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Manager-Led Group Meetings: A Context for Promoting Employee Engagement

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Abstract

Employee engagement is a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption (Macey & Schneider, 2008). Using Kahn's theory of engagement (1990), we look at an organizational context where employee engagement may be promoted, the workgroup meeting. Two time-separated internet-based surveys were used to query a sample of working adults ($N = 319$). The findings provide support that the psychological conditions for engagement mediate the relationship between manager usage/facilitation of meetings and overall employee engagement. More specifically, we found that meeting relevance, voice in meetings, and meeting time management related to overall employee engagement, but only through the psychological conditions of engagement. The results suggest that managers can use a common workplace activity, workgroup meetings, to engage their employees when they use/facilitate meetings in an effective manner.

Manager-Led Group Meetings:

A Context for Promoting Employee Engagement

There are more than 11 million meetings each day in the United States alone (Rogelberg, Scott, & Kello, 2007) and in larger organizations (more than 500 employees) managers spend 75% of their time on meeting related activities (van Vree, 1999). Employees often view meetings as interruptions to their work and when employees have a lot of workgroup meetings, their overall well-being suffers (Rogelberg, Leach, Warr, & Burnfield, 2006). Furthermore, given the ubiquity of work meetings, meetings appear to be a salient characteristic of most jobs and a primary location where employees and managers come together. Despite research demonstrating that workgroup meetings can be a source of job dissatisfaction (Cohen, Rogelberg, Allen, & Luong, 2011) or simply annoying to employees (Myrsiades, 2000), this study takes a more positive organizational behavior approach believing meetings can be used effectively and perhaps even foster employee engagement.

Employee engagement was first postulated by Kahn (1990). Kahn (1990) defined engagement as "the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances" (p. 694). Engagement is heavily marketed by management consultants (Van Rooy, Whitman, Hart, & Caleo, 2011) and recently received renewed interest among academics (e.g. Macey & Schneider, 2008). Research supports this interest. Besides demonstrating engagement's uniqueness from other work attitudes such as job satisfaction (Harter, Schmidt, & Hayes, 2002), an engaged workforce is a performance oriented workforce (Salanova, Agut, & Peiro, 2005), a committed workforce (Saks, 2006) and organizations with higher employee engagement have a higher return on investment than organizations with lower

employee engagement (Macey, Schneider, Barbera, & Young, 2009). These apparent gains in organizational performance may help explain the fervor with which HR managers and organizational leaders pursue the development of an engaged workforce. Although some research suggests that both a supportive supervisor and a supportive organization are important to promoting employee engagement (Saks, 2006), few have attempted to locate a job-related context and the particular behaviors in that context that may encourage the engagement of employees in their work. The purpose of this study is to discuss one such context, the workgroup meeting, and test whether managerial behaviors in and around that setting (e.g. voice in meetings, meeting time management, and meeting relevance) matter to engagement.

Engagement and Psychological Conditions

To better understand how to foster engagement, a more in-depth understanding of the engagement construct is useful. Schaufeli and Bakker (2003) discuss how engagement is a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption (Schaufeli & Bakker, 2003). Vigor represents the willingness to invest effort in one's work and is representative of high levels of energy and resilience at work. Dedication is described as experiencing enthusiasm, pride, inspiration, and challenge relative to one's work. Absorption is characterized by an employee becoming deeply engrossed in their work and experiencing difficulty detaching from the work. At its core, engagement concerns employees incorporating their unique qualities and effort into their work role.

In terms of creating feelings of engagement among employees, Kahn (1990) argued that it is essential for certain psychological conditions to be met. Namely, his theory of engagement suggests that employees must experience psychological meaningfulness, safety, and availability in order to fully engage in their work role (Kahn, 1990). According to Kahn (1990),

psychological meaningfulness refers to an employees' feeling that they are valued, worthwhile, and feel able to give of themselves within their workplace environment. Psychological safety refers to employees having a sense of being able to employ their whole self without experiencing any negative consequences to self-image, status, or their career (Kahn, 1990; May, Gilson, & Harter, 2004). An employee who feels psychologically safe will attempt to incorporate aspects of their life outside of their work role (e.g. other work experiences, hobbies) into their job in an appropriate manner (Macey & Schneider, 2008). Psychological availability refers to employees' sense of "possessing the physical, emotional, and psychological resources necessary for investing self-in-role performances" (Kahn, 1990, p. 705). Employees who are psychologically available feel that they are capable of driving the physical, intellectual, and emotional efforts necessary to perform their work. Kahn (1990) and others (e.g. May et al., 2004) assert that it is through the development of these psychological conditions that employees become able to engage in their work and perform at a higher level.

Group Meetings and Engagement

Researchers have examined engagement from a number of empirical and conceptual perspectives (e.g. Xanthopoulou, Bakker, Heuven, Demerouti, & Schaufeli, 2008). Of particular interest to the current study are those researchers who focused on predictors of employee engagement. For example, Saks (2006) showed that job characteristics, perceived organizational support, and procedural justice in organizations all predict engagement. Salanova, Agut, and Peiro (2005) illustrated that the availability of organizational resources (e.g. autonomy, training, and technology) are positively related to work engagement. More recently, Crawford, LePine, and Rich (2010) discovered that both job resources and demands, specifically challenge demands, predict employee engagement. Furthermore, Liao, Yang, Wang, Drown, and Shi

(2013) demonstrated the importance of group type variables when they found that team member exchange positively related to employee engagement.

We seek to continue to investigate predictors of employee engagement by examining how managers use/facilitate their workgroup meetings. According to early thought and theory concerning workplace meetings, meetings are a context where organizational culture and leadership are manifest and are enacted by organizational members (Schwartzman, 1986). As such, managers have the opportunity to use their workgroup meetings for many different reasons (e.g. solve staffing problems) and in many different ways (e.g. reach decision by consensus or majority rules) (Panko & Kinney, 1995; Tracy & Dimock, 2003). Managers facilitate various process factors in meetings including turn-taking, decision making format, and degree of attendee participation (Nixon & Littlepage, 1992; Neiderman & Volkema, 1999; Bluedorn, Turban, & Love, 1999). Given the control afforded managers concerning the purpose and process of workgroup meetings, we postulate managers can manage their workgroup meetings strategically to develop the psychological conditions for engagement as described by Kahn (1990, 1992) and others (May et al., 2004).

The foregoing postulation is generally consistent with research and logic regarding organizational support theory. Organizational support theory holds that employees form general beliefs concerning the extent to which the organization values their contributions and cares about their well-being (Baran, Shanock & Miller, 2012; Eisenberger, Huntington, Hutchison, & Sowa, 1986; Rhoades & Eisenberger 2002). Such support helps employees judge the value of making increased efforts on behalf of the organization and provides employees the assurance that the organization is a reliable exchange partner they can trust to reward future contributions. Organizational support theory assumes that based on the norm of reciprocity, employees

reciprocate support with a felt obligation to care about the organization's welfare and help it reach its objectives (Eisenberger et al. 1986; Rhoades & Eisenberger 2002).

As for identifying meeting usage/facilitation to examine in relation to engagement, research reveals a number of factors that impact meeting success. Three activities in particular focus specifically on the role of the leader: (1) a leader must make meetings relevant (Nixon & Littlepage, 1992; Leach, Rogelberg, Warr, & Burnfield, 2009), (2) a leader must encourage voice in meetings (Nixon & Littlepage, 1992; Volkema & Neiderman, 1995; Neiderman & Volkema, 1999), and (3) a leader must effectively manage issues pertaining to the time management of meetings (Nixon & Littlepage, 1992; Cohen, Rogelberg, Allen, & Luong, 2011). We postulate that each of these principal activities ties to the psychological conditions for engagement that in turn will lead to engagement (see Figure 1).

Meeting Relevance and the Psychological Conditions for Engagement

Meeting relevance refers to the degree to which workgroup meetings called by the manager are perceived as relevant to the employees who attend the meeting (Allen, Sands, Mueller, Frear, Mudd, & Rogelberg, 2012). In terms of psychological meaningfulness, relevant meetings are experienced as valuable and good uses of employee time (Allen et al., 2012). Furthermore, meetings perceived as relevant serve to demonstrate respect to the employee's efforts on the job as they more readily promote achievement and goal accomplishment. Irrelevant meeting on the other hand, can demonstrate a lack of appreciation for an employee's workload, responsibilities, and goals which should serve to decrease psychological meaningfulness.

Relevant meetings also promote psychological safety. By ensuring the topics discussed are related to the employees' work-related activities, employees are in position to contribute

actively to the discussion in hand (Sonnentag, 2001; Allen et al., 2012). Alternatively, if the topics are not perceived as relevant, but the employee is still present, they are not able to actively participate to the same extent. In fact, broaching tangential topics and/or topics not central to the employee may serve to threaten self-image given that the employee is then not well-positioned to present him or herself in a positive light to others or their supervisor.

As for psychological availability, the connection to meeting relevance would appear fairly direct. Relevant meetings, by definition, should provide employees with the information and knowledge resources they see as needed to effectively carry out their role. As a result, by their very nature, relevant meetings should promote psychological availability. This is consistent with goal setting theory which suggests that one way to increase worker motivation is by connecting work processes and projects to overt goals of the organization as well as personal goals of the employee (Klein, Wesson, Hollenbeck, & Alge, 1999).

Thus, the following are hypothesized:

Hypothesis 1a: Meeting relevance is positively related to psychological meaningfulness.

Hypothesis 1b: Meeting relevance is positively related to psychological safety.

Hypothesis 1c: Meeting relevance is positively related to psychological availability.

Voice and the Psychological Conditions for Engagement

Voice in meetings refers to the degree to which managers encourage employees to speak up in workgroup meetings and provide them with adequate time to express their thoughts and ideas in the meeting setting (Gordon & Infante, 1980; Appelbaum, Hebert, & Leroux, 1999). Instead of simply asking for feedback on particular decisions relevant to each employee's job (i.e. participation in decision making), managers also promote the free flow of ideas and opinions more generally about all topics discussed during the meeting. Employees who feel they have

voice in meetings are likely to be willing to bring up issues, concerns, or problems they are facing rather than simply responding to decision points presented by the manager. Encouraging voice in meetings may impact all three psychological conditions for engagement.

In terms of psychological meaningfulness, employees are likely to feel like a valued member of the work-group when they feel that managers are encouraging them to share their ideas in meetings. These feelings of freedom of expression also help employees develop psychological safety by enabling them to feel safe to share ideas without experiencing negative consequences to their self-image. After all, it is hard to imagine employees perceiving meetings as having voice, if they did not truly feel safe to contribute and participate. Further, when employees' ideas are shared openly, answers to questions raised in the meeting may be answered more fully which should provide for increased intellectual resources needed for them to engage in their work – thus promoting psychological availability. Thus, the following are hypothesized:

Hypothesis 2a: Voice in meetings is positively related to psychological meaningfulness.

Hypothesis 2b: Voice in meetings is positively related psychological safety.

Hypothesis 2c: Voice in meetings is positively related to psychological availability.

Meeting Time Management and the Psychological Conditions for Engagement

Meeting time management is the extent to which managers start meetings on time, end when scheduled to end, and schedule meetings with adequate time for employees to arrange their other activities for the day. In terms of the psychological conditions for engagement, effective time management behavior may facilitate the experience of psychological meaningfulness for the employee by demonstrating that the manager cares and respects their time (Kahn, 1990). Furthermore, workgroup meeting time management may promote psychological safety by ensuring predictability (e.g., respect for the attendees' schedule) in the work environment so that

the employee is able to effectively meet his or her other commitments (Kahn, 1990). Finally, in terms of psychological availability, managers who schedule workgroup meetings in an appropriate manner (e.g. not over-scheduling meetings) do not overly infringe upon employees time, which is a scarce resource that is likely related to employees' availability to engage. Thus, the following are hypothesized:

Hypothesis 3a: Meeting time management is positively related to psychological meaningfulness.

Hypothesis 3b: Meeting time management is positively related to psychological safety.

Hypothesis 3c: Meeting time management is positively related to psychological availability.

According to Kahn (1990), as discussed earlier, psychological meaningfulness, safety and availability define "the experiential conditions whose presence influenced people to personally engage and whose absence influenced them to personally disengage" (p. 703). In other words, these psychological conditions are necessary for engagement to occur and without them, individuals may not incorporate themselves in their work. Additionally, previous research shows the connection between these psychological conditions and overall engagement (see May et al., 2004) and this study seeks to confirm those relationships once more. Thus, the following are proposed:

Hypothesis 4a: Psychological meaningfulness is positively related to employee engagement.

Hypothesis 4b: Psychological safety is positively related to employee engagement.

Hypothesis 4c: Psychological availability is positively related to employee engagement.

Ultimately, though, we are proposing a mediated model whereby the three psychological conditions mediate the relationship between manager usage/facilitation of meetings and employees engagement at work (see Figure 1). Previous research often neglected to examine these psychological conditions (e.g. Saks, 2006) that Kahn originally theorized must be met before attitudinal and behavioral engagement could occur for individuals (Kahn, 1990). Further, akin to what is seen in the organizational support framework, it is likely that manager usage/facilitation of meetings first impacts employees psychologically before their attitudes and behaviors change (i.e. engagement). In this study, the focus is on the development of the employee engagement attitudes (see Macey & Schneider, 2008 for a discussion of attitudinal versus behavioral engagement), though the general assumption is that the attitude precedes behavioral engagement. Thus, the following mediation hypotheses are proposed.

Hypothesis 5a: Psychological meaningfulness will mediate the relationship between manager usage/facilitation of meetings (i.e. meeting relevance, voice, and meeting time management) and overall employee engagement at work.

Hypothesis 5b: Psychological safety will mediate the relationship between manager usage/facilitation of meetings (i.e. meeting relevance, voice, and meeting time management) and overall employee engagement at work.

Hypothesis 5c: Psychological availability will mediate the relationship between manager usage/facilitation of meetings (i.e. meeting relevance, voice, and meeting time management) and overall employee engagement at work.

We also propose that this mediated model persists even while controlling for important attitudinal (i.e. satisfaction with supervisor and work satisfaction) and meeting related (i.e. meeting load) variables (Luong & Rogelberg, 2005).

Methods

Participants and Procedure

Participants for this study were recruited from among the alumni of a large university in the Southeast United States. A pre-notification email was sent to potential participants (n = 11,552). This pre-notification email served two purposes: 1. to screen out non-deliverable email addresses and 2. provide notification that a survey would be arriving via email soon. A total of 3,142 email addresses were non-deliverable and were removed from the distribution list. Two surveys were administered in an effort to test the forgoing hypotheses. The surveys were administered using an online survey tool (i.e. surveymonkey). After sending the pre-notification email, an email invitation was sent which included the link to the first survey. The first survey assessed demographics, meetings related variables, and psychological conditions. One week later, a second survey was emailed to those who completed the first survey. This second survey assessed employee engagement and satisfaction with the supervisor.

Through the development and administration of the surveys, two major steps were taken to mitigate common-method bias concerns. Most substantively, measurement of the outcome variable was separated in time from measurement of the predictor variables. Another procedural remedy for common-method bias was counterbalancing question order on the survey instrument (Conway & Lance, 2010; Podsakoff, MacKanzie, Lee, & Podsakoff, 2003). By rearranging the order of the measures on survey one, we were able to better control for item-context-induced mood states, priming effects, and other biases related to question context or item location on the survey. For this study, five different versions of the first survey were created. Each survey had a different ordering of variables/scales for participants to assess.

Of the potential participants who received the link to the first survey in a subsequent email (n = 8,410), 673 completed the survey for a response rate of 8%. Because the response rate was so low, the email list administrator (i.e. direct of the university's alumni association) was contacted for feedback on why so few people participated. The email list administrators indicated that at least 50% of the emails are not checked frequently. Therefore, the actual response rate is approximately 16%.

Given the study's focus, the population of interest is working adults who attend meetings on a regular basis with their supervisor. Participants in this sample who did not meet these criteria were removed and were not asked to participate in the second survey (n = 86). Thus, a total of 587 individuals were sent an invitation to complete the second survey. Of those individuals, 63.2% (n = 370) completed the second survey. Following recommendations from current SEM researchers (Schumacker & Lomax, 2004), respondents with more than 5% of their data missing or who had more than 2 items missing from the focal scales were dropped (n = 51). Thus the final usable sample included 319 respondents. Item-mean substitution was used to replace all missing values before proceeding with data analysis. The sample was 52.7% female with an average age of 43 years. The average tenure with their current work organization was 9.5 years and 3.7 years with their current supervisor. Ninety-seven percent were college graduates and worked more than 20 hours per week. About half the sample indicated they supervise others (49%). The sample also represented a variety of organizational types: 32% publicly traded firms, 19% privately held firms, 16% non-profit firms, and 33% public sector (e.g. government).

Since these response rates are low, a number of steps were taken to check for nonresponse bias following current guidelines from survey research methodologists (e.g.,

Rogelberg & Stanton, 2007). First, a wave analysis was conducted. Early respondents did not differ from later respondents (submitted after the imposed deadline) on the variables assessed in survey one. Second, an interest-level analysis was conducted comparing those who indicated they wanted to receive a summary of the results to those who did not indicate an interest in seeing a results summary. It was assumed that those who said they wanted a summary of the results were more interested in the topic and may be more motivated to take the survey. If interest level is related to participants' standing on the topics that make up the survey (e.g. if interested individuals have more meetings), the survey results may be susceptible to bias as more interested individuals tend to respond more readily (Rogelberg & Stanton, 2007). Results indicate that the means and standard deviations on the focal variables were nearly identical across these groups providing further evidence that nonresponse bias was not present in this data. Third, sample demographic parameters (e.g. education, gender, and age) were nearly identical to what was known about the overall population. Fourth, split-group mean comparison analyses were used to verify that those who completed both surveys did not differ substantially from those who completed only the first survey (and received the second survey invitation) on the focal predictor variables. The analyses showed no significant mean differences. Based on these analyses, nonresponse bias did not appear to be present.

Measures

Since the focus of this study is on manager usage/facilitation of meetings, all the meetings variables focused on only meetings led by the manager (e.g. Baran et al., 2012). Survey directions asked participants to only think about meetings their manager led. Additionally, all measures showed acceptable internal reliabilities ($\alpha > .70$) as shown in Table 1.

Insert Table 1 about here

Voice was assessed using a seven item measure adapted from Gordon & Infante (1980) focusing on the degree to which employees felt they had voice and freedom to discuss concerns in the meeting context. Participants were asked to "Think of the meetings with your supervisor that he/she leads. Regarding ONLY these meetings, how frequently does he/she do the following:". Similar instructions are used for all meeting related measures. Sample items include "Give employees time to express concerns about company policies" and "Provide time for employees to express disagreements with management practices". Ratings were made using a 5-point scale ranging from 1 being "never" to 5 being "always.

Meeting time management was assessed using a five item measure adapted from Baran and Shanock (2010) focusing on how the manager schedules and uses meeting time. A sample item is "Start meetings on time". Ratings were made using a 5-point scale ranging from 1 being "never" to 5 being "always.

Meeting relevance was assessed using seven items adapted from Sawyer's (1992) goal and process clarity scale. The items were modified to assess whether supervisor-led meetings are relevant to the accomplishment of work goals. A sample item is "Meetings led by my supervisor are relevant to my job". Items were assessed using a 5-point scale ranging from 1 being "strongly disagree" to 5 being "strongly agree".

Psychological Conditions for Engagement were assessed using items developed by May, Gilson, and Harter (2004). All scales were rated using a 5-point scale ranging from 1 being "strongly disagree" to 5 being "strongly agree". Instructions for each scale state "Think about the work that you do. Indicate the extent to which you agree or disagree with the following statements". *Meaningfulness* was assessed using six items (e.g. "the work I do on this job is very

important to me"), *Psychological Safety* was assessed using three (e.g. "My work environment is non-threatening"), and *Psychological Availability* was assessed using five items (e.g. "I am confident in my ability to handle competing demands at work").

Employee Engagement was assessed using the Utrecht Work Engagement Scale (UWES) designed to assess overall employee engagement (Schaufeli & Bakker, 2003). This is a 16 item measure designed to assess three facets of employee engagement: vigor, dedication, and absorption. The instructions read "The following statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job". Sample items include "At my work, I feel bursting with energy", "I find the work that I do full of meaning and purpose", and "Time flies when I am working". Ratings were made on a 5-point scale, ranging from 1 being "never" to 5 being "always". Research evidence indicates that the three dimensions of work engagement are highly correlated (e.g. $r > .65$) (Schaufeli & Salanova, 2007) and often examined as one overall factor (Mauno, Kinnunen, Makikangas & Natti, 2005; Halbesleben & Wheeler, 2008). In the present study the mean correlation between the three dimensions was found to be consistent with previous research (*average* $r = .70$). Given parsimony and that a confirmatory factor analysis showed that the one-factor model fit as well as the three-factor model for the current sample, an overall score for employee engagement was computed for each respondent (CFA results available upon request from the first author).

Control Variables. As will be discussed below, we used three control variables to rule out alternative explanations/confounding factors. *Meeting load* was assessed using 2 items designed to assess the amount of meetings employees have with their supervisor/manager (Baran & Shanock, 2010). These items asked questions concerning the number of meetings and amount of time spent in meetings with their supervisor (e.g. how many meetings do you attend in a

typical week that are led by your supervisor/manager?) (Luong & Rogelberg, 2005). Because these two items use different scales (i.e. number of meetings versus hours in meetings), they were converted to z-scores prior to combining them as a composite for analysis. *Supervisor and work satisfaction* were assessed using ten items from the abridged version of the JDI (Stanton, Sinar, Balzer, Julian, Thoresen, & Aziz, 2001), which assesses employees' satisfaction with their supervisor and their work. Instructions for the supervisor satisfaction scale stated "Think of your supervisor and the kind of supervision that you get on your job. How well does each of the following words or phrases describe your supervisor?" A sample item is, "praises good work". Instructions for the work satisfaction scale stated "Think of the work you do at present. How well does each of the following words or phrases describe your work?". A sample item is, "Gives a sense of accomplishment". Ratings were made on a 3-point scale used in the original version of the scale ("yes", "no", and "?"). Standard JDI scoring protocols were followed.

Results

Descriptive Statistics

Means, standard deviations, internal reliabilities, and intercorrelations among the variables used in this study are reported in Table 1.

Discriminant Validity of the Constructs

A confirmatory factor analysis was conducted to examine the distinctiveness of all ten focal variables. The model fit for each of the nine nested models was compared ranging from a single-factor model to a ten-factor model (e.g. Rahim & Magner, 1995; Lance & Vandenberg, 2002). Table 2 shows the results of these analyses. Specifically, the one-factor model includes all focal measures combined. Each subsequent model separates each measure out (i.e. voice, meeting time management, meeting relevance, meaningfulness, safety, availability, employee

engagement, supervisor satisfaction, work satisfaction, and meeting load), one-by-one, until the ten-factor model which separates each measure into distinct factors.

Insert Table 2 about here

Considering several fit statistics, the ten-factor model showed the best overall fit. Although each more differentiated model showed a significantly better chi-square statistic (James, Mulaik, & Brett, 1982), in comparison with the other models, the ten-factor model showed better root-mean-square errors of approximation (RMSEA: Browne & Cudeck, 1993) and had both comparative fit index (CFI: Bentler, 1990) and Tucker-Lewis Index (TLI: Tucker & Lewis, 1973) values above their recommended cutoffs of .90. All items in the ten-factor model loaded reliably on their predicted factors; the lowest loading was .35.

Proposed Model and Hypotheses

Figure 1 shows the standardized path coefficients estimated by LISREL 8.80 for the proposed full-mediation model. Two other models were tested as comparison points for assessing the efficacy of the proposed model in explaining the relationships hypothesized: a direct effects model and a partial mediation model (see Table 3).

Insert Figure 1 about here

Insert Table 3 about here

Hypothesis 1a indicated that meeting relevance would positively relate to employees' psychological meaningfulness. Consistent with this hypothesis, the path coefficient for the relationship between meeting relevance and meaningfulness was significant with the expected

sign (β = .23, p < .05). However, meeting relevance was not significantly related to safety (Hypothesis 1b) or availability (Hypothesis 1c).

Hypotheses 2a, b, and c stated that voice would positively relate to employees' psychological meaningfulness, safety, and availability, respectively. Consistent with Hypothesis 2b, voice significantly predicted psychological safety (β = .64, p < .05), but was unrelated to both meaningfulness (Hypothesis 2a) and availability (Hypothesis 2c).

Hypotheses 3a, b, and c suggested that meeting time management would be positively related to employees' psychological meaningfulness, safety, and availability, respectively. Consistent with these hypotheses, the path coefficient for the relationship between meeting time management and meaningfulness, safety, and availability were significant and in the expected direction (β = .24, .19, .25, respectively, p < .05).

Hypotheses 4a, b, and c suggested that psychological meaningfulness, safety, and availability, respectively, would be positively related to overall employee engagement. Consistent with these hypotheses, psychological meaningfulness, safety, and availability had significant positive relations with engagement (β = .76, .24, and .16, respectively, p < .05).

Structural equation modeling with LISREL 8.80 was used to test the hypothesized model presented in Figure 1 as well as several additional models (see Table 4). The proposed full-mediation model showed good fit, $\chi^2(1209) = 2964.43$, p < .05; RMSEA = .06, TLI = .97, CFI = .97. To test the meditational hypothesis, two processes were followed given current conventions concerning testing mediation hypotheses using SEM (Mackinnon, Coxe, & Baraldi, 2012). First, the steps described by Kenny, Kashy, and Bolger (1998) were followed and tested simultaneously using SEM (see Figure 1). Second, the indirect effects of the main predictors (i.e. meeting relevance, meeting time management, and voice) on the outcome (i.e. employee

engagement) through the mediators (i.e. psychological conditions for engagement) were tested using bootstrapping methods developed by Preacher and Hayes (2008).

First, for Hypothesis 5a, regarding psychological meaningfulness as a potential mediator, meeting relevance and meeting time management were related to engagement through psychological meaningfulness. For Hypothesis 5b, regarding psychological safety as a mediator, voice and meeting time management were related to engagement through psychological safety. For Hypothesis 5c, regarding psychological availability as a mediator, meeting time management related to engagement through psychological availability. Figure 1 provides an illustration of the proposed model with these significant paths shown.

Second, using 5,000 bootstrap samples, indirect effects estimates were computed along with 95% confidence intervals around the estimates. Results of these analyses are reported in Table 4. All the indirect effects were significant ($p < .05$) except the effect of meeting time management on employee engagement through psychological availability.

Insert Table 4 about here

As an alternative test of the proposed model, a partial mediation model was tested in which a direct path from each of the meetings variables to engagement was added. None of these direct paths were statistically significant. Additionally, the approximate fit indices (i.e. CFI, TLI, and RMSEA) for this partial mediation model were essentially the same as the full mediation model. Further, since the partial mediation model is nested within the full mediation model, the chi-square difference test is an appropriate statistic for comparing these two models. Interestingly, the test showed a non-significant reduction in the chi-square statistic ($\chi^2(3)$ *difference* = .80, $p > .05$), suggesting that the partial mediation model does not represent the data

better than the full mediation model. All these results, taken together, provide support for Hypothesis 5a and 5b, with partial support for 5c.

Finally, in an effort to verify that the three meeting variables were not just proxy variables for overall satisfaction with the supervisor, their work in general, or a function of their meeting load (which was shown to be related to employee well-being; Luong & Rogelberg, 2005), a revised model was tested controlling for these factors. The revised model allows supervisor satisfaction, work satisfaction, and meeting load to predict each of the psychological conditions for engagement and overall engagement. Although all the models appear to have adequate fit, the contribution here is the fact that all but one of the paths (i.e. path from meeting time management to psychological safety) from the original proposed model (see Figure 1) remained significant in the revised model. Overall, these analyses suggest that employees' satisfaction with their supervisor and work are not confounding factors. Additionally, it suggests that the observed relationships exist across various levels of meeting load.

Discussion

Manager-led group meetings appear to be a context in which employee engagement can be promoted. In this study, four fully mediated relationships demonstrated that managers usage/facilitation of meetings related to employee engagement through psychological meaningfulness, safety, and availability (see Figure 1). Contrary to expectations, meeting relevance, voice, and meeting time management differentially related to each of the psychological conditions – some psychological conditions were more salient than others. First, meeting relevance and meeting time management related to psychological meaningfulness while voice did not. This suggests that managers who attempt to make their meetings more relevant (i.e. accomplishing organizational and employee goals; Reinig, 2002) to attendees as well as

manage their meeting time effectively (e.g. start/end on time) may help employees feel more meaning from their work thereby promoting engagement. In terms of relevant meetings, managers who make their meeting relevant to employees may be demonstrating a level of respect towards their employees given their other obligations and goals. Meetings that are not relevant to an employee are likely viewed as a waste of time, energy, and effort by the employee. In fact, recent practical recommendations to managers suggests that providing an "opt-out" clause for meetings for employees which would allow them to excuse themselves from a meeting may be ideal (Rogelberg, et al., 2007). Further, in terms of meeting time management, these relevant meetings that start/end on time and use employee time effectively shows care and respect for employees (Kahn, 1990). This is consistent with Kahn (1990) who suggest that job tasks that involve a "clear delineation of procedures and goals" are likely to positively influence the development of psychological meaningfulness (p. 705). Surprisingly, voice was not related to psychological meaningfulness. One possible explanation is that voice behaviors need to be validated by the group in order for feelings of value and worth to be experienced (Detert & Burris, 2007).

With regard to psychological safety, meeting time management and voice were significant correlates, however, meeting relevance was unrelated. This suggests that employees appear to feel more psychologically safe when managers schedule their meeting at appropriate times and start/end their meetings according to schedule. As previously stated, meeting time management behaviors ensure predictability in the work environment (Kahn, 1990). Predictability from a time perspective, allows employees to schedule their other work commitments around the meetings in a way they personally find effective and helps them feel safe to schedule other activities throughout the day. In terms of voice, it stands to reason that

when employees feel safe to share ideas in meetings without personal attacks upon their self-image, they would also feel psychological safe in others areas of their work. Thus, the meeting may become a location to promote feelings of safety that subsequently permeates the work environment allowing employees to contribute their whole-selves and engage more broadly.

With regard to the lack of findings for meeting relevance and psychological safety, this may be due more to the nature of the actual meeting purpose. Given the diversity of meeting purposes (Cohen et al., 2010), it is not hard to imagine a meeting that is both relevant to employees and experienced as psychologically unsafe. For example, meetings concerning layoff decisions are relevant to employees affected by the layoffs. However, employees would probably not leave that meeting with increased feelings of safety to fully engage in their work.

Finally, with regard to psychological availability, only meeting time management was a significant correlate. The other two manager usage/facilitation of meetings variables were unrelated to psychological availability. It appears that managing meetings effectively from a time perspective may help provide the resources employees need to engagement. Employees often view meetings as interruptions (Rogelberg et al., 2006) and meetings are always effortful events that require cognitive resources (Allen et al., 2012). Thus, anything a manager can do to reduce the resource imprint of a given meeting is ideal.

However, it should be noticed that the mediated framework showing meeting time management relates to engagement through psychological availability was not statistically significant (see Table 4). In looking at the results, clearly psychological meaningfulness is absorbing much of the relationship between the psychological conditions for engagement and overall engagement. The complexity of the model and the presence of meaningfulness in the model may actually be obscuring, to some extent, the strength/importance of psychological

availability. Further, the path coefficient between meeting time management and availability was the strongest of the three paths between meeting time management and the psychological conditions. Thus, the time management aspect is clearly important and should not be overlooked simply because the availability to engagement relationship is less robust.

In sum, the findings suggest that how managers use/facilitate their group meetings promotes the psychological conditions in varied ways necessary for an engaged workforce.

Empirical Contributions

This study contributes to the literature concerning the various antecedents of employee engagement. Previous research tended to focus on more global job characteristics (e.g. autonomy, training, technology; Salanova et al., 2005) as well as employee attitudes about their job (e.g. perceive organizational support and procedural justice; Saks, 2006) as antecedents to engagement. In contrast, this study narrows the focus to a particular context, the meeting, and the types of supportive behaviors and processes that managers can follow to promote engagement. This study demonstrates that managers may be able to promote engagement by simply running their workgroup meetings more effectively in terms of allowing open communication, starting/ending on time, and calling relevant meetings. These relationships were shown to remain even after controlling for previously tested attitudinal antecedents to employee engagement, supervisor and work satisfaction (May et al., 2004). Additionally, these relationships remained after controlling for meeting load suggesting that employees with few or many meetings are still impacted by the way managers facilitate the meeting tool.

The current study contributes to the growing body of literature on workgroup meetings. The call to study meetings as an important social phenomenon was relatively recent (Rogelberg, et al., 2006). As such, the literature base on workgroup meetings is rather nascent and many

areas of inquiry exist for research. One area that seemed lacking in the meetings literature was a connection between workplace meetings and employee performance. Although recent research is beginning to bridge this gap (Rogelberg, Allen, Shanock, Scott, & Shuffler, 2010), no study has focused on how workgroup meetings affect employee and organizational performance. By showing a relationship between how managers use/facilitate meetings and employee engagement, this study connects the design and execution of meetings to important employee outcomes. Since employee engagement is an important predictor of employee performance (Crawford et al., 2010), showing that meetings can promote an engaged workforce illustrates their potential importance for achieving competitive advantage through improved performance. Therefore, this study adds to the legitimacy of researchers and practitioners growing focus on studying and improving workgroup meetings within organizations.

Practical Implications

The current findings illustrate a general need to maximize the quality and effectiveness of organizational meeting. To do so, a learning, feedback, and accountability approach will likely be needed (Rogelberg, Shanock, & Scott, 2012). This starts with the teaching and development of meeting skills in managers. This is not only relevant for current managers, but should be an important piece of the onboarding process for new leaders. Next, feedback and accountability systems for managers that target meetings should be developed. For example, 360-degree appraisal systems or employee surveys could easily include a section evaluating employees' meetings with managers and managers' performance in workgroup meetings. These surveys could also be implemented as a focused initiative looking at a series of meetings by a single manager. For example, employees who attend meetings with this manager would provide assessments over a given period of time (e.g. a week) for each meeting they attend. This would

allow a more focused assessment of the managers' meeting skills, highlight areas for improvement, and illustrate skills that organizational leaders may wish to propagate among managers in their organization generally. Ultimately, making leaders aware of the importance of their meeting activity, providing feedback on set activity, and creating a development plan to leverage strengths and mitigate weakness, when compounded across leaders, can serve to further strengthen employee engagement initiatives across the organization.

Relatedly, managers should consider specific ways in which they can make their workgroup meetings relevant to meeting attendees. In this study, meeting relevance was assessed as the perception of employees that their meetings are relevant. As such, the study does not identify key tasks that managers can do to make their meetings relevant to employees or how relevance for one participant may result in irrelevance for another participant. However, a manager might consider taking a goal setting approach to their meetings. A meeting goal is "any need or want that an individual makes a conscious effort to fulfill" within the meeting context (Reinig, 2002, p. 2). When managers communicate the link between employee work goals and the goals of the organization and deliberately connect the meeting purposes to these shared goals, the meetings may take on more meaning for employees.

Limitations and Future Directions

Though this study is an important first step within the engagement and workgroup meetings literature, several limitations exist as well as opportunities for future research. An obvious methodological limitation of this study is the use of correlational analysis and the resulting inability to draw causal conclusions despite the fact that a time-lag assessment of engagement was introduced. This is particularly salient with the direction of causality between voice, the psychological conditions, and engagement. One could argue that voice may be a

manifestation of an employee's engagement in their work as opposed to something that causes them to feel engaged. When an employee incorporates their whole self in their work role, they may see relationships between work tasks and their other life experiences not otherwise acknowledged and then feel encouraged to express those ideas. Thus, engagement may create a desire to voice opinions and ideas. Though theory supports the current causal inferences, future research can address this limitation by using experimental designs. For example, one could vary the levels of some of the meetings variables (e.g. meeting time management) across meeting contexts and assess the degree to which individuals leave the meeting experiencing more or less of the psychological conditions for engagement. This would allow for a more clear indication of the degree to which certain strategic meeting behaviors are important to the development of employee engagement.

Another limitation related to the sample is the possibility of range restriction on the education level variable which may reduce generalizability. According to the U.S. Census Bureau (2000), only 24.4% of the population has completed a bachelor's degree (or four year equivalent). Since 97% of the sample was college graduates, it does not accurately reflect the variance in education level within the workforce. This artifact of the data is a direct result of the sampling frame (i.e. university alumni), thus future research can benefit from targeting a more diverse sample. Doing so will allow for greater generalizability to other areas of the workforce.

Another limitation of this study is the deliberately narrow content coverage. This study focused on meetings as a location for promoting engagement in the workplace. As such, the variables measured focused almost exclusively on characteristics of the meeting and of the behaviors of managers associated with their workgroup meetings. However, previous research showed other job attitudes (e.g. organizational support, supervisor support, and procedural

justice) are related to overall employee engagement (Saks, 2006; Crawford et al., 2010). Although the alternative model incorporates two such critical and theoretically the most relevant antecedents given the topic area of meetings (satisfaction with one's supervisor and work satisfaction), future research should consider modeling both the meetings variables and other job attitudes concurrently. This will allow for a more nuanced understanding of the contribution of effectively run meetings to overall employee engagement.

Another potential future direction stems from the fact that the current study focused on global assessments of employees' experiences in their workgroup meetings rather than focusing on the nature of any single meeting experience. Although this is a necessary first step in understanding the importance of meetings generally, future research could begin to look at specific meetings that supervisors' lead and how they impact employees' from an engagement perspective. One way to do this would be to perform a diary study. Employees would provide ratings of various meeting characteristics after each meeting over a given period of time. They would also provide assessments of their level of the psychological conditions for engagement and overall engagement on a meeting-by-meeting basis. This within-subjects multi-level (i.e. events nested within individuals) design would allow for both an understanding of how meeting characteristics and process affect individuals, but also how individual characteristics may affect the evaluation of the meetings.

Conclusion

In conclusion, research and theory cogently discuss the importance of engagement to individual and organizational effectiveness. This study provides evidence that an often ignored context, workgroup meetings, can be used to develop the psychological conditions for engagement and overall employee engagement. Specifically, as managers make their workgroup

meetings relevant, allow for employee voice in their meetings where possible, and manage the meeting from a time perspective, employees appear poised to fully engage themselves in their work in general. Thus, workgroup meetings are sites where engagement can be fostered or, if not conducted properly, sites where engagement can be derailed. Given the sheer frequency of meetings at work, researchers and practitioners should devote more attention and resources to developing and improving their meetings.

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Table 1: Means, Standard Deviations, and Intercorrelations of all Measures

	M	SD	1	2	3	4	5	6	7	8	9	10
1. Voice	3.47	.95	(.93)									
2. Meeting time management	3.83	.76	.56*	(.86)								
3. Meeting Relevance	3.66	.90	.68*	.53*	(.95)							
4. Meaningfulness	4.14	.77	.26*	.31*	.32*	(.95)						
5. Safety	3.79	.64	.56*	.40*	.42*	.32*	(.82)					
6. Availability	4.37	.50	.11*	.18*	.05	.26*	.31*	(.87)				
7. Employee Engagement	3.70	.59	.29*	.32*	.32*	.74*	.42*	.30*	(.93)			
8. Supervisor Satisfaction	2.31	.87	.58*	.53*	.64*	.22*	.52*	.01	.30*	(.78)		
9. Work Satisfaction	2.55	.84	.29*	.27*	.28*	.65*	.39*	.10	.64*	.37*	(.87)	
10. Meeting Load^	.00	.94	.05	-.07	.09	.01	.01	.07	.02	.01	.04	(.88)

Note: $N = 319$. Diagonal values are the internal consistency estimates for each scale. ^variable computed using z-scores. * = $p < .05$ (2-tailed).

Table 2: Confirmatory Factor Analyses for All Focal Measures

Model	CFI	TLI	χ^2	df	Difference	RMSEA
One-factor	.86	.86	19934.04*	1890		.17
Two-factor	.89	.88	13418.57*	1889	6515.47*	.14
Three-factor	.90	.90	11363.65*	1887	2054.92*	.13
Four-factor	.91	.91	10614.23*	1884	749.42*	.12
Five-factor	.92	.92	9540.36*	1880	1073.87*	.11
Six-factor	.93	.93	8206.86*	1875	1333.50*	.10
Seven-factor	.93	.93	7702.52*	1869	504.34*	.10
Eight-factor	.94	.94	6400.38*	1862	1302.14*	.09
Nine-factor	.95	.95	5311.63*	1854	1088.75*	.08
Ten-factor	.97	.97	3910.31*	1845	1401.32*	.06

Note. $N = 319$. The one-factor model includes all focal measures combined. Each subsequent model separates each measure out, step-by-step, until the ten-factor model which separates each measure into distinct factors. CFI = comparative fit index; TLI = Tucker-Lewis index; Difference = difference in chi-square from the next model.; RMSEA = root-mean-square error of approximation. * $p < .05$.

Table 3: Fit indices and standardized path coefficients for theoretical models

Measures	Direct Model	Full Mediation Model	Partial Mediation Model
Fit Indices			
Chi-squared	3172.45	2964.43	2963.63
df	1209	1209	1206
CFI	.96	.97	.96
TLI	.96	.97	.96
RMSEA	.07	.06	.07
Direct Effects on Engagement			
Meeting Relevance	.16*	-	.01
Voice	.02	-	-.04
Meeting Time Management	.33*	-	.05
Meaningfulness	-	.76*	.75*
Safety	-	.24*	.24*
Availability	-	.16*	.16*
Direct Effects on Meaningfulness			
Meeting Relevance	.23*	.23*	.22*
Voice	-.07	-.03	-.03
Meeting Time Management	.30*	.24*	.23*
Direct Effects on Safety			
Meeting Relevance	.00	.01	.00
Voice	.51*	.52*	.52*
Meeting Time Management	.20*	.18*	.17*
Direct Effects on Availability			
Meeting Relevance	-.14	-.14	-.14
Voice	.02	.04	.04
Meeting Time Management	.28*	.25*	.25*

Note. N = 319. *$p < .05$.

Table 4: Mediation of the Effects of Manager Usage/Facilitation of Meetings on Employee Engagement Through the Psychological Conditions for Engagement.

		Product of Coefficients		Bootstrapping					
				Percentile 95% CI		BC 95% CI		BCa 95% CI	
	β	*SE*	*Z*	Lower	Upper	Lower	Upper	Lower	Upper
1. MR → M → EE	.15*	.026	5.76	.093	.216	.095	.221	.096	.224
2. V → S → EE	.13*	.024	5.47	.081	.183	.082	.184	.080	.181
3. TM → M → EE	.16*	.029	5.56	.089	.242	.093	.248	.097	.253
4. TM → S → EE	.05*	.014	3.79	.030	.084	.031	.085	.031	.086
5. TM → AV → EE	.01	.006	1.62	-.002	.029	-.001	.030	-.002	.029

Note. N = 319. *$p < .05$. V = voice, TM = meeting time management, MR = meeting relevance, S = Safety, M = meaningfulness, A = availability, and EE = employee engagement. BC = bias corrected; BCa = bias corrected and accelerated; 5,000 bootstrap samples.

Figure 1: Proposed Model with Standardized Path Coefficients * $p < .05$