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Leader Interpersonal Emotion Regulation Motives, Group Leader-Member Exchange and Leader Effectiveness in Work Groups

Abstract

Recent research has shown that leader interpersonal emotion regulation is a relevant process for fostering desirable work outcomes. Expanding knowledge on this stream of research, here we argue that to have a complete view of the influence of leader interpersonal emotion regulation, the motives underlying the regulation behavior, namely, egocentric or prosocial, should also be taken into account. We draw on the informational function of interpersonal emotion regulation motives and use a multisource survey study with 99 group leaders and their 1482 group members to examine the effects of leader interpersonal emotion regulation motives. We found evidence that leader egocentric interpersonal emotion regulation motives were negatively related to group members' perceptions of the relationship quality with their leaders, expressed in the group's mean leader-member exchange (LMX), and, thereby, related to lower leader appraisals of their own effectiveness. However, these negative effects were mitigated when leaders were at the same time prosocially motivated to regulate the emotions of the members of their groups. Therefore, this study contributes to expanding theory on interpersonal emotion regulation and its application to leadership, which is informative for theory and interventions about leaders' affective influence in organizations.

Keywords: interpersonal emotion regulation motives, leader-member exchange (LMX), leader effectiveness, groups

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The topic of emotions in the context of organizational leadership has burgeoned in recent years, with researchers recognizing the salience of how group members feel in shaping leader-follower relationships and leader effectiveness (e.g., van Knippenberg & van Kleef, 2016). As such, researchers have become increasingly interested in the notion of leaders engaging in the regulation of emotion in order to promote better leadership processes and outcomes (e.g., Edelman & van Knippenberg, 2017). Against this backdrop, emergent research in work psychology and organizational behavior has begun to pay specific attention to the construct of 'interpersonal emotion regulation' (Troth, Lawrence, Jordan, & Ashkanasy, 2018), which describes the process whereby a person attempts to induce, modify, and modulate emotions in others (Gross, 2013; Niven, 2017; Niven, Totterdell, & Holman, 2009). Specifically, in the context of leader-follower relationships, published studies have shown that leaders' attempts to either elicit positive emotions or decrease negative feelings among their followers affect the quality of their relationship with them, and to influence followers' task performance, citizenship behavior, and innovation (Little, Gooty, & Williams, 2016; Madrid, Niven, & Vasquez, 2019; Madrid, Totterdell, Niven, & Vasquez, 2018). Thus, the inquiry into leader interpersonal emotion regulation is providing a new avenue to understand relevant work-related outcomes associated with the role of affect in leader-follower relationships within organizations (Tse, Troth, Ashkanasy, & Collins, 2018).

Thus far, most of the studies on leader interpersonal emotion regulation have concentrated on *how* leaders influence the emotional experience of their followers through helping them to select or modify affect-laden situations, reappraise or deploy attention from affect-eliciting events or modulate the emotions they experience (Little et al., 2016; Little, Kluemper, Nelson, & Gooty, 2012; Vasquez, Niven, & Madrid, 2020). Nevertheless, the

complete process of interpersonal emotion regulation also needs to account for the reasons *why* an individual aims to manage emotions in interaction partners. As Niven (2016) explains, "regulatory processes like interpersonal emotion regulation can only be truly understood with reference to the motives that underlie them" (p. 306). A particularly fundamental aspect of motivation for interpersonal emotion regulation concerns whether it is driven by egocentric or prosocial goals (Niven, 2016; Niven, Troth, & Holman, 2019). In the first case, individuals regulate the emotions of others to achieve their own goals, while in the latter, individuals are motivated to help others to reach their goals. In this context, examining whether interpersonal emotion regulation motives play a role in the process of leadership seems valuable to gain a deeper understanding of the affective influence of leaders in work organizations.

Drawing on the above, this study examines whether, in the context of work groups, leaders' interpersonal emotion regulation motives influence leader effectiveness through the mechanism of group members' collective perceptions of leader-member exchange quality (Group LMX). The latter construct departs from the traditional understanding of LMX emphasizing the dyadic relationships between leaders and followers (Yammarino & Dansereau, 2008), in that it denotes the shared perceptions that members of the same groups, as a whole, have about the quality of the relationship between them and their leaders. In the context of work groups, this approach has been shown valuable to describe and understand how social exchanges are related to collective dynamics and outcomes (e.g., Seo & Lee, 2017). Specifically, we argue that group members will interpret exchanges in which leaders regulate their feelings driven by egocentric motives as manipulative and purely transactional in nature, resulting in shared perceptions of a lower quality relationship. Conversely, when leaders' regulation of group members' feelings is prosocially motivated, group members will interpret such exchanges as more sincere, respectful, and reciprocal, leading to group

perceptions of a higher quality relationship. Moreover, we propose that egocentric and prosocial interpersonal emotion regulation motives will interact. The simultaneous presence of prosocial interpersonal emotion regulation motives will result in more forgiving interpretations of egocentrically motivated emotion regulation exchanges, thus tempering their negative impact on relationship quality. In turn, we argue that group members' collective perceptions as to the nature of exchanges and relationships, stemming from interpersonal emotion regulation motives, will influence leaders' effectiveness.

Our paper contributes to the work psychology and organizational behavior literatures by developing a more nuanced understanding of leader interpersonal emotion regulation. Rather than simply assuming that attempts to improve group members' feelings result in positive consequences whereas attempts to worsen feelings have negative effects, we show that the motives that underlie these behaviors have an important role in shaping the quality of exchange relationships between leaders and group members and, ultimately, leader effectiveness. We also contribute beyond existing work on leader motives by recognizing the complexity of motives, such that leaders may be simultaneously egocentrically and prosocially motivated and show that the combination of motives must be studied to fully understand the impact of leader interpersonal emotion regulation. Finally, we provide an explanation, based on interpersonal emotion regulation processes, for the relational dynamics associated with leadership, expressed in the quality of social exchanges. Specifically, we examine the critical variable of leader effectiveness and explore a mechanism, namely, group LMX, that connects leader interpersonal emotion regulation behavior to this outcome.

Leader Interpersonal Emotion Regulation Motives

The concept of interpersonal emotion regulation has grown out of several fields of inquiry, including sociology, psychology, and management. In the management domain, researchers originally embedded interpersonal emotion regulation within the context of

emotional intelligence, framing the ability to manage others' feelings as one of the core components of the broader construct (e.g., Salovey & Mayer, 1990). However, interpersonal emotion regulation has more recently been recognized as a key organizational process in its own right; for instance, research has demonstrated meaningful effects of interpersonal emotion regulation on outcomes including well-being, relationship quality, and performance (e.g., Little et al., 2016; Martínez-Íñigo, Poerio, & Totterdell, 2013; Niven, Holman, & Totterdell, 2012; Vasquez et al., 2020). Such research has typically drawn a distinction between the effects of behaviors that are used to improve the feelings of others, such as praising the positive characteristics of another person or giving helpful advice, versus behaviors that are used to worsen others' feelings, such as criticizing or giving the cold shoulder to someone (Niven et al., 2009). Particularly, researchers have documented positive outcomes of behaviors used to improve others' affect and negative outcomes of those used to worsen others' affect (e.g., Niven, Totterdell, Holman, & Headly, 2012).

However, knowing *how* people engage in interpersonal emotion regulation may be insufficient to fully understand the affective influence of individuals on interaction partners, because the motives that underlie the use of emotion regulation also play a role in the influence process (Niven, 2016; Tamir, 2016). An individual can be motivated to regulate emotions in others to achieve their own goals or to facilitate others achieving their goals. In the former case, interpersonal emotion regulation is linked to egocentric motives, whereas in the latter case it is linked to prosocial motives (Niven, 2016; Niven, Henkel, & Hanratty, 2019). The distinction between egocentric and prosocial forms of motivation has a long history within psychology and the organizational sciences. For example, Batson (1987) theorized that people's helping behavior can be driven either by what he termed 'altruistic' motivation to genuinely and authentically provide care for others or egoistic motivation to benefit oneself. Moreover, Adam Grant's program of research on prosocial motivation (e.g.,

Grant, 2008) has firmly established prosocial motivation as a causal factor in predicting organizational behavior.

Here, we suggest that the same principle might guide the interpersonal behaviors aiming to regulate others' feelings, namely, people may seek to benefit themselves (egocentric) or to benefit others (prosocial) by regulating others' feelings. Examples of egocentric interpersonal emotion regulation motives are documented in Netzer and colleagues' research, in which it is shown that regulators are willing to improve the feelings of rivals and to worsen the feelings of partners when they believe that it will help them to achieve their own performance goals (Netzer, van Kleef, & Tamir, 2015). Meanwhile, prosocial interpersonal emotion regulation motives are attributed to phenomena such as showing empathic concern to improve others' feelings and being 'cruel to be kind' by worsening others' feelings for their own good (López-Pérez, Howells, & Gummerun, 2017). As these examples illustrate, interpersonal emotion regulation motives are not fixedly connected to specific directions of regulation. That is, people who are egocentrically motivated can elect to make others feel better or worse, dependent on how that serves their goals. Similarly, prosocial motivations for interpersonal emotion regulation can stimulate attempts to improve or worsen how others feel.

It is also important to note that our distinction between egocentric and prosocial motives differs from the distinction of hedonic versus instrumental goals (e.g., Tamir & Bigman, 2014). Hedonic goals are focused on pleasure whereas instrumental goals are directed towards achievement, e.g., in the performance domain. In Niven's (2016) theoretical work on interpersonal emotion regulation motives, the distinctions of prosocial versus egocentric motives and hedonic versus instrumental goals are positioned orthogonally. The implication is that a person might be prosocially motivated to engage in interpersonal emotion regulation to enhance the pleasure *or* the performance of others; for example, a

leader might try to stimulate hope in group members in order to reduce stress (hedonic goal) or to motivate them to put more effort into their work (instrumental goal). Likewise, a person might be egocentrically motivated to regulate others' feelings to enhance their own pleasure (e.g., undermining a colleague who received the promotion you both 'went for' to make yourself feel better) or performance (e.g., visibly making efforts to improve colleagues' feelings in order to create a favorable impression of oneself with management).

Taking the above together, it is a compelling proposal that motives are likely to be relevant to the social consequences of interpersonal emotion regulation, which is the basis for our model presented here.

Leader Interpersonal Emotion Regulation Motives, Group LMX and Leader Effectiveness

We propose that leader interpersonal emotion regulation motives should have a function in determining leader effectiveness in the group working context via their effects on the group-level quality of leader-member relationships.

In the initial stage of our model (Figure 1), we expect that leaders' interpersonal emotion regulation motives will affect group members' collective perceptions of the quality of their exchange relationships. The quality of leader-member exchange relationships (i.e., LMX) can vary substantially, with relationships featuring exchanges characterized by trust, respect and reciprocity viewed as much higher quality than those that focus purely on transactional exchanges (Graen & Uhl-Bien, 1995; Martin, Epitropaki, Geoff, & Topakas, 2010). Traditionally, LMX has been conceptualized as an individual or dyadic-level phenomenon that captures the specific quality of relationships between the leader and each of his/her followers (Dansereau, Seitz, Chiu, Shaughnessy, & Yammarino, 2013; Yammarino & Dansereau, 2008). Notwithstanding, in the context of work groups, the quality of the social exchanges between leaders and group members can also be meaningfully described at the

group level, representing the extent to which leaders trust, respect and act reciprocally towards the group as a whole. A strong 'group LMX' (i.e., a high mean level of LMX from the collective perspective of group members) denotes a shared work reality needed for the collective functioning and the achievement of the common goals of the group (i.e., Boies & Howell, 2006; Seo & Lee, 2017; Zhao, Wu, & Gu, 2020).

Theory and research have shown that leader's behavior shapes followers perceptions of LMX, and one aspect of leader behavior that has been suggested to be important is the emotional content of leader-member interactions, in particular leaders' attempts to manage their group members' feelings (Humphrey, 2002). For example, in a study of leader-follower dyads, Little et al. (2016) showed that the regulatory behaviors enacted by leaders to manage their followers' feelings predicted followers' perceptions of their relationship quality.

However, in addition to the content of leaders' behaviors, the motives that underlie them should also be important for the quality of the relationship with their followers. This is because group members make sense of their leaders' behaviors, including their use of interpersonal emotion regulation, through their inferences about the motives that drive those behaviors (Ajzen & Fishbein, 1977; Ferris, Bhawuk, Fedor, & Judge, 1995; Van Kleef, Homan, & Cheshin, 2012; van Knippenberg & van Kleef, 2016). From early research on social referencing (e.g., Klinnert, Campos, Sorce, Emde, & Svejda, 1983) and attributions (e.g., Heider, 1958), to later research on emotion behavior (e.g., Van Kleef, 2009), it has become accepted knowledge that targets of social behaviors are motivated to draw inferences about why others enact those behaviors. Such perspectives concur that people are motivated to make such inferences because this allows them to exert a degree of control; understanding why somebody acted a certain way can help one to respond appropriately and to predict their future behaviors (Regan & Fazio, 1977). Research suggests that not only are targets of social behaviors like interpersonal emotion regulation driven to infer the motives that underlie those

behaviors, but they are relatively adept at doing so, due to the subtle cues that are 'leaked' when we engage with others (e.g., through our expression of emotion; Van Kleef, 2009). For example, studies have revealed that people are relatively accurate in their perceptions of others' fundamental social motives (e.g., towards affiliation and self-protection; Huelsnitz, Neel, & Human, 2020) and the nature of the motives that underlie specific types of social behaviors in others, such as their daily sacrifice behaviors in romantic partnerships (LaBuda & Gere, 2021).

Here, we draw on such perspectives to argue that, dependent on whether team members infer that their leader is enacting interpersonal emotion regulation driven by prosocial or egoistic motives, this will shape their interpretations of the leader's regulatory behavior as being sincere or manipulative, respectively, which in turn will affect the group's LMX. Our arguments follow from Dasborough and Ashkanasy's (2002) theoretical work, in which they explain that group members typically interpret leaders' interpersonal behaviors as being either sincere or manipulative in nature, based on their perceptions of leaders' motives. When leaders are perceived as acting in the interests of the followers (prosocial motives), their behavior is seen as more sincere, whereas leaders whose behavior is enacted in the interests of themselves (egoistic motives) are viewed as more manipulative and instrumental. These theoretical assertions are supported by empirical studies on attributions, which suggest that "good" behaviors (e.g., helping) may be perceived as more sincere when attributed to prosocial motives, but as more instrumental when attributed to more egoistic motives (Newman & Cain, 2014; Rodell & Lynch, 2016; Siem & Stürmer, 2018).

In turn, Dasborough and Ashkanasy (2002) argue that these inferences about leaders' motives shape views of the quality of exchanges. For example, a sincere interpretation of leader interpersonal behavior (e.g., the leader is trying to help my career) is likely to result in the perception of exchange behaviors as being respectful and reciprocal in nature. In turn, this

should result in group perceptions of a high-quality leader-member relationship. In contrast, an interpretation of the behavior as manipulative or instrumental (e.g., the leader is using me for their own ends) should result in perceptions of exchange behaviors as being purely transactional, leading to group members viewing their relationship with the leader as lower in quality (Dienesch & Liden, 1986). In support of this suggestion, an experimental vignette study by Niven et al. (2019) reported evidence that team members of leaders whose interpersonal emotion regulation was apparently motivated prosocially anticipated higher LMX than those whose leaders' interpersonal emotion regulation was egoistically motivated.

In the second stage of our model (Figure 1), we propose that group LMX, emerging from leaders' interpersonal emotion regulation motives, will predict leader effectiveness. In the group working context, leader effectiveness concerns the extent to which leaders are successful in meeting performance standards, which is materialized in the quality of tasks (e.g., how well the group performs), relational behavior (e.g., whether leaders get the best from their group members), and overall judgments of the leader's effectiveness that encompass both task and relational criteria (Derue, Nahrgang, Wellman, & Humphrey, 2011). We argue that group LMX should be associated with leader effectiveness because leader effectiveness is dependent upon group member performance due to the interdependence that is inherent in leader-follower relationships. Group members are dependent on the leader because the leader gives direction and provide the resources needed for them to accomplish the group's objectives (Bono & Judge, 2004; C. S. Burke et al., 2006; Ceri-Booms, Curşeu, & Oerlemans, 2017; Judge, Piccolo, & Illies, 2004). At the same time, leaders are dependent on group members, since leaders are responsible for the group's results, to which end group members' positive behavior and performance are essential (Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012). In sum, as leader-member exchanges

involve a reciprocity norm, both parties gain insight into what the other is doing, which results in positive outcomes for all (Douglas, 2012).

Previous meta-analytic evidence supports this direction in the relationship between LMX and leader effectiveness. For example, Boer and colleagues, appealing to the reciprocity and mutuality of relationship investments, propose that high-quality LMX is likely to be positively related to leaders' effectiveness and performance (Boer, Deinert, Homan, & Voelpel, 2016). Specifically, in groups with higher quality relationships, the trust, commitment, and reciprocity ought to enhance and support interdependence, and therefore facilitate leader effectiveness. In contrast, in groups with poor quality leader-follower relationships, the mutual interdependence between leaders and followers might break down and become dysfunctional, due to reduced levels of social integration and lack of trust, which may cause leaders difficulty in getting the best from group members, influencing their effectiveness.

As mentioned in previous paragraphs, when predicting a relationship between group LMX and leader effectiveness, it should be acknowledged that theory and research on LMX propose that leaders adopt differentiated behavioral strategies with each of the members of their groups, providing different degrees of, for example, autonomy and trust (Graen & Uhl-Bien, 1995). Therefore, the perception of LMX might be different for each of the members of the same group, as has been highlighted in recent lines of enquiry (Martin, Thomas, Legood, & Russo, 2018). For example, Li and Liao (2014), and Seo, Nahrgang, Carter and Hom (2018) studied the shapes of distribution of LMX (e.g., bimodal, skewed, or shared configuration), demonstrating that groups with the same group-level mean and standard deviation may still differ in terms of their specific LMX configurations. Crucially, these different distribution configurations have an impact on team processes and outcomes. However, as the present research concerns whether interpersonal emotion regulation motives

influence relationships in the context of groups as a whole and, in turn, leader effectiveness (a group-level construct), we focus here on shared perceptions of LMX among group members rather than on such differentiation.

Taking the two stages of our model together, we therefore hypothesize two mediational mechanisms between leader interpersonal emotion regulation motives, leader-member quality of relationship, and leader effectiveness:

Hypothesis 1: Leader egocentric interpersonal emotion regulation motives are negatively related to leader effectiveness through group members' perceptions of group LMX, such that egocentric motives are negatively related to group LMX, which in turn is positively related to leader effectiveness.

Hypothesis 2: Leader prosocial interpersonal emotion regulation motives are positively related to leader effectiveness through group members' perceptions of group LMX, such that prosocial motives are positively related to group LMX, which in turn is positively related to leader effectiveness.

A final proposal of our model is the joint function between egocentric and prosocial interpersonal emotion regulation motives to explain group LMX and leader effectiveness. Although some researchers have argued that egocentric and prosocial interpersonal emotion regulation motives can be viewed as opposite ends of a single motivational dimension, most agree that these motives can be seen as independent constructs (e.g., Batson, 1987; Cropanzano, Goldman, & Folger, 2005). According to the latter view, a person might be simultaneously egocentrically *and* prosocially motivated with regards to a referent behavior, such as regulating another person's feelings. For example, a leader might give a rousing speech during a group meeting in part to boost group members' morale and in part to look good in front of other managers. The idea that people can hold two such divergent motives is supported by evidence about motivational complexity and goal conflict, which suggests that

actions are often driven by multiple motives that may, at times, stand in contrast to one another (e.g., Howard, Gagné, Morin, & Van den Broeck, 2016; Huang & Bargh, 2014).

Based on the above, we further anticipate that, because leaders' use of interpersonal emotion regulation may be motivated by both egocentric and prosocial goals, such ambivalence in motives may be detected by their team members, leading to an interaction in their effects on group LMX. From the perspective of a team that the leader expresses confidence in during a group meeting, for example, they might infer that the leader is trying to boost their morale but that this is partly in an attempt to push them towards meeting a deadline, in which case the leader's motives appear to be both prosocial and egocentric. In such instances, we expect that the positive inferences that group members make when leaders are prosocially motivated will temper the negative inferences stemming from egocentric motivation, and in turn buffer the negative effect of egocentric interpersonal emotion regulation motives on group LMX. Groups whose leaders are both egocentrically and prosocially motivated may view their leader's regulation attempts as somewhat less manipulative because there is an element of kindness and altruism infused in the desire the benefit the group members, which is likely to result in the recognition of LMX as not being purely transactional in nature. In other words, groups in which their members perceive that their leader engages in behaviors to regulate group members' emotions to benefit themselves *and* the group, would develop better quality relationships with the leader than groups in which leaders are uniquely motivated to benefit themselves. These interaction effects introduce a moderated mediation process into the relationship between interpersonal emotion regulation motives, group LMX and leader effectiveness according to the hypothesis stated below:

Hypothesis 3: Leader prosocial interpersonal emotion regulation motives moderate the negative mediation between leader egocentric interpersonal emotion regulation

motives, group members' perceptions of group LMX, and leader effectiveness, such that this mediation is weaker when leader prosocial motives are high, because the negative relationship between egocentric motives and group LMX is weaker when leader prosocial motives are high and stronger when prosocial motives are low.

[INSERT FIGURE 1 AROUND HERE]

Methods

Procedure and Sample

To test our hypotheses, we conducted a multisource field study with a public organization in Chile. Participants were employees from diverse groups and their respective leaders, who performed administrative and operational tasks in the organization. Once the approval of the organization's human resource director was received, a link to the online questionnaire was distributed via email to all employees. Specifically, this study utilised two online surveys: Group members responded to a survey asking them about leader-member relationship quality (LMX) together with leader-member relationship tenure and leader-member interaction frequency (control variables). In an independent survey, group leaders provided ratings about their motives to regulate the group members' emotions and ratings of their leadership effectiveness, together with their interpersonal emotion regulation behaviors performed within the group (control variable). The latter were included in the study because we anticipate that the effects of leader interpersonal emotion regulation motives will occur independently of whether the regulatory behaviors exhibited by the leaders are intended to improve or to worsen their group members' feelings. This is because behaviors are interpreted through the lens of the motives that underlie them (Ajzen & Fishbein, 1977). The same behavior might be enacted with very different motives (e.g., a leader might compliment a group member as a genuine effort to bolster the group member's confidence or as an

attempt to 'butter them up' in order to prompt the group member to take on an undesirable task) and thus may be interpreted in highly divergent ways. As such, for example, we expect leader egocentric motives for interpersonal emotion regulation to be negatively associated with LMX even when leaders enact behaviors intended to improve group members' feelings, as group members will draw negative inferences about the intentions that underlie those actions (Van Kleef, 2009).

The original sample invited to participate in the study comprised 3797 employees who were part of 136 groups, out of which 1915 group members and 110 leaders actually responded to the surveys. This leads to response rates of 50.4% for group members and 80.9% for group leaders. After data from group members and leaders' surveys were matched, the final sample consisted of 1482 group members nested in 99 groups, with usable responses from all 99 leaders. The average group size was 14.96 members (*SD* = 12.41), representing a mean within-group response rate of 53% (with within-group response rates ranging between 15% and 100%). Forty-five percent of participants were female, their average age was 42.3 years (*SD* = 11.06), and their average organizational tenure was 9.74 years (*SD* = 11.11). The education level of participants, including group members and group leaders, was 5.1% high school, 32.6% technical degree, 62.1% undergraduate degree and 0.1% postgraduate degree, while their job role was 11.9% administrative, 31.7% technical, 53.7% professional staff and 2.2% managerial. The average group size was 14.89 members (*SD* = 12.41).

Measures[1]

Leader motives to regulate followers' emotions. We used three items from a scale developed by Niven and colleagues (2019) to capture leader egocentric interpersonal emotion

[1] All measures in our study were translated from English into Spanish. The English version of the scales are presented in Appendix 1.

regulation motives and developed a complementary three-item measure of prosocial interpersonal emotion regulation motives, based on the theoretical work of Niven (2016) on interpersonal emotion regulation motives. Both scales asked group leaders to rate the extent to which they agreed with a series of statements describing the reasons why they regulate the emotions of their group members. Items examples are 'to help achieve my own goals' (egocentric interpersonal emotion regulation motives, $\alpha = .77$) and 'to boost the group members' morale' (prosocial interpersonal emotion regulation motives, $\alpha = .86$) (1: *strongly disagree* – 5: *strongly agree*). In order to ensure the validity of these measures, which had not yet been subjected to rigorous psychometric evaluation, we conducted a pilot study. The full details of this pilot are reported in Appendix 2. In brief, the pilot, which involved an independent sample of 123 participants who held leadership/management positions, showed good evidence for the proposed two-factor structure of the measures, evidence of discriminant and convergent validity in relation to theoretically similar constructs (e.g., general prosocial motivation, narcissism), and evidence of criterion-related validity.

Group leader-member exchange (LMX). We used an adapted version of the seven-item leader-member exchange measure (LMX-7) developed by Graen & Uhl-Bien (1995) to capture group members' perceptions of the quality of their relationship with their leader. Followers were asked to rate their agreement with a series of statements related to the quality of the relationship with their leaders. Sample items included "I have a good working relationship with my leader" and "My leader understands my problems and needs" ($\alpha = .89$). Following Liden, Wayne and Stilwell (1993), items were slightly reworded to accommodate a 5-point Likert scale ranging from 1: *strongly disagree* – 5: *strongly agree*.

As explained earlier, while the theory originally referred to LMX within leader-member dyads, there is agreement that LMX can also operate at different levels of analysis, such that the common component of the construct across levels is the degree of relationship

quality between the leader and followers (Martin et al., 2018). In line with previous research which has explored the relationship between LMX and group-level phenomena (Boies & Howell, 2006; Seo & Lee, 2017; Zhao, Wu, & Gu, 2020), we adopted a group-level approach to LMX because our focus of interest is on the interpersonal processes in the context of groups and on predicting leader effectiveness, which is a group-level construct. Thus, we aggregated individual group members' responses to the LMX scale in order to capture the shared perceptions of social exchange quality among group members.

***Leader effectiveness*.** This was measured with a five-item scale developed for this study, based on the meta-analytic review of DeRue et al. (2011). We developed items to capture the three ways in which DeRue and colleagues argue that leadership effectiveness can be judged (i.e., based on task criteria, relational criteria, and overall effectiveness judgements). Leaders were asked to think about themselves and indicate to what extent they satisfy a series of effectiveness statements. Statement examples are "in relation to meeting standards for job performance" and "in relation to being effective in managing the group members" (1: I do not fulfil it – 5: I fulfil it much more than expected) ($\alpha = .83$).[2]

[2] In recognition of the fact that we developed a new measure and that self-reports of effectiveness could be subject to biases such as social desirability, we also included a corresponding version of this measure in group members' surveys, where we asked them to report their perceptions of their leader's effectiveness using the same items. Supporting the validity of our self-report measure, the two versions of the measure were significantly correlated ($r = .23$, $p < .01$). Repeating our core study analysis with the group member version of the leader effectiveness scale produced the same pattern of findings, but with larger effect sizes, likely inflated due to the common source used to report on both LMX and leader effectiveness in these models.

Covariates. Leader interpersonal emotion regulation behavior was used as a control variable to examine whether leader interpersonal emotion regulation motives exerted an effect over and above the behaviors that they actually perform to regulate followers' emotions. This variable was measured using the 9-item scale of Niven, Totterdell, Stride, and Holman (2011) to capture interpersonal emotion regulation, adapted to specifically refer to leaders in the context of groups. The scale asked group leaders to rate the extent to which they perform a series of interpersonal emotion regulation behaviors, such as "discussing group members' positive characteristics to try to improve how they feel" (affect-improving interpersonal regulation, six items, $\alpha = .80$) and "telling group members about their shortcomings to try to make them feel worse" (affect-worsening interpersonal regulation, three items, $\alpha = .64$) (1: *not at all* – 5: *a great extent*). Group members also reported their leader-member relationship tenure, using the single item "How long have you been working with your current leader?" (1: *less than one year* – 5: *more than four years*), together with the interaction frequency with their leaders, utilizing the single item "how frequently do you interact with your leader?" (1: *almost never* – 5: *everyday*). We included these variables on the assumption that LMX might have stronger effects on followers if leaders and members have a longer interaction history or if they interact more often. Finally, we used group size as control variable, because a larger number of group members might lead to a reduced quality of relationship between leaders and each of their followers.

Analytical Strategy

We conducted a three-step strategy to analyze the data collected. First, inter-rater reliability and agreement analysis was conducted with ratings of LMX, because we used group member ratings for this construct. These should be composed at the group-level of analysis to capture the common perception of LMX within groups, using a direct consensus composition model (Chan, 1998). Thus, we estimated intraclass correlation ICC(1), average

deviation (AD), and rwg (M. J. Burke & Dunlap, 2002; Lebreton & Senter, 2008). ICC(1) indicates the proportion of variance in ratings attributable to between-group differences compared with the total variance in the same ratings (Lebreton & Senter, 2008). Thus, ICC(1) denotes the effect size of the extent to which group members' ratings about LMX were attributable to their group membership. ICC(1) values over .12 indicate a substantive level of non-independence of ratings relative to group membership (cf. Bliese, 2000). Average deviation and rwg inform whether scores given by group members are interchangeable or equivalent in terms of their absolute value. Thus, AD and rwg are used to determine the degree of agreement among multiple group members' ratings for their relationship with their leaders (e.g., LMX). For 5-point Likert scales, as used here, values below .80 for AD and values higher than .70 for rwg indicate substantive inter-rater agreement.

Second, a series of confirmatory factor analyses (Brown, 2006) were conducted to determine of the robustness of the measurement model underlying the hypotheses stated. These were performed at the group-level of analysis, using the sample of 99 groups, with a model comprising the ratings of prosocial and egocentric interpersonal emotion regulation motives, group LMX and leader effectiveness. In addition, a four-factor model described by leader prosocial and egocentric interpersonal emotion regulation motives and leader affect-improving and affect-worsening interpersonal emotion regulation was tested, to determine whether emotion regulation motives and behavior are different constructs. This analysis was a condition to interpret if emotion regulation motives exert an incremental effect over and above emotion regulation behavior.

Third, hypothesis testing was performed using path analyses with PROCESS (Hayes, 2013), which is a statistical tool that allows examination of multivariate models such as mediation, moderation and moderated-mediation, using robust estimation based on bootstrapping techniques. In the case of the moderated mediation model, described by

prosocial and egocentric interpersonal emotion regulation motives relative to group LMX and leader effectiveness, we adopted the conditional indirect model proposed by (Preacher et al., 2007).

Results

Inter-rater reliability and agreement analysis showed that ratings of group LMX were moderately dependent on group membership and that group members showed moderate agreement in these ratings about their leaders, ICC(1) = .05; AD = .84, rwg = .72. These results were slightly below and above, respectively, of the standard cutoffs for those statistics; however, they were acceptable for aggregating LMX ratings at the group level, considering that this construct is defined with both individual and group meaning (Schyns & Day, 2010).

Results of confirmatory factor analysis with the model comprising leader prosocial and egocentric interpersonal emotion regulation motives to regulate followers' emotions, together with group LMX and leader effectiveness showed acceptable goodness-of-fit, χ^2 = 217.90, *df* (146), RMSEA = .07, CFI = .92, TLI = .91. However, modification indices showed a correlation between residuals for two items from the group LMX scale. Thus, because they involved a similar meaning, these items were allowed to freely covary, which produced a model with improved goodness-of-fit, χ^2 = 190.46, *df* (145), RMSEA = .06, CFI = .95, TLI = .94; $\Delta\chi^2(df)$ = 25.44(1), $p < .01$. The fit of this model was superior to an alternative three-factor model in which leader prosocial and egoistic interpersonal emotion regulation motives were combined in a single factor, χ^2 = 221.28, *df* (86), RMSEA = .12, CFI = .75, TLI = .68, $\Delta\chi^2$ = 109.78 (3), $p < .05$. Also, results supported the four-factor model described by leader interpersonal emotion regulation motives and behavior, such that they were supported as different constructs, χ^2 = 111.50, *df* (83), RMSEA = .06, CFI = .95, TLI = .93. Taking the

above together, the robustness of the measurement model involved in hypothesis testing was supported.

Table 1 summarizes the means, standard deviations, correlations and reliabilities of the study variables.

[INSERT TABLE 1 AROUND HERE]

Hypothesis 1 stated that leader egocentric interpersonal emotion regulation motives would be negatively related to leader effectiveness through group members' perceptions of group LMX, such that egocentric interpersonal emotion regulation motives would be negatively related to group LMX, which in turn would be positively related to leader effectiveness. Results showed that leader egocentric interpersonal emotion regulation motives were negatively related to group LMX, b = -.23, SE = .09, $p < .05$, which in turn was positively related to leader effectiveness, b = .32, SE = .14, $p < .05$. In addition, results showed a negative indirect effect between egocentric interpersonal emotion regulation motives and leader effectiveness by means of group LMX, b = -.07, $p < .05$, Bootstrap (1000) CI95% [-.22, -.01]. Thus, Hypothesis 1 was supported.

Hypothesis 2 stated that leader prosocial interpersonal emotion regulation motives would be positively related to leader effectiveness through group members' perceptions of group LMX, such that prosocial interpersonal emotion regulation motives would be positively related to group LMX, which in turn would be positively related to leader effectiveness. Results of path analysis (Table 2, Model 1) showed that leader prosocial interpersonal emotion regulation motives were not related to group LMX, b = .08, SE = .07, $p > .05$, but group LMX was positively related to leader effectiveness, b = .32, SE = .14, $p < .05$. Because the effect between prosocial interpersonal emotion regulation motives and group LMX was not supported, Hypothesis 2 was not supported.

Hypothesis 3 stated that leader prosocial interpersonal emotion regulation motives would moderate the negative mediation between leader egocentric interpersonal emotion regulation motives, group members' perceptions of group LMX, and leader effectiveness, such that this mediation would be weaker when leader prosocial interpersonal emotion regulation motives are high. Results of a conditional indirect analysis (moderated mediation, Table 2, Model 2) showed that the interaction term between leader egocentric and prosocial interpersonal emotion regulation motives was positively related to group LMX, $b = .37$, $SE = .19$, $p < .05$, such that egocentric motives were negatively related to group LMX when prosocial motives were low (-1 SD of the mean), $b = -.23$, $SE = .09$, $p < .01$, but the same variables were not related when prosocial motives were high (+1 SD), $b = .09$, $SE = .15$, $p > .05$. Also, the indirect effect between egocentric interpersonal emotion regulation motives and leader effectiveness through group LMX was negative when prosocial interpersonal emotion regulation motives were low, $b = -.13$, $p < .05$, Bootstrap (10000) CI95% [-.37, -.01] but there was no indirect effect when prosocial interpersonal emotion regulation motives were high, $b = -.01$, $p > .05$, Bootstrap (1000) CI95% [-.11, .05]. Figure 2 depicts the interaction effect between leader interpersonal emotion regulation motives and group LMX. Therefore, Hypothesis 3 was supported. The full moderated mediation model is presented in Figure 3.

[INSERT TABLE 2, FIGURE 2 AND 3 AROUND HERE]

Discussion

In this study, we have argued for and supported the view that leader interpersonal emotion regulation motives are associated with the quality of the relationship between leaders and their followers in groups and, thereby, with leader effectiveness. Specifically, leader egocentric interpersonal emotion regulation motives are associated with poorer collective perceptions of LMX from the viewpoint of group members. These in turn are positively

related to appraisals on the part of leaders about their own effectiveness. In contrast, and contrary to our expectations, leader prosocial interpersonal emotion regulation motives were not associated with group LMX. However, leader prosocial interpersonal emotion regulation motives did buffer the negative effects of leader egocentric interpersonal emotion regulation motives on group LMX, such that when prosocial interpersonal emotion regulation motives are low, the negative effects of egocentric interpersonal emotion regulation motives remain, but they disappear when prosocial interpersonal emotion regulation motives are high.

These results support the proposal that in addition to the interpersonal emotion regulation strategies utilized by leaders, such as improving or worsening group members' emotions, the motives underlying the regulation behaviors supplement the explanation of relational processes within groups (Niven, 2016; Niven et al., 2009). The influence of interpersonal emotion regulation motives on the quality of the relationship between leaders and group members as perceived by the latter is argued to be due to the information provided by the motivation embedded in leader behavior (López-Pérez et al., 2017; Netzer et al., 2015; Van Kleef et al., 2012; van Knippenberg & van Kleef, 2016). In this sense, we argued that group members make inferences about the intentions behind the leader's interpersonal behavior (Siem & Stürmer, 2018). Specifically, leader egocentric interpersonal emotion regulation motives taint the relationship quality within groups because members may perceive that leaders seek to benefit themselves by regulating their emotions. Thus, they may attribute such actions to manipulative intentions on the part of the leader, which leads to the perception of exchanges as being transactional in nature. Conversely, we hypothesized a positive relationship between leader prosocial interpersonal emotion regulation motives and group LMX, because these motives may prompt group members to infer sincere, kind and reciprocal intentions of leaders. However, the study's results challenged this assertion.

A possible explanation as to why we did not find the expected positive relationship between prosocial interpersonal emotion regulation motives and group LMX is that individuals may be more accurate at detecting self-serving (i.e., egocentric) motives in others than they are at detecting prosocial motives (Maki et al., 1979). The positive correlation between leader prosocial interpersonal emotion regulation motives and affect-improving strategies may support this assumption; it is potentially indicative of a difficulty in followers in understanding that sometimes affect-worsening strategies can be motivated by prosocial motives (i.e., leaders can genuinely be 'cruel to be kind'). Therefore, the perception of leader interpersonal emotion regulation motives by followers may not always be independent of the interpersonal emotion regulation strategy used, and group members might not always correctly attribute a leader's behavior to prosociality.

In the case of the buffering effect of prosocial interpersonal emotion regulation motives over the negative effect of egocentric interpersonal emotion regulation motives on group LMX, our findings suggest that group members may perceive that even when leaders are acting in the service of their own interests, they might sometimes be simultaneously acting to benefit the group, leading to a win-win situation. This is in line with previous research on motives for helping behavior (Batson, 1987), which has highlighted the possibility that individuals' behavior might be motivated by egoistic and altruistic motives at the same time. Our finding of a moderation effect highlights that egocentric and prosocial interpersonal emotion regulation motives are not opposite ends of the same continuum, but two independent psychological functions that interact to motivate leader behavior. Therefore, taking the above together, this study contributes to the expansion of theory on interpersonal emotion regulation and its application to the leaders' influence on relational processes in the organizational setting.

Another contribution of this study concerns the description of the relationship between leaders' interpersonal emotion regulation motives and their effectiveness as leaders, explained by the quality of their relationships with the group members. As part of the role of leaders, individuals should attain high standards relative to the results expected. Here, we have supported the view that motives for regulating group members' emotions could aid or impede such effectiveness, because the decreased group-level quality of the relationship derived from egocentric interpersonal emotion regulation motives reduces self-appraisals of leaders' effectiveness. In contrast, prosocial interpersonal emotion regulation motives attenuate these negative effects. Thus, interpersonal emotion regulation motives emerge as an additional driver of leader effectiveness over other variables identified in previous research, such as leaders' personality traits and leadership behavior (Derue et al., 2011).

In terms of practical implications, the knowledge developed here can be linked to intervention strategies for leadership development in the context of groups. Organizational practitioners should bear in mind that curbing leader egocentric motives and encouraging prosocial motives linked to interpersonal emotion regulation is likely to be beneficial for both the quality of the social exchange with group members and leader effectiveness. Such intervention can be implemented by means of training or coaching programs, in which leaders work on the awareness of their - often implicit - intentions to act in the group context, especially when they manage the emotions of group members. Additionally, as individuals' motives potentially represent more stable traits (see for example, Cropanzano and Citera, 1993), organizations could integrate into their selection processes (both for hiring and for promotion) an assessment of their general tendencies towards prosocial and egocentric motivation.

Limitations and Future Directions

Limitations of the present study include the use of a cross-sectional design, meaning that the direction of causality between the variables examined can only be theoretically inferred. It might be, for example, that leaders who see themselves as more effective, strategically build better quality relationships with their group members, and that in lower quality leader-follower relationships leaders are more egocentrically motivated than in higher quality relationships. These reverse effects were actually observed when examining alternative models in which leader effectiveness was used as a predictor of group LMX, due to the cross-sectional nature of the data, which means that reverse models are statistically equivalent. Furthermore, even though we used a multisource strategy when collecting data for the study in order to help control for possible biases linked to common method variance, these issues could still be present in the statistical estimations due to the cross-sectional design of the study (Podsakoff et al., 2012). Thus, future research based on objective data, along with experimental and longitudinal methods will be informative regarding the robustness of the results observed here. For example, further studies could include objective measures or upper management ratings of leader effectiveness. Likewise, pre-post experimental designs could be utilized to establish if there are changes in group LMX after an intervention manipulating leaders' motives for regulating others' emotions. Furthermore, longitudinal studies will be informative as to the direction of causal relationship direction between interpersonal emotion regulation motives and leadership variables, such as those studied here.

Another possible limitation in the current study was the use of a sample with work groups with intra-group response rates lesser than 50%, which might introduce biases in the statistical estimations linked to attenuation of correlations, due to distortions in standard errors (Hartnell, Kinicki, Lambert, Fugate, & Corner, 2016; Kauppila, 2016; Timmerman, 2005). The criteria to establish the proportion of this possible bias in group research is a

matter of debate (Nesterkin & Ganster, 2015); thus, we use a basic heuristic to address these issues in our data by repeating our analyses using only the sample of groups whose response rates were equal or above 50% ($N = 60$). The results for the full model tested in the study were virtually the same in terms of the regression coefficient magnitudes and directions, but the interaction effect between leader interpersonal emotion regulation motives on group LMX became statistically non-significant. These results were expected given that detection of interaction effects is demanding in terms of statistical power (Dawson, 2014), which is likely not enough with the sample of groups examined here. Thus, further research based on samples in which all groups have moderate to high response rates (>50%), will be necessary to determine how robust are the results obtained in this study.

Furthermore, the aggregation of LMX ratings around group-level averages, assuming a direct consensus composition model (Chan, 1998), might be a limitation of the study as well. This conceptual understanding of the quality of the relationship between leaders and group members denotes that the social exchange within groups is a shared reality among group members. However, as already noted, LMX researchers increasingly recognize the likelihood of differentiation in LMX within groups and that different configurations of differentiation can have implications for group outcomes, such as leader effectiveness (e.g., Li & Liao, 2014). We did not use this approach in the present study because our research problem centered around whether interpersonal emotion regulation motives influence interpersonal outcomes and leader effectiveness in the context of groups as a whole. However, we acknowledge that future studies using, for example, multilevel methods will be informative regarding whether leader interpersonal emotion regulation motives act as dyadic processes between leaders and each of their group members (Kenny, Kashy, & Cook, 2006), thus influencing, for example, LMX differentiation.

Moreover, we argued that leaders' emotion regulation motives shapes group LMX, due to group's member inferences about the causes of leader behavior, expressed in, for example, manipulative or sincere intentions. However, the role of these inferential processes was only theoretically elaborated but not empirically tested in our study. Previous research on affective processes involved in social interactions gives credence to our proposals (Van Kleef et al., 2012; van Knippenberg & van Kleef, 2016); however, additional studies explicitly capturing group members' perceptions of leaders' intentions will be helpful to have a more comprehensive understanding of the psychological processes evoked here.

A further avenue for future research will be to consider the use of episodic study designs, such as event sampling, in order to capture interpersonal emotion regulation motives as and when they occur. Interpersonal emotion regulation is by nature episodic in the sense that attempts to manage others' feelings can be considered discrete episodes. An underlying assumption in the present research is that leaders' motives for interpersonal emotion regulation towards their group members are likely to be stable not only across interaction partners, as discussed above, but across episodes. However, there may well be variation between episodes (e.g., a leader might be more egocentrically motivated towards interpersonal emotion regulation when they are under higher stress or subject to higher performance goals from senior management), and this would be informative to capture in future studies.

To sum up, this study has aimed to build new knowledge relating to how leader interpersonal emotion regulation works in the context of groups, showing that we should pay attention to regulation's motives in order to gain a more complete understanding of leaders' affective influences on relational outcomes and their effectiveness. We trust that the findings obtained here will inform future research and practice to foster leadership and group development.

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Table 1.

Means, standard deviations, correlations and reliabilities

Variable	M	SD	1	2	3	4	5	6	7	8	9
1. Leader-follower interaction frequency	–	–	–								
2. Group size	14.96	12.41	-.13	–							
3. Leader-member tenure	–	–	.05	-.15	–						
4. Leader affect-improving regulation	4.10	0.50	.10	.10	- .10	**(.80)**					
5. Leader affect-worsening regulation	2.13	0.72	-.21*	-.02	.13	.03	**(.64)**				
6. Leader prosocial IER motives	4.46	0.52	.08	.02	-.10	.45**	-.04	**(.86)**			
7. Leader egocentric IER motives	2.75	0.34	-.10	.04	.18	-.10	.05	-.03	**(.77)**		
8. Group LMX	3.47	0.34	.25*	-.21*	-.10	.25*	.07	.22*	-.29**	**(.89)**	
9. Leader effectiveness	3.80	0.48	.09	.11	.04	.49**	-.06	.32**	-.15	.30**	**(.83)**

N = 99. Reliabilities are in bold and displayed in parentheses on the diagonal. * p <.05. ** p <.01. IER = interpersonal emotion regulation.

Table 2.

Mediation and moderated-mediation

Variable	Model 1: Mediation		Model 2: Mod-Mediation	
	Group LMX	**Leader Effectiveness**	**Group LMX**	**Leader Effectiveness**
Intercept	2.68 (.53)**	.99 (.82)	2.48 (.44)**	.76 (.69)
Direct effects				
Interaction frequency	.16 (.07)*	-.04 (.10)	.14 (.07)	-.01 (.11)
Group size	-.01 (.00)*	.01 (.00)	-.01 (.00)*	.01 (.00)
Leader-member tenure	-.04 (.04)	.09 (.05)	-.04 (.04)	.10 (.05)
Improving IER	.11 (.07)	.38 (.10)**	.11 (.07)	.43 (.09)**
Worsening IER	.06 (.04)	-.07 (.06)	.06 (.04)	-.08 (.06)
Prosocial IER motives	.08 (.07)	.10 (.09)	.09 (.07)	
Egocentric IER motives	-.23 (.09)*	-.11 (.13)	-.23 (.09)*	-.17 (.14)
Group LMX		.32 (.14)*		.32 (.15)*
Indirect effect [Bootstrap = 10000]				
Prosocial IER motives	.03 [-.01, .10]			
Egocentric IER motives	-.07 [-.22, -.01]*			
F (df1, df2)	4.26 (7, 91)	5.45 (8, 90)		
R^2 Model	.25**	.33**		
Interactive term				
Egocentric x Prosocial IER motives			.37 (.19)*	
Simple slope test (-1SD, +1SD)			(-.23**, .09)	
Conditional indirect effect (-1SD; +1SD) [Bootstrap = 10000]			-.13[-.37, -.01]*; -.01[-.11, .05]	
F (df1, df2)			4.36 (8, 90)	6.14 (7, 91)
R^2 Model			.28**	.32**

N = 99. Unstandardized estimates. * p <.05. ** p <.01. IER = interpersonal emotion regulation.

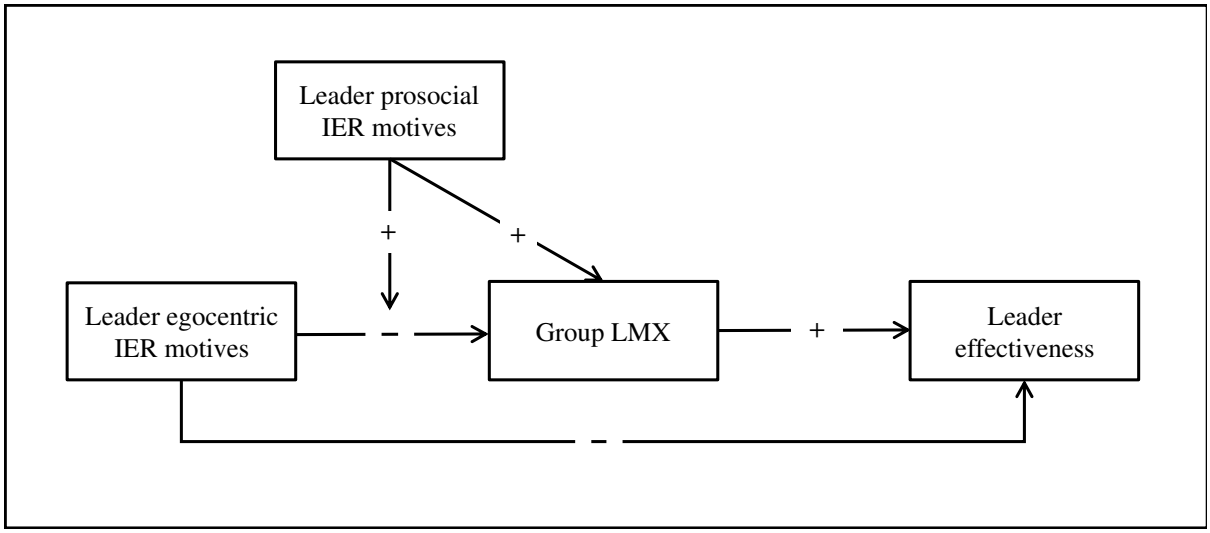

Figure 1. Model for leader prosocial and egocentric interpersonal emotion regulation (IER) motives, group leader-member exchange (LMX) and leader effectiveness.

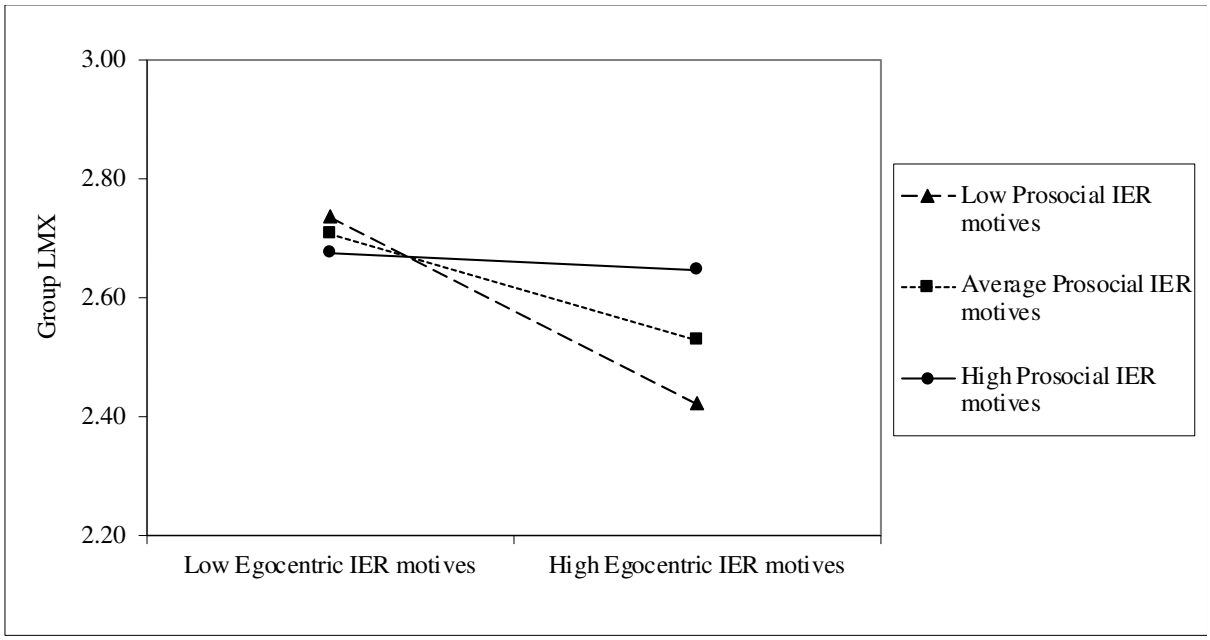

Figure 2. Leader prosocial and egocentric interpersonal emotion regulation (IER) motives on group leader-member exchange (LMX).

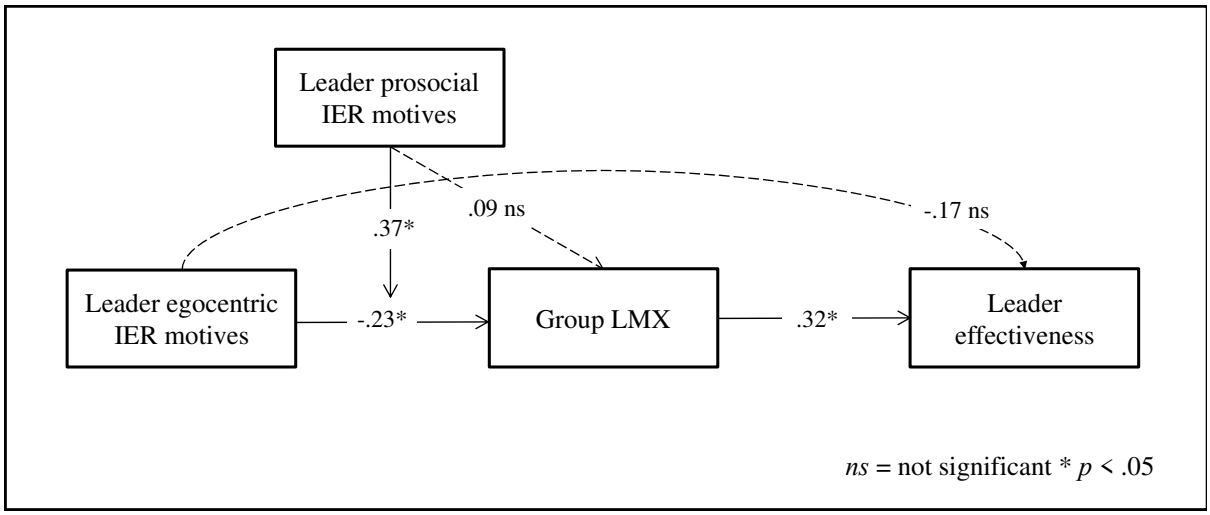

Figure 3. Path analysis model for leader prosocial and egocentric interpersonal emotion regulation (IER) motives, group leader-member exchange (LMX) and leader effectiveness.

Appendix 1:

Scales Used in the Main Study

Leader motives to regulate followers' emotions

To what extent do you agree with the following statements? When I manage emotions during interactions with my employees, I do it… (1: Strongly disagree – 5: Strongly agree)

Prosocial interpersonal emotion regulation motives

1. … to boost the group members' morale
2. … to the group benefit
3. … to build cohesion in the group

Egocentric interpersonal emotion regulation motives

1. … to benefit myself
2. … to help achieve my own goals
3. … to feel better

Leader-member exchange (LMX)

To what extent do you agree with the following statements regarding your relationship with your leader? (1: Strongly disagree – 5: Strongly agree)

1. I usually know where I stand with my leader
2. My leader understands my problems and needs
3. My leader recognizes my potential
4. Regardless of how much power he/she has built into his/her position, my leader would be personally inclined to use his/her power to help me solve problems in my work
5. I can count on my leader to "bail me out," even at his or her own expense, when I really need it
6. My leader has enough confidence in me that he/she would defend and justify my decisions if I were not present to do so
7. I have a good working relationship with my leader

Leader effectiveness

Think about you and indicate to what extent do you fulfil the following work criteria in your group (1: I do not fulfil it – 5: I fulfil it much more than expected).

1. In relation to meeting standards for job performance…

2. In relation to achieving in getting things done…
3. In relation to achieving the tasks assigned…
4. In relation to being effective in managing the group members…
5. In relation to bringing out the best of the group members…

Leader interpersonal emotion regulation

To what extent do you use the following strategies to influence the way your group members feel? (1: Not at all – 5: A great extent)

Improving

1. Discussing group members' positive characteristics to try to improve how they feel
2. Doing something nice with group members to try to make them feel better
3. Making group members laugh to try to make them feel better
4. Listening to group members' problems to try to improve how they feel
5. Giving group members' helpful advice to try to improve how they feel
6. Spending time with group members to try to improve how they feel

Worsening

1. Telling group members about their shortcomings to try to make them feel worse
2. Acting annoyed towards group members to try to make them feel worse
3. Explaining to group members how they have hurt myself or others, to try to make the person feel worse

Appendix 2:

Pilot Study

Overview. In this pilot study, we sought to test the validity of the measures assessing motives for interpersonal emotion regulation which we used in the main study. A total of six items were used in the new measures, with three capturing egocentric motives and three capturing prosocial motives. In particular, we examined the proposed two-factor structure of the measure (using confirmatory factor analysis), the convergent and discriminant validity of the factors in relation to theoretically similar constructs (using confirmatory factor analysis and correlation analysis), and the criterion-related validity (using regression analysis).

With regards to constructs related to leader prosocial interpersonal emotion regulation motives, because these motives represent a specific form of prosocial motivation, this construct should be correlated with, albeit not the same as, a general measure of prosocial motives. That is, people who are generally motivated by helping others ought to be more likely to be motivated to manage others' feelings in order to benefit others. We also expected leader prosocial interpersonal emotion regulation motives to be positively related to leader agreeableness. Agreeableness represents an interpersonal personality trait characterized by being warm, friendly and positive to others, and thus is expected to be positively related to prosocial tendencies in one's interpersonal emotion regulation motives. Concerning constructs related to leader egocentric interpersonal emotion regulation motives, because these motives represent intentions to regulate others' emotion for one's own benefit, we expected to observe a positive relationship with narcissism, which is characterized by excessively high self-esteem, self-centered behavior, and relatively low empathy.

In terms of criterion validity, we included a measure of leader support, given the fact that supportive leaders engage in behaviors that assist followers when they need it. Thus, we expected that leader prosocial interpersonal emotion regulation motives would be positively

related to leader support, whereas leader egocentric interpersonal emotion regulation motives would be negatively related to leader support.

Procedure and sample. Participants were employees of diverse Chilean organizations who held leadership/manager positions, recruited from an MBA program offered by a university in Chile. The data were collected using an online survey distributed by email, which included the invitation to participate in the study and an informed consent form with a description of the main research objective, its anonymity conditions, and the voluntary nature of their participation. The final sample consisted of 123 participants, 84% male, with an average age of 37.8 years (*SD* = 7.02) and an average organizational tenure of 7.01 years (*SD* = 5.60). The education level of participants was 1.6% technical studies, 50.8% undergraduate studies, and 47.5% postgraduate studies, while their job role was 62% supervisor and 38% top-level manager.

Measures. As well as capturing the six items intended to measure leader prosocial and egocentric interpersonal emotion regulation motives (as detailed in our main study), we included measures of general prosocial motivation, narcissism, agreeableness, and supervisor support.

General prosocial motivation was measured with a four-item version of a measure developed by Grant (2008). Leaders were asked to rate their agreement with a series of statements related to their motivation at work. Sample items included “Because I want to help others through my work” (α = .79) (1: *strongly disagree* – 5: *strongly agree*).

Narcissism was measured with a six-item version of a measure developed by Sherman et al. (2015), including items from the acclaim-seeking, entitlement and exploitativeness subscales. Leaders were asked to rate their agreement with a series of statements. These particular subscales were selected because they strongly represent the egocentric dimension

of narcissism. Sample items included "I deserve to receive special treatment" (α = .72) (1: *strongly disagree* – 5: *strongly agree*).

Agreeableness was measured with a four-item version of a measure developed by Benet-Martinez and John (1998). Leaders were asked to rate their agreement with a series of statements. Sample item included "Is helpful and unselfish with others" (α = .69) (1: *strongly disagree* – 5: *strongly agree*).

Leader support was measured with a four-item version of a measure developed by Greenhaus, Parasuraman and Wormley (1990) to measure supervisor support. Leaders were asked to rate their agreement with a series of statements related to the support they provide to their group members. Sample items included "I care about whether or not workers achieve their goals" (α = .74) (1: *strongly disagree* – 5: *strongly agree*).

Data analysis. We first examined whether the six items of the new measure of interpersonal emotion regulation motives conformed to the expected two-factor structure. Confirmatory factor analysis for a two-factor model with items specified to load onto two independent factors representing egocentric and prosocial motives showed excellent goodness-of-fit, $\chi^2 = 16.09$, *df* (8), RMSEA = .09, CFI = .96, TLI = .93. The fit of the proposed two-factor model was superior to a single-factor model, $\chi^2 = 138.75$, *df* (9), RMSEA = .34, CFI = .43, TLI = .40, $\Delta\chi^2 = 92.88$ (1), $p < .05$. The two-factor solution with the respective factor loadings is depicted in Table 1.

[INSERT TABLE 1 AROUND HERE]

We then conducted a confirmatory factor analysis including all of the other measures that we expected to demonstrate relationships with the new measure, in order to demonstrate discriminant validity. Here, we specified a six-factor model comprising leader prosocial interpersonal emotion regulation motives, leader egocentric interpersonal emotion regulation motives, prosocial motivation, agreeableness, narcissism, and leader support. This model

showed limited goodness-of-fit, $\chi^2 = 317.76$, *df* (237), RMSEA = .05, CFI = .90, TLI = .88. However, modification indices showed residual correlations between two items of the narcissism (item 1 and item 2) scale. Thus, because they involved equivalent meaning, these items were allowed to freely covary, which provided a model with improved and acceptable goodness-of-fit, $\chi^2 = 284.19$, *df* (236), RMSEA = .04, CFI = .94, TLI = .93; $\Delta\chi^2(df) = 33.57$ (1), $p < .01$. This model was significantly better than two plausible alternative solutions. The first alternative was a five-factor model, in which we loaded both measures of prosocial motives in one factor, in addition to leader egocentric interpersonal emotion regulation motives, agreeableness, narcissism, leader support in separate factors, $\chi^2 = 360.90$, *df* (241), RMSEA = .06, CFI = .85, TLI = .82, $\Delta\chi2(5) = 76.71$, $p < .01$. The second alternative corresponds to a two-factor solution, which loaded all positively valence measures (i.e., leader prosocial interpersonal emotion regulation motives, prosocial motivation, agreeableness, and leader support) and all negatively valence measures (i.e., leader egocentric interpersonal emotion regulation motives and narcissism) in two independent factors, $\chi^2 = 567.64$, *df* (250), RMSEA = .10, CFI = .60, TLI = .55; $\Delta\chi2(14) = 283.45$, $p < .01$. These results supported the independence of the scales and the robustness of the measurement model.

Table 2 shows means, standard deviations, reliability, Cronbach's α and zero-order correlations for all study variables. Almost all direct correlations are statistically significant, and the values are in the expected direction. For example, leader prosocial interpersonal emotion regulation motives are positively related to prosocial motivation, $r = .35$, $p < .01$, and agreeableness, $r = .23$, $p < .01$. Likewise, leader egocentric interpersonal emotion regulation motives are positively related to narcissism, $r = .27$, $p < .01$, and not related to agreeableness, $r = .07$, $p > .05$. In addition, the correlation between leader prosocial interpersonal emotion regulation motives and leader egocentric interpersonal emotion regulation motives was

negative and non-significant, following the same pattern as the main study. However, contrary to our expectations, leader egocentric interpersonal emotion regulation motives were positively related to general prosocial motivation, $r = .19$, $p < .05$. This highlights the fact that people who hold highly prosocial motives may or not display egocentric motives, supporting the distinction between the constructs. The overall pattern of findings is largely supportive of the convergent validity of the measures relative to theoretically similar constructs.

[INSERT TABLE 2 AROUND HERE]

We then conducted regression analysis, in which both leader motives to regulate followers' emotions subscales (egocentric and prosocial) were entered as predictors of the outcome variable of leader support, in order to establish whether leader interpersonal emotion regulation motives would predict leader behavior, as a test of criterion-related validity. In this analysis (Table 3), leader prosocial interpersonal emotion regulation motives were significantly related to leader support, $b = .31$, $p < .05$, but the effect of leader egocentric interpersonal emotion regulation motives was non-significant, $b = .01$, $p > .05$.

[INSERT TABLE 3 AROUND HERE]

Conclusion. Taken together, these results provide evidence for the expected factor structure and the convergent and discriminant validity of the interpersonal emotion regulation motives measures utilized in our study. In terms of convergent validity, leader prosocial interpersonal emotion regulation motives were positively related to a general measure of prosocial motivation and showed stronger associations with this construct in comparison to leader egocentric interpersonal emotion regulation motives. Leader prosocial interpersonal emotion regulation motives were also positively related to leader agreeableness, while leader egocentric interpersonal emotion regulation motives were positively related to a general measure of narcissism. Regarding discriminant validity, all effect sizes were moderate, and

the confirmatory factor analysis supported the view that the measures were factorially distinct from related constructs. Finally, regression analysis provided support for criterion validity, because leader prosocial interpersonal emotion regulation motives predicted leader support behavior.

Table 1.

Confirmatory factor analysis for leaders' interpersonal emotion regulation motives measures

Items	**Factors**	
	1	2
Leader egocentric IER motives		
...to benefit myself	0.65	
...to help achieve my own goals	0.83	
...to feel better	0.68	
Leader prosocial IER motives		
...to boost the team members' morale		0.87
...to the team benefit		0.88
...to build cohesion in the team		0.43

Note: N = 123. Goodness-of-fit, χ^2 = 16.09, *df* (8), RMSEA = .09, CFI = .96, TLI = .93.

IER = interpersonal emotion regulation.

Table 2.

Means, standard deviations, correlations and reliabilities

Variable	**M**	**SD**	**1**	**2**	**3**	**4**	**5**	**6**
1. Leader prosocial IER motives	4.30	.52	**(.76)**					
2. Leader egocentric IER motives	3.00	.92	-.09	**(.75)**				
3. Prosocial motivation	4.35	.54	.35**	.19*	**(.79)**			
4. Agreeableness	4.22	.5	.23**	.07	.36**	**(.69)**		
5. Narcissism	2.41	.58	-.23**	.27**	-.07	-.19*	**(.72)**	
6. Leader support	4.25	.55	.29**	-.01	.20*	.09	-.08	**(.74)**

N = 123. Reliabilities are in bold and displayed in parentheses on the diagonal. * p <.05. ** p <.01. IER = interpersonal emotion regulation.

Table 3.

Regression analysis for predictive validity of leaders' interpersonal emotion regulation motives on leader support

Variable	Leader support
Intercept	2.90 (.45)**
Direct effects	
Leader prosocial IER motives	.29 (.09)*
Leader egocentric IER motives	.02 (.05)
F (*df1, df2*)	5.33 (2, 120)
R^2 Model	.08

N = 123. Standardized estimates. * p <.05. ** p <.01. IER = interpersonal emotion regulation.