.5 months ($SD = 21.8$).

Our data collection encompassed an initial baseline survey followed by 2 weeks of daily surveys. Participants first completed a paper-and-pencil baseline survey that assessed demographics at the end of the study briefing session, in which we introduced our study procedures without disclosing specific research ideas. Members reported LMX relationship quality and felt obligation to reciprocate. One week after the baseline survey, participants started completing two daily online surveys sent via WeChat (one of the largest standalone mobile apps for instant communication in China) over a period of 10 consecutive workdays (Monday to Friday, 2 weeks). In the noon surveys (sent at 11:30 a.m.), members assessed the amount of resources received from and contributed to leaders in the morning, experienced gratitude, shame, anger, pride, and general affective states. In the afternoon surveys (sent at 5 p.m.), leaders rated members’ helping behavior and members reported risk-taking⁶. The time-lagged design allowed us to capture the temporal sequence between the predictors and outcome variables, thus enabling causal inference. Participants received 5 RMB (approximately \$0.73) for each daily survey response. We received 1088 noon surveys from members and 1113 afternoon surveys from both leaders and members. We removed daily surveys completed beyond the scheduled time points or those with an answer of 2 or lower on the screening question, resulting in 1042 (noon) and 876 (afternoon) valid member surveys and 877 valid leader afternoon surveys. We paired them into 845 noon–afternoon surveys (a response rate of 55.6%; a total of 1520 possible surveys) from 145 leader–follower dyads.

5.2 | Measures

All survey instruments were administered in Mandarin Chinese, translated from the original English version following standard translation-back translation procedures to ensure meaning equivalence (Brislin, 1980).

5.2.1 | Exchange imbalance

We operationalized exchange imbalance in daily resource exchanges as the incongruence between leader contribution and member contribution using the polynomial regression and response surface methodology (Edwards & Cable, 2009; Liao et al., 2019). Work resources involve six domains (i.e., tasks, information, latitude, support, attention, and influence). We thus measured leader and member contributions by asking members to report how much they received from and contributed to their leaders regarding each domain of resources during morning interactions using a scale ranging from 1 = *almost none* to 5 = *quite a lot*. Sample items were “During the interactions that you had with your leader in this morning, how much did you receive from him/her regarding the valuable work information?” (leader contribution, average $\alpha = .94$) and “... how much did you contribute to him/her regarding the well-performed tasks?” (member contribution; average $\alpha = .95$). We operationalized leader-member average contribution as the mean value of leader contribution and member contribution.

5.2.2 | Emotions

We measured gratitude (average $\alpha = .97$), shame (average $\alpha = .91$), and anger (average $\alpha = .91$) with the same items used in Study 1. To maintain the daily survey brevity and increase responses, we measured pride with three items used in Study 1 (“accomplished,” “achieving,” and “proud”; average $\alpha = .95$). Members indicated the extent to which each item captured their emotional states toward their leader (gratitude and anger) or themselves (pride and shame) following their morning work interactions with leaders on a scale ranging from 1 = *very little or not at all* to 5 = *extremely*.

5.2.3 | Leader-directed helping

We measured leader-directed helping with a six-item scale adapted from Dalal et al. (2009). Based on the afternoon interaction with the focal member, leaders indicated their level of agreement with each item on a scale ranging from 1 = *strongly disagree* to 5 = *strongly agree* (average $\alpha = .87$). A sample item was “This follower tried to help me.”

5.2.4 | Risk-taking

Risk-taking was measured with a two-item scale adapted from Schilpzand et al. (2018)⁷. Based upon work behavior in the afternoon, members indicated their level of agreement with each item on a scale ranging from 1 = *strongly disagree* to 5 = *strongly agree* (average $\alpha = .70$). The two items were “I took an informed risk that might likely hurt my leader’s performance in order to try and get better results for my work” and “I took a risk that might likely create unexpected costs for my leader to try something different that might improve my work.” We used the self-report measure because daily risk-taking was often performed without the knowledge of leaders (Fessler et al., 2004).

5.2.5 | Control variables

We controlled for member general affective states in the morning, so we could provide a more robust test of the hypothesized effects. We measured member positive and negative affect with Song et al. (2008) 10-item scale (average

$\alpha = .96$ for positive affect and $.88$ for negative affect). At the between-dyad level, we controlled for LMX relationship quality, which was measured with Graen and Uhl-Bien's (1995) seven-item scale ($\alpha = .86$), because prior research has revealed that it affects members' responses to discrete resource exchanges with leaders (Liao et al., 2019). We also controlled for felt obligation to reciprocate as it may condition the effects of exchange imbalance on momentary emotional experience. As in Study 1, we adapted Eisenberger et al.'s (2001) seven-item scale to measure members' general obligation to reciprocate their leaders ($\alpha = .73$). We controlled for member demographics (e.g., gender, age, and dyadic tenure). Analyses with and without control variables yielded similar results that did not alter our findings.

5.3 | Multilevel confirmatory factor analyses (MCFAs)

We conducted a series of MCFAs to examine the dimensionality of member-rated daily measures using Dyer et al. (2005) approach. To maintain a sufficient sample-size-to-parameter ratio and minimize the instability of the factor solution (Bagozzi & Edwards, 1998; Little et al., 2002), we randomly assigned items of leader and member contributions into three-item parcels, respectively. A seven-factor baseline model composed of leader contribution, member contribution, gratitude, pride, anger, shame, and risk-taking fit the data well ($\chi^2_{(298)} = 666.86, p < .001, RMSEA = .04, CFI = .96, TLI = .95, SRMR_{(Within-dyad)} = .03, SRMR_{(Between-dyad)} = .04$), better than alternative models (see Section D of the [supplemental materials](#) for detailed results). Given the relatively high correlation between leader contribution and member contribution, we specifically examined the dimensionality of these two measures using individual items. Results revealed that a two-factor baseline model ($\chi^2_{(106)} = 444.75, p < .001, RMSEA = .06, CFI = .91, TLI = .89, SRMR_{(Within-dyad)} = .04, SRMR_{(Between-dyad)} = .03$) fits the data better than a one-factor model in which indicators of both constructs were set to load on a single factor ($\Delta\chi^2_{(2)} = 306.20, \text{Satorra-Bentler scaled } \Delta\chi^2 = 155.63, p < .001, RMSEA = .08, CFI = .83, TLI = .80, SRMR_{(Within-dyad)} = .07, SRMR_{(Between-dyad)} = .04$). Taken together, these results demonstrated good discriminant validity for daily measures.

5.4 | Analytical strategy

Considering the multilevel structure of data (i.e., exchange variables were nested within leader-member dyads, which were nested within leaders) and our focus on within-dyad effects of discrete exchange imbalance, we conducted three-level polynomial regression analyses (for detailed computations, see Edwards & Parry, 1993; Liao et al., 2019) using the random slope approach of multilevel structural equation modeling (MSEM; Preacher et al., 2010; Zhang et al., 2009) in Mplus 7.0. We within-dyad centered resource contribution variables to control for between-member confounds and eliminate nonessential multicollinearity (Enders & Tofighi, 2007; Hofmann et al., 2000). We estimated three second-order polynomial terms using within-dyad centered leader contribution and member contribution. To virtually present the effects of exchange imbalance, we plotted three-dimensional response surfaces using the corresponding five polynomial regression coefficients. We plotted leader contribution and member contribution on the perpendicular horizontal axes and emotions or behavioral outcomes on the vertical axis. We calculated values of pseudo- R^2 as estimates of effect sizes manifesting the amount of within-dyad variance in mediating and outcome variables explained by proposed effects (Hofmann et al., 2000). Please see Section E in the online [supplemental materials](#) for equations and computations details.

To examine the hypothesized main effects of exchange imbalance (H1 and H2), we estimated MSEM models with five polynomial terms and computed the slope of the incongruence line (i.e., member contribution = - leader contribution, calculated as $\gamma_{10} - \gamma_{20}$ for the main effects of positive imbalance; leader contribution = - member contribution, calculated as $-\gamma_{10} + \gamma_{20}$ for the main effects of negative imbalance). To reflect the proposed main effects, the slope of the incongruence line must be significantly positive, indicating that the dependent variables increase (or decrease) along the incongruence line from low leader contribution and high member contribution to high leader contribution

and low member contribution (Edwards & Parry, 1993). To test the hypothesized contingent effects of leader–member average contribution (H3 and H4), we examined the slope parameters of the lines parallel to the incongruence line at the points of high and low leader–member average contribution (see Figure A in the Section E of the online [supplemental materials](#)). Specifically, we identified the points 1 SD of leader–member average contribution (i.e., 0.516) upward and downward Point O (0, 0) along the congruence line as the points of high and low leader–member average contribution respectively (i.e., Points A and B in Figure A). We then estimated the slope parameters of the lines parallel to the incongruence line passing these two points and their difference. To test the conditional indirect effects of exchange imbalance (H5 and H6), we used the conditional slope parameters to test H3 and H4 as estimates of the paths between exchange imbalance and respective emotions (Edwards & Parry, 1993). We regressed two outcome variables on five polynomial terms and two relevant emotional variables respectively to estimate the effects of emotions on behavioral outcomes. We examined the conditional indirect effects using a Monte Carlo simulation with 20,000 replications using R (Preacher et al., 2010).

5.5 | Results

5.5.1 | Descriptive statistics and within-dyad variance

Reported in Table 4 are the means, between- and within-dyad SDs, percentages of within-dyad variance, and inter-correlations among study variables. Partitioning the total variance in daily variables into components at within- and between-dyad, and between-leader levels, we found that daily variables had significant within-dyad variances: 33.5% for leader contribution, 37.4% for member contribution, 37.0% for gratitude, 53.3% for pride, 45.8% for anger, 44.8% for shame, 42.6% for leader-directed helping, and 39.7% for risk-taking. Hence, discrete exchanges and member emotional and behavioral responses varied substantially on a daily basis.

5.5.2 | Test of hypotheses

Presented in Table 5 are the parameter estimates of multilevel polynomial regression analyses testing the direct effects on emotions and outcome behaviors. Table 6 reports parameter estimates of the hypothesized main and moderating effects, and Table 7 reports those of conditional indirect effects. Results showed that the slope of the incongruence line related to the effect on gratitude was significant ($\gamma_{10} - \gamma_{20} = .40, p < .001, 95\%CI [.22, .57]$). We plotted the response surface of gratitude in Figure 3, which showed that member gratitude increases as it moves along the incongruence line from low leader contribution and high member contribution to high leader contribution and low member contribution. Nonetheless, the slope of the incongruence line related to the effect on shame was not significant ($\gamma_{10} - \gamma_{20} = .10, p = .533, 95\%CI [-.22, .42]$). These results provide support for H1a but not for H1b. We found that the slope of the incongruence line related to the effect on pride was significant ($-\gamma_{10} + \gamma_{20} = .40, p < .001, 95\%CI [.19, .61]$). Figure 4 presents the corresponding response surface, revealing that member pride increases as it moves along the incongruence line from high leader contribution and low member contribution to low leader contribution and high member contribution. The slope of the incongruence line related to the effect on anger was not significant ($-\gamma_{10} + \gamma_{20} = -.08, p = .425, 95\%CI [-.26, .11]$). These results support H2b but not H2a.

In testing the hypothesized interactive effect on gratitude, we found that when leader–member average contribution was high, the slope of the line parallel to the incongruence line at the point 0.516 upward along the congruence line was positive (*estimate* = .53, *SE* = .11, 95%CI [.31, .75]). When leader–member average contribution was low, the slope of the line parallel to the incongruence line at the point 0.516 downward along the congruence line was also positive (*estimate* = .26, *SE* = .11, 95%CI [.05, .47]). The difference between two slope parameters was significant (*estimate* = .28, *SE* = .13, 95%CI [.03, .52]). These results support H3a. Nevertheless, the slope parameters for shame

TABLE 4 Means, standard deviations, percentages of within-dyad variance, and correlations among variables in Study 2

Variables	Mean	Between-dyad S.D.	Within-dyad S.D.	Within-dyad vari- ance/Percentage	Correlations								
					1	2	3	4	5	6	7	8	9
<i>Between-dyad level</i>													
1. Age (year)	27.42	4.17											
2. Gender	1.70	.46		-.18*									
3. Dyadic tenure (month)	23.54	21.84		.34**	-.07								
4. LMX relationship quality	3.85	.65		.18*	-.15	.14							
5. Felt obligation to reciprocate	3.88	.61		.11	-.02	.08	.57**						
<i>Within-dyad level</i>													
1. Morning positive affect	4.03	.68	.47	.27**/41.5%									
2. Morning negative affect	1.50	.50	.45	.23**/50.5%	-.32**								
3. Leader contribution	3.23	.84	.54	.34**/33.5%	.19**	.06							
4. Member contribution	3.12	.83	.57	.39**/37.4%	.19**	.02	.71**						
5. Gratitude	3.97	.69	.48	.26**/37.0%	.18*	-.03	.47**	.36**					
6. Shame	2.19	.96	.74	.65**/44.8%	-.06	.25**	.03	-.004	.07*				

(Continues)

TABLE 4 (Continued)

Variables	Mean	Between-dyad S.D.	Within-dyad S.D.	Within-dyad vari- ance/Percentage	Correlations										
					1	2	3	4	5	6	7	8	9		
7. Anger	1.63	.65	.53	.31**/45.8%	-.05	.21**	.04	.03	-.07*	.45**					
8. Pride	4.03	.61	.51	.35**/53.3%	.14**	-.04	.37**	.48**	.45**	.04	-.02				
9. Leader- directed helping	3.61	.68	.46	.25**/42.6%	.06	.01	.24**	.19**	.32**	.001	-.03	.17**			
10. Risk-taking	2.82	.82	.55	.37**/39.7%	.17**	-.04	.31**	.38**	.19**	.05	.01	.34**	.09*		

Note. Within-member level, $N = 845$; between-member level, $N = 145$; between-leader level, $N = 79$. Gender was coded as 1 = men, 2 = women. Within-dyad correlations are based on within-dyad scores. The component percentage of within-dyad variance was computed as within-dyad variance/(within-dyad variance + between-dyad variance + between-leader variance).

* $p < .05$.

** $p < .01$ (two-tailed).

TABLE 5 Multilevel polynomial regression results for testing effects on member exchange emotions and behaviors in Study 2

Variables	Emotional experiences (noon)						Behavioral outcomes (afternoon)									
	Gratitude		Shame		Anger		Pride		Leader-directed helping		Risk-taking					
	γ	SE	γ	SE	γ	SE	γ	SE	γ	SE	γ	SE				
<i>Control variables</i>																
Age	.002	.01	-.001	.01	-.01	.01	.000	.01	.03*	.01	.02*	.01	-.03*	.01	-.03*	.01
Gender	-.07	.11	-.08	.17	-.05	.13	.14	.10	.27**	.10	.15*	.07	-.19	.14	-.20	.15
Leader-member dyadic tenure	-.005†	.003	-.002	.01	-.001	.003	-.004	.003	-.01*	.003	-.002	.002	-.003	.003	.000	.003
LMX relationship quality	.49**	.10	.04	.17	-.09	.11	.36**	.09	.36**	.12	.14*	.06	.07	.13	.07	.12
Felt obligation to reciprocate	.19†	.11	.31*	.15	.11	.12	.24*	.10	-.16†	.09	-.06	.06	.36*	.15	.33*	.15
Morning positive affect	.07†	.04	.03	.08	-.002	.08	.07	.05	.000	.04	-.005	.04	.12**	.05	.14†	.07
Morning negative affect	-.02	.04	.39**	.12	.23**	.06	-.03	.07	-.001	.03	.02	.03	-.004	.06	.03	.12
<i>Polynomial terms</i>																
Leader contribution (LC), γ_{10}	.40**	.05	.05	.10	.07	.06	.02	.06	.18**	.04	.09†	.05	.05	.06	.04	.08
Member contribution (MC), γ_{20}	-.001	.05	-.06	.08	-.005	.06	.42**	.06	.01	.05	.01	.05	.29**	.06	.24**	.08
LC ² , γ_{30}	.18**	.05	-.04	.16	.04	.04	-.05	.07	.09	.05	.08	.06	.02	.05	.03	.12
LC × MC, γ_{40}	-.16*	.06	.22	.18	.02	.13	-.22†	.12	-.10	.07	-.08	.09	-.17†	.10	-.23†	.12
MC ² , γ_{50}	-.01	.05	-.08	.08	-.02	.08	.21**	.05	.001	.05	-.03	.10	.14**	.05	.17**	.07

(Continues)

TABLE 5 (Continued)

Variables	Emotional experiences (noon)						Behavioral outcomes (afternoon)					
	Gratitude		Shame		Anger		Pride		Leader-directed helping		Risk-taking	
	γ	SE	γ	SE	γ	SE	γ	SE	γ	SE	γ	SE
Mediation variables												
Gratitude, β_{60}										.24**	.04	
Shame, β_{70}										.006	.03	
Anger, β_{80}												.03
Pride, β_{90}												.17**
Pseudo R^2	.49		.39		.40		.53		.32		.36	
AIC	5504.35		6577.70		6223.15		6019.71		6920.32		6826.14	
BIC	5689.19		6762.54		6407.99		6204.54		7280.51		7195.81	
Sample-size adjusted BIC	5565.33		6638.69		6284.14		6080.69		7039.15		6948.11	

Note. Within-member level, $N = 845$; between-member level, $N = 145$; between-leader level, $N = 79$. Table values are unstandardized coefficients of MSEMs.

Abbreviation: SE, standard error.

* $p < .10$.

** $p < .05$.

*** $p < .01$ (two-tailed).

TABLE 6 Multilevel polynomial regression results of main and moderating effects on emotions in Study 2

Variables and effects	Gratitude			Shame		
	Estimate	SE	95% CI	Estimate	SE	95% CI
<i>Main effects</i>						
Incongruence line slope, $\gamma_{10} - \gamma_{20}$	.40**	.09	[.22, .57]	.10	.16	[-.22, .42]
<i>Moderating effects</i>						
High leader–member average contribution $\gamma_{10} - \gamma_{20} + .730 \times \gamma_{30} - .730 \times \gamma_{50}$	.53**	.11	[.31, .75]	.13	.18	[-.23, .49]
Low leader–member average contribution $\gamma_{10} - \gamma_{20} - .730 \times \gamma_{30} + .730 \times \gamma_{50}$	.26*	.11	[.05, .47]	.07	.22	[-.35, .50]
Estimate difference	.28*	.13	[.03, .52]	.06	.24	[-.41, .52]
Variables and effects	Pride			Anger		
	Estimate	SE	95% CI	Estimate	SE	95% CI
<i>Main effects</i>						
Incongruence line slope, $-\gamma_{10} + \gamma_{20}$	.40**	.11	[.19, .61]	-.08	.10	[-.26, .11]
<i>Moderating effects</i>						
High leader–member average contribution $-\gamma_{10} + \gamma_{20} - .730 \times \gamma_{30} + .730 \times \gamma_{50}$	.59**	.13	[.34, .84]	-.12	.13	[-.38, .14]
Low leader–member average contribution $-\gamma_{10} + \gamma_{20} + .730 \times \gamma_{30} - .730 \times \gamma_{50}$	.21†	.11	[-.01, .43]	-.03	.10	[-.22, .15]
Estimate difference	.38**	.11	[.16, .60]	-.09	.13	[-.35, .18]

Note. Please see the online [supplemental materials](#) (Section E) for estimation approaches.

† $p < .10$.

* $p < .05$.

** $p < .01$ (two-tailed).

were not significant when leader–member average contribution was high (*estimate* = .13, *SE* = .18, 95%CI [-.23, .49]) or when it was low (*estimate* = .07, *SE* = .22, 95%CI [-.35, .50]). The difference between two slope parameters was also not significant (*estimate* = .06, *SE* = .24, 95%CI [-.41, .52]). These results do not provide support for H3b. Results showed that when leader–member average contribution was high, the slope parameter for pride was significantly positive (*estimate* = .59, *SE* = .13, 95%CI [.34, .84]), but it was not significant when leader–member average contribution was low (*estimate* = .21, *SE* = .11, 95%CI [-.01, .43]). The difference between two slope parameters was significant (*estimate* = .38, *SE* = .11, 95%CI [.16, .60]). These results support H4b. However, the slope parameters for anger were not significant when leader–member average contribution was high (*estimate* = -.12, *SE* = .13, 95%CI [-.38, .14]) or when it was low (*estimate* = -.03, *SE* = .10, 95%CI [-.22, .15]). The difference between two slope parameters was also not significant (*estimate* = -.09, *SE* = .13, 95%CI [-.35, .18]). These results do not support H4a.

To test H5 and H6, we initially examined the direct effects of exchange imbalance on leader-directed helping and risk-taking. Results showed that the slope of the incongruence line related to leader-directed helping was significant ($\gamma_{10} - \gamma_{20} = .17, p = .037, 95\%CI [.01, .33]$). As portrayed in Figure 5, leader-directed helping appears to be increasing along the incongruence line from low leader contribution and high member contribution to high leader contribution and low member contribution. The slope of the incongruence line related to risk-taking was significant ($-\gamma_{10} + \gamma_{20} = .24, p = .014, 95\%CI [.05, .43]$). As presented in Figure 6, risk-taking decreases along the incongruence line from low leader contribution and high member contribution to high leader contribution and low member contribution. We then examined the effects of respective emotions on two behavioral outcomes beyond and above those of five polynomial regression terms. Results showed that gratitude ($\gamma = .24, p < .001$) was positively related to leader-directed helping but not shame ($\gamma = .006, p = .828$) and that pride ($\gamma = .17, p = .009$) was positively related to risk-taking but not anger ($\gamma = .03, p = .457$).

TABLE 7 Multilevel polynomial regression results of moderated mediation effects on behavioral outcomes in Study 2

Variables and effects	Leader-directed helping					
	via gratitude			via shame		
	Estimate	SE	95% CI	Estimate	SE	95% CI
<i>Conditional indirect effects</i>						
High leader–member average contribution ($\gamma_{10} - \gamma_{20} + .730 \times \gamma_{30} - .730 \times \gamma_{50}$) \times β_{60} or β_{70}	.13	.04	[.07, .19]	.001	.004	[–.01, .01]
Low leader–member average contribution ($\gamma_{10} - \gamma_{20} - .730 \times \gamma_{30} + .730 \times \gamma_{50}$) \times β_{60} or β_{70}	.06	.03	[.02, .11]	.000	.002	[–.01, .01]
<i>Indirect effect differences</i>	.07	.03	[.01, .12]	.000	.002	[–.01, .01]
Variables and effects	Risk-taking					
	via pride			via anger		
	Estimate	SE	95% CI	Estimate	SE	95% CI
<i>Conditional indirect effects</i>						
High leader–member average contribution ($-\gamma_{10} + \gamma_{20} - .730 \times \gamma_{30} + .730 \times \gamma_{50}$) \times β_{80} or β_{90}	.10	.04	[.02, .19]	–.003	.01	[–.02, .01]
Low leader–member average contribution ($-\gamma_{10} + \gamma_{20} + .730 \times \gamma_{30} - .730 \times \gamma_{50}$) \times β_{80} or β_{90}	.04	.02	[–.0001, .09]	–.001	.003	[–.01, .01]
<i>Indirect effect differences</i>	.06	.03	[.01, .14]	–.003	.01	[–.02, .01]

Note. Please see the online [supplemental materials](#) (Section E) for estimation approaches.

Results of testing the moderated mediation effects showed that positive imbalance had a significant indirect effect on leader-directed helping via gratitude when leader–member contribution was high (*estimate* = .13, *SE* = .04, 95%CI [.07, .19]) and low (*estimate* = .06, *SE* = .03, 95%CI [.02, .11]). The difference between these two indirect effects was significant (*estimate* = .07, *SE* = .03, 95%CI [.01, .12]). These results dovetail with H5a. However, the indirect effects via shame were not significant either when leader–member contribution was high (*estimate* = .001, *SE* = .004, 95%CI [–.01, .01]) or when it was low (*estimate* = .000, *SE* = .002, 95%CI [–.01, .01]). Neither was the difference between the two indirect effects (*estimate* = .000, *SE* = .002, 95%CI [–.01, .01]). These results do not support H5b. Further, negative imbalance had a significant indirect effect on risk-taking via pride when leader–member contribution was high (*estimate* = .10, *SE* = .04, 95%CI [.02, .19]), but not when it was low (*estimate* = .04, *SE* = .02, 95%CI [–.0001, .09]). The difference between these two indirect effects was significant (*estimate* = .06, *SE* = .03, 95%CI [.01, .14]). These results are consistent with H6b. However, the indirect effects via anger were not significant either when leader–member contribution was high (*estimate* = –.003, *SE* = .01, 95%CI [–.02, .01]) or when it was low (*estimate* = –.001, *SE* = .003, 95%CI [–.01, .01]). Neither was the difference between the two indirect effects (*estimate* = –.003, *SE* = .01, 95%CI [–.02, .01]). These results do not support H6a.

6 | GENERAL DISCUSSION

Drawing on the affect theory of social exchange and inequity resolution principles, we examined the role of the self- and leader-directed emotions in leader–member discrete exchanges. Our use of both experimental and experience

FIGURE 3 The incongruence effect on gratitude in Study 2

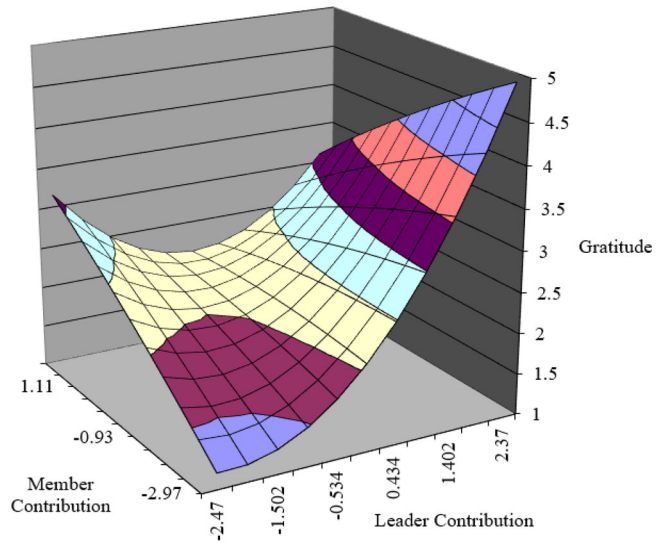
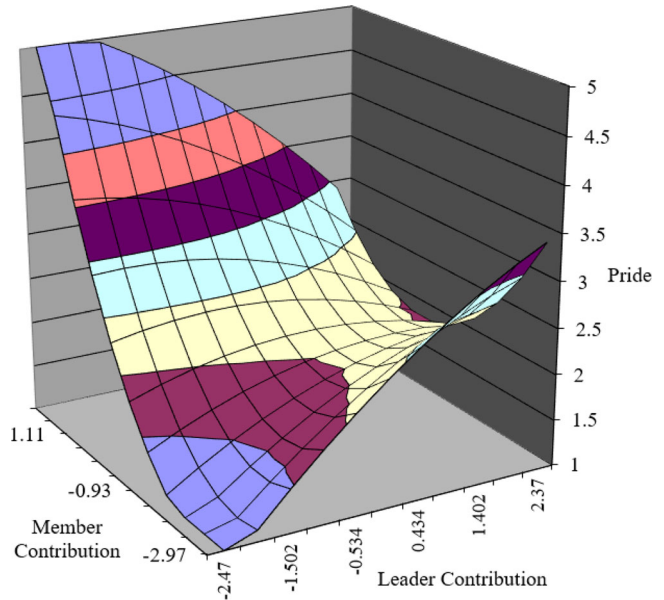


FIGURE 4 The incongruence effect on pride in Study 2



sampling studies added rigor to enhancing causal inference and capturing within-dyad fluctuations of transient emotional responses to the ebb and flow of resource exchanges. Results of two studies corroborated our hypothesized effects related to positive emotions but not those related to negative emotions.

6.1 | Theoretical implications

Our research first enriches the LMX literature by shifting scholarly attention from the interplay between the general affectivity with LMX relationship quality to discrete emotions that instantaneously arise from exchange interactions. Such a shift is of theoretical imperatives for understanding the psychological mechanisms underpinning reiterative, ongoing discrete exchanges. We leverage the ephemeral and fleeting nature of exchange emotions to explicate

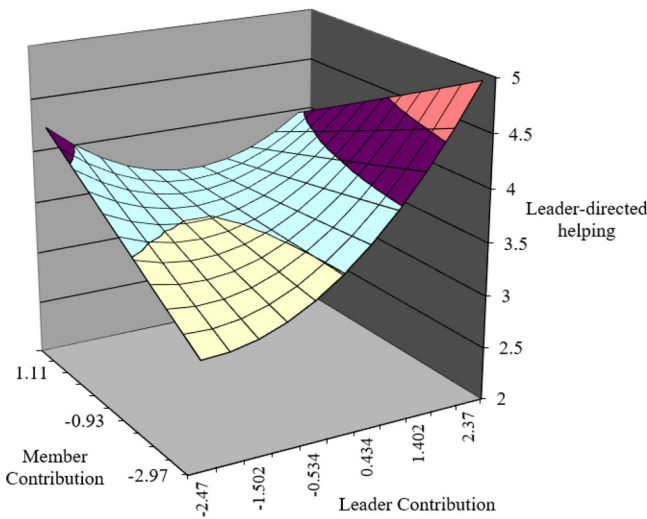


FIGURE 5 The incongruence effect on leader-directed helping in Study 2

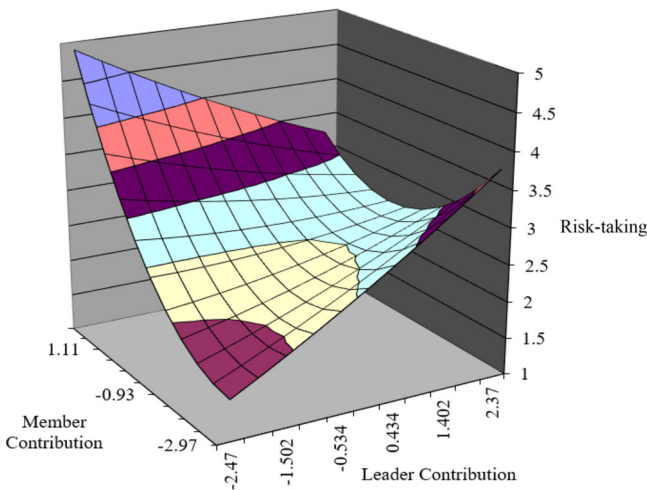


FIGURE 6 The incongruence effect on risk-taking in Study 2

how the waxing and waning of exchanged resources induce members' fluctuations of unilaterally beneficial help or exploitatively opportunistic behavior as their attempts to restore short-term exchange balance. With LMX relationship quality controlled for in the model, results of our field study suggest that the exchange fluctuations may move, either positively or negatively, beyond the general, habitual reciprocation pattern. Our research thus helps to answer a long-recognized yet understudied question of why members transiently deviate from the primary exchange paradigm (Ballinger & Rockmann, 2010) and enhances our knowledge of the dynamics of discrete resource exchanges between leaders and members (Liao et al., 2019).

Our finding also moves the social exchange literature forward by empirically disentangling the self- and the other-directed emotions as parallel mechanisms through which exchange parties maintain exchange equity (Adams, 1965). We sought to reveal that members, depending on their perceived sources of an exchange imbalance, would feel grateful toward the leader and ashamed toward the self after a positive imbalance, and feel angry toward the leader and proud toward the self after a negative one. That is, one exchange imbalance may concurrently trigger multiple emotions involving different targets or distinct valence. This represents an important attempt to understand the disparate role of the self- and other-directed psychological pathways underlying exchange equity restoration (Adams, 1965). More important, the finding on the moderating effects of leader-member average contribution suggests that the

amount of resources jointly contributed by both parties conditions the imbalance effects on momentary emotions, shedding light on the subtle factors that might shape the intensity of emotional experiences. Our results, when taken together, provide a thorough illustration of how two primary theoretical lenses of behavioral research—emotion and social exchange—inform each other to explicate the dynamics of LMX interactions (Cropanzano & Mitchell, 2005; Lawler, 2001).

Intriguingly, the set of insignificant results of negative exchange emotions in our studies appear to be seemingly opposing yet essentially complementary to the predominant theoretical perspective that negative experiences loom larger than positive ones (Baumeister et al., 2001; Rozin & Royzman, 2001). Our finding suggests that both positive and negative exchange imbalances tend to engender positive rather than negative emotions. Such asymmetric results might primarily result from members' self-concept enhancement motives in exchange interactions with their leader (Adams, 1965). The joint responsibility inherent in social exchanges between leaders and members allows two separate interpretations of the primary causes of an outcome: one's own over/under contribution or the other party's under/over-contribution. When processing exchange imbalance, members thus have the latitude to forgo the self-concept threatening interpretation and take the alternative that maintains and boosts the self-concept. This perspective implicitly echoes Rozin and Royzman's (2001) argument that negativity dominance only occurs when positive and negative emotional stimuli or targets are intertwined together and are inseparable. Our finding on the salience of positive emotions advances the social exchange literature by pointing up the credit allocation process in social exchange. That is, to maintain exchange balance sustainably, exchange parties lean towards paying more attention to the primary contributor in one exchange and recognize his/her deserved credits, rather than casting blame on the one who fails to provide sufficient contributions once (Cropanzano & Mitchell, 2005; Emerson, 1976).

Finally, our finding on risk-taking adds to social exchange research regarding the approach that dyadic parties might utilize to maintain exchange balance. We found that when members feel underbenefited, in addition to withholding their subsequent inputs as demonstrated in prior research (e.g., McFarlin & Sweeney, 1992), they might take exploitative actions out of opportunism to retrieve deserved but unrelieved benefits, so that they could proactively seek exchange balance. Such opportunistic exploitation inherently differs from the negative work behaviors that members undertake to negatively reciprocate leaders' unfair treatment or destructive leadership (Cropanzano et al., 2017; Malhotra & Gino, 2011). By engaging in opportunistic behaviors that enhance task performance, members might increase their possibility of obtaining more resources and recognition from the leader and thus rebalance their resource exchange (Carrell & Dittrich, 1978). By featuring the unique role of risk-taking in equity restoration, our research encourages more scholarly attention to implicit exchange behaviors.

6.2 | Practical implications

Our research offers important pragmatic implications. Our findings first highlight within-dyad fluctuations of resource exchanges between managers and employees, which may deviate from their habitual exchange pattern (Cropanzano & Mitchell, 2005). Managers may develop a dynamic mindset about exchange interactions with employees. In addition to attending to the general relationship quality, managers should be cognizant of the balance/imbalance of resource exchanges on a daily basis, so that they could better forecast and manage employees' emotions and work behaviors. If managers want employees to be grateful and thus helpful toward themselves, they may attempt to provide beneficial resources initially, such as offering constructive feedback and support or delegating appropriate responsibilities (Liden et al., 1997).

The upshot of risk-taking following a negative imbalance is insightful for managers to nudge employees' mutually beneficial behavior. When underbenefited, employees might feel entitled to retrieve their deserved benefits by performing exploitatively opportunistic behavior that might incur costs on managers (Adams, 1965; Wilson et al., 2010). Managers may want to be conscious of exchanges imbalanced with employees' extra contributions and take appropriate actions when they occur. For example, managers could acknowledge employees' efforts and provide more

resources in subsequent interactions. Managers may also need to attend to employees' emotional signals of pride so that they could use proper interventions to avoid members' feelings of pride developing into exploitative risk-taking (Fessler et al., 2004; Isen & Patrick, 1983). Organizations could implement leadership training programs that help managers improve interpersonal interaction skills and thus better manage their exchanges with employees.

Our findings also speak to employees regarding how they could maintain discrete exchanges with their managers more effectively. They may want to be aware that resource exchanges would be imbalanced dynamically. To establish constructive and continuous exchanges, when overbenefited, they should endeavor to return the favors to their managers in a proper time frame (Cropanzano & Mitchell, 2005). When underbenefited, rather than performing exploitative behaviors, employees could develop more sympathetic attitudes and take appropriate opportunities to nudge managers to be more supportive, helpful, and constructive.

6.3 | Limitations and future research

Our research has some limitations that provide tantalizing opportunities for future research. First, although our use of both experimental and ESM studies enhanced empirical rigor, the design might constrain the generalizability of our findings. Study 1 involved an experimental simulation without a relational context of leader–member dyads, which might generate results differing from field samples (Podsakoff et al., 2003). In Study 2, due to causal inference concern, we treated exchanges occurring in the morning as one broad interaction unit, but leader–member dyads might experience interactions with distinct levels of resource exchanges. We thus encourage future research to take an episodic-based design to capture exchange dynamics (Liu et al., 2017). Further, we tracked daily exchanges for a relatively short time period of 2 weeks, raising concerns on the generalizability of our findings to leader–member dyads with various relationship qualities. Although our control of LMX relationship quality helps ease this concern, we encourage future research to adopt more creative methodological approaches (e.g., using a field experiment design) to study this fascinating phenomenon.

Second, given the daily design in Study 2, we measured afternoon risk-taking with only two items, likely restraining construct validity. Although results (see footnote 8 for details) of our scale validation study supported our measure, we encourage future research to measure risk-taking more thoroughly. Third, our theorizing and study design focus on the mediating role of emotions on exchange imbalance and work behaviors. Although our research discusses how the attribution process initiated by exchange imbalance evokes discrete emotions, it does not directly hypothesize or test it (Liao et al., 2021). For example, do members consider both parties as responsibility holders for a positive imbalance, but their leaders as the primary holder? What are the specific causes (e.g., ability, efforts) members perceive? Regarding locus of control, if members attribute imbalances to external uncontrollable factors, how do they react emotionally and behaviorally? Future research could find answers to these important questions and better understand the role attribution plays.

The fourth limitation concerns our exclusive focus on members' momentary reactions. The resource exchanges involve leaders and thus would also impact leaders' responses and subsequent exchange engagement (Wilson et al., 2010). Owing to the leadership role and responsibilities, leaders might experience different emotions. For example, when confronting member contribution surplus, besides gratitude, leaders might experience threats as they feel outperformed by the member (Lawler & Thye, 1999). Pride might also be evoked due to their belief that the competence and good performance displayed by the member is a function of their leadership (Cropanzano et al., 2017). We encourage future research to pursue this stream of research questions and explore how leaders respond to momentary exchange imbalances.

Finally, although we focused on member work behaviors as distal outcomes, exchange imbalances might alter members' attachment and commitments toward exchanges with leaders. For example, following a positive imbalance, members may have increased satisfaction, commitment, or positive evaluations of the exchange relationship with their leader (Lawler, 2001). We thus invite future research to examine such attitudinal and relational outcomes.

6.4 | Conclusion

Our research examines how members' self- and leader-directed emotions arise from discrete resource exchanges with leaders, which in turn shape their downstream work behaviors. Our findings speak to both managers and employees regarding how they could maintain effective work interactions and prevent unexpectedly negative deviation from their general exchange pattern. We recognize that our work only represents an initial effort on exploring this interesting topic and thus encourage future research to continue pursuing a more profound understanding of the interplay between emotions and leader-member resource exchanges.

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DATA AVAILABILITY STATEMENT

The data that support findings of Study 1 and the syntax are available on request from the author team. The data are not publicly available due to privacy and ethical restrictions. The raw data support findings of Study 2 are not available due to third party restrictions. The processed data and the syntax are available on request from the author team.

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ENDNOTES

¹ Extant LMX research has established two distinct conceptual aspects (Cropanzano & Mitchell, 2005; Sparrowe, 2020): one conceptualizes LMX as the relationship quality maintained between leaders and members (Graen & Uhl-Bien, 1995); the other focuses on specific resource exchanges performed by them (Liden & Maslyn, 1998; Uhl-Bien & Maslyn, 2003). In this paper, we primarily approach LMX from the resource exchange aspect to understand the role that discrete emotions play across iterative exchange interactions.

² To ensure equal pay, all participants received a \$0.50 bonus regardless of their performance. We offered extra \$1.00 bonus due to that the actual averaged completion time appeared longer than what we initially estimated.

³ Robustness check analyses were conducted after controlling for each participant's ranking accuracy score. The full results are shown in the online supplementary materials (Sections B and C). Findings remained consistent and did not alter our conclusions.

⁴ Participants answered two questions assessing the realism of the experiment scenario (Farh et al., 2017) using a seven-point scale (1 = *strongly disagree* to 7 = *strongly agree*). About 79% of participants agreed with the item "It is realistic that I might work with a leader like J. P." ($M = 5.21, SD = 1.41$) and 81% of participants agreed with the item "At some point during my career, I will probably encounter a situation that occurred in the experimental scenario" ($M = 5.33, SD = 1.42$). These checks indicated that participants found the scenario realistic.

⁵ We conducted a series of *t*-tests to check manipulations of exchange imbalance and average contribution. To account for the family error rate, we used both Šidák's (1967) and Bonferroni's (1936) corrections. Šidák's correction suggests lowering the significance standard (α) from .05 to .0102; Bonferroni's correction suggests lowering α to .01. Because the *p*-values of all five tests are equal to or smaller than .001, they all fell below the corrected alphas and thus were statistically significant.

⁶ To ensure participants answer daily surveys with sufficient work information, they completed daily surveys only when they had direct interactions with their leaders/followers, including one-on-one and group meetings, informal in-person communications, phone calls, emails, and teleconferences. Participants also responded to a screening question to verify possessing

appropriate work information by rating "How many direct interactions did you have with your immediate leader/follower in the morning/afternoon?" on a five-point scale (1 = none, 2 = few, 3 = a moderate amount, 4 = quite a bit, and 5 = a high amount of interactions; Liao et al. 2018). Following Barnes et al. (2015) we included daily surveys with a response of 3 or greater on the scale.

⁷The two-item scale was adapted from Schilpzand et al.'s (2018) daily risk-taking behavior measurement, which was developed from Dewett's (2006) eight-item scale. Results from a scale validation study with 148 full-time working adults recruited from Prolific Academic revealed that the two-item measurement was highly correlated with the eight-item measurement ($r = .89, p = .000$). In addition, we conducted another content validation study by following the procedure suggested by Colquitt et al. (2019). We included three orbiting constructs that were identified as common negative exchange behaviors by the social exchange literature (Cropanzano et al., 2017), including supervisor-directed revenge (Aquino et al., 2001), supervisor-directed deviance (Bennett & Robinson, 2000), and supervisor-directed aggression (Douglas & Martinko, 2001). We calculated Hinkin Tracey correspondence (htc) index to assess how well the risk-taking scale corresponded to the content of leader-directed risk taking and Hinkin Tracey distinctiveness (htd) index to assess how well the risk-taking scale distinguishes itself from the orbiting constructs (Colquitt et al., 2019). Results from 141 full-time working adults recruited from Prolific Academic showed that the htc index was .88 (considered as "strong") and the htd index was .56 (considered as "very strong"). These results suggest overall strong content validity of the two-item shortened version of the risk taking scale. Details of two studies are available from the author team.

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