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Task and person-focused leadership behaviors and team performance: A meta-analysis

Abstract

This paper reports the results of a meta-analytic review of the relationship between person and task-focused leader behaviors, on the one hand, and team performance, on the other hand. The results, based on 89 independent samples, show a moderate positive ($\rho=.33$) association between both types of leadership behaviors and subjective team performance. For objective team performance, the effect sizes are smaller, yet positive ($\rho=.19$ for task-focused leadership behaviors and $\rho=.18$ for person-focused leadership behaviors). Furthermore, with respect to the methodological moderators, the analyses show that the relationships were stronger when leadership behaviors were rated by the leaders themselves, rather than by others, and the association was stronger when the correlations were estimated at the individual level, as opposed to the team level of analysis. Concerning conceptual moderators, team type was identified as a significant moderator, and correlations between a person-focused leadership behavior and team performance were stronger for service and project teams than for action/performing teams. Task interdependence was another moderator tested in our meta-analysis, yet our results show no clear moderating effect of task interdependence on the relationship between leadership behavior and team performance.

Keywords: task-focused leadership, person-focused leadership, meta-analysis, team performance

Task and person-focused leadership behaviors and team performance: A meta-analysis

Leadership is one of the most prolific research areas within the field of organizational behavior, as leadership has important implications for individual, team and organizational performance. The interest in exploring the team level influences of leadership behaviors increased steadily in the last two decades (DeChurch, Hiller, Murase, Doty & Salas, 2010) and empirical research on the effect of leadership behaviors on team outcomes was integrated in narrative reviews (Kozlowski, Chao & Mak, 2016; Morgeson, DeRue, & Karam, 2010) as well as in meta-analytic investigations (Burke, Stagl, Klein, Goodwin, Salas & Halpin, 2006). The main claim of the leadership behavior theories is that leaders' patterns of behaviors or behavioral tendencies influence the followers' actions and team functioning. In a functional perspective, team leaders have to manage personnel resources and the progression towards the task accomplishment in order to foster team performance (Morgeson et al., 2010). In their meta-analysis, Burke and colleagues (2006) show that both person and task-focused leader behaviors are positively related to team performance. The aim of our meta-analysis is to further advance the understanding of the influence of person and task-focused leadership behaviors on team performance.

By conducting this meta-analysis, we intend to extend the insights reported in Burke et al. (2006) in three ways. First, as the empirical literature exploring the team level outcomes of leadership increased after 2005 (DeChurch et al., 2010), we aim to review a substantially larger body of empirical evidence that explores the association between leadership behaviors and team performance. Second, as the project based organization increased in importance (Bakker, 2010) so did the reliance on project teams. Although in general, various types of teams are building blocks in most modern organizations (Hollenbeck, Beersma & Schouten, 2012) with nearly two thirds of the Fortune 500 organizations using some form of teamwork

in their midst (Sivasubramaniam et al., 2002) we intend to take into account team typology as a moderator in our meta-analysis. We argue that different types of teams perform different tasks and that the function of person and task-focused leadership is likely to vary across different types of teams. Therefore, we extend the contributions of Burke et al (2016) by testing the moderating effect of team types and task interdependence (as conceptual moderators) as well as level of analysis and method used to evaluate leadership behaviors (as methodological moderators) in the relationship between leadership behaviors and team performance. Finally, as the meta-analytic framework we use the method presented in Hunter and Schmidt (2015) that allows an estimation of true correlations by correcting for sampling error, unreliability and dichotomization of a criterion variable. We continue by summarizing the conceptual framework for our meta-analysis, namely the integrated model of leadership functions and team performance (Burke et al., 2006). For comparative reasons, we organize our conceptual discussion along the same categorization of leadership behaviors used in the original meta-analysis. We then describe the meta-analytic procedures, the results and we conclude with the discussion of our findings.

Leadership behaviors and team performance

Research on leadership behaviors explores a wealth of behaviors through which leaders influence team dynamics and performance. Using a functional perspective on leadership, Burke et al (2006) argue that specific leadership behaviors can be clustered in two main categories, depending on their target. They can focus on task accomplishment and/or on the team members and their interaction. This categorization into task directed and person directed leadership behaviors is also consistent with previous theoretical analyses of leadership behaviors (Fleishman et al., 1991) and the meta-analytical results reported in Burke and colleagues show that both behaviors are conducive to team performance. A first aim of our paper is to extend the number of papers analyzed and to replicate the findings reported in

Burke et al (2006) using a different meta-analytic approach, namely the procedure described by Hunter and Schmidt (2015).

Reducing relevant leadership behaviors to just two categories, however, could lead to a loss of information. Stewart (2006) claims that one of the purposes of meta-analysis is to determine the extent to which different measures can be grouped together to form a broader construct that has consistent relationships with other variables. However, Hunter and Schmidt (2015) suggest that if the variance across primary studies stays even after the corrections for artifacts, it might be a sign of improper grouping. Based on these views, we first analyzed the two broad categories of leadership behaviors and then examined the criterion and predictor relations for more specific leadership behaviors after correcting for artifacts. In the next sections, we present the specific leadership behaviors, considered in our meta-analysis.

Person-focused leadership behaviors

In line with previous research on leadership behaviors (e.g. Tyssen et al., 2014; Savelsbergh et al., 2015; Burke et al., 2006) we subsumed the following six types of leadership behaviors to the person-focused type: transformational leadership, empowering leadership, consideration, emotionally intelligent leadership, coaching focused leadership and charismatic leadership. The last three leadership behaviors are new additions to the person-focused behaviors analyzed in Burke et al (2006). All these specific leadership behaviors focus on the satisfaction of the social and esteem needs of the individual team members as well as on creating a positive relational climate within the team.

Transformational leaders, transform followers' values, needs and beliefs (Kuhnert et al., 1987) and inspire them to go beyond their own self-interests for the good of the team (Avolio & Bass, 2004) by engaging in behaviors that trigger admiration and respect in their followers (Bass, 1985). Transformational leaders motivate followers to achieve out-of-range goals (Antonakis et al., 2003) by heightening their awareness with the vision they create

(Avolio & Bass, 2004; Den Hartog et al., 1997) and they stimulate the intellectual capacity of followers by motivating them to engage in creative thinking and problem solving (Dionne et al., 2004).

Charismatic leaders, with their personal abilities and personal power, are capable of having profound and extraordinary effects on their followers (Conger & Kanungo, 1987) by using articulation and impression management skills to formulate their visions. They are sensitive to environmental constraints and to follower needs.

Empowering leadership is defined as “sharing power with subordinates and raising their level of autonomy and responsibility” (Lorinkova et al. 2013, p. 573). Accordingly, empowering leaders promote participative management practices by allowing their followers to be involved in the decision-making processes. They encourage them to take on personally challenging demanding tasks, to solve problems and produce innovative ideas and solutions (Dulewicz & Higgs, 2005).

Coaching focused leadership focuses on developing the follower’s capabilities and skills. Coaching focused leaders are supportive and provide non-defensive responses to questions and challenges (Savelsbergh et al., 2015). They invest time and effort in guiding the followers, identify new tasks and roles to develop their competencies, and believe that critical feedback and challenge are important (Dulewicz & Higgs, 2005).

The emotionally intelligent (EI) leader is a person who has an ability to perceive, appraise, express and regulate emotion, both in him/herself and in others (Mayer & Salovey, 1997). Leaders scoring high on EI can sense employees' emotional reactions and are willing to integrate emotional consideration in their leading behavior (Hur et al., 2011).

Consideration refers to the degree to which the leader exhibits a human-relations orientation toward his/her subordinates (Nealey & Blood, 1968, p.415). It involves the degree

of two-way communication and consultation, mutual trust, respect, and warmth a leader exhibits toward his followers (Oh, Kim & Lee, 1991).

Task-focused leadership behaviors

In line with previous research (e.g. Burke et al., 2006; Stoker, 2008; Klein et al., 2011), we have classified the following behaviors as task-focused: initiating behavior, transactional leadership and boundary spanning behavior. Task-focused leadership behaviors aim at increasing the task commitment and task involvement of the individual team members and on defining the task structure (role definition and allocation) and providing the resources necessary for task accomplishment.

Initiating behavior describe the extent to which the leader performs the management functions of planning, organizing, controlling and pressing subordinates for production (Nealey & Blood, 1968, p.415). These functions ultimately serve the purpose of task structuring (Pratt, 1981) and emphasize overt attempts to achieve specific organizational goals (Oh, Kim & Lee, 1991). Leaders adopting such behaviors ensure that members have a clear sense of direction and purpose (Burke et al., 2006) and take control and determine in detail what needs to be done and how it should be done (Savelsbergh et al., 2015).

Transactional behaviors are “those who focus on the motivation of followers through rewards or discipline, clarifying for their followers the kinds of rewards that should be expected for various behaviors” (Goodwin et al., 2001 p.759). This definition refers to the contingent rewarding dimension of transactional leadership. Accordingly, transactional leadership is a process of exchange (Den Hartog et al., 1997) based on the contractual obligations (Antonakis et al., 2003) between the leader and the followers. Transactional leaders also actively seek for deviations from the standard procedures which is referred to as active management by exception in the literature (Den Hartog et al., 1997).

Boundary spanning behaviors are the external activities (Benoliel & Samuel, 2015) involving the management of external relationships, such as coordinating tasks, negotiating resources and goals with stakeholders, scanning for information and ideas, initiating politically focused communication to increase the resources available to the team (Hirst & Mann, 2004).

Given these (more specific types of) leadership behaviors, our second aim is to explore the extent to which these specific types of leadership behaviors have a differentiated effect on team performance.

Conceptual moderators

A final aim of this meta-analysis is to test the moderating role of team type and the degree of task interdependence on the relationship between leadership behaviors and team performance. The degree of task interdependence is a task design feature that describes the extent to which the collective task assigned to a team requires the individual members to interact and depend on their peers (Burke et al., 2006; Saavedra, Earley & Dyne, 1993). In other words, the collective performance of teams with a high level of task interdependence results from a multi-directional work flow, in which the tasks of the individual members are combined and re-combined continuously through interpersonal interactions. The collective performance of teams with pooled tasks combine the individual performances of their members without any requirement for interpersonal interaction (Saavedra et al., 1993). The moderation arguments presented in Burke et al (2006) claim that both categories of leadership behaviors should have a stronger association with team performance in teams with high, rather than low, level of task interdependence. These results point to the fact that under conditions of high task interdependence, both task and person-focused leadership behaviors are necessary conditions for team performance.

Another conceptual moderator refers to the type of team in which the relationship between leadership behaviors and team performance develops. Beyond differences in task interdependence, different types of teams vary in terms of their temporal perspective (project teams versus permanent teams), their stakeholders (production versus service teams) and, as such, the leadership behaviors may have a differential impact on performance in different types of teams.

Methodological Moderators

Our study also examines the roles of two methodological moderators, namely the level of analysis and the measurement method chosen for the leadership behaviors. The level of analysis refers to the unit at which the analyses are conducted (Gully et al., 2002). As organizations consist of multiple levels, the level of analysis issue in organizational studies is commonly discussed and the debate concerning level issues is not new (Klein et al., 1994), but little is known about how it may influence the research findings on the relation between leadership behaviors and team performance. Based on the literature examining the effect of level of analysis that found differential results at each level (Gully et al., 2002; Ostroff and Harrison, 1999; Klein et al., 1994), we expect that the level of analysis moderates the relationship between leadership behaviors and team performance.

The second methodological moderator refers to the measurement method used for the predictor variable. In the primary studies included in this meta-analysis, the measurement method used to assess the leader behavior is either based on self-reports or on external evaluations and these differences are expected to have an effect on the correlation between leader behaviors and team performance. Self-reports are considered to be a source of common method bias, which inflates the covariation between the criterion and predictor (Hülsheger et al., 2009). Hence, it is important to systematically assess the variability on the effect sizes due to differences in the measurement method used (Hülsheger et al., 2009). Due

to possible response biases, such as social desirability, higher correlations can be expected between the team performance and subjective ratings compared to objective ratings.

Method

Literature search

We searched the literature exploring the relationship between the leader behaviors and team performance between 1967 and 2015. In order to identify all potential studies examining this relationship, seven different search strategies were used. First, we searched without any restriction on the publication date, the PsycINFO, EBSCOhost and Web of Science databases. Consistent with Devine and Phillip (2001), the terms *group*, *work group*, and *team* were used interchangeably to refer to the individuals interacting for the purpose of accomplishing one or more shared goals interdependently. The key words used for the computerized search were: “*leader behavior or leadership or leader style or team leadership or group leadership or team leader or group leader or project leader or project leadership*” and “*team performance or team success or team effectiveness or team productivity or group performance or group success or group effectiveness or group productivity or project success or project productivity or project effectiveness*”. Second, a manual search was conducted, using the reference list of every paper that was conceptually relevant for our study. Third, several leading academic journals, such as *Journal of Organizational Behavior*, *Journal of Applied Psychology*, *Organizational Behavior and Human Decision Processes*, *Leadership Quarterly*, *Academy of Management Journal*, *Administrative Science Quarterly*, *International Journal of Project Management* and *Project Management Journal* were searched to find potential studies. Fourth, in order to obtain unpublished studies, a Google Scholar search with the above-mentioned key words was also performed. Fifth, through interlibrary loan and ProQuest Theses and Dissertations database, unpublished theses and dissertations were requested. Sixth,

the annual conference proceedings of Society for Industrial and Organizational Psychology and the Academy of Management annual meeting programs from 2001 to 2015 were explored. Finally, paper requests were sent to the researchers whose studies could not be downloaded from the databases. Approximately 60% of the papers requested were provided by the authors, however, only 40% of them were found to be appropriate for inclusion in this study. All these search efforts resulted in 238 published and unpublished studies.

Rules for inclusion of studies in the meta-analysis

We used several inclusion criteria for the studies that resulted from the initial literature search. First, we selected studies that reported team performance evaluations as dependent variable. Second, studies that reported the correlation between leader behavior and team performance were included. Finally, the studies were excluded, when: a) the dependent variable was individual or organizational performance; b) they were conducted in the virtual office context; c) the sample consisted of sports teams; d) they were conceptual in nature; e) they measured the predictor variable only with one item and f) they had duplicated data and they did not report sufficient information to calculate the effect sizes.

These inclusion criteria resulted in 88 studies (54 of them published in the last ten years) containing 222 effect sizes from 89 independent samples. It should be noted that the present study differs from Burke et al.'s (2006) meta-analysis because it corrects for artifacts, includes various types of person-focused behaviors (i.e. charismatic leadership and emotionally intelligent behaviors and coaching-focused behaviors), includes the studies conducted at the individual level and conducts moderating tests for four moderating variables. Furthermore, some studies included in Burke et al. (2006) were excluded or coded differently in this study, when the research context did not fit the inclusion criteria for our study (e.g. Komaki et al., 1989), when the predictor variable did not directly evaluate leadership behaviors (e.g. Keller, 2001), when the operationalization of the leader behavior was not clear

(e.g. Higgins & Routhieaux, 1999), or when the outcome variable was not a clear indicator of subjective or objective team performance (e.g. Wilson-Evered, 2001).

The measurement method for both criterion and predictor variables were not considered to be a criterion for inclusion. However, the differences in the measurement methods were dealt with in a way that made it possible to examine their effects on the results. On the predictor side, leader behaviors were rated by leaders themselves (*considered as subjective ratings*) or others (*considered as objective ratings*), such as team members, non-team members, observers, or in a few cases, by multiple parties. In order to assess if the subjective or objective ratings affect the results, the method used to evaluate the predictor was coded and analyzed as a potential moderator in the study.

On the criterion side, we considered objective team performance measures (consist of indicators, such as speed of development, sales per day or objective performance scores obtained in simulations) and subjective team performance measures (are based on the assessments conducted by the team leader, team members, outsiders, and project stakeholders). Both performance indicators were treated separately in the study by subdividing the data accordingly. Combined with the different behavioral styles of leaders (i.e. person and task-focused), 4 different datasets (i.e. person-focused behavior-subjective team performance, task-focused behaviors-subjective team performance, person-focused behaviors-objective team performance, task-focused behaviors-objective team performance) were created and separate meta-analyses were conducted on these datasets. The analyses examining the relationship between the leader behaviors and subjective team performance were conducted at the individual level and the number of individual respondents was taken as the sample size. On the other hand, the analyses investigating the relationship between the leader behavior and objective team performance were conducted at the team level and the number of teams was taken as the sample size. The total sample size reached 37190 individual

respondents for the total subjective team performance datasets and 1015 teams for the objective team performance datasets.

Data classification and coding

From the primary studies, 18 indicators were extracted: (a) date of the publication, (b) publication type, (c) research type, (d) nature of the organization and participant sample, (e) sample size, (f) team type, (g) team size (h) country, (i) predictor and criterion descriptions, (j) respondents for the predictor and criterion (k) effect size or sizes which are the correlation coefficients between the predictor and criterion variables, (l) level of interdependence among the team members, (m) ad hoc or intact team, (n) level of analysis, (o) reliability of predictor measures, (p) reliability of criterion measures, (r) whether the criterion was dichotomized or not (s) recommendation for inclusion.

Along with the information that was essential for the main analysis (i.e. sample size, effect size(s), reliability coefficients), the information for potential methodological and theoretical moderators was also coded. The level of analysis, as one of the methodological moderators was coded by determining whether or not the effect sizes were computed at the individual or the team level. Measurement method, the other methodological moderator, distinguished between others and self-rated leadership behaviors. In terms of conceptual moderators, task interdependence was coded, based on the typology of Saavedra et al (1993), as pooled, sequential, reciprocal and team, from low level interdependency to high level interdependency respectively. The team type, on the other hand, was coded according to the typology developed by Sundstrom et al (2000) as production, service, project, executive/management, action/performing. The frameworks that were also used in Burke et al's (2006) study, were chosen purposefully to be able to compare the meta-analytical results. When multiple indicators of team performance were reported in the primary studies (e.g. separate source evaluation), we did not average the correlations, but rather took the measure

that gave the least biased rating (when available non-member ratings were chosen in order to account for common method bias).

The first two authors separately coded 20 papers and discussed the problematic issues (estimation of combined reliabilities, inconsistencies in reported sample size, etc.). For these 20 papers, the two coders achieved substantial consistency, the agreement varied between 90% and 100%. All disagreements were solved through discussion and therefore, the remaining papers were further coded by the first author and these codes were ultimately used in the analyses. An additional number of 17 problematic papers (unclear level of task interdependence and team type) were further discussed by the first two authors, after these papers were also coded independently. For this second batch of papers, only 12 % of the codes appeared to generate discrepancies in interpretation, on which consensus was reached after discussions. The codes that the two coders agreed upon through discussion were eventually used in the final analyses.

Meta-analysis procedures

To conduct the meta-analysis, the procedures described by Hunter and Schmidt (2015) were followed and the analyses were aided by the Hunter-Schmidt Meta-Analysis Programs 2.0 (Schmidt & Le, 2014), an interactive software that uses a random-effects model, which allows the true effect sizes to vary.

The procedure consisted of several consecutive steps. First, when the primary study had multiple effect sizes, composite scores were calculated by using the formula presented in Hunter and Schmidt (2015) to ensure that each study contributed only one correlation coefficient to the meta-analysis. This was possible when the inter-correlations among the variables with multiple effect sizes were available. When this information was missing, the average of the effect sizes was included in the analyses. The fact that the effect sizes were highly similar in most cases, minimized concerns associated with the approach of using the

average scores. Multiple measures appeared in different forms in the primary studies. For instance, in some cases, team performance was measured repeatedly using the same measure resulting in multiple effect sizes. In other cases, composite scores were obtained when correlations referring to different leadership behaviors that could be grouped under one of the main leadership behaviors (person and task-focused) were provided in the same study.

Second, the effects sizes were corrected individually for the measurement error in each primary study. There were several reasons for choosing individual corrections rather than using artifact distributions. First, the reliability information for both the predictor and the criterion variables were available in most of the studies. Second, the type of reliability coefficients, used for correcting measurement errors, changed in each study. For instance, the inter-rater reliability coefficients were considered when the different independent raters rated the same variable. The Cronbach's alpha coefficients were used when the meta-analysis was conducted at the individual level, or when the leader behavior and team performance were assessed by the leaders. The ICC2 coefficients were used to correct for artifacts when the meta-analysis was conducted at the team level. When the reliabilities were missing, the average of the relevant reliabilities was taken (see Table 1 for the average reliabilities). The calculation of the composite scores via the interactive system provided new reliability coefficients that were used to correct for measurement errors. As the objective team performance was an objective measure, the reliability for this variable was taken as 1. Furthermore, when the need arose, a set of decision rules on reliabilities was used in order to have more conservative effect sizes. For instance, when in a study team performance was measured by a single item (e.g. Ehrhardt, 2014), the reliability was determined as .25 following Hunter and Schmidt's (2015) advice (p. 257). Moreover, when the author did not report the reliability coefficients of the measurements, but only noted a range, the highest reliability coefficient was taken as the reliability coefficient (e.g. Keller, 2006, Lee, 2011).

Finally, in cases, where the reliabilities were reported to be good without reporting a clear value (e.g. Oshinubi, 2007), .8 was taken as the reliability coefficient.

Third, when eligible, the correlations were also corrected for the dichotomization of the predictor variable in order to decrease the overestimation of the sampling error. The point-biserial correlations were attenuated to convert the correlations to a full “1” scale. The adjustments to the sample sizes for the corrected correlations were also done, which decreased the sample size by almost half in most of the studies (e.g. Durham et al., 1997).

Fourth, sample-weighted means of the corrected correlations were computed in order to correct for sampling error and sample size. For the meta-analysis conducted at the individual level, the number of individual respondents in the primary studies was recorded and entered as the sample size in the analyses (also done by Hülshager et al, 2009). However, in the analysis conducted at the team level, the team number was entered as the sample size. Finally, although correcting for range restriction would have resulted in more accurate estimates of the relationships, no information on range restriction was presented in the primary studies included in this research. Therefore, we did not correct for range restriction. Hence, it should be noted that the estimations resulting from the analyses might be underestimates of the true relationships.

Results

Given our focus on two categories of leadership behaviors and two categories of team outcomes, we used four different datasets that combined leader behaviors (person and task-focused) and the type of team performance (subjective team performance and objective team performance). The results are presented separately for each dataset.

Person-focused behaviors and subjective team performance

The first dataset was used to examine the relationship between the person-focused leader behaviors and subjective team performance (see Table 2). This overall analysis was

conducted at the individual level, therefore the number of individual respondents reported in the primary studies was entered as the sample size for the meta-analysis. The results indicated that person-focused behaviors have a moderate, positive relationship with subjective team performance ($\rho=.328$). The analysis was based on 72 effect sizes representing 26266 individual respondents. Both the credibility and confidence intervals did not contain zero, indicating that the result was significant and could be generalized across situations. The same dataset was also examined for the subgroups classified according to specific person-focused leader behaviors. The results were in line with the main analyses. Except for empowering leadership, all the person-focused leader behaviors, namely transformational, charismatic, emotionally intelligent, considerate and coaching behaviors of leaders, had a moderately positive relationship with team performance. The strongest corrected correlations occurred for consideration ($\rho=.365$) and transformational ($\rho=.360$) leadership behaviors, followed by emotional intelligence ($\rho=.351$), charismatic behaviors ($\rho=.338$) and coaching behaviors ($\rho=.289$). Confidence, as well as credibility intervals, excluded zero, indicating that corrected correlations were not only significant, but also consistent across different situations. However, for empowering leadership behavior, the relationships varied greatly among the primary studies suggesting the inconsistency of the findings. The variances accounted for by artifacts were low, ranging between 7.94% and 31.31% for the sub-analyses. The variance was 8.63% for the overall person-focused behaviors, therefore studies contained variations beyond sampling and measurement error, indicating that potential moderators were affecting the relationship between the criterion and the predictor.

Task-focused behaviors and subjective team performance

The second dataset consisted of studies exploring the relationship between the task-focused leader behaviors and subjective team performance (see Table 3). The analysis with this dataset was also conducted at the individual level. The results showed a moderate,

positive effect of the task-focused behaviors on perceived performance ($\rho=.33$), which was equal to the person-focused behaviors. The analyses were based on 26 effect sizes, representing 10924 individual respondents. Both the credibility and the confidence intervals did not include zero, indicating that the result was significant and consistent. When the task-focused behaviors were analyzed separately for each specific task-focused leader behavior, all were found to have moderately positive and significant relationships with subjective team performance. Effect sizes ranged between $\rho=.321$ and $\rho=.349$. It should also be noted that the results of boundary spanning leadership had only 3 effect sizes. Therefore, the results must be interpreted with great caution, as a small number of effect sizes increases the possibility of a second-order sampling error (Hunter & Schmidt, 2015). Arthur et al. (2003) also advise researchers to approach the studies that have less than five effect sizes with caution. The overall results indicated that the percentages of variance accounted for by artifacts were low, ranging between 5.12% and 29.45% for the sub-analyses. For the task-focused behaviors, it was 11.26% in total. According to the 75% rule of Hunter and Schmidt (2015), the amount of variation that could not be explained by artifacts suggested the existence of possible moderators.

Person and task-focused behaviors and objective team performance

The analyses examining the relationship between leadership behaviors and objective team performance were conducted at the team level, as all primary studies were conducted at the team level and the results are presented in Table 4 (number of teams is the sample size). The total number of effect sizes contributed to the analyses was rather low for both behavior types. It was 13 for the person-focused behavior and 4 for the task-focused behavior and the team sizes were 817 and 198 respectively. The results showed that the correlations were similar for both leader behaviors ($\rho=.175$ for person-focused and $\rho=.185$ for task-focused), albeit much lower than the relationship between the leader behaviors and subjective team

performance. The effect sizes were marginally significant and could be generalized across different situations. Analyses on the specific task-focused behaviors and objective team performance could not be examined due to the low number of effect sizes. What was interesting in these analyses was that the artifacts explained 80% of the person-focused and 100% of the task-focused behaviors, ruling out the potential existence of moderators. As, variance in these relationships could be explained by the sampling and measurement errors, the moderator analyses were only conducted for the relationships between the leadership behaviors and subjective team performance.

Moderator Analysis

As the results indicated, considerable variation existed across studies examining the relationship between leader behaviors and subjective team performance. This suggested that moderators might be operating in these relationships. Consistent with the Schmidt and Hunter (2015) method, moderators were tested by creating subsets of correlations via the interactive system. All the moderator variables were categorical.

Methodological Moderators

Level of Analysis. The level of analysis reflects the estimation of correlations (individual versus group) in the original study. It should be noted that in the datasets, the number of individual respondents was coded as the sample size and the individual level reliability values (e.g. Cronbach alpha, interrater reliability) were used for the corrections of measurement errors.

The moderator analysis examining the effect of level of analysis detected a difference between individual and team-level findings for the person-focused leadership (see Table 5 and 6). The corrected mean correlation was higher for the individual level analysis than for the team-level analysis ($\rho=.405$ and $\rho=.310$, respectively). Both effect sizes were significant and consistent and the confidence intervals had very little overlap indicating that the effect sizes at

both levels were significantly different from each other. For the task-focused behavior and subjective team performance relationship, on the other hand, the moderating effect of the level of analysis was not observed. Although the correlations for the individual level were slightly higher, the confidence intervals in both levels overlapped to a great degree, which indicates that the level of analysis did not emerge to be a moderating factor for the task-focused behaviors. The effect sizes were significant and consistent across different situations at each level. However, the variance across studies could still not be explained simply by the sampling error and unreliability, suggesting moderation by some other variables.

What was interesting in these analyses was that for both types of leader behaviors, the variance explained by artifacts was notably higher for the individual level studies (29.77% for person-focused behaviors and 35.79% for the task-focused behaviors) compared to the overall group analysis (8.63% for person-focused behaviors and 11.26% for the task-focused behaviors). Hence, examining studies separately, based on their level of analyses, improved the explanatory power of artifacts for the individual level studies. However, for the team level analysis, the variance explained by artifacts decreased in the sub-analyses compared to overall group analyses (to 6.51% for person-focused behaviors and 8.78% for task-focused behaviors). In order to gain more information about the possible reasons causing this situation, the same moderating analysis was conducted by creating team level datasets for each leader behavior type. In this case, the team number was coded as the sample size and the systematic error was corrected by taking the ICC2 values as the reliability coefficients of the predictor and, when applicable, also for the criterion variable. This way, two more studies, which provided only team numbers, were also included in the analysis (i.e. Wageman, 2001; Cooper & Wakelam, 1999). Out of 49 studies conducted at the team-level, 25 provided ICC2 values. The missing ICC2 values were replaced by the average ICC2 values that refer to the same type of leader behavior. For the person-focused leadership, although the estimated effect

size showed almost no difference, the percentage of the variance explained by the artifacts improved greatly (32.39 % compared to 6.51% in the first approach). For the task-focused leadership, on the other hand, the effect size increased from .32 to .39 and the artifacts explained 44.75% of the variability across studies, compared to 8.78% in the first approach.

Measurement Method. Another methodological moderator examined in the study was the measurement method used for the predictor variable. When the leader behavior was assessed by the leader him/herself, it was coded as the subjective rating, whereas when the assessment was done by others, it was coded as the objective rating (see Table 5 and 6). The moderator analysis could only be conducted for the person-focused behaviors and subjective team performance, as there were only 2 studies providing subjective ratings for the task-focused leader behavior. For the person-focused leader behaviors, the respondent of the predictor was found to be a moderator. The corrected correlations for the subjective ratings were larger ($\rho=.412$) compared to objective ratings ($\rho=.302$) and there was very little overlap in the confidence intervals. The variance explained by the artifacts largely differed for respondent types (50.85% for the subjective ratings and 8.22 % for the objective ratings), but still remained lower than 75%. This suggested that there could be other moderating variables affecting the relationship.

Theoretical Moderators.

Task interdependence was a categorical variable with four levels and in line with previous studies (Burke et al, 2006; Gully et al. 2002), for analytic purposes we have dichotomized the variable in low and high task interdependence using a median split. In the person-focused leadership behaviors and subjective team performance dataset, the corrected mean correlations were lower for the teams with low interdependence than for the teams with high interdependence ($\rho=.29$ and $\rho=.335$ respectively), nevertheless, because of the substantially overlapping confidence intervals, this moderation effect is not significant.

Similarly, for the relationship between task-focused leadership and team performance, despite higher correlations for highly interdependent teams compared to the teams with low interdependency, the confidence intervals overlapped to a great degree, indicating that the level of interdependence was not a moderating factor in this relationship. The findings also suggested that for teams with low level of interdependency, person-focused leadership behaviors have a stronger association with subjective team performance than task-focused behaviors ($\rho=.290$ compared to $\rho=.209$). On the other hand, task-focused behaviors had stronger correlation with subjective team performance in highly interdependent teams ($\rho=.335$ compared to $\rho=.356$). Nevertheless, the substantial overlap in the confidence interval shows that the moderating role of task interdependence is not supported. Moreover, the low percentages of the variances accounted by artifacts indicate that for both types of leadership behaviors some other moderators rather than task interdependence are possibly playing roles in the relationships.

Team type included five types of teams chosen as the research contexts in the primary studies. However, the number of effect sizes for task-focused behaviors ranged between 2-4 for 4 out of 5 categories of the moderator. Only the project teams had the appropriate size to conduct a separate meta-analysis. Following the advice of Arthur et al. (2013), only the meta-analytical results based on at least 5 effect sizes will be explained. As shown in Table 5, the corrected correlations between person-focused leader and subjective team performance were significantly higher for the service ($\rho=.402$) and project teams ($\rho=.351$) compared to the action/performing teams ($\rho=.145$). The credibility interval for the action/performing teams, however, included zero indicating that the relationship cannot be generalized across different situations. Project teams had higher correlations for the task-focused behavior, compared to person-focused behavior ($\rho=.408$ and $\rho=.351$ respectively). However, for both cases, the

percentage of variances explained by the artifacts was around 13%, which indicated that there were other moderators that affect the relationships examined.

Discussion

Our meta-analytical investigation had four important aims: (1) to replicate in a larger sample of studies (88 studies compared to 50 studies) the results reported in Burke et al. (2006) concerning the positive influence of task and person-focused leadership behaviors on team outcomes, (2) to explore the association between more specific types of leadership behaviors (subsumed by to the two main categories) and team outcomes (3) to test the moderating role of task interdependence and team type in the relationship between leadership behaviors and team outcomes, and (4) to test the moderating role of the method used to evaluate leadership behaviors (self-rated versus others-rated) and the level of analysis (individual versus group).

Concerning the first aim, our study replicated in general the findings reported by Burke et al. (2006), showing that both task and person-focused leadership behaviors are positively and significantly related to subjective team performance, exhibiting the same magnitude of effect size ($\rho=.33$). The consistency of these findings with previous research (e.g. Thamhain, 2004; Stewart, 2006; Burke et al., 2006, Tyssen et al., 2014) supports the robustness of the positive association between the two categories of leadership behaviors and team performance. In other words, team performance is enhanced both by task-focused leadership behaviors as well as by person-focused leadership behaviors. In a similar vein, in another meta-analysis Chiaburu and colleagues (2014) showed that leader-member exchange, contingent reward leadership and transformational leadership styles predict positively subordinates' proactivity. These results suggest that alternative mechanisms might explain the association between leadership behaviors and team outcomes and are aligned with some recent calls for conceptual refinements of leadership theories (Van Knippenberg & Sitkin,

2013). In particular, functional leadership approaches could further explore the functions served by various leadership behaviors in various team performance episodes (Zaccaro et al., 2001) and further clarify the mechanisms that explain the positive association between leadership behaviors and team performance.

With respect to the second dependent variable, namely objective team performance, the magnitude of the association between both leader behaviors and objective team performance were again almost identical ($\rho=.175$ and $\rho=.185$). Furthermore, the artifacts explained more than 75% of the variation overruling any possibility for moderators. This was not surprising, as the analysis included only team-level studies that removed the potential moderating effect of the level of analysis. However, due to the low number of effect sizes for task-focused leadership the conclusions should be interpreted with caution. Although the estimated effect sizes in this study were lower than the ones reported in Burke et al. (2006), they are expected to be more reliable due to the larger number of studies included in our analysis and the corrections for the artifacts based on the Hunter and Schmidt (2015) method. A novel insight from our results is that person-focused behaviors did not explain more variance in objective team performance than task-focused leadership (both task and person-focused behaviors explained around 3% of the variance in objective team performance). However, a conclusion common in both studies was that the magnitude of the relationship between leadership behaviors and objective team performance emerged to be nearly half of the one obtained for subjective team performance, but was still significantly positive and consistent. In line with Burke et al (2006), we argue that common method bias could be a plausible explanation for these differences.

Concerning the second aim of the study, our results showed rather similar effect sizes across the subcategories of task and person-focused leadership behaviors and subjective team performance. For person-focused leadership behaviors, the results especially highlighted the

robustness of the relationship between transformational leadership and subjective team performance, also documented in previous research (Burke et al., 2006; Stewart, 2006; Tyssen et al., 2014). In all these studies, the effect sizes ranged between .33 and .36. Thus, combined with the present finding ($\rho=.36$), the moderately strong relationship between transformational leadership and team performance can be considered to be stable and consistent across different situations. Other person-focused behaviors, namely consideration, emotionally intelligent, charismatic behaviors and coaching behaviors also resulted in very similar effect sizes as they conceptually overlap with transformational leadership. For instance, consideration, charismatic and coaching behaviors are similar to the sub-dimensions of transformational leadership, referred to as “individualized consideration”, “idealized influence” and “intellectual stimulation” respectively. Furthermore, emotional intelligence is positively related to various dimensions of transformational leadership, as confirmed in their meta-analysis by Harms and Crede (2010). Last, the relationship between the empowering leadership and subjective team performance was weak and found to be inconsistent across situations. It could be that in some teams, where strict deadlines apply, top-down decisions and timely assignment of tasks is more preferable than decision participation.

The specific task-focused leadership behaviors also revealed similar effect sizes for their relations with subjective team performance. Very similar results were obtained for transactional and initiating behaviors ($\rho=.32$ and $\rho=.33$ respectively), as conceptually they are partially overlapping (Keller, 1992), both focusing on clarification and assignment of role requirements. Some of our findings are different from the ones reported in Burke et al.’s (2006) study. Although in their study, person-focused behaviors accounted for slightly more variance in team performance than task-focused leadership behaviors, such a difference was not replicated by our results. Furthermore, effect sizes for consideration and transactional leadership were higher and consistent in this study, because of the corrections for artifacts.

The fact that the effect size for empowering leadership was half the value obtained in Burke et al.'s study ($\rho=.20$ compared to $\rho=.47$) can be explained with the different operational definitions of the concept. In our study, we distinguish between developing (coaching-focused) and participative leadership behaviors (empowering) whereas in their study the two type of behaviors were classified together. Finally, a common conclusion from both studies was that boundary-spanning behaviors explained the most variance in team performance. However, caution is advised in interpreting these results, as the number of effect sizes was lower than the suggested number of five (Arthur et al., 2003).

The third aim of the paper, was to address the moderating role of task interdependence and task type in the relationship between leadership behaviors and team performance. With respect to task interdependence, we did not find a moderating role of task interdependence in the relationships between leadership behaviors and team performance.

With respect to the team type as a moderator, our results indicated a clear difference between the service and project teams on the one hand and the action/performing teams on the other hand. Especially, person-focused behaviors had the strongest and most consistent relationship with subjective team performance for service teams. This is consistent with the findings in the literature (e.g. Lam & Schaubroeck, 2000; MacKenzie et al., 2001), showing that in settings where the team members themselves are expected to perform person-focused behaviors towards their customers, team leaders need to empower, inspire, and serve as role models in order for their frontline subordinates to understand the process leading to the best possible service (Hui et al, 2007). It should also be noted that service teams can also benefit from task-focused leader behaviors as the magnitude of the effect size indicated ($\rho=.385$). For instance, in order for people to focus on their customers' needs and to function comfortably in their jobs, they need a well-defined task structure and a clear sense of direction. Furthermore,

in order to find customer-focused solutions, they need to scan their environment for information and ideas.

The findings also indicated that project teams can benefit from both person-focused and task-focused leader behaviors. However, compared to person-focused behaviors, task-focused behaviors had a higher relation with subjective team performance. In project settings where the outcomes are unknown and time bound tasks are performed, Turner and Muller (2003) define leadership functions as defining the purpose and objectives of the project, planning, executing (i.e. initiating behavior) and controlling the processes (i.e. management by exception), motivating the team members (i.e. contingent rewarding) and as managing the project relative to internal and external objectives (i.e. boundary spanning). Therefore, each of these task-focused leader behaviors are expected to be effective in project environments, as also shown by the findings of our meta-analysis.

Last, the findings also provided insight for the relationship between leader behaviors and team performance for action/performing teams. Devine (2002) defined action teams as groups consisting of highly specialized individuals that engage in relatively brief real-time performance events that are unpredictable. The findings in this study showed that both leader behaviors had the weakest relation with team performance in action/performing teams. This might be due to the clear role description and highly specialized characteristics of the individuals composing these teams. In such self-managed teams, leadership might become redundant and its relation with team performance might decrease. Furthermore, the results highlighted that for action/performing teams the relationship between task-focused leaders and subjective team performance was higher compared to person-focused leadership ($\rho=.238$ compared to $\rho=.145$). Individuals in such teams might be more likely to be motivated by a task-focused leader who can give them directions to solve the challenges in unexpected

situations and who can monitor task execution and encourage followers to actively avoid committing any mistakes (Miles, 2014).

Methodological and practical implications

Our study supports the need to correct for unreliability of the scores and for including team level reliability scores when analyses are performed at the team level of analysis. Our findings also highlighted the importance of using objective measurement methods for leadership behaviors. If authors intend to use self-reports, they should be aware of the fact that this method overestimates the effect sizes considerably (Hülshager et al., 2009) and that more objective measures from multiple sources are desirable.

The systematic analysis done in this study evidenced that both person and task-focused behaviors are essential for a good team performance. Thus, team leaders, especially if they are leading project teams, should first realize that task allocation and coordination behaviors are essential for an effective team leader (Keller, 1992). They should also be aware of the fact that, despite transparent and flat organizational structures, most of the important decisions are often made through informal and hidden networks (Hirst & Mann, 2004). This requires leaders to be involved in boundary spanning activities by communicating with stakeholders and negotiating for resources.

However, the practitioners should not disregard the importance of person-focused behaviors on their teams' performance. They should be aware of the fact that the higher task interdependence also increases the need for person-focused behaviors. The effect sizes found for the relationship between person-focused behaviors and subjective team performance clearly indicated leadership behaviors, like being considerate for the needs of their team members, understanding others' and their own emotions and regulating them constructively, coaching, facilitating the development of their team members and using their personal

abilities and power to influence others in order to make them intrinsically believe in their vision, are important to obtain higher team performance.

Limitations and Future Research Directions

Next to its contributions, our study has several limitations. First, some analyses were based on a relatively small number of effect sizes, especially in the subgroup analyses examining the relationships between specific leadership behaviors and objective team performance. Therefore, it should be emphasized that analyses based on additional effect sizes will provide more accurate results for the relationships lacking in appropriate effect sizes.

The second limitation is that, although the study was able to reach several unpublished theses and conference papers, there is still a possibility that some relevant unpublished studies were left out. However, Stewart (2006) claims that there is a trade-off between the quality of the unpublished papers and their possible contribution. Therefore, considering the various approaches undertaken to search for relevant papers, the estimated parameters in this study can only be a slight overestimation of the true parameters.

Third, in our study we were not able to correct for range restriction and some of our moderation analyses were inconclusive. Although based on the Schmidt and Hunter (2015) method, we were able to correct effect sizes for three types of errors (i.e. systematic error, sampling error and dichotomization) alternative methods like weighted least squares regression (Rosopa, Schaffer & Schroeder, 2013 and Steel & Kammeyer-Mueller, 2002) could further help, especially in exploring plausible moderators.

Although this study clearly highlights the importance of leadership behaviors in teams, the processes explaining how and under which conditions leaders affect team performance need further examination. Understanding how different leadership behaviors affect teams can provide information on the mechanisms at play and can further advance leadership theories (Chiaburu et al., 2014; Stewart, 2006; Van Knippenberg & Sitkin, 2013). There is also a

need for researchers to integrate some other leadership behaviors that might be influential in team contexts, such as ethical leadership, authentic leadership and servant leadership.

However, despite the countless number of studies examining the relations between these leadership behaviors and performance at the individual levels, there are unfortunately still not many empirical studies conducted in teams. Furthermore, as our findings show, research evaluating objective team performance is rather limited. Due to methodological reasons, the effect sizes obtained for subjective methods (i.e. subjective team performance) were nearly double the ones for objective methods (i.e. objective team performance) therefore more studies using objective team performance indicators are warranted. Last, studies examining boundary spanning behaviors of leaders in team contexts are clearly missing. Moreover, this field of research seems to be unpopular in team research as in the last ten years, since Burke et al.'s (2006) research, the amount of eligible data for the meta-analysis emerged to be the same and thus very low to be able to draw concrete conclusions (i.e. only three studies).

Considering the effect sizes of the relationship found between boundary spanning and team effectiveness in both the current and Burke et al.'s (2006) study, which were the highest among the task-focused behaviors, the need for future research on this relationship is apparent for the advancement of the field.

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Table 1

Average Reliabilities for the Study Variables

Variables	Reliabilities
Person-focused Leadership – Subjective team performance	.81 ^a - .83 ^a
Task-focused Leadership – Subjective team performance	.76 ^a - .78 ^a
Person-focused Leadership* – Objective team performance	.82 ^b - 1
Task-focused Leadership* – Objective team performance	.55 ^b - 1
Transformational Leadership – Subjective team performance	.84 ^a - .85 ^a
Empowering Leadership – Subjective team performance	.79 ^a - .85 ^a
Coaching Leadership – Subjective team performance	.71 ^a - .83 ^a
Consideration – Subjective team performance	.74 ^a - .84 ^a
Emotionally Intelligent Leadership – Subjective team performance	.77 ^a - .80 ^a
Charismatic Leadership – Subjective team performance	.76 ^a - .83 ^a
Boundary Spanning – Subjective team performance	.80 ^a - .85 ^a
Transactional Behavior – Subjective team performance	.81 ^a - .88 ^a
Initiating Behavior – Subjective team performance	.79 ^a - .81 ^a

a. Average Cronbach's alpha values. b. Average ICC₂ values

Table 2

Relationships Between Person-focused Leader Behaviors and Subjective team performance

Leader Behavior	<i>N</i>	<i>k</i>	$\bar{r}$	$SD\bar{r}$	<i>P</i>	SD_P	95% <i>CV</i> (<i>P</i>)	80% <i>CI</i> (<i>P</i>)	% <i>VE</i>
Person-focused	26,266	72	.255	.177	.328	.201	(.280, .377)	(.071, .585)	8.63
Consideration	3,352	11	.301	.190	.365	.215	(.232, .497)	(.090, .640)	7.94
Charismatic	2,588	10	.259	.106	.338	.113	(.254, .422)	(.194, .482)	31.31
EI	3,335	10	.291	.134	.351	.169	(.240, .463)	(.135, .567)	11.89
Empowering	4,616	13	.171	.159	.202	.178	(.100, .304)	(-.026, .430)	10.57
Coaching	5,511	11	.190	.154	.289	.183	(.175, .403)	(.054, .524)	10.1
TRF	9,971	27	.295	.167	.360	.193	(.284, .436)	(.114, .607)	8.34

Note: *N* = total number of individual respondents; *k* = number of effect sizes included; $\bar{r}$ = weighted mean correlation; $SD\bar{r}$ = standard deviation for weighted mean correlation; ρ = correlation for population estimate corrected for attenuation due to measurement error, sampling error variance and dichotomization on the predictor, if eligible; SD_P = standard deviation for population estimate; *CV* = confidence interval for the corrected correlation, *CI* = credibility interval for the corrected correlation. % *VE* = variance accounted for by artifacts.

Table 3

Relationships Between Task-focused Leader Behaviors and Subjective team performance

Leader Behavior	<i>N</i>	<i>k</i>	$\bar{r}$	$SD\bar{r}$	<i>P</i>	SD_p	95% CV (<i>P</i>)	80% CI (<i>P</i>)	% VE
Task-focused	10,924	26	.260	.143	.330	.160	(.264,.395)	(.124,.535)	11.26
Boundary	906	3	.285	.107	.349	.099	(.215,.483)	(.222,.476)	29.45
	3439	8	.266	.212	.321	.225	(.161,.481)	(.033,.609)	5.12
Transactional									
Initiating	5282	13	.269	.091	.330	.098	(.268,.391)	(.254,.455)	25.04

Note: *N* = total number of individual respondents; *k* = number of effect sizes included; $\bar{r}$ = weighted mean correlation; $SD\bar{r}$ = standard deviation for weighted mean correlation; ρ = correlation for population estimate corrected for attenuation due to measurement error, sampling error variance and dichotomization on the predictor, if eligible; SD_p = standard deviation for population estimate; CV=confidence interval for the corrected correlation, CI=credibility interval for the corrected correlation. % VE= variance accounted for by artifacts.

Table 4

Relationships Between Leader Behaviors and Objective team performance

Leader Behavior	<i>N</i>	<i>K</i>	$\bar{r}$	$SD\bar{r}$	<i>P</i>	SD_p	95% CV (<i>P</i>)	80% CI (<i>P</i>)	% VE
Person-focused	817	13	.162	.138	.175	.069	(.091,.258)	(.087,.263)	79.87
Task-focused	198	4	.142	.087	.185	.000	(.063,.306)	(.185,.185)	100

Note: *N* = total number of teams; *k* = number of effect sizes included; $\bar{r}$ = weighted mean correlation; $SD\bar{r}$ = standard deviation for weighted mean correlation; ρ = correlation for population estimate corrected for attenuation due to measurement error, sampling error variance and dichotomization on the predictor, if eligible; SD_p = standard deviation for population estimate; CV=confidence interval for the corrected correlation, CI=credibility interval for the corrected correlation. % VE= variance accounted for by artifacts.

Table 5

*Relationships Between Person-focused Leader Behaviors and Subjective team performance:
Moderator Analyses for Both Methodological and Theoretical Moderators*

Moderating Variables	<i>N</i>	<i>k</i>	$\bar{r}$	$SD\bar{r}$	<i>P</i>	SD_P	95% CV (<i>P</i>)	80% CI (<i>P</i>)	% VE
Level of Analysis									
Ind. Level	4,247	25	.346	.123	.405	.123	(.347,.463)	(.247,.562)	29.77
Team Level	22,019	47	.238	.181	.31	.211	(.248,.373)	(.041,.580)	6.51
Team Level	4,157 ^a	49	.246	.177	.319	.198	(.251,.386)	(.065,.572)	32.39
Measurement Method									
Subj. Rating	1,523	11	.348	.103	.412	.088	(.337,.486)	(.299,.524)	50.85
Obj. Rating	22,316	54	.232	.172	.302	.198	(.247,.357)	(.049,.555)	8.22
Task Interdep.									
Low Interdep.	4,938	11	.231	.146	.290	.188	(.174,.406)	(.050,.531)	8.61
High Interdep.	20,516	55	.259	.184	.335	.205	(.279,.392)	(.073,.598)	8.08
Team Type									
Production	561	2	.229	.167	.254	.173	(-.001,.509)	(.033,.476)	11.72
Service	5,977	16	.327	.189	.402	.225	(.288,.516)	(.114,.691)	6.04
Project	14,466	40	.253	.159	.351	.165	(.296,.406)	(.139,.563)	13.42
Management	746	2	.406	.166	.512	.099	(.357,.666)	(.386,.638)	21.71
Action/Perf	4072	8	.125	.138	.145	.15	(.035,.255)	(-.047,.337)	10.18

Note: *N* = total number of individual respondents, except for “a” which refers to team number. *k* = number of effect sizes included; $\bar{r}$ = weighted mean correlation; $SD\bar{r}$ = standard deviation for weighted mean correlation; ρ = correlation for population estimate corrected for attenuation due to measurement error, sampling error variance and dichotomization on the predictor, if eligible; SD_P = standard deviation for population estimate; CV=confidence interval for the corrected correlation, CI=credibility interval for the corrected correlation. % VE= variance accounted for by artifacts.

Table 6

*Relationships Between Task-focused Leader Behaviors and Subjective team performance:
Moderator Analyses for Both Methodological and Theoretical Moderators*

Moderating Variables	<i>N</i>	<i>k</i>	$\bar{r}$	$SD\bar{r}$	<i>P</i>	SD_P	95% CV (<i>P</i>)	80% CI (<i>P</i>)	% VE
Level of Analysis									
Ind. Level	1,527	8	.308	.103	.378	.109	(.283,.473)	(.238,.518)	35.79
Team Level	9,397	18	.252	.147	.322	.166	(.241,.402)	(.109,.534)	8.78
Team Level	1,633 ^a	20	.273	.150	.385	.166	(.287,.483)	(.173,.597)	44.75
Task Interdep.									
Low	1,987	4	.177	.127	.209	.167	(.036,.382)	(-.005,.423)	9.66
High	8,860	21	.279	.141	.356	.146	(.289,.423)	(.169,.543)	12.86
Interdep.									
Team Type									
Production	-	-	-	-	-	-	-	-	-
Service	734	4	.289	.14	.385	.237	(.134,.637)	(.082,.689)	14.71
Project	5,634	14	.297	.162	.408	.157	(.320,.497)	(.207,.610)	12.55
Management	746	2	.245	.092	.296	.073	(.166,.425)	(.202,.390)	38.24
Action/Perf	3,273	4	.205	.104	.238	.102	(.132,.345)	(.108,.368)	12.42

Note: *N* = total number of individual respondents, except for “a” which refers to team number. *k* = number of effect sizes included; $\bar{r}$ = weighted mean correlation; $SD\bar{r}$ = standard deviation for weighted mean correlation; ρ = correlation for population estimate corrected for attenuation due to measurement error, sampling error variance and dichotomization on the predictor, if eligible; SD_P = standard deviation for population estimate; CV=confidence interval for the corrected correlation, CI=credibility interval for the corrected correlation. % VE= variance accounted for by artifacts.