Running Head: VOICE META-ANALYSIS

A Meta-Analysis of Voice and its Promotive and Prohibitive Forms: Identification of Key Associations, Distinctions, and Future Research Directions

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Abstract

This article reports meta-analyses intended to clarify and enhance our understanding of voice and its promotive and prohibitive forms. We find that undifferentiated constructive voice is associated with a wide range of antecedents that fit in Morrison's (2014) five categories: (a) dispositions, (b) job and organizational attitudes and perceptions, (c) emotions, beliefs, and schemas, (d) supervisor and leader behavior, and (e) contextual factors. However, relative weight analyses reveal a highly dominant variable within each category (personal initiative, felt responsibility, engagement, leader-member exchange and positive workplace climate). We also find that undifferentiated constructive voice has a moderate zero-order association with job performance that is non-significant when task performance and OCB are also considered. Finally, we explore how associations vary as a function of whether voice is promotive or prohibitive. First, there are significant differences in associations with over a third of the antecedents (core self-evaluations, felt responsibility, organizational commitment, detachment, psychological safety, ethical leadership, leader openness). Second, although promotive voice has a positive association with job performance, the opposite is true for prohibitive voice. We conclude with suggestions to enhance our understanding of voice, especially with respect to efforts needed to clarify and distinguish promotive and prohibitive voice.

A Meta-analysis of Voice and its Promotive and Prohibitive Forms: Identification of Key Associations, Distinctions, and Future Research Directions

Constructive forms of *voice*, or relatively discretionary expressions of organizationally-relevant content intended to affect the work context (i.e., policies, practices, procedures, work methods, and goals) and targeted explicitly at someone within the organization, are highly relevant to organizations and employees (Detert & Burris, 2007; Maynes & Podsakoff, 2014; Morrison, 2011; Van Dyne & LePine, 1998). Organizations thrive on the ideas and suggestions of their employees, and a commonly held view is that employees need to speak up to be seen as active contributors and to advance their careers (e.g., Llopis, 2012). Indeed, scholars have reported that unit-level learning and performance may be enhanced when employees share their ideas and opinions (Erez, LePine, & Elms, 2002; Farh & Chen, 2014; MacKenzie, Podsakoff, & Podsakoff, 2011), and that employees who express themselves in this way tend to be viewed as more effective in their jobs, even after more central aspects of their job responsibilities are taken into account (Burris, Detert, & Romney, 2013; Van Dyne & LePine, 1998; Whiting, Podsakoff, & Pierce, 2008). Given the apparent importance of voice to employees and organizations, it should not be surprising that scholars have conducted a great deal of research on the concept. A number of insightful reviews have summarized research findings from the voice literature that have accumulated over the last several decades, and today there appears to be a general consensus regarding a fairly expansive range of correlates of voice that reside within functionally related antecedent and outcome categories (e.g., Fuller & Marler, 2009; Klaas, Olson-Buchanan, & Ward, 2012; Morrison, 2011, 2014; Ng & Feldman, 2012; Thomas, Whitman, & Viswesvaran, 2010; Tornau & Frese, 2013). Unfortunately, however, our understanding of voice is limited in two ways that have important theoretical and practical implications.

First, although existing narrative (Klaas et al., 2012; Morrison, 2011, 2014) and quantitative (Fuller & Marler, 2009; Ng & Feldman, 2012; Thomas et al., 2010; Tornau & Frese, 2013) reviews of the voice literature have identified a large number of the construct's causes and consequences, this work has not provided much insight into which causes may be most important, and also whether associations with important consequences are evident even when behaviors related to voice are also considered in predictive models. Multivariate approaches that account for redundancies among voice antecedents could help identify a relatively small set of uniquely important factors that could be emphasized in future theory building efforts, and also in applied research which could focus on these factors as key points of leverage for influencing voice. Examining how voice uniquely impacts overall job performance above and beyond other behaviors, such as task performance and organizational citizenship behavior (OCB), would not only help us better understand the nature and functioning of voice, but it would also speak to the possibility of expanding multidimensional models of job performance to include voice (e.g., Borman & Motowidlo, 1993, 1997; Rotundo & Sackett, 2002).

Second, although the proposition that constructive voice manifests in two very different ways is taking root in the literature (Liang, Farh, & Farh, 2012), the majority of previous research on voice has not accounted for this distinction, and thus, it is unknown how it may be reflected in the constellation of voice associations that have been studied to date. Some of the voice research has focused on *promotive voice*, or employee suggestions regarding opportunities and initiatives to improve future organizational functioning (Liang et al., 2012; Van Dyne, Cummings, & McLean Parks, 1995). However, there has also been research on *prohibitive voice*, or employee communication intended to address past or current problems and concerns that could otherwise lead to harmful outcomes for the organization (Liang et al., 2012; Van Dyne et

al., 1995). Given the apparent differences in these two forms of voice, conclusions from previous research, which has generally viewed voice as being undifferentiated, may be incorrect or, at best, incomplete. An exploration of how associations with voice may vary based on whether voice is promotive or prohibitive will lend clarity to the literature, and provide insights that can be used to develop voice theory and research. In particular, such an effort could aid in the development of a theoretical framework that considers the causes and consequences of promotive and prohibitive voice, and may also help reconcile alternative views of voice and its dimensionality that have been offered recently (Maynes & Podsakoff, 2014).

The purpose of this article and the research it reports is to explore these important limitations so that a superior understanding and explanation of voice can emerge. We draw on Morrison's (2014) theoretical framework to specify associations among voice and a full array of voice correlates studied by scholars over the last several decades, and we conduct meta-analyses of existing primary research to explore these associations. We then apply meta-analytic estimates to multivariate analyses to identify uniquely important antecedents within the functionally similar categories suggested by Morrison (2014), and also to examine the degree to which voice plays a unique role in explaining job performance over other employee behaviors (i.e., task performance and OCB) that contribute to organizational effectiveness. Finally, we examine the degree to which empirical relationships with voice vary as a function of whether voice is promotive or prohibitive in nature. We conclude with specific suggestions for scholars in an effort to illuminate a clearer and more productive path for future research and theory building.

An Integrative Examination of Voice and Its Promotive and Prohibitive Forms

The original scholarly conceptualization of voice is often attributed to Hirschman (1970), who described voice as a "messy concept because it can be graduated, all the way from faint

grumbling to violent protest; it implies articulation of one's critical opinions rather than a private, 'secret' vote [. . .] and finally, it is direct and straightforward rather than roundabout" (p. 16). Hirschman's observation foreshadowed the breadth of voice scholarship, which has since been reflected in a variety of conceptual frames (e.g., Dutton & Ashford, 1993; Liang et al., 2012; Maynes & Podsakoff, 2014; Rusbult, Zembrodt, & Gunn, 1982; Van Dyne & LePine, 1998). Indeed, the current base of research on voice is extensive, and a number of theoretical and empirical reviews have discussed and summarized relationships among voice and different combinations of correlates (Fuller & Marler, 2009; Klaas et al., 2012; Morrison, 2011; Ng & Feldman, 2012; Thomas et al., 2010; Tornau & Frese, 2013). Drawing upon and extending this body of work, Morrison (2014) offered a general theoretical framework, which we use to integrate the emergent perspectives on voice and to organize voice research with respect to themes or categories of functionally similar correlates.

Associations with Voice

Voice antecedents. Scholars have argued that voice is driven largely by an expansive array of intrinsically and extrinsically focused factors that influence one's willingness and desire to speak up (e.g., Morrison, 2011, 2014). Morrison (2014) provided a framework that placed these voice antecedents into one of five functionally similar categories. These categories include (a) individual dispositions, (b) job and organizational attitudes and perceptions, (c) emotions, beliefs, and schemas, (d) supervisor and leader behavior, and (e) contextual factors.

The first category of antecedents is **individual dispositions**, which refer to fundamental capacities and characteristics of individuals that influence how they tend to feel, think, and ultimately behave (Motowidlo, Borman, & Schmit, 1997). Individuals allocate their personal attention and resources based on conscious and non-conscious decisions (Kanfer & Ackerman,

1989), suggesting that some individuals will be more or less likely to engage in voice because they are inherently more capable or willing to do so. In this regard, voice may be more likely from employees who are perseverant and strive for achievement (LePine & Van Dyne, 2001; Maynes & Podsakoff, 2014), are assertive and outgoing (LePine & Van Dyne, 2001; Maynes & Podsakoff, 2014), and tend to be proactive in dealing with demands or leveraging opportunities (Detert & Burris, 2007). Following from this, and from the existing empirical research, Morrison (2014) argued that *conscientiousness*, *extraversion*, and *proactive personality* are positively related to voice. Additionally, we note that for individual dispositions, as well as other antecedent categories, there are a number of constructs that align well with Morrison's framework, but were not discussed in her work. For example, research suggests that employees tend to use voice when they are amiable and courteous (Crant, Kim, & Wang, 2011), open to new opportunities or change (LePine & Van Dyne, 2001; Maynes & Podsakoff, 2014), take a self-starting approach to work (Ohly, Sonnentag, & Pluntke, 2006), judge themselves as capable organizational contributors (Liang & Gong, 2013), or are enthusiastic or in a good mood (Liu et al., 2014; Tenhiälä & Lount, 2013). These dispositions advance the idea that *agreeableness*, *openness to experience*, *personal initiative*, *core self-evaluation* (*CSE*), and *positive affect* may also be positively associated with voice. In addition, when employees lack positive adjustment and emotional stability (LePine & Van Dyne, 2001), or are in an adverse mood (Detert & Edmondson, 2011; Venkataramani & Tangirala, 2010) – as captured by *neuroticism* and *negative affect* – they may be less likely to engage in voice.

Job and organizational attitudes and perceptions is the second category of voice antecedents. Job attitudes refer to the relatively stable cognitive evaluation of a target along with the associated affect (Schleicher, Hansen, & Fox, 2011), and job perceptions indicate how

individuals understand and interpret their work. Employees engage in voice when they feel obligated to enact constructive change (Liang et al., 2012; Lin & Johnson, 2015), feel positively about their job (Burris, 2012; Morrison, Wheeler-Smith, & Kamdar, 2011), perceive support from coworkers, supervisors, and the organization (Liang & Gong, 2013; Tucker, Chmiel, Turner, Hershcovis, & Stride, 2008), or identify with their unit or organization (Tangirala & Ramanujam, 2008b; Venkataramani & Tangirala, 2010). Additionally, voice may be constrained when employees feel disconnected from their work, co-workers, or their organization (e.g., Burris et al., 2008). Based on this evidence, Morrison suggested that *felt responsibility*, *job satisfaction*, *social support*, and *work-group* and *organizational identification* would motivate voice, and psychological *detachment* would inhibit voice. Additionally, voice is likely when individuals have personal authority over their work and can endorse their actions (Lam & Mayer, 2014; Liu et al., 2014), feel a psychological bond to the organization (Burris, Detert, & Chiaburu, 2008; Farh, Hackett, & Liang, 2007), and perceive the organization to be fair (Zhang, LePine, Buckman, & Wei, 2014). Based on these arguments, we suggest that *autonomy*, *organizational commitment*, and *organizational justice* will be positively related to voice.

Employees' **emotions, beliefs, and schemas** – personal feelings and understanding of the work environment – also influence voice. On one hand, when employees perceive safety in interpersonal risk taking, they will speak up more (Burris & Detert, 2007; Liang et al., 2012). On the other hand, if they believe their ideas won't be heard or that speaking up will bring negative consequences, they may refrain from voice (Burris et al., 2008; Milliken, Morrison, & Hewlin, 2003). Morrison similarly proposed that *psychological safety* motivates employee voice, whereas *futility* and *fear* restrict voice. Employees who perceive that it is safe to invest their physical, emotional, and cognitive energies into their work role, and who believe they have the personal

resources to do so, are also more likely to speak up (Wong, Spence Laschinger, & Cummings, 2010), and thus we include *engagement* as another potentially important antecedent of voice.

Supervisor and leader behavior is considered a key antecedent of voice because leaders can influence workplace norms regarding voice and directly encourage or hinder employee behavior. This may be especially true for leaders who motivate employees and help meet their social needs (Detert & Burris, 2007; Zhang et al., 2014), develop a reciprocating relationship based on loyalty, affect, and trust (Burris et al., 2008; Van Dyne, Kamdar, & Joireman, 2008), make honest and principled decisions (Avey, Wernsing, Palanski, 2012; Neubert, Wu, Roberts, 2013), and are receptive to others' ideas (Burris, 2012; Detert & Burris, 2007). Thus, as Morrison noted, voice may tend to be motivated by *transformational leadership, leader-member exchange* (*LMX*), *ethical leadership,* and *leader openness*; however, when leaders treat employees with sustained hostility or engage in *abusive supervision*, employees may be less likely to voice (Burris et al., 2008; Farh & Chen, 2014). Finally, we suggest that when employees have *trust in a leader*, or a positive expectation about leaders' intentions or behaviors in potentially risky situations, they are more likely to engage in voice (Gao, Janssen, Shi, 2011).

Morrison's final category of voice antecedents is **contextual factors**, which reflect external motivational forces that influence voice. Conditions or events that stretch individuals and evoke the stress process, strain, or coping, drain resources that could be applied to voice (Zhang et al., 2014). Thus, as Morrison suggested, *job and social stressors* tend to inhibit voice. Morrison also suggested that workplace climate influences employee voice. We consider climate broadly and suggest that voice tends to be motivated by a *positive workplace climate,* where the sharing of ideas is encouraged (Lee, Diefendorff, Kim, & Bian, 2014). In contrast, a *negative workplace climate* characterized by excessive complaining, pessimism, or lack of support or

safety, will be negatively related to voice (George & Zhou, 2001).

Although estimates of the relationships between voice and each of the antecedents may provide a useful compendium of knowledge, we note that many of these variables, particularly within each antecedent category, are correlated with one another, making it difficult to discern the unique associations between each antecedent and voice. In other words, the meta-analytic correlations alone cannot be used to indicate which of these factors is most (or least) important in predicting voice. In this regard, a multivariate approach should be used to determine the relative importance of the antecedent variables and their unique associations with voice. Understanding the key predictors of voice would drive future research efforts by directing scholars toward the most relevant causes of voice and allowing a more parsimonious model of voice to emerge.

Voice outcome: Job performance. In addition to antecedent factors that motivate or inhibit voice, Morrison's (2014) framework also considers outcomes of voice. We focus on *job performance,* or the perceived value of the activities an individual contributes to the organization over some defined time period (Borman & Motowidlo, 1993; Motowidlo et al., 1997). Job performance, therefore, is appropriately viewed through the eyes of those who are in a position to judge the overall value of an employee's contributions to the organization. The constructive nature of voice and the underlying intention to benefit the organization suggests that using voice may enhance the perceived value of an employee to the organization; however, research on the impact of voice on job performance has shown both positive (e.g., Van Dyne & LePine, 1998; Whiting et al., 2008) and negative associations (e.g., Burris, 2012; Klaas & DeNisi, 1989). Explaining this issue with meta-analysis could potentially reconcile these mixed findings.

As discussed above in the context of voice antecedents, a multivariate approach may also provide additional insight in understanding the relationship between voice and job performance.

Specifically, it is important to consider the effect of voice on job performance in light of other job-related contributions. Most important perhaps, effects of voice should be considered alongside *task performance*, which refers to employee activities that contribute more directly to the organization's technical core and which are typically specified in job descriptions (Borman & Motowidlo, 1993; Rotundo & Sackett, 2002; Williams & Anderson, 1991), and *organizational citizenship behavior* (*OCB*), which involves affiliative activities that contribute to the organization by enhancing the social and psychological functioning of the work context (Organ, 1997; Rotundo & Sackett, 2002), as both have been shown to correlate with voice (Van Dyne & LePine, 1998). We should note here that some scholars have suggested that because voice may be relatively discretionary and influence the quality of the social and psychological context, it can be considered a form of OCB, or its close cousin, contextual performance (Podsakoff, Whiting, Podsakoff, & Blume, 2009). However, given the clear conceptual distinctions regarding the specific activities involved and their focus (i.e., OCB is affiliative whereas voice is challenging), together with empirical evidence supporting their discriminant validity, we believe voice and OCB reflect related but distinct phenomena, and should be considered separately in research that attempts to establish their effects (Motowidlo, 2000; Van Dyne & LePine, 1998). As such, a multivariate approach to voice outcomes could ascertain whether the unique association between voice and job performance changes in strength and consistency when simultaneously considering the influence of task performance and OCB on job performance.

> *Research Question 1a: What is the strength and consistency of associations between voice and its antecedents, and which of these associations are most uniquely important?*
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> *Research Question 1b: What is the strength and consistency of the association between voice and job performance, and does voice have a unique association with job*

performance when task performance and OCB are also considered as predictors?

Accounting for Potential Differences in Voice

Thus far, we have broadly considered voice as a constructive behavior reflecting the expression of ideas and suggestions that are intended to change the work environment in a way that benefits the organization (Maynes & Podsakoff, 2014). Employees who use voice for this end may seek to improve organizational functioning through the expression of novel ideas that capitalize on opportunities for improvement, and also through expressions focused on dissatisfying conditions or deficiencies. In other words, although constructive voice reflects employee desires to improve the organization, this desire can be expressed and framed in fundamentally different ways. These manifestations of voice have been described as promotive voice and prohibitive voice, respectively (Liang et al., 2012).

The nature of promotive and prohibitive voice. The content of *promotive voice* centers on expressing opportunities to enhance organizational functioning by doing new things in new ways in the future. For example, employees engage in promotive voice when they offer novel ideas to achieve goals and perform work tasks (Zhou & George, 2001) and when they express ideas and identify means by which organizational functioning could be improved (Dutton & Ashford, 1993). Central to the notion of promotive voice is the idea that changes to the current work environment are expressed with a future-oriented outlook (Liang et al., 2012) or are focused on long-term improvements and innovation (Qin, DiRenzo, Xu, & Duan, 2014). Consequently, promotive messages are often framed as expressions of "what could be" and are embedded with good intentions that are often readily interpreted as being positive (Liang et al., 2012).

Prohibitive voice, in contrast, involves employee expressions intended to benefit the

organization by preventing negative consequences. The content of prohibitive voice is problem-focused in nature (Morrison, 2011) because it emphasizes harmful, failing, or wrongful work practices or events that currently exist (Liang et al., 2012). For example, employees use prohibitive voice as a means of generating awareness of specific dissatisfying aspects of work (Farrell, 1983; Hirschman, 1970; Withey & Cooper, 1989), calling attention to problematic practices misaligned with the organization's values (Miceli & Near, 1985), or actively objecting to the status quo based on a violation of standards of justice, honesty, or economy (Gorden, 1988; Graham, 1986; Van Dyne et al., 1995). By attempting to stop these damaging or adverse organizational behaviors or activities, prohibitive voice can often evoke negative emotions that lead to conflict or defensiveness (Liang et al., 2012; Van Dyne et al., 1995). Further, by directing attention to past- or present-oriented factors that are harmful (Liang et al., 2012), employees frame their prohibitive voice messages around critical situations that need attention because of the potential immediacy of the harm (Qin et al., 2014). With this definition in mind, we consider dissent (Graham, 1986) and whistle-blowing (Miceli & Near, 1985) to be prohibitive voice.

Associations with promotive and prohibitive voice. The constructive aspect of promotive and prohibitive voice provides a common thread that may suggest similar functioning with voice antecedents. Specifically, because both types of voice are motivated by the same desire for well-intended change, both types of voice may be driven by the same set of motivationally relevant variables. In other words, the factors that motivate or inhibit employees to voice new ideas and capitalize on opportunities may be the same as those that motivate or inhibit employees to speak up regarding changes needed to address problems or hazards in the work environment (e.g., Morrison, 2014). For example, conscientiousness or personal initiative may encourage promotive or prohibitive voice because both types of voice hinge on proactivity

and the willingness to go beyond role requirements and allocate effort on behalf of the organization. As another example, when individuals feel a sense of autonomy and perceive control or authority over their work, they may offer new ideas and also make others aware of problems (Lam & Mayer, 2014). There are, however, reasons to believe that the motivational drivers of voice may vary as a function of whether the voice is promotive or prohibitive. Liang et al. (2012), for example, found that felt obligation was more strongly related to promotive voice than prohibitive voice, and that psychological safety was more strongly related to prohibitive voice than promotive voice. In addition, Wei, Zhang, and Chen (2015) found that leader behaviors and group climate have different indirect effects on promotive and prohibitive voice. The primary explanation for these differences is the assumption that prohibitive voice is risker and therefore is more apt to be influenced by factors that reflect or convey a sense of safety and supportiveness. In summary, although there are plausible reasons to believe that promotive and prohibitive voice are influenced by more or less the same set of antecedents, there are also suggestions in the literature that the antecedents of promotive and prohibitive could be different.

With regard to relationships between promotive and prohibitive voice and job performance, a similar degree of uncertainty exists. On the one hand, and as noted previously, both forms of voice are constructive and are intended to benefit the organization. They constitute extra-role contributions in the form of suggestions for change, which should contribute to organizational effectiveness beyond task performance and OCB, and thus have a unique and positive influence on the degree to which an employee is seen as a high performer. Indeed, this logic is supported in so far as positive relationships between voice and job performance have been observed in the literature (e.g., Van Dyne & LePine, 1998; Whiting et al., 2008). On the other hand, empirical associations between voice and job performance have been inconsistent,

and there are conceptual reasons to believe that the influence of voice may vary as a function of whether voice is promotive or prohibitive. Promotive voice is future oriented and positive in tone, and as a consequence, expressions of ideas and suggestions may be viewed as being well-intended and overtly focused on the betterment of the organization (Liang et al., 2012). As a consequence, employees who engage in promotive voice are likely to be seen as making a positive contribution to the organization, and in turn, are likely to be recognized for their voice in the form of higher ratings of job performance. In contrast, prohibitive voice focuses on the presence of harmful situations, risks, and wrongdoings in the organization that must stop in order for the organization to avoid costs and other problems. Although this form of voice may be well intended, its tone and focus could result in perceptions that the message is critical, and as a result, may evoke negative and defensive reactions (Liang et al., 2012). Indeed, this reasoning might be supported in research that has found negative relationships between voice and job performance (e.g., Klaas & DeNisi, 1989).

In sum, although the majority of research has treated voice as if it were a unitary construct reflecting constructive suggestions for change, this perspective can be challenged in light of the fact that there appear to be important differences in the nature of the more specific promotive and prohibitive forms of voice. Exploring this tension in the present study will help us draw better inferences from prior research, clarify the nature of constructive voice and its narrower manifestations, and serve as the basis for the development and testing of new and improved theories of voice. As such, we present our second research question:

> *Research Question 2: Do voice associations with antecedents and with job performance vary as a function of whether voice is promotive or prohibitive, and what is the nature of these associations and the corresponding similarities or differences?*

Method

We used meta-analytic procedures as described by Hunter and Schmidt (2004) to examine our research questions. Meta-analysis combines results of primary research in a way that increases statistical power and accounts for sampling error and other study artifacts. This method is conducive to a critical analysis and synthesis of a literature, and thus is appropriate for addressing the research questions posed in this article.

Literature Search and Inclusion Criteria

The first step in a meta-analysis involves a thorough search of the literature for relevant effect sizes. In order to capture the voice-related constructs explicitly included in our model, we searched management, applied psychology, and business journals in Web of Science using the keyword *voice* and keywords that researchers have used for constructs related to voice and its more specific manifestations: *advice giving, challenge-oriented OCB, championing, change-oriented OCB, creative performance, employee creativity, employee dissent, ideas promoted, ideas suggested, individual initiative, individual innovation, innovative performance, issue selling, make suggestions, making suggestions, principled organizational dissent, suggesting ideas, upward communication, upward dissent, voice opportunities,* and *whistleblowing*. In an attempt to mitigate the file drawer problem, wherein primarily positive results are published and disconfirming results are not, we searched for public but unpublished work using these keywords in the ProQuest dissertation abstracts database and the conference proceedings from the Academy of Management (2012-2014) and Society for Industrial and Organizational Psychology (2012-2014). We reasoned that quality conference papers prior to 2012 would have appeared in one of the journals we searched. We contacted scholars to collect unpublished conference manuscripts, and obtained 24 working papers that we included in our analyses. In total, our final

data set included 189 independent samples from 166 manuscripts (N=71,820).

Studies included in our analysis had to meet several criteria. First, studies had to measure self-, peer-, or supervisor-reported voice *behavior*. We excluded studies that measured the opportunity (e.g., Bhal & Ansarai, 2007) or a person's willingness to voice (e.g., Dutton, Ashford, Lawrence, & Miner-Rubino, 2002). Second, we only included articles that presented correlations, or effect sizes that could be converted to correlations, between individual-level voice and at least one other relevant individual-level variable. Thus, we excluded qualitative research and manuscripts that did not contain zero-order effect sizes. Finally, we thoroughly examined the voice measure used in each study to ensure it actually assessed voice. If at least two-thirds of the items within a measure reflected voice, we included the study in our analysis. We chose this cutoff based on examples in the literature that have applied a two-thirds criterion to voice measures (e.g., Grant, Parker, & Collins, 2009; Tangirala & Ramanujam, 2012).

Coding

To ensure valid and reliable coding, we developed a coding scheme and spreadsheet. The first two authors then independently coded 38 articles, after which each author coded a random selection of about 20% of the other author's articles to verify consistency in coding. Agreement was high for all coded information (93%). Each instance of disagreement was reconciled, after which the authors returned to the coded articles to eliminate potential sources of discrepancy identified through the reconciliation process. The remaining articles were coded independently. In instances where a coder was uncertain about appropriate coding, the issue was discussed among the authors and resolved through consensus.

We coded effect sizes for voice and the specific variables suggested by our integrative framework. Coding was facilitated by consistency in the literature regarding variable labels and

measurement. We coded a variable as job performance if it referred to the overall effectiveness or value of an employee's contributions to the organization. We coded a measure as task performance if the items referred to formal job duties or requirements, and we coded a measure as OCB if the items referred to relatively discretionary behavior that enhances the organization's social-psychological context (i.e., helping or altruism, compliance, civic virtue, sportsmanship, and taking charge). We excluded measures of OCB containing items used to measure voice.

We next coded whether the measure used in the study reflected promotive or prohibitive voice. Studies that used validated direct measures of promotive or prohibitive voice (e.g., Liang et al., 2012) were coded as such. However, some studies did not explicitly differentiate between voice types. For these studies, we established a specific set of criteria to evaluate whether the voice measure could be considered promotive or prohibitive. Using Liang, Farh, and Farh (2012) as a guide, we considered voice measures to be promotive if the majority (two-thirds) of the items met at least one of three criteria: (1) suggested new ideas or projects, (2) pointed out opportunities for improvement to products or processes, and (3) had a future-orientation. For example, promotive voice measures included items such as, "This particular co-worker speaks up in this group with ideas for new projects or changes in procedures" (Van Dyne & LePine, 1998), "Identified opportunities for new products/processes" (Tierney, Farmer, & Graen, 1999), and "Actively raises suggestions to improve work procedures or processes" (Farh et al., 2007). Consistent with Liang et al.'s (2012) theorizing and guidance, we considered the Van Dyne and LePine measure (or derivations; e.g., Detert & Burris, 2007) as promotive voice. We also used Liang et al. (2012) as a point of reference in determining whether a measure could be considered prohibitive. We categorized voice measures as prohibitive if the majority (two-thirds) of items met at least one of three criteria: (1) had a problem-focus, (2) called attention to harmful or

unsatisfactory work-related factors, or (3) conveyed a past- or present-orientation. For example, prohibitive voice included items such as, "I sometimes discuss problems at work with my employer" (Rusbult, Farrell, Rogers, & Mainous, 1988), "Tell the supervisor about hazardous work" (Tucker & Turner, 2011), and "I would discuss the problem with someone who is able to alter the situation" (Knoll & Van Dick, 2013). Consistent with prior observations (Liang et al. 2012), we considered measures of voice derived from the exit-voice-loyalty-neglect framework (e.g., Rusbult et al., 1988; Rusbult et al., 1982) as prohibitive voice.

We followed a rigorous process to assess the content validity of our categorization of the promotive and prohibitive voice measures. The first step involved listing the items in all of the different voice measures and selecting 22 (11 promotive voice and 11 prohibitive voice) that best captured the full range of promotive and prohibitive voice content without being redundant. We then asked 12 doctoral students in a management department to match the 22 items with a corresponding definition of promotive voice or prohibitive voice. The raters indicated strong agreement (95%) with our a priori classification of the items, well above Hinkin's (1998) 75% threshold.

To further evaluate the content validity of our categorization scheme, we asked a sample of working individuals (n = 143), recruited through Amazon Mechanical Turk (MTurk), to rate the extent to which these 22 voice items aligned with the definitions of promotive and prohibitive voice. The five-point rating scale for each item extended from 1 ("not at all captured by the definition") to 5 ("completely captured by the definition"). We conducted *t*-tests to compare the mean ratings of each voice item on its correspondence with the provided promotive and prohibitive voice definitions (Hinkin & Tracey, 1999). The results indicate significantly higher average ratings (all $p < .01$) for promotive voice items on the promotive voice definition

(M = 4.08) than on the prohibitive voice definition (M = 1.81), and significantly higher average ratings (all $p < .01$) for prohibitive voice items on the prohibitive voice definition (M = 4.14) than on the promotive voice definition (M = 1.84).

The third step of our content validity check involved cross-validation. We selected a completely different set of voice items (7 promotive voice and 7 prohibitive voice) and followed the same procedure with a new sample (n = 99). Again, the promotive voice items correspond to the promotive voice definition (M = 4.36) better than the prohibitive voice definition (M = 1.51), and the prohibitive voice items correspond to the prohibitive voice definition (M = 3.97) better than the promotive voice definition (M = 2.04). The differences are statistically significant in each case (all *t*-tests, $p < .01$).

Although our content analysis provides support for our categorization of measures as reflecting either promotive or prohibitive voice, a number of studies used a measure of voice with a balance of promotive and prohibitive items. We included these studies in our analysis only as undifferentiated constructive voice. Finally, some studies used items from multiple scales, or used shortened versions of existing measures, and if we could not clearly assess the specific measure or items used, we included the study as undifferentiated constructive voice only.

In addition to coding the zero-order correlations among voice and its antecedents, outcomes, and correlates, we also coded the sample size and reliability of the measures.[1] As recommended by Hunter and Schmidt (2004), we weight averaged the zero-order correlations by

[1] We coded the sample population (student or non-student), study design (concurrent or non-concurrent), job type (exempt or non-exempt), voice rater (self or manager), and rating source (same or different) to conduct moderator analyses. The analyses offered minimal additional explanation to our primary findings because many constructs did not have a sufficient number of studies to evaluate moderating effects and, for the vast majority that did, there were no significant differences among moderating conditions. Notable exceptions are whether voice and personal initiative were measured concurrently ($\rho = .38$; 95% CI = .24 to .52) or not ($\rho = .62$; 95% CI = .57 to .66) and the relationship between voice and felt responsibility for exempt ($\rho = .66$; 95% CI = .46 to .86) and non-exempt employees ($\rho = .30$; 95% CI = .24 to .36). Full results of the analysis are available from the first author upon request.

their sample size to obtain an average effect size (*r*). To account for both measurement and sampling error, we corrected the individual correlations of each study to take into account attenuation due to unreliability, and then weight averaged the corrected correlations by their sample size to obtain the estimated population correlation (ρ). We also calculated the standard deviation of the corrected population correlation ($SD\rho$) and the 95% confidence intervals to test statistical significance. Finally, we calculated the 80% credibility value, which provides an estimation of variation of the effect sizes across studies.

Results

Table 1 summarizes the zero-order relationships among voice and its correlates. Confidence intervals that do not include zero are statistically significant. For the purposes of this analysis, we report relationships for which $k \geq 3$.

Insert Table 1 about here

Antecedent Associations with Voice

Our first research question focuses on the strength and consistency of antecedent associations with voice. With respect to zero-order relationships with **individual dispositions**, the results in Table 1 indicate that voice is positively related to conscientiousness (ρ = .15; 95% CI = .08 to .22), extraversion (ρ = .23; 95% CI = .18 to .28), proactive personality (ρ = .26; 95% CI = .21 to .32), openness to experience (ρ = .17; 95% CI = .07 to .26), personal initiative (ρ = .40; 95% CI = .27 to .52), CSE (ρ = .27; 95% CI = .20 to .34), and positive affect (ρ = .21; 95% CI = .11 to .30). We also found that voice is negatively related to negative affect (ρ = -.09; 95% CI = -.15 to -.02). Voice associations with agreeableness (ρ = .00; 95% CI = -.12 to .12) and neuroticism (ρ = -.06; 95% CI = -.12 to .00) are not statistically significant. Turning next to **job**

and organizational attitudes and perceptions, we find that voice is positively related to felt responsibility (ρ = .55; 95% CI = .41 to .69), job satisfaction (ρ = .20; 95% CI = .15 to .25), social support (ρ = .22; 95% CI = .17 to .26), work-group identification (ρ = .24; 95% CI = .06 to .42), organizational identification (ρ = .20; 95% CI = .07 to .32), autonomy (ρ = .41; 95% CI = .28 to .53), organizational commitment (ρ = .12; 95% CI = .07 to .18), and organizational justice (ρ = .12; 95% CI = .01 to .23). Finally, we find that voice is not significantly related to detachment (ρ = .03; 95% CI = -.09 to .16). With regard to **emotions, beliefs, and schemas**, we find that psychological safety (ρ = .24; 95% CI = .20 to .28) and engagement (ρ = .38; 95% CI = .25 to .51) are positively related to voice, whereas futility (ρ = -.21; 95% CI = -.26 to -.16) and fear (ρ = -.09; 95% CI = -.12 to -.06) are both negatively related to voice.[2] With regard to **supervisor and leader behavior,** voice is positively related to transformational leadership (ρ = .30; 95% CI = .26 to .34), LMX (ρ = .33; 95% CI = .26 to .41), ethical leadership (ρ = .21; 95% CI = .18 to .24), leader openness (ρ = .26; 95% CI = .18 to .34), and trust in leader (ρ = .15; 95% CI = .05 to .25). We also find that voice is negatively related to abusive supervision (ρ = -.17; 95% CI = -.21 to -.12). Finally, for **contextual factors,** voice is positively related to positive workplace climate (ρ = .25; 95% CI = .18 to .31) and negatively related to workplace stressors (ρ = -.09; 95% CI = -.17 to -.01). However, we do not find a significant relationship between voice and negative workplace climate (ρ = -.13; 95% CI = -.31 to .06).

We next sought to identify the relative influence of the antecedents within each category. Although regression could be applied to accomplish this goal, the antecedents within each category are correlated, and thus, the accurate estimation of relative importance requires that the

[2] For fear and futility, the standard deviation of the population correlation is zero with no variation in the credibility value. This occurs when error variance is greater than observed variance (Hunter & Schmidt, 2004), and suggests that our correction for artifacts explains all of the variation in voice (e.g., Ones, Viswesvaran, & Schmidt, 1993).

partial effect of each antecedent is directly considered (Azen & Budescu, 2003; Johnson & LeBreton, 2004). Consequently, we followed the recommendations of Van Iddekinge and Ployhart (2008) and used relative weight analysis (Johnson, 2000) to obtain a meaningful estimate of each variable's relative importance in predicting voice when combined with the other variables in its category. To conduct this analysis, we needed completed meta-analytic matrices for each of the five antecedent categories (a total of 96 additional estimates). Because we did not have these estimates in our coded database, we searched for them in the broader literature. We first conducted Web of Science searches using the "variable name" and "meta-analysis" (as well as variants of these terms) as keywords in order to identify previously published meta-analyses. We obtained 72% (69) of the estimates we needed to complete the matrices using this approach. We then searched the metaBUS database (Bosco, Aguinis, Singh, Field, & Pierce, 2015) for existing relationships between variables not identified by Web of Science, and gathered 3 additional estimates. We contacted scholars whom we knew were conducting meta-analyses with variables we needed; this resulted in the inclusion of 3 more estimates. We conducted our own meta-analyses for the remaining 21 cells. First, we searched for relationships in the primary research contained in our original voice database. If there were at least 2 studies of the focal relationship, we followed the procedures outlined earlier in our manuscript to calculate the meta-analytic estimate. If there were less than 2 studies in our original database, we searched Web of Science for articles since 2010 using the relevant variable names as keywords. These efforts increased our data set by 49 independent samples in 43 manuscripts (N=20,337). For each study, we coded the effect size, sample size, and reliability, and then followed the procedure described previously to calculate the meta-analytic estimate. Appendix Tables 1-5 show the meta-analytic correlation matrices for each antecedent category. These correlations were combined with the

meta-analytic correlations from Table 1 to serve as inputs for the relative weight analysis.

The relative weight values, shown in Table 2, indicate the percentage of the total variance each predictor explains in voice when combined with the other predictors in its category (DeRue, Nahrgang, Wellman, & Humphrey, 2011; Johnson, 2001). In considering the results of our relative weight analysis, we first examine **individual dispositions**, which together explain 20% of the variance in voice. Personal initiative is the most important antecedent in this category, accounting for 50.6% of the explained variance in voice. The second most important predictor is CSE, but this variable explains far less unique variance in voice (11.4%). The set of **job and organizational attitudes and perceptions** explained 50% of the total variance in voice. The most important variables within this category are felt responsibility and autonomy, which account for 44.9% and 27.7% of the explained variance respectively. **Emotions, beliefs, and schemas** explain 17% of the total variance in voice. Engagement accounts for the greatest amount of variance explained (68.2%) within this category, with psychological safety accounting for an additional 16.9%. **Supervisor and leader behaviors** account for 12% of the total variance in voice. LMX and transformational leadership are the most influential variables in this category, accounting for 49.7% and 31.4% of the explained variance respectively[3]. Finally, **contextual factors** explain 6% of the total variance in voice. Of these variables, positive workplace climate accounts for the vast majority of (81.9%) of the explained variance.

Insert Table 2 about here

Job Performance Associations with Voice

[3] Due to extreme multicollinearity that would not allow our relative weight analysis to run, we excluded leader openness (correlated .87 with transformational leadership) and trust in leader (correlated .85 with LMX). We chose to run the analysis with transformational leadership and LMX because they are more established constructs.

We turn now to our research question concerning a key outcome of voice. As shown in Table 1, we find that voice has a positive zero-order relationship with **job performance** (ρ = .30; 95% CI = .21 to .38). Although the confidence interval is fairly narrow, the wide credibility value interval (.03 to .57) indicates a great deal of variability in the effect sizes in the primary research, and thus, a good chance the relationship is influenced by a moderator.

To explore whether voice has a unique association with job performance when additional job-performance related behaviors, such as task performance and OCB, are also considered, we applied meta-analysis to effect sizes from the primary studies in our database to formulate a meta-analytic correlation table, shown in Appendix Table 6, which includes effect sizes among job performance, task performance, OCB, and voice. We then applied this correlation matrix to a regression of job performance on task performance, OCB, and voice (e.g., Viswesvaran & Ones, 1995). The results of this analysis indicate that as a set, these behaviors have a significant influence on overall job performance (R^2 = .36). As shown in Figure 1, however, voice does not appear to be a statistically significant predictor (β = .02, p > .05) of job performance when task performance and OCB are also considered in the model.

Insert Figure 1 about here

Associations with Promotive and Prohibitive Voice

Our second research question focuses on how associations with voice might depend on whether voice is promotive or prohibitive in nature. To examine this question, we calculated meta-analytic estimates for the more specific types of voice and the sets of variables mentioned previously. We then compared the magnitude of the effects to ascertain if they differ significantly using the appropriate *t*-test advocated by Aguinis and colleagues (2008). Given that

a subgroup analysis such as this results in a smaller number of studies on which to base our estimates, we relaxed our criteria and calculated estimates where $k \geq 2$. The results of this analysis are reported in Table 3.

Insert Table 3 about here

Unique associations with antecedents. Using the guidelines outlined above, we were able to calculate promotive and prohibitive estimates for 19 of the 32 antecedents from Table 1. Of these 19 relationships, 7 (37%) differed significantly. Specifically, we found significantly stronger positive relationships for promotive voice than for prohibitive voice with CSE ($t(30) = 3.50$, $p < .01$), felt responsibility ($t(13) = 3.84$, $p < .01$), organizational commitment ($t(24) = 2.77$, $p < .05$), psychological safety ($t(21) = 15.03$, $p < .01$), ethical leadership ($t(2) = 46.02$, $p < .01$), and leader openness ($t(15) = 4.12$, $p < .01$). We also found that detachment ($t(17) = 2.58$, $p < .05$) has a negative association with promotive voice that was significantly different than the positive (but not statistically significant) association with prohibitive voice.

Unique associations with job performance. We also find a statistically significant difference in the association with job performance that can be attributed to the form of voice. That is, the relationship between job performance and promotive voice is significantly more positive than the relationship between job performance and prohibitive voice ($t(23) = 4.86$, $p < .01$). Given the magnitude of this difference, we revisited our finding that undifferentiated constructive voice does not appear to have a unique effect on job performance when task performance and OCB are considered in the same model. That is, we explored the possibility that a unique association of voice on job performance would emerge in an analysis in which we distinguished promotive voice from prohibitive voice. To do so, we calculated the meta-analytic

associations among the two forms of voice, task performance, OCB, and overall job performance and we used the resulting meta-analytic correlation matrix, shown in Appendix Table 7, to specify a regression of job performance on promotive voice, prohibitive voice, task performance and OCB. The results of this analysis indicate that task performance, OCB and the two forms of voice explain nearly half the variance in job performance (R^2 = .44). More important, and as shown in Figure 2, promotive voice has a positive effect on job performance (β = .25, p < .01) and prohibitive voice has a negative effect on job performance (β = -.37, p < .01) after considering effects of task performance (β = .39, p < .01) and OCB (β = .29, p < .01).

Insert Figure 2 about here

Discussion

Theoretical Implications and Future Research Directions

Some of our results paint a picture of the functioning of voice that appears consistent with conventional wisdom as reflected in numerous reviews of the literature. Of the 33 zero-order relationships with undifferentiated voice that we evaluated using meta-analysis, 88% (29) are statistically significant in the expected direction. With respect to antecedents, voice is associated with 8 of the 10 dispositions, 8 of the 9 job and organizational attitudes, all 4 emotions, beliefs, and schemas, all 6 of the leader behaviors, and 2 of the 3 contextual factors. Voice is also positively associated with job performance. There is substantial value in a quantitative view of the strength and consistency of a comprehensive set of individual-level voice associations; however, these results may not surprise readers well-versed in the voice literature. Yet, beneath the surface, our findings reveal several novel insights that have important implications to voice theory, research, and practice.

Important and unimportant antecedents: Towards parsimony and integration in our understanding of voice. Although the vast majority of the antecedents we examined are significantly associated with voice in the expected manner, our relative weight analyses revealed that some of the variables within each category are very influential, while the same is not true of others. With respect to individual dispositions, personal initiative and CSE appear to be relatively important, while neuroticism and agreeableness appear to be relatively unimportant. Felt responsibility and autonomy appear to be more important job attitudes than organizational justice and detachment. Engagement seems to be the most influential variable in the emotions, beliefs, and schemas category whereas fear appears to be the least influential. LMX and transformational leadership are more important leader behaviors than either abusive supervision or ethical leadership. Finally, while positive workplace climate appears to be an important contextual driver of voice, workplace stressors and negative workplace climate appear to be relatively unimportant. The differences in the relative influence of these antecedents are striking, and are not evident in zero-order correlations or the underlying literature on voice. The results of our relative weight analysis are important in so far as they suggest how scholars could focus their efforts in attempts to develop and test new theories of voice. For example, given our results, voice may be fairly well predicted by a model in which the conceptually endogenous dispositional (i.e., personal initiative), leadership (i.e., LMX), and contextual factors (i.e., positive workplace climate) are positioned as antecedents of voice that operate through the endogenous psychological states of felt responsibility and engagement. This casual ordering is not suggested in the Morrison (2014) framework, but it is consistent with theories that suggest these latter factors influence behavior through affective and cognitive states (e.g., Fuller, Marler, & Hester, 2006; Christian, Garza, & Slaughter, 2011).

To examine this model, we followed the same procedure as described earlier to complete the necessary meta-analytic correlation matrix. Of the 10 required relationships, we obtained 2 from a Web of Science literature search of existing meta-analyses, 2 by contacting scholars we knew were working on relevant meta-analyses, and the remaining 6 from our own database and by searching Web of Science using the variable names as keywords. This search resulted in an additional 24 samples in 23 manuscripts (N = 8,694). We followed the procedure described earlier and coded the effect sizes, sample sizes, and reliabilities. We combined the completed meta-analytic correlation matrix, shown in Appendix Table 8, with the meta-analytic correlations from Table 1 to form an input matrix to a meta-analytic path model. The resulting model, depicted in Figure 3, explained 37% of the variance in voice, and the majority of this variance (57%) can be attributed to indirect effects. The indirect effects of the independent variables are all statistically significant through felt responsibility ($b_{\text{personal initiative}} = .09$, SE = .01; $b_{\text{LMX}} = .08$, SE = .01; $b_{\text{positive workplace climate}} = .11$, SE = .01; all $p < .01$) as well as through engagement ($b_{\text{personal initiative}} = .02$, SE = .01; $b_{\text{LMX}} = .01$, SE = .00; $b_{\text{positive workplace climate}} = .02$, SE = .01; all $p < .01$). Overall, results of this supplemental analysis appear to support a parsimonious model of voice. Although this is just one example that scholars could consider, it illustrates that by emphasizing the most important antecedents or deemphasizing those that are less important, concise yet powerful models of voice could be developed and tested, and our knowledge and understanding could accumulate more quickly.

Insert Figure 3 about here

Clarification of the association between voice and job performance. Our research also has important implications for understanding the relationship between voice and job

performance. Although we found a positive zero-order association with performance, this effect fades completely when task performance and OCB are included as predictors. In some ways, this finding is not surprising given that, on the one hand, voice contributes to organizational effectiveness through the provision of new ideas, whereas on the other hand, voice may detract from organizational effectiveness by upsetting interpersonal relationships and the social context in which the work occurs. Our findings regarding the effect of voice on job performance also appear to be consistent with research suggesting that job performance is mostly a function of task-focused activities and OCB (e.g., Borman & Motowidlo, 1997; Podsakoff et al., 2009). Ultimately, however, our results reveal that the unique effects of voice on job performance are only illuminated when the nature of the voice is considered. Indeed, it appears that employees who engage in higher levels of promotive voice tend to receive higher performance evaluations than those who engage in lower levels of promotive voice, and those who engage in higher levels of prohibitive voice tend to receive lower performance evaluations than do those who engage in lower levels of prohibitive voice. Although this finding aligns with Morrison's (2014) general supposition that the content and framing of a voice message may influence outcomes, our analysis reveals specifically how this might occur with the most often studied aspects of voice and the most important criterion in our field. The implications of these findings are noteworthy: future research that links voice to job performance should be absolutely clear about the nature of the voice construct and its operationalization. As we show, anything less could produce null findings or findings that are the exact opposite of what one might predict.

On the distinction between promotive and prohibitive voice. Although distinguishing between promotive and prohibitive voice is important to our understanding the linkage between voice and job performance, the relevance of this distinction to our understanding of voice

antecedents is less clear. We found differences in antecedent effect sizes for promotive and prohibitive voice in 7 of the 19 cases in which we could make a comparison, and unfortunately, there is no obvious pattern in the results that might explain why differences emerged for these variables but not others. One explanation for the sporadic nature of our findings on the antecedent side of the equation could simply be that researchers have not yet focused their efforts in a way that would produce a cohesive set of clear differences. This is understandable given that the explicit distinction between promotive and prohibitive voice and the introduction of their direct measures is fairly recent (Liang et al., 2012). However, given that that this distinction appears to be gaining momentum in the literature, it may be particularly useful to identify a few fundamental issues that could be addressed by scholars to advance our understanding. We focus much of the remainder of this article on this task.

Roadmap for Research on Voice and its Promotive and Prohibitive Forms

Direct versus indirect measures. Although the explicit distinction between promotive and prohibitive voice is relatively recent, scholars have actually used measures of voice that appear to tap promotive voice or prohibitive voice for several decades. Although we found evidence supporting these differences in our content analysis, these measures were not explicitly developed with the distinction between promotive and prohibitive voice in mind. Consequently, there is a question of whether these "indirect" measures of promotive and prohibitive voice – those we categorized as promotive and prohibitive post hoc – function the same way as "direct" measures – those explicitly developed as promotive or prohibitive a priori. Unfortunately, we do not have a sufficient number of studies to explore this issue across the relationships in our analysis. However, this would be a worthwhile issue to explore in future research.

Improved direct measures. Relatedly, there are a large number of items from various voice scales that could be used to develop measures of promotive and prohibitive voice that have greater distinctiveness with respect to content. Such scales could potentially share less variance, and thus be more likely to reveal differences in the functioning of these two voice forms. For example, participants in our content analysis reported that the following items most clearly mapped onto promotive voice: "Promote and champion ideas to others," (Parker & Collins, 2010), "Suggest new ways to achieve goals or objectives," (Zhou & George, 2001), and "Speak up with ideas for new projects that might benefit the organization," (Wang, Hsieh, Tsai, & Cheng, 2012). Participants also identified items they felt most clearly tapped prohibitive voice: "If I found wrongdoing in my immediate workplace, I would report it to my immediate supervisor," (Park, Rehg, & Lee, 2005), "Tell the supervisor about hazardous work," (Tucker & Turner, 2011), and "Speak up honestly with problems when they appear in the work unit, even when/though dissenting opinions exist" (Liang et al., 2012). Researchers could examine the construct validity of promotive and prohibitive scales comprised of these items, and compare them to other direct (e.g., Liang et al., 2012) and indirect measures. Improved scales could increase the possibility that important differences are not masked by shared variance from items in the respective scales that inadvertently tap more of the constructs' similarities (e.g., the willingness to speak up) than their differences (e.g., future focus on opportunities versus past or present focus on problems).

Direct theoretical treatments of promotive and prohibitive voice. As we noted earlier, Morrison's (2014) voice framework suggests that a core set of variables serve to foster a general drive to speak up in various constructive ways. This general idea appears to be supported by our finding that the majority of antecedents exhibit no significant difference in their associations

with promotive and prohibitive voice. However, the two types of voice do differ with respect to the content of the message, and we did find distinct empirical associations with a non-trivial number of common correlates. Unfortunately, although recent research has helped us better understand promotive and prohibitive voice (e.g., Liang et al., 2012), we lack a cohesive overarching theoretical explanation that can account for the similarities and differences in empirical associations. We suggest here that *regulatory focus theory* (Higgins, 1997, 1998) may be relevant to such an effort (Liang et al., 2012; Lin & Johnson, 2015).

Regulatory focus theory suggests that when goal pursuit is relevant, individuals adopt a promotion focus, which reflects a need for growth and advancement, or a prevention focus, which reflects a need for security and protection from harm. Scholars have argued that these general regulatory foci stimulate specific work-centric behaviors that are functional to the pursuit of underlying need-driven goals (Lanaj, Chang & Johnson, 2012). Consistent with this idea, promotion focus is associated with higher levels of promotive voice, and prevention focus with higher levels of prohibitive voice (Lin & Johnson, 2015). With these associations in mind, therefore, we propose that variables that uniquely foster a general promotion focus may be further transmitted to uniquely influence promotive voice, and that variables that uniquely foster a general prevention focus may be further transmitted to uniquely influence prohibitive voice. We also propose that these variables will be transmitted even further to influence performance-related outcomes that are specifically relevant to the general regulatory foci and the work-centric form of voice that is manifest. Indeed, the general form of these associations was confirmed by Lanaj and her colleagues (2012), who found that dispositional antecedents are associated with unique performance-related outcomes because they cultivate a general promotion focus or a general prevention focus, which in turn, stimulate a work-centric promotion focus or a work-

centric prevention focus. Figure 4 depicts a model, rooted in this conceptual logic, which could account for the unique functioning of promotive and prohibitive voice.

Insert Figure 4 about here

On the left hand side of the model are antecedents that may engender either a promotion focus, a prevention focus, or as Morrison (2014) suggested, a general drive to speak up. The first category could include those antecedents we found to be more strongly associated with promotive voice than prohibitive voice (CSE, felt responsibility, organizational commitment, psychological safety[4], ethical leadership, and leader openness). This category may also include antecedents Lanaj et al. (2012) considered in their analysis but were not directly or indirectly included in ours (behavioral activation, learning goal orientation, performance-approach goal orientation). Each of these variables orient the individual toward the attainment of positive outcomes rather than avoidance of negative outcomes (Elliot & Thrash, 2010), and following from this, they should tend to foster promotive voice because they engender a general promotion focus. The second category of antecedents includes those that we believe will be associated with prohibitive voice because they instill a general prevention focus. This category includes detachment, which we found to be more relevant to prohibitive voice, and also variables that Lanaj et al. (2012) mention as encouraging a work-centric prevention focus (behavioral inhibition, performance-avoidance goal orientation). These variables orient the individual toward the avoidance of harm and negative outcomes rather than the attainment of achievement and positive outcomes (Elliot & Thrash, 2010), and following from this, they should tend to foster

[4] We note that Liang et al. (2012) found that psychological safety is more strongly related to prohibitive voice than promotive voice. We are therefore more tentative about this relationship and suggest that research should be conducted to reconcile our findings.

prohibitive voice because they engender a general prevention focus. The third and final category includes variables that may influence a general inclination to speak up (or remain silent), and thus will tend to manifest in both promotive and prohibitive voice. In considering variables in our analysis that exhibited no significant differences between promotive and prohibitive voice, we offer a representative selection that would likely be in this third category. For instance, conscientious employees are achievement striving and dutiful, and are attuned to opportunities as well as deviations. Autonomy is associated with a sense of control that manifests in a greater inclination to participate in matters that could potentially impact the organization. Finally, workplace stressors sap personal resources that could otherwise be used to engage in extra-role behaviors that are promotive or prohibitive in nature.

On the right hand side of the model are individual- and unit-level outcomes that may be influenced by the antecedents through the regulatory foci and the two forms of voice. Lanaj et al. (2012) found that a promotion focus enhances innovation, OCB, and task performance and that a prevention focus is associated with greater safety performance, counterproductive behavior, and task performance. We suggest that these effects may be attributable to the type of voice that is manifest in light of a promotion or prevention focus. For example, individuals with a promotion focus may be viewed as having higher innovative performance because they tend to offer more creative ideas and suggestions. Similarly, these individuals may be viewed as having higher OCB because the positive tone and orientation of their voice should be seen as contributing to their units' morale. As another example, individuals with a prevention focus may be viewed as having greater safety performance because they tend to point out problems that could lead to injury or threaten security. These individuals may also be seen as engaging in counterproductive behavior in so far as the communication may be seen as overtly negative and interpersonally

threatening. We note that these individual-level performance behaviors should be further transmitted to impact unit outcomes in ways that are both additive and dynamic. As an example of the former, while an actor who expresses creative ideas may be viewed as being an innovative employee, the ideas that are expressed by this person may be put to use and result in innovations attributable to the unit. As an example of the latter, while an actor who engages in harsh prohibitive voice may be viewed as being deviant or counterproductive, the behavior may also trigger conflict, which incites counterproductive behavior among individuals in the actor's unit. Of course, it is also possible that characteristic levels of promotive and prohibitive voice develop in units through attraction-selection-attrition (Schneider, 1987) or contagion processes (Barsade, 2002; Hatfield, Cacioppo, & Rapson, 1994) that influence unit-level performance outcomes. Finally, evaluations of the specific individual-level performance contributions are likely reflected in overall individual-level performance evaluations in ways that are consistent with our results. Whereas promotive voice may be reflected in positive job performance-related contributions and a positive association with overall job performance, prohibitive voice is reflected in positive and negative job performance-related contributions, and thus has a weaker or potentially negative association with overall job performance. Although this framework needs further development and refinement, it provides a theoretical foundation that could explain similarities and differences of promotive and prohibitive voice, and offers new directions for future research.

Alternative perspectives. Thus far, we have grounded our discussion of promotive and prohibitive voice in the context of the Liang et al. (2012) conceptualizations. However, there is an alternative conceptual lens that could be considered. Specifically, Maynes and Podsakoff (2014) suggest that the domain of specific voice behaviors can be categorized on the basis of two broad dimensions. The first dimension distinguishes voice that is promotive, which the authors

defined as communication intended to encourage or support, from voice that is prohibitive, or communication intended to stop or hinder. The second dimension distinguishes voice that is preserving (keeping things the same) from voice that is challenging (correcting or confronting the status quo). When crossed, these two broad dimensions imply four distinct types of voice: supportive (promotive-preservation), constructive (promotive-challenge), defensive (prohibitive-preservation), and destructive (prohibitive-challenge). Although this typology may serve as a basis for research that develops voice constructs that are more crisp and refined, it characterizes the Liang et al. (2012) promotive and prohibitive voice constructs both as "constructive." On the one hand, lumping these constructs together may seem appropriate given that they are similarly related to many voice antecedents, and the strong correlation between the promotive and prohibitive dimensions suggests that it may be difficult to distinguish between the two. On the other hand, and as we have discussed, the two constructs are reflected in theories that exist in the literature (e.g., regulatory focus theory), they differ in message content, and we find significant differences in their associations with a number of antecedents as well as with job performance.

One approach to resolving this issue would be to more directly compare the Maynes and Podsakoff (2014) framework to that of Liang et al. (2012). Scholars could consider the merits of each framework and potentially offer guidelines for using one over the other. Another approach would be to reconcile the two frameworks in way that would make them compatible. For example, one possible solution would be to include a third dimension to the Maynes and Podsakoff framework that accounts for temporal orientation of the communication. More specifically, voice behaviors could be considered future-oriented (speaking up in ways that reference the future or about the way things could be) or past-oriented (speaking up in ways that reference past or current circumstances or issues in the workplace). In this way, promotive voice

as described by Liang et al. (2012) would be considered promotive, challenging, and future-oriented in the revised Maynes and Podsakoff framework. Prohibitive voice, in contrast, would be considered promotive, challenging, and past-oriented in the revised Maynes and Podsakoff framework. We should note that the addition of a temporal dimension to the Maynes and Podsakoff typology could also serve as a basis for organizing and understanding other voice-related constructs. For example, the conceptualization of defensive voice offered by Van Dyne et al. (2003) could be described as voice that is prohibitive, preserving, and past-oriented, whereas resistance to change as described by Oreg (2003) could be described as voice that is prohibitive, preserving, and future-oriented. Although these ideas are speculative, we believe there is promise in expanding the Maynes and Podsakoff (2014) framework so that it could serve as a mechanism that accounts for an even greater number of ways in which employees speak up at work.

Potential Limitations

When interpreting our results and considering their implications, readers should keep in mind some limitations. First, the number of studies for some of the relationships we report is small. This, of course, results in less precision (i.e., wider confidence intervals) in our estimates. The issue is perhaps most relevant in our subgroup estimates of promotive and prohibitive voice. Although the mathematics here are undeniable, even "small" meta-analyses produce estimates of true relationships that are superior to those reported in individual studies, which are necessarily less powerful, have wider confidence intervals, and do not incorporate information regarding sampling or measurement error (Hunter & Schmidt, 2004). Moreover, an analysis with low power cannot explain the differences we did observe. In sum, we acknowledge that the number of studies for some of our meta-analytic estimates is limited, and thus, our results should be interpreted as conservative with regard to finding significant differences in effects. However,

some differences did emerge, which offer insights that can be pursued in future research.

A second limitation is that we do not provide absolute coverage of the voice literature. We used Morrison's (2014) framework to establish the scope of our inquiry; however, we were unable to include all of the constructs she mentioned because some have yet to be empirically examined a sufficient number of times to meta-analyze. We also do not consider demographics (e.g., age, gender, ethnicity, and tenure) that have been empirically examined but are clearly outside the scope of Morrison's framework. A more significant gap in our coverage is that we do not consider unit-level associations that Morrison and others have discussed. Although we could have calculated and reported estimates for some unit-level associations,[5] an appropriate level of discussion of these relationships would have significantly expanded the scope and length of this paper. Moreover, the existing research on unit-level associations is much more limited than research on individual-level associations, and additionally, all of the articles we located with unit performance focused exclusively on unit promotive voice as opposed to unit prohibitive voice. This issue could be addressed with future research that explores the unit-level associations we discussed above in the context of our proposed conceptual model.

Practical Implications

With these limitations in mind, we conclude with several implications for practice. First, given the range and strength of the zero-order associations between the antecedents and voice, it appears that voice could potentially be managed through a wide array of organizational practices and policies. Indeed, each significant association suggests a useful point of leverage for managing employee voice. However, we also found that some of the antecedents of voice are much more important than others, and thus, there may be utility in a more focused approach. For

[5] We find a significant meta-analytic relationship between unit-level voice and unit-level performance (ρ = .43; 95% CI = .23 to .62; *k* = 7; N = 479).

example, staffing could emphasize interviews keyed to personal initiative. Jobs could be designed to transfer a greater sense of responsibility to employees. Employee training could impart knowledge, skills, and abilities that foster competence and, in turn, engagement. Leadership development could emphasize how to develop positive relationships with employees. Finally, reward systems could help foster cooperation and build positive workplace climates.

Second, our results imply there may be mixed messages about whether or not employees *should* speak up. On the one hand, our findings suggest that voice may not matter to evaluations of overall job performance, and thus, it may appear to be wise for employees to focus their time and energy on task- and OCB-related contributions. On the other hand, it turns out that voice is important to job performance, with the caveat being that one should engage in a certain type of voice. Employees who engage in promotive voice tend to be viewed as more effective in their jobs relative to those who tend not to engage in promotive voice; furthermore, employees who engage in prohibitive voice tend to be viewed as less effective relative to those who tend not to use prohibitive voice. In other words, whereas speaking up with ideas that reflect opportunities for the organization may be rewarded, speaking up to prevent harm or loss to the organization may be punished. Importantly, although organizations may appreciate and benefit from the ideas employees offer in the form of promotive voice, prohibitive voice can also be important, especially in circumstances where safety and counterproductive activities are consequential. As such, organizations could develop practices and policies that help supervisors and organizational leaders better appreciate the value of prohibitive voice so that it is not discouraged.

Finally, and related to the previous point, there are implications of our findings to multidimensional models of job performance. Voice is a behavior that should contribute to organizational effectiveness (Van Dyne et al., 1995), and our findings show that the specific

forms of voice explain unique variance in job performance, even when controlling for task performance and OCB. Therefore, models of job performance that include task performance and OCB (or contextual performance) could be supplemented with the specific forms of voice (Borman & Motowidlo, 1997). Following from this, there may be value in incorporating promotive and prohibitive voice into employee performance assessments to ensure distinct types of voice are measured and evaluated consistently. By including prohibitive voice in performance management, it is possible that the negative connotations regarding the behavior would diminish.

In sum, our study seeks to clarify what we currently know about voice and its promotive and prohibitive forms, and to provide some direction for scholars who seek to further expand our understanding in ways that have applied value. Given what we know and do not know about promotive and promotive forms of voice, together with the idea that both are important to employees and their organizations, we believe that efforts should be focused accordingly. We hope that our research can contribute to this end.

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References marked with 1 asterisk (*) indicate studies included in the focal meta-analysis.
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Table 1

Meta-Analytic Correlations of Voice

Category Construct	*k*	N	*r*	*ρ*	*SDρ*	95% Confidence Interval		80% Credibility Value	
						Lower	Upper	Lower	Upper
Individual Dispositions									
Conscientiousness	12	3,450	0.12	0.15	0.11	0.08	0.22	0.01	0.29
Extraversion	8	2,152	0.18	0.23	0.01	0.18	0.28	0.22	0.24
Proactive personality	15	6,630	0.22	0.26	0.09	0.21	0.32	0.14	0.38
Agreeableness	5	1,429	0.00	0.00	0.11	-0.12	0.12	-0.14	0.15
Openness to experience	11	2,781	0.14	0.17	0.14	0.07	0.26	-0.02	0.35
Personal initiative	12	2,572	0.34	0.40	0.21	0.27	0.52	0.14	0.66
Core self-evaluation	30	7,929	0.23	0.27	0.18	0.20	0.34	0.04	0.50
Positive affect	16	3,901	0.18	0.21	0.18	0.11	0.30	-0.02	0.43
Neuroticism	7	2,052	-0.05	-0.06	0.04	-0.12	0.00	-0.11	-0.01
Negative affect	14	3,256	-0.08	-0.09	0.10	-0.15	-0.02	-0.21	0.04
Job and Org. Attitudes and Perceptions									
Felt responsibility	13	5,296	0.43	0.55	0.25	0.41	0.69	0.23	0.87

Table 1 (continued)

Category Construct	*k*	N	*r*	*ρ*	*SDρ*	95% Confidence Interval		80% Credibility Value	
						Lower	Upper	Lower	Upper
Job satisfaction	41	24,223	0.17	0.20	0.15	0.15	0.25	0.01	0.39
Social support	27	10,884	0.18	0.22	0.10	0.17	0.26	0.09	0.34
Work-group identification	7	1,434	0.22	0.24	0.23	0.06	0.42	-0.05	0.54
Organizational identification	7	1,719	0.16	0.20	0.15	0.07	0.32	0.00	0.39
Autonomy	17	4,312	0.35	0.41	0.26	0.28	0.53	0.08	0.74
Organizational commitment	27	15,319	0.10	0.12	0.14	0.07	0.18	-0.05	0.29
Organizational justice	15	4,033	0.11	0.12	0.20	0.01	0.23	-0.13	0.38
Detachment	20	5,124	0.02	0.03	0.28	-0.09	0.16	-0.32	0.39
Emotions, Beliefs, and Schemas									
Psychological safety	21	8,544	0.21	0.24	0.07	0.20	0.28	0.15	0.33
Engagement	7	1,909	0.34	0.38	0.17	0.25	0.51	0.17	0.59
Futility	6	1,557	-0.18	-0.21	0.00	-0.26	-0.16	-0.21	-0.21
Fear	3	3,642	-0.07	-0.09	0.00	-0.12	-0.06	-0.09	-0.09

Table 1 (continued)

Category Construct	*k*	N	*r*	*ρ*	*SDρ*	95% Confidence Interval		80% Credibility Value	
						Lower	Upper	Lower	Upper
Supervisor and Leader Behavior									
Transformational leadership	13	6,204	0.27	0.30	0.06	0.26	0.34	0.22	0.37
Leader-member exchange	18	4,493	0.30	0.33	0.15	0.26	0.41	0.14	0.53
Ethical leadership	4	7,846	0.19	0.21	0.02	0.18	0.24	0.19	0.24
Leader openness	16	7,451	0.23	0.26	0.15	0.18	0.34	0.07	0.45
Trust in leader	8	4,896	0.13	0.15	0.13	0.05	0.25	-0.02	0.32
Abusive supervision	11	3,144	-0.14	-0.17	0.04	-0.21	-0.12	-0.22	-0.11
Contextual Factors									
Positive workplace climate	20	7,317	0.21	0.25	0.14	0.18	0.31	0.07	0.42
Negative workplace climate	4	748	-0.10	-0.13	0.17	-0.31	0.06	-0.34	0.09
Workplace stressors	13	3,087	-0.08	-0.09	0.13	-0.17	-0.01	-0.26	0.08
Job Performance	24	14,300	0.26	0.30	0.21	0.21	0.38	0.03	0.57

Note. k = number of independent samples; N = sample size; *r* = average correlation coefficient; *ρ* = average correlation coefficient corrected for measurement and sampling error; *SDρ* = standard deviation of the corrected correlation coefficient.

Table 2

Relative Weight Analysis of Voice Antecedents

Antecedent	% R^2
Individual Dispositions	
Conscientiousness	4.5%
Extraversion	9.4%
Proactive personality	7.3%
Agreeableness	1.7%
Openness to experience	6.2%
Personal initiative	50.6%
Core self-evaluation	11.4%
Positive affect	5.8%
Neuroticism	0.5%
Negative affect	2.5%
Total Individual Dispositions: $R^2 = .20$, $F(10, 2361) = 59.92$**	
Job and Org. Attitudes and Perceptions	
Felt responsibility	44.9%
Job satisfaction	3.8%
Social support	5.0%
Work-group identification	4.6%
Organizational identification	4.3%
Autonomy	27.7%
Organizational commitment	5.3%

Table 2 (continued)

Antecedent	% R^2
Organizational justice	1.4%
Detachment	2.8%
Total Job and Org. Attitudes and Perceptions: R^2 = .50; F(9, 2102) = 231.96**	
Emotions, Beliefs, and Schemas	
Psychological safety	16.9%
Engagement	68.2%
Futility	11.9%
Fear	3.0%
Total Emotions, Beliefs, and Schemas: R^2 = .17, F(4, 1233) = 60.82**	
Supervisor and Leader Behavior	
Transformational leadership	31.4%
Leader-member exchange	49.7%
Ethical leadership	11.5%
Abusive supervision	6.9%
Total Supervisor and Leader Behavior: R^2 = .12, F(4, 1988) = 67.17**	
Contextual Factors	
Positive workplace climate	81.9%
Negative workplace climate	12.1%
Workplace stressors	6.0%
Total Contextual Factors: R^2 = .06, F(3, 2841) =61.55**	

Note. **p < .01.

Table 3

Meta-Analytic Correlations of Promotive and Prohibitive Voice

Category Construct	Promotive Voice ρ (95% CI) *k* (N)	Prohibitive Voice ρ (95% CI) *k* (N)	*t*-value
Individual Dispositions			
Conscientiousness	.13 (.05, .22) 8 (2,307)	.11 (.03, .19) 4 (1,143)	.55
Extraversion	.24 (.17, .31) 6, (1,453)	.21 (.20, .22) 2 (699)	1.83
Agreeableness	.03 (-.10, .16) 4 (1,163)	.04 (-.14, .22) 2 (699)	.15
Openness to experience	.18 (.06, .29) 9 (2,082)	.13 (.01, .26) 2 (699)	.66
Core self-evaluation	.28 (.21, .36) 26 (7,159)	.16 (.09, .22) 6 (1,208)	3.50**
Neuroticism	-.05 (-.14, .04) 5 (1,353)	-.08 (-.09, -.07) 2 (699)	.83
Job and Org. Attitudes and Perceptions			
Felt responsibility	.59 (.43, .74) 10 (4,576)	.27 (.19, .35) 5 (1,156)	3.84**
Job satisfaction	.21 (.17, .25) 28 (21,490)	.12 (-.04, .28) 15 (3,049)	1.10
Social support	.22 (.18, .26) 25 (10,369)	.11 (-.19, .41) 2 (515)	.76
Organizational identification	.13 (.03, .23) 5 (1,282)	.39 (.17, .61) 2 (437)	2.43
Autonomy	.42 (.26, .57) 13 (3,583)	.37, (.26, .49) 3 (609)	.51

Table 3 (continued)

Category Construct	Promotive Voice ρ (95% CI) *k* (N)	Prohibitive Voice ρ (95% CI) *k* (N)	*t*-value
Organizational commitment	.14 (.06, .22) 14 (11,248)	.03 (-.03, .08) 12 (3,431)	2.77*
Organizational justice	.19 (.12, .27) 12 (2,751)	-.06 (-.32, .21) 3 (1,296)	1.86
Detachment	-.12 (-.20, -.03) 3 (818)	.08 (-.07, .23) 16 (4,056)	2.58*
Emotions, Beliefs, and Schemas			
Psychological safety	.27 (.24, .31) 16 (6,593)	.13 (.09, .17) 7 (2,389)	15.03**
Futility [a]	-.25 (-.27, -.23) 3 (837)	-.17 (-.24, -.10) 3 (720)	
Supervisor and Leader Behavior			
Ethical leadership	.27 (.21, .33) 2 (1,095)	.20 (.18, .23) 2 (6,751)	46.02**
Leader openness	.32 (.24, .41) 9 (5,123)	.11 (.03, .19) 8 (2,405)	4.12**
Contextual Factors			
Workplace stressors	-.07 (-.20, .06) 6 (1,526)	-.05 (-.16, .07) 5 (1,031)	.37
Job Performance	.33 (.25, .41) 23 (13,299)	-.06 (-.21, .09) 2 (1,132)	4.86**

Note. [a] The *t*-test for futility could not be completed because, as we note in Footnote 2, the standard deviation was zero, which occurs when the correction for artifacts explains all the variance. *$p < .05$; **$p < .01$.

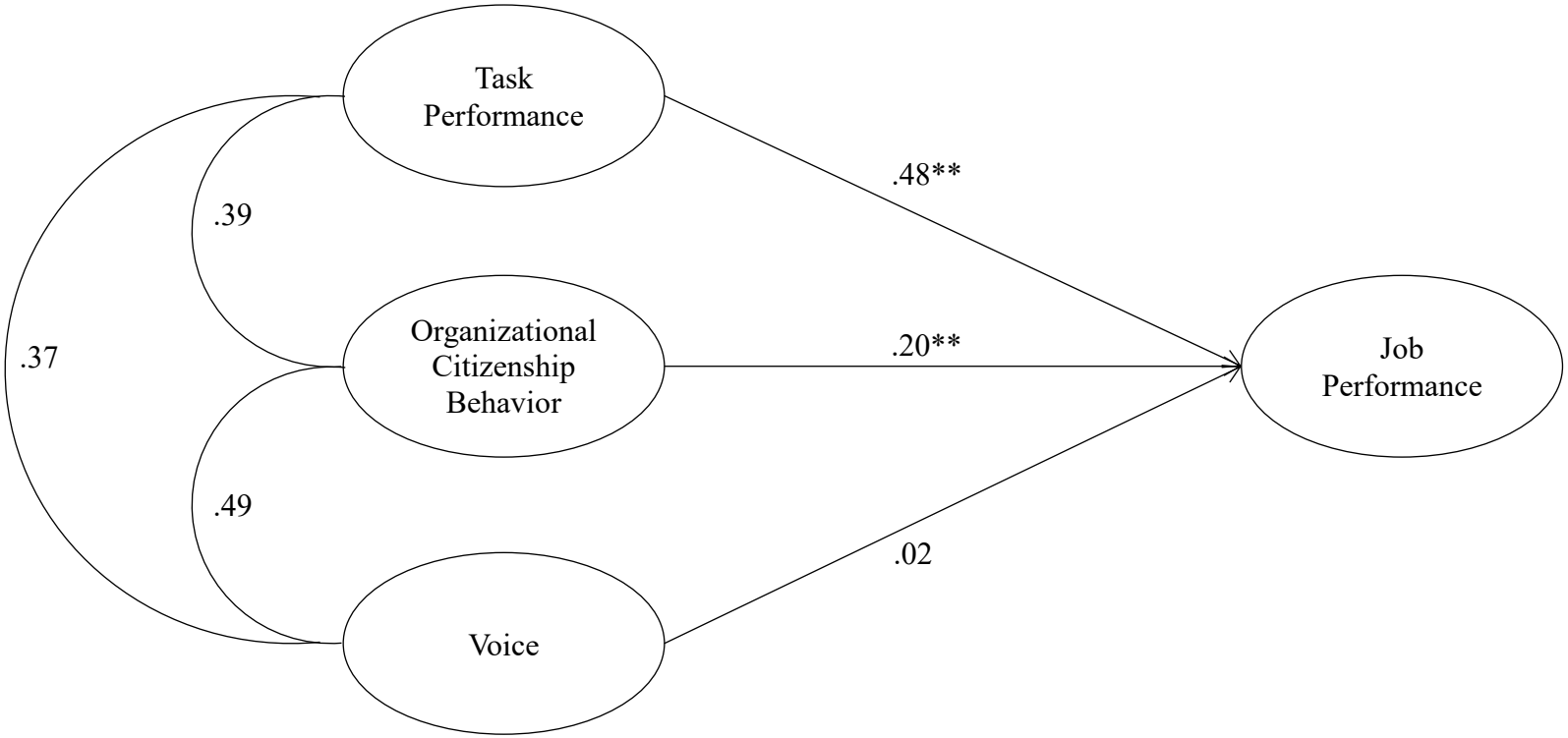

Figure 1. Path diagram of task performance, organizational citizenship behavior, and voice with job performance. Significant pathways are noted with an asterisk (*$p < .05$; **$p < .01$).

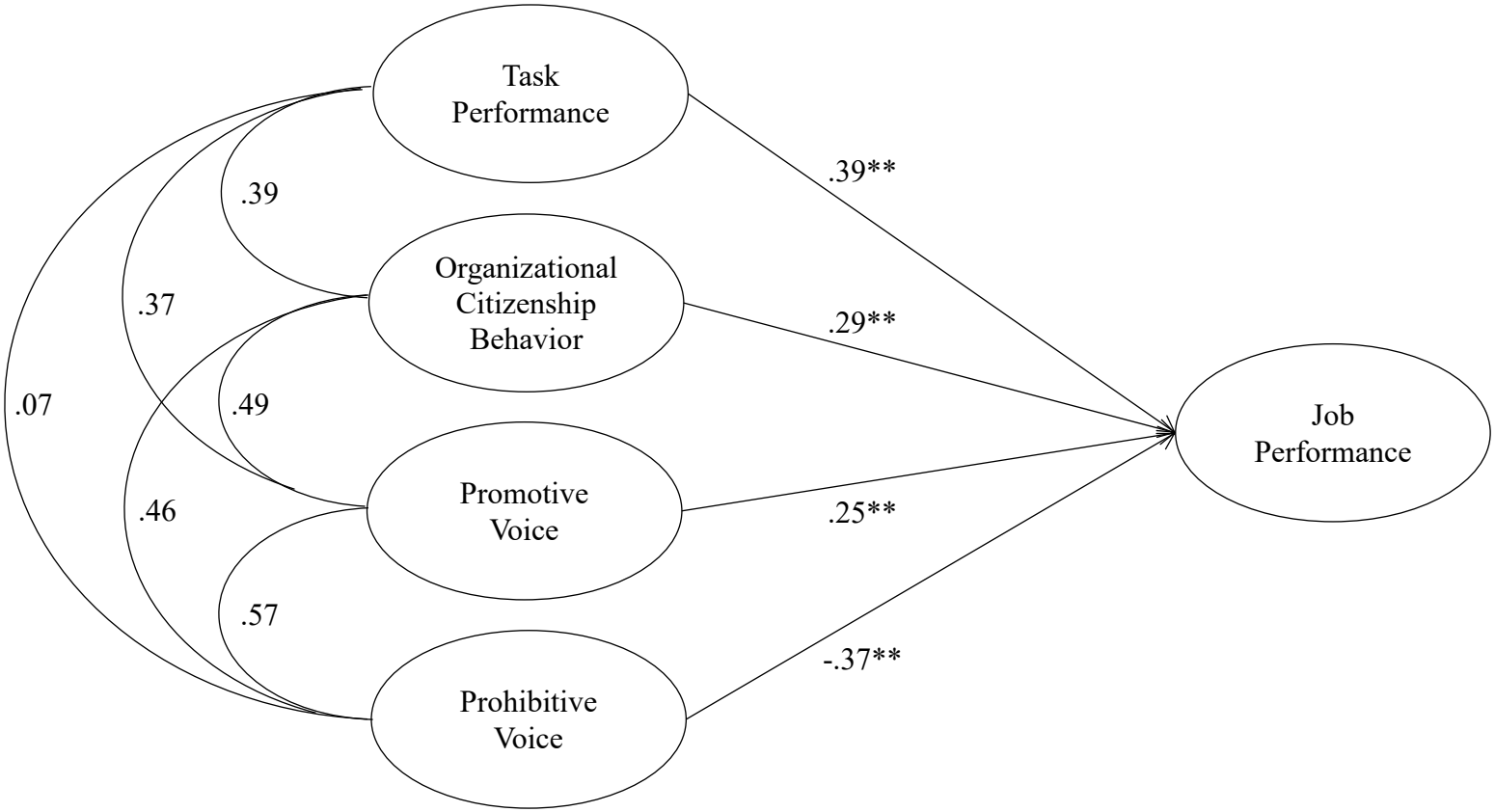

Figure 2. Path diagram of task performance, organizational citizenship behavior, promotive voice, and prohibitive voice with job performance. Significant pathways are noted with an asterisk (*$p < .05$; **$p < .01$).

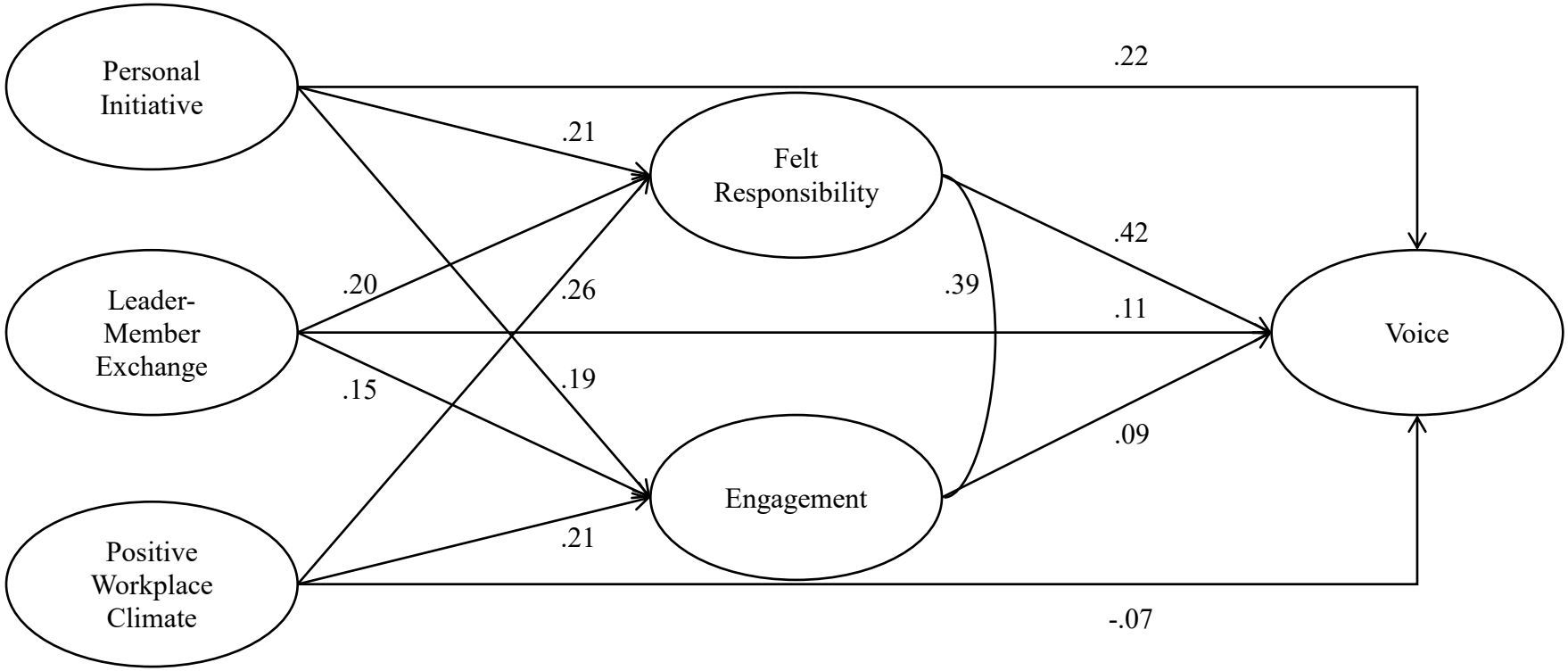

Figure 3. Path diagram of personal initiative, leader-member exchange, positive workplace climate, felt responsibility, and engagement with voice. All pathways are significant at $p < .01$.

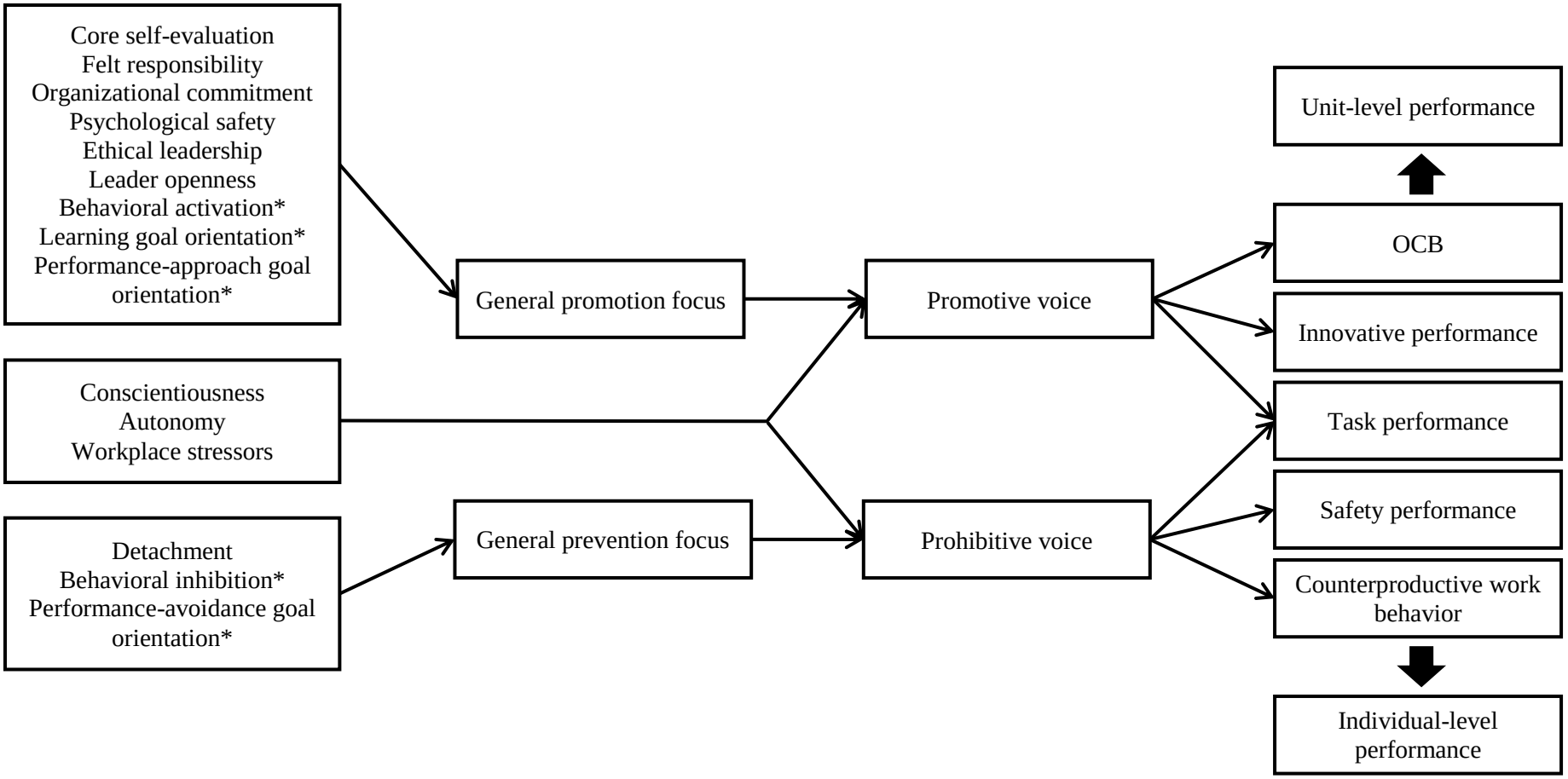

Figure 4. Conceptual model of promotive and prohibitive voice. Variables denoted with an asterisk (*) are from Lanaj, Chang, and Johnson (2012).

Appendix Table 1
Meta-Analytic Correlations of Individual Dispositions

Variable	1 *ρ* *k (N)*	2 *ρ* *k (N)*	3 *ρ* *k (N)*	4 *ρ* *k (N)*	5 *ρ* *k (N)*	6 *ρ* *k (N)*	7 *ρ* *k (N)*	8 *ρ* *k (N)*	9 *ρ* *k (N)*
1. Conscientiousness	-								
2. Extraversion	0.00 [b] 632 (683,001)	-							
3. Proactive personality	0.39 [c] 9 (1,662)	0.42 [c] 9 (1,574)	-						
4. Agreeableness	0.27 [b] 344 (162,975)	0.17 [b] 243 (135,529)	0.02 [c] 6 (881)	-					
5. Openness to exp.	-0.06 [b] 338 (356,680)	0.17 [b] 418 (252,004)	0.38 [c] 9 (1,756)	0.11 [b] 236 (144,205)	-				
6. Personal initiative	0.38 [d] 21 (4,589)	0.33 [d] 10 (2,185)	0.53 [d] 6 (836)	0.10 [d] 6 (1,311)	0.20 [d] 6 (1,311)	-			
7. Core self-evaluation	0.49 [e] 37 (8,943)	0.45 [e] 35 (8,077)	0.40 [d] 12 (3,039)	0.28 [e] 26 (5,927)	0.19 [e] 24 (5,609)	0.28 [d] 34 (7,430)	-		
8. Positive affect	0.14 [f] 24 (4,006)	0.20 [f] 39 (12,047)	0.48 [a] 4 (597)	0.17 [f] 21 (2,838)	0.14 [f] 11 (2,298)	0.26 [a] 3 (703)	0.61 [e] 28 (7,599)	-	
9. Neuroticism	-0.26 [b] 26 (5,380)	-0.19 [b] 60 (10,926)	-0.31 [c] 8 (1,563)	-0.25 [b] 18 (3,690)	-0.16 [b] 21 (4,870)	-0.11 [d] 10 (2,185)	-0.35 [g] 32 (6,730)	-0.14 [f] 38 (7,952)	-
10. Negative affect	-0.10 [f] 17 (3,267)	-0.07 [f] 32 (6,386)	-0.19 [a] 3 (455)	-0.13 [f] 16 (2,446)	0.05 [f] 9 (2,161)	0.04 [a] 4 (658)	-0.60 [e] 28 (7,281)	-0.52 [h] 10 (2,298)	0.23 [f] 31 (6,814)

Note. [a] = New; [b] = Judge, Jackson, Shaw, Scott, & Rich, 2007; [c] = Thomas, Whitman, & Viswesvaran, 2010; [d] = Tornau & Frese, 2013; [e] = Chang, Ferris, Johnson, Rosen, & Tan, 2012; [f] = DeNeve & Cooper, 1998; [g] = Judge & Ilies, 2002; [h] = Colquitt et al., 2013. Harmonic mean = 2,372.

Appendix Table 2

Meta-Analytic Correlations of Job and Organizational Attitudes and Perceptions

Variable	1 *ρ* *k (N)*	2 *ρ* *k (N)*	3 *ρ* *k (N)*	4 *ρ* *k (N)*	5 *ρ* *k (N)*	6 *ρ* *k (N)*	7 *ρ* *k (N)*	8 *ρ* *k (N)*
1. Felt responsibility	-							
2. Job satisfaction	0.47 [a] 4 (1,026)	-						
3. Social support	0.45 [a] 7 (3,553)	0.52 [b] 56 (22,430)	-					
4. Work-group ident.	0.59 [a] 2 (383)	0.42 [a] 12 (3,839)	0.45 [a] 5 (1,046)	-				
5. Org. identification	0.56 [a] 5 (1,360)	0.45 [c] 37 (11,216)	0.56 [h] 25 (7,810)	0.48 [a] 6 (1,864)	-			
6. Autonomy	0.27 [a] 3 (423)	0.49 [d] 183 (111,673)	0.23 [i] 30 (110,734)	0.17 [a] 2 (500)	0.23 [a] 3 (2,313)	-		
7. Org. commitment	0.50 [a] 6 (1,745)	0.60 [e] 112 (39,187)	0.67 [b] 66 (15,760)	0.29 [a] 5 (1,606)	0.64 [c] 12 (2,929)	0.39 [d] 53 (24,395)	-	
8. Org. justice	0.29 [a] 4 (624)	0.42 [f] 110 (54,317)	0.52 [f] 25 (6,987)	0.31 [a] 4 (1,363)	0.38 [f] 16 (4,311)	0.14 [a] 4 (1,205)	0.40 [f] 58 (22,412)	-
9. Detachment	-0.14 [a] 4 (1,040)	-0.58 [g] 88 (35,494)	-0.45 [b] 44 (17,618)	-0.18 [a] 4 (1,109)	-0.48 [j] 34 (7,243)	-0.30 [d] 44 (16,905)	-0.46 [k] 36 (14,080)	-0.46 [l] 39 (24,273)

Note. [a] = New; [b] = Ahmed, Nawaz, Ali, & Islam, 2015; [c] = Lee, Park, Koo, 2015; [d] = Ng & Feldman, 2015b; [e] = Harrison, Newman, & Roth, 2006; [f] = Rupp, Shao, Jones, & Liao, 2014; [g] = Tett & Meyer, 1993; [h] = Ng, 2015; [i] = Luchman & Gonzalez-Morales, 2013; [j] = Riketta, 2005; [k] = Mathieu & Zajac, 1990; [l] = Colquitt, Conlon, Wesson, Porter, & Ng, 2001. Harmonic mean = 2,118.

Appendix Table 3

Meta-Analytic Correlations of Emotions, Beliefs, and Schemas

Variable	1 *ρ* *k (N)*	2 *ρ* *k (N)*	3 *ρ* *k (N)*
1. Psychological safety	-		
2. Engagement	0.38 [b] 9 (2,570)	-	
3. Futility	-0.47 [a] 2 (689)	-0.40 [b] 3 (1,255)	-
4. Fear	-0.34 [a] 2 (399)	-0.37 [b] 4 (6,516)	0.50 [a] 3 (817)

Note. [a] = New; [b] = Crawford, LePine, Buckman, & Chamberlin, 2016. Harmonic mean = 1,238.

Appendix Table 4

Meta-Analytic Correlations of Supervisor and Leader Behavior

Variable	1 *ρ* *k (N)*	2 *ρ* *k (N)*	3 *ρ* *k (N)*
1. Transformational leadership	-		
2. Leader-member exchange	0.73 [a] 20 (5,451)	-	
3. Ethical leadership	0.76 [b] 13 (2,426)	0.60 [b] 11 (3,184)	-
4. Abusive supervision	-0.45 [c] 2 (402)	-0.54 [d] 11 (2,786)	-0.50 [d] 6 (2,309)

Note. [a] = Dulebohn, Bommer, Liden, Brour, & Ferris, 2012; [b] = Ng & Feldman, 2015a; [c] = Zhang & Bednall, 2015; [d] = Mackey, Frieder, Brees, & Martinko, 2015. Harmonic mean = 1,993.

Appendix Table 5

Meta-Analytic Correlations of Contextual Factors

Variable	1 *ρ* *k (N)*	2 *ρ* *k (N)*
1. Positive workplace climate	-	
2. Negative workplace climate	-0.60 [a] 43 (51,823)	-
3. Workplace stressors	-0.33 [b] 7 (12,126)	0.33 [c] 20 (4,777)

Note. [a] = Nahrgang, Morgeson, & Hoffman, 2011; [b] = Benzer & Horner, 2015; [c] = Yang, Caughlin, Gazica, Truxillo, & Spector, 2014. Harmonic mean = 2,845.

Appendix Table 6

Meta-Analytic Correlations of Job Performance, Task Performance, OCB, and Voice

Variable	1 *ρ (SDρ)* *k (N)* *95% CI*	2 *ρ (SDρ)* *k (N)* *95% CI*	3 *ρ (SDρ)* *k (N)* *95% CI*
1. Job performance	-		
2. Task performance	.57 (.09) 3 (1,081) (.45, .68)	-	
3. OCB	.40 (.21) 5 (1,314) (.21, .59)	.39 (.31) 9 (2,908) (.18, .60)	-
4. Voice	.30 (.21) 24 (14,300) (.21, .38)	.37 (.29) 13 (3,750) (.21, .53)	.49 (.18) 32 (11,266) (.43, .56)

Note. OCB = Organizational citizenship behavior. Harmonic mean = 2,444.

Appendix Table 7

Meta-Analytic Correlations of Job Performance, Task Performance, OCB, Promotive Voice, and Prohibitive Voice

Variable	1 *ρ (SDρ)* *k (N)* *95% CI*	2 *ρ (SDρ)* *k (N)* *95% CI*	3 *ρ (SDρ)* *k (N)* *95% CI*	4 *ρ (SDρ)* *k (N)* *95% CI*
1. Job performance	-			
2. Task performance	.57 (.09) 3 (1,081) (.45, .68)	-		
3. OCB	.40 (.21) 5 (1,314) (.21, .59)	.39 (.31) 9 (2,908) (.18, .60)	-	
4. Promotive voice	.33 (.19) 23 (13,299) (.25, .41)	.37 (.29) 13 (3,750) (.21, .53)	.49 (.18) 29 (10,546) (.42, .56)	-
5. Prohibitive voice	-.06 (.10) 2 (1,132) (-.21, .09)	.07 (.09) 2 (328) (-.11, .24)	.46 (.07) 4 (917) (.36, .55)	.57 (.14) 8 (1,582) (.47, .67)

Note. OCB = Organizational citizenship behavior. Harmonic mean = 1,231.

Appendix Table 8

Meta-Analytic Correlations of Parsimonious Voice Model with Dominant Variables from Relative Weight Analysis

Variable	1 ρ *k (N)*	2 ρ *k (N)*	3 ρ *k (N)*	4 ρ *k (N)*
1. Personal initiative	-			
2. Felt responsibility	.35 [b] 3 (656)	-		
3. Engagement	.30 [c] 6 (1,389)	.52 [a] 3 (887)	-	
4. Leader-member exchange	.32 [a] 4 (694)	.39 [a] 5 (1,590)	.31 [d] 4 (4,695)	-
5. Positive workplace climate	.30 [a] 3 (3,492)	.42 [a] 3 (2,787)	.34 [c] 18 (8,587)	.48 [a] 13 (3,041)

Note. [a] = New; [b] = Tornau & Frese, 2013; [c] = Crawford, LePine, Buckman, & Chamberlin, 2016; [d] = Christian, Garza, & Slaughter, 2011. Harmonic mean = 1,828.