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The Role of Inclusive Climates in Empowering Soldier Voice

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U.S. Army Research Institute
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14. ABSTRACT

Army doctrine indicates that leaders must create organizational climates that encourage subordinate Soldiers to communicate openly about mission-relevant thoughts and concerns to ensure that higher-level decisions and actions are well-informed (Department of the Army, 2019). Similarly, the Department of Defense has emphasized climates for inclusion as a method to leverage the diverse voices and perspectives represented among U.S. military personnel (Department of Defense, 2012). According to prior research, Brown et al. (2020) developed a two-dimensional measure of inclusive military climates that reveals how leader- and peer-driven factors contribute to fostering inclusive organizational climates in the military. We extended this research by (a) testing key predictions of theoretical models of inclusive climates (Key-Roberts et al., 2020), and (b) demonstrating the utility of Brown et al.'s measure in predicting a Soldier's readiness to express mission-relevant thoughts and ideas (i.e., voice behavior) over and above well-established predictors of voice behavior. We collected survey data from 216 active-duty enlisted Soldiers, using Brown et al.'s measure, as well as measures of voice behavior and theoretically relevant psychosocial attitudes (i.e., psychological empowerment, trust-in-leader, workgroup identification). Overall, the results align with theoretical models of inclusive climates. We argue for the relevance of inclusive climates in supporting Army mission objectives, as inclusive climates appear to facilitate voice behavior, enabling Soldiers to address problems more effectively and enable leaders to make higher quality decisions about Army operations.

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THE ROLE OF INCLUSIVE CLIMATES IN EMPOWERING SOLDIER VOICE

EXECUTIVE SUMMARY

Research Requirement:

Inclusive climates are thought to elicit diverse perspectives that leaders may leverage to enable their units to achieve mission success. However, little research has investigated specific outcomes of inclusive climates, especially within a military context. In support of an Army Research Institute for the Behavioral and Social Sciences (ARI) research program on developing military-specific climates for inclusion, this research was intended to identify organizational characteristics supporting individual Soldiers in contributing their full potential to mission success. Specifically, this research provides a foundation for leaders to empower their subordinates to contribute ideas, challenge the status quo, and take an active role in shaping the organizational context to better reflect their commander's intent.

Approach:

The goal of this research was to test a conceptual model of inclusive climates and how these climates impact Soldiers' expressive behaviors. Inclusive climates may provide a context enabling leaders to leverage Soldiers' diverse perspectives, ideas, and experiences to enhance mission success. We predicted that if inclusive climates enable leaders to leverage diverse perspectives, then inclusive climates would also influence subordinates to communicate mission-relevant information more openly. Creating a climate that supports subordinates in communicating mission-relevant information—described in the psychological literature as "voice behavior" (Van Dyne et al., 2003) or "speaking up" (Burris, 2012)—is essential for a leader to become aware of, evaluate, and incorporate such contributions from subordinates into organizational processes, such as mission planning and execution. We tested the relevance of inclusive climates on voice behaviors by collecting survey data using a variety of theoretically relevant demographic, psychosocial, and organizational climate measures, including rank, psychological empowerment, trust-in-leader, workgroup identification, and both leader- and peer-related climates for inclusion.

Findings:

The findings were relatively consistent with prior organizational research on voice behavior. The strongest predictor was psychological empowerment, followed by rank and peer-related climates for inclusion. All predictors were positively related to voice behaviors. Due to a particularly strong effect of psychological empowerment, we conducted an exploratory analysis of its predictors, revealing that psychological empowerment is predicted most strongly by workgroup identification, followed by leader-related climates for inclusion, trust-in-leader, and rank.

Utilization and Dissemination of Findings:

The research explains the benefits of voice behavior on unit effectiveness and presents empirical evidence that peer-related inclusive climates are a unique factor in supporting voice

behavior. These findings can guide leaders who want their Soldiers to inform peers or leaders of new mission-relevant information. Therefore, this research gives leaders a framework for evaluating voice behavior in their units as well as plausible intervention points to increase voice behavior (e.g., peer-related interaction norms and individual-level psychological empowerment). Army leaders, with their greater degree of authority, have the power and responsibility to shape the climate of their unit to support their subordinates' willingness and capacity to contribute their perspective to larger organizational processes. This research may be applied by leaders who seek to support and empower their Soldiers to address and solve problems as they notice them, leading to a more effective and adaptive unit. Empowered Soldiers contribute to organizational success, making leaders aware of emerging challenges and presenting solutions to consider.

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Voice is a familiar metaphor, captured in idiomatic phrases like 'make your voice heard' or 'voice your concerns.' As a metaphor, voice describes how an individual may resist, shape, even define the actions of a group, making others aware of what only the individual had previously perceived or come to know. It symbolizes the expressive power of the individual to influence others, ultimately shaping the opinions, beliefs, and actions of others. This common metaphoric usage of the word voice has extended into psychological terminology to describe the communicative behaviors of subordinates within an organizational context, expressing personal knowledge, experiences, and perspectives with the intent to inform or shape higher-level organizational processes. Army leaders rely on the knowledge, experiences, and perspectives expressed by subordinate Soldiers to inform them of relevant and critical events related to the mission; in effective Army organizations, leaders rely on the Soldiers' voice to maintain situational understanding and inform decision-making. Subordinate Soldiers can provide information that leaders need to form accurate understandings and make timely and effective decisions (Department of the Army, 2019). It is therefore critical that leaders establish organizational climates that are inclusive of diverse perspectives and that empower Soldiers to communicate promptly and openly—that is, inclusive climates that empower the Soldiers' voice.

When Soldiers notice significant changes to the mission environment, it is beneficial that they make their leaders aware so that mission planning and execution may be adapted to the new circumstances. That said, research in the private sector suggests that subordinates too often hold back, remaining silent out of fear of ostracism or retaliation (Ryan & Oestreich, 1991), particularly when they perceive that the information they have to share does not align with their leaders' existing expectations. That reluctance to share critical information can negatively affect the success of a mission. Evidence further suggests that subordinate military personnel who are hesitant to speak up may share similar concerns with subordinates in the private sector (Pinder & Harlos, 2001). Even so, extensive research has shown that subordinates who are comfortable communicating with their leaders may provide vital information to prevent major errors and improve decision making (Morrison, 2014). The Army requires an understanding of the factors that may contribute to Soldiers' willingness to communicate openly with their leaders, especially when the information to be shared is critical to improving their unit's ability to adapt to evolving situations and accomplish its mission. An understanding of these factors may highlight critical aspects of organizational climates that can be influenced to improve how information is shared

between subordinates and leaders, thereby improving organizations' adaptation to and success within dynamic and evolving mission environments.

Voice as a Behavioral Outcome

If Soldiers voice mission-relevant ideas or concerns to an authority figure, also known as *speaking up* (Burris, 2012), such phenomena should be observable through *voice behavior*. Voice behavior is defined as "intentionally expressing relevant ideas, information, and opinions about possible improvements" (Van Dyne et al., 2003, p. 1360). Although some jobs formally require speaking up about work functions (e.g., legal counsel, mandatory reporters of abuse), voice behaviors refer to occasions where an employee decides to speak up even though their job does not require it (Morrison, 2014). Generally speaking, voice behaviors are informal and extra-role communications that are intended to improve organizational functioning by challenging standard operating procedures (Van Dyne & LePine, 1998; Morrison, 2014), either by promoting good ideas or discouraging bad ones (Liang et al., 2012). High levels of voice behaviors enable organizations to take advantage of opportunities, detect and solve problems, make more informed decisions, and rapidly respond to crises (Morrison, 2014). Comparatively, silence is often implicated when organizations ignore underlying and emerging problems, eventually leading to large-scale failures, such as the space-shuttle *Columbia* disaster (Greenberg & Edwards, 2009) or the collapse of Enron (Milliken et al., 2003). In these situations, many individuals noticed that critical problems were becoming increasingly dire, but the organizational climate either inhibited these individuals from speaking up, or prevented their voiced concerns from having influence. The problems continued to persist until they became catastrophic situations from which there was no return. In the context of military missions, the consequences of missing key details may also be catastrophic; there is a need to understand the factors that contribute to voice behavior in military organizations.

Antecedents and Barriers of Voice Behavior

As individuals engaged in voice behaviors may challenge the organizational status quo, these individuals may likewise perceive risk in the choice to speak up. Many individuals consider how others may receive their message when choosing whether to speak up (Li et al., 2020). The predominant barriers to voice are often perceptions of risk and/or futility (Morrison, 2014). Risk stems from concerns that challenging the status quo will have negative consequences for the individual, such as being ostracized by peers, passed over for promotion, or even fired (Detert & Treviño, 2010; Milliken et al., 2003). Subordinates may also see others holding back, and therefore remain silent and then lose confidence in their ideas, or they may fear being labeled as a complainer or troublemaker (Morrison, 2014). Futility stems from concerns that expressing their voice will not bring about a desired outcome, such as situations in which leaders, peers, and/or the organization may resist the desired change (Morrison & Milliken, 2000). These concerns can arise even if subordinates have not yet experienced negative outcomes and are merely uncertain about the likelihood of a good outcome when challenging the status quo (Li et al., 2020).

One factor likely influencing the expression of voice in the Army is rank. It is well-documented that hierarchical organizations can reduce voice, especially from members with

lower social status or authority (Festinger, 1950; Detert & Treviño, 2010). As militaries are in many respects hierarchical organizations, rank should be a strong predictor of voice—a phenomenon observed among Dutch military personnel (Hilverda et al., 2018). When considering the role of risk and/or futility perceptions, the effect of rank seems reasonable, as lower-ranking members have less authority or autonomy to effect the change they desire. We expect to replicate these findings, hypothesizing that leaders who have greater authority and autonomy in their work role will have reduced perceptions of voice-related risk and futility (Morrison, 2014) and will therefore report greater rates of open communication that challenges the status quo than will subordinates.

Hypothesis 1: Higher-ranking Soldiers (noncommissioned-officers [NCOs]) will report engaging in higher rates of voice behaviors than lower-ranking Soldiers (junior-enlisted).

Researchers have indicated that the quality of the military leader-subordinate relationship is a factor in fostering voice (Hyllengren et al., 2011), but it may also serve as a barrier to voice (Pinder & Harlos, 2001). For example, Soldiers have long reported that toxic military leaders can create a climate of silence in their units (Pelletier, 2010) in which Soldiers feel motivated to withhold negative mission-critical information, fearing negative consequences (Reed, 2004). Army research further reveals that toxic leaders tend to avoid frank discussions, fail to implement new ideas, and discourage new ideas in general (Steele, 2011), all of which hold clear parallels to perceptions of risk and futility (Morrison, 2014). In contrast, authentic and inclusive leaders have been shown to facilitate voice behavior by demonstrating respect for diverse opinions (Simmons et al., 2022) and inviting input from those whose "voice might have otherwise been absent" (Nembhard & Edmondson, 2006 as cited in Boekhorst, 2015, p. 246). These leaders act in ways that may reduce perceptions of risk and reinforce the act of providing input to organizational processes, thus encouraging group members to speak-up. Essentially, leaders are likely key gatekeepers to voice behavior as they shape an organizational climate that either fosters or punishes expressing opinions that differ from the status quo (Key-Roberts et al., 2020).

Beyond the effects of leadership practices and rank, Soldiers' voice behavior may be affected by broader sociocultural norms. When individuals consider expressing their voice, their perceptions of others' desire to use what they may communicate is a strong predictor of whether they choose to engage in voice behavior (Tucker et al., 2008). This view suggests that voice behavior is strongly influenced by the perceived relevance of individual communications to the group's shared goals. Specific to the military, Hilverda et al. (2018) reported that what Soldiers' came to believe about voice-specific organizational norms was shaped by voice behavior they observed among others within their organization. In a sense, people express their voice when they believe others will support them and their contributions. Hilverda et al.'s findings are limited, however, in that Soldiers' perceptions of their subordinates, peers, supervisors, and highest management levels were combined to form a single index of social norms, blurring the distinctions represented by different types of social relationships within an organization. While perceptions of general social norms may influence whether Soldiers decide to express their voice, it is difficult to disentangle the influence of norms which may be specific to subordinates, peers, or leaders as distinct types of social relationships. One goal of the current research is to examine how the perceived norms of leader and peer groups may influence Soldiers' voice

behavior in a military organizational context—i.e., taking a step toward distinguishing between these different types of social relationships.

Climate and Voice Behavior

Army doctrine clearly states that leaders should foster an organizational climate that encourages speaking up: "Commanders whose command climates make subordinates reluctant to share bad news are likely to be poorly informed and operate from faulty assumptions that put operations at risk" (Department of the Army, 2019, Chapter 3, p. 4). Given such requirements, *climates for inclusion* have been proposed to elicit diverse perspectives by providing opportunities for all voices to be heard (Shore et al., 2011; Nishii, 2013). Inclusive climates emerge when members of a group perceive that they and their expressed beliefs and ideas are valued, integrated, and leveraged by the organization (Key-Roberts et al., 2020). Inclusive climates extend traditional diversity efforts beyond fair treatment and representation to better enable all group members to contribute to their fullest potential (Ferdman & Deane, 2014). A key factor in developing inclusive climates is ensuring that group members understand that they are part of the group, that they belong, while also respecting each individual member for their unique experiences and perspectives (Boehm & Dwertmann, 2015; Shore et al., 2011; Chung et al., 2020).

The U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) has conducted research that led to a military-specific model of inclusive climates (Key-Roberts et al., 2020) as well as a dedicated climate survey (Brown et al., 2020). In accordance with the ARI model of inclusive military climates, both leaders and subordinates must actively work to shape climate perceptions. Within the proposed measurement framework, inclusive climates emerge from leader-driven informational inclusion (vertical informational inclusion, [VII]) and peer-related group interaction norms (horizontal social inclusion, [HSI]). VII describes leader and organizational support for sharing information and soliciting subordinate input, whereas HSI describes the degree to which peers support each other and welcome diversity in both words and actions. Within a social unit, the distinct work roles of leaders and peers likely have different effects on perceptions of risk and futility about speaking up. Leaders often have the authority to reward or punish extra-role behaviors as well as to consider, implement, or ignore new ideas. At the same time, peers can choose to welcome or reject individuals for challenging the status quo and to accept, reject, or resist recommendations. Both VII and HSI are likely to influence voice behavior.

It is likely that VII and HSI will predict voice behavior because they are also conceptually related to interpersonal relationships with leaders and peers (Key-Roberts et al., 2020), both of which influence voice behavior (Morrison, 2014). For example, higher quality relationships between leaders and subordinates elicit increased rates of subordinate voice behaviors (Van Dyne et al., 2008), especially when the subordinate trusts the leader to be respectful and open to new ideas (Detert & Burris, 2007; Gao et al., 2011). Similarly, a strong sense of belongingness, to the point of personal identification with a work group leads to higher rates of voice behavior (Tangirala & Ramanujam, 2008). It is unclear the degree to which such findings extend to inclusive climates as the above findings refer to individuals' personal experiences whereas inclusive climates refer to perceptions of how everyone is treated. However,

if inclusive climates are uniquely pertinent to voice behavior, then inclusive climates should remain significant predictors even after accounting for conceptually similar psychosocial attitudes regarding social bonds.

Hypothesis 2a: After controlling for rank, trust-in-leader (TiL) and workgroup identification (WGI) will each explain unique variance in voice behavior.

Hypothesis 2b: After controlling for rank and psychosocial variables (TiL and WGI), vertical informational inclusion (VII) and horizontal social inclusion (HSI) will each explain unique variance in voice behavior.

Psychological Empowerment and Voice Behavior

Challenging the organizational status quo is a risky and active effort to shape the work environment. In addition to the perceptions of risk and futility, Morrison (2014) also argues that engaging in extra-role voice behaviors requires a proactive motivation to change the organization for the better. This activity aligns with the organizational psychology concept of *psychological empowerment*, which is defined as an intrinsic motivation to take an active orientation to work (Conger & Kanungo, 1988; Spreitzer, 1995). Empowered subordinates are more likely to pursue untested ideas and perform extra-role behaviors to improve their organization, including engaging in voice behaviors (Spreitzer, 2008). A meta-analysis provided evidence that empowerment and voice are causally linked, such that increasing psychological empowerment necessarily increases the expression of voice behaviors (Chamberlin et al., 2018). As empowered subordinates are neither afraid of novelty, nor cynical of organizational change, it is not surprising that empowered subordinates are much more likely to challenge the status quo via voice behaviors (Raub & Robert, 2010).

Hypothesis 3a: After accounting for all variables laid out in all above hypotheses (rank, TiL, WGI, VII, and HSI), psychological empowerment will be the strongest predictor of voice.

Hypothesis 3b: After accounting for psychological empowerment, the inclusive climate variables (VII and HSI) will still predict unique variance in voice behavior.

Method

Participants and Procedure

A total of 283 enlisted Soldiers completed a paper-and-pencil survey. To ensure high quality of data, we removed Soldiers who failed to complete 25% of any individual block or missed more than one attention check (e.g., Draw a box above response 4). This step removed 19 participants. We also removed participants who answered questions they had been explicitly directed to skip. This step removed an additional 48 participants, resulting in a final sample size of $N = 216$ participants. The final sample was composed of approximately equal numbers of junior-enlisted personnel (E1-E4, $n = 106$) and NCOs (E5-E9, $n = 110$).

Measures

Horizontal Social Inclusion (HSI)

We used the Horizontal Social Inclusion subscale from the Climate for Inclusion measure developed by Brown et al. (2020) to measure peer-driven inclusive interaction norms. The subscale consists of nine items designed to assess peer interaction norms, with an emphasis on peer-level respect, support, and communication (Brown et al., 2020) and uses five-point Likert response options, ranging from *strongly disagree* to *strongly agree.* The subscale assesses social norms that foster Soldiers' feelings of belongingness and uniqueness within their unit. Examples of items include, "Soldiers celebrate unit members' achievements" and "Soldiers speak up if someone is being excluded."

Vertical Informational Inclusion (VII)

We used the Vertical Information Inclusion subscale from the Climate for Inclusion measure developed by Brown et al. (2020) to measure leader-driven informational inclusion norms. The subscale uses five-point Likert response options, ranging from *strongly disagree* to *strongly agree.* The subscale assesses mutual communication feedback between leaders and Soldiers. Example items include, "Soldiers are actively listened to, not just talked to" and "Communication goes up and down the chain of command."

Voice Behavior

We used the Employee Voice scale developed by Liang et al. (2012) to measure voice behavior. The scale consists of ten items designed to assess the degree to which individuals feel comfortable expressing work-related ideas or concerns, and uses five-point Likert response options, ranging from *strongly disagree* to *strongly agree*. We made minor revisions to adapt the scale to a military context (e.g., replace "work unit" with "unit"). Example items include, "I make constructive suggestions to improve the unit's operation" and "I proactively report coordination problems in the unit to leaders."

Psychological Empowerment

We measured Psychological Empowerment with the scale developed by Spreitzer (1995). The scale consists of items designed to assess the four theoretical dimensions of empowerment: meaning, impact, self-determination, and competence. This scale and uses five-point Likert style response options, ranging from *strongly disagree* to *strongly agree*. Example items for each of the respective dimensions include: "The work I do is very important to me," "My impact on what happens in my unit is large," "I can decide on my own how to go about doing my work," and "I am confident about my ability to do my job."

Trust-in-Leader (TiL)

We measured TiL using the scale developed by Mayer and Gavin (2005). The scale consists of five items designed to assess the degree to which subordinates feel comfortable being vulnerable to their leader, and uses five-point Likert response options, ranging from *strongly disagree* to *strongly agree*. To make the measure more relevant to the Army context, we made minor revisions to make the items less industry-centric and more military-relevant (e.g., changing "this company" to "the Army"). Example items include, "I would be willing to let my unit leader have complete control over my future in the Army" and "I really wish I had a good way to keep an eye on my unit leader."

Workgroup Identification (WGI)

We measured WGI using the Organizational Identification scale developed by Mael and Ashforth (1992). The scale consists of six items designed to assess the degree to which individuals define their sense of self in terms of unit membership, and uses five-point Likert response options, ranging from *strongly disagree* to *strongly agree*. To make the measure more relevant to the Army context, we made minor revisions to make the items less education-centric and more military-relevant (e.g., changing "this school" to "this unit"). Sample items include "When someone criticizes this unit, it feels like a personal insult" and "This unit's successes are my successes."

Levels of Analysis

To assess group-level aspects of the work environment, measures are usually designed to include items that target organizational factors with a group-referent (e.g., "Members of my unit tend to") as opposed to an individual-referent (e.g., "I tend to"). Group- referents solicit information about experiences shared by the group whereas individual-referents solicit information about the experiences of the single participant. When group-referent items are aggregated across group members, they measure the *shared perceptions* of the organizational environment (i.e., organizational climate; see Ehrhart et al., 2014). Alternatively, when such measures are aggregated at the level of the individual, such measures assess individual-level perceptions of the work environment (i.e., psychological climate; see Baltes et al., 2009). Because the variables we selected to assess leader and peer social bonds – TiL and WGI – were designed with an individual-referent (e.g., "I tend to"), we analyzed all data at the level of the individual. Specifically, to maintain consistency across levels of analysis, we assessed individual perceptions of the general environment for inclusion (i.e., psychological climate for inclusion; group-referent) and not organizational (i.e., shared) climate for inclusion.

Analysis Plan

The current research leveraged the ARI climate for inclusion assessment to examine the distinct role of leader-driven informational inclusion and peer-driven social inclusion in predicting rates of voice behavior. As an additional test of the construct validity of Brown et al.'s (2020) measure, we compared the utility of leader-driven and peer-driven inclusion in predicting voice against psychosocial attitudes pertaining to leader and peer-related social bonds. Leader-

related social bonds were operationalized in terms of trust-in-leader while peer-related social bonds were operationalized in terms of workgroup identification.

We conducted a sequential series of regressions to test each hypothesis in the order that they were presented. In the first step, we built a regression model that tested if rank explained unique variance in voice (H1) due to the theoretical relevance between rank and voice as well as the potential for rank to account for many experiential factors that are extraneous to psychosocial attitudes and climate perceptions. In the second step, we added the variables TiL and WGI to the regression model to test if social bonds relating to respondents' leaders and peers explained unique variance in voice behavior while still accounting for rank (H2a). In the third step, we added the variables VII and HSI to the regression model to test if leader-driven and peer-driven inclusive climate perceptions each predicted unique variance in voice while still accounting for rank, TiL, and WGI (H2b). In the fourth step, we added psychological empowerment because of its prominent theoretical relevance to voice (H3a) and as an additional test of the unique variance in voice behavior accounted for VII and HSI (H3b). We calculated descriptive statistics, correlations, and regression analyses using the R statistical program (R Core Team, 2013).

In addition to examining relevant predictors of voice behaviors, we also explored the relative importance of each predictor using a dominance analysis (Azen & Budescu, 2003). A standard regression model provides weighted regression coefficients, which reflect unique variance instead of total variance that a predictor shares with an outcome. When predictors are correlated, as is likely with psychological constructs, regression coefficients are limited in representing the full extent of how one predictor relates to an outcome when compared to the combination of other predictors. When multiple variables are input into a regression, there is a strong possibility that one variable will render another insignificant because that second variance no longer explains unique variance after accounting for the first one. That does not mean the insignificant variable is irrelevant to the outcome, just that it no longer explains anything unique after accounting for the first one. Therefore, a way to view overall variance explained in addition to unique variance explained provides more context to interpret the results.

Dominance analysis is a technique to evaluate how relevant each predictor is to the outcome variable without relying on unique variance explained. Dominance analysis calculates the average variance accounted for by each predictor, compared to all combinations of the other model predictors. Imagine a three-predictor model: X_1, X_2, and X_3. The R^2 value for the model containing X_1 and X_2 predictors is compared to the R^2 value for the model only containing X_2. The difference in R^2 values between these models provides the R^2 contribution (ΔR^2) of X_1 over X_2. Similarly, the difference in R^2 values between a model containing X_1 and X_3 and the model only containing X_3 provides the R^2 contribution (ΔR^2) of X_1 over X_3. Finally, the difference in R^2 values between the maximal model and the model containing both X_2 and X_3 is the R^2 contribution (ΔR^2) of X_1 over X_2 and X_3. The dominance of X_1 is calculated by averaging all ΔR^2 values associated with X_1. As dominance analysis complexity increases substantially with more predictors, we automated this process with the *dominanceanalysis* R package (Navarrete, 2020).

Results

Table 1 presents descriptive statistics on demographic variables for the entire sample. Missing data refers to responses that were either unintelligible or cases in which participants left responses blank.

Table 1
Sample Demographics

	n	*%*
Rank		
Junior-Enlisted	106	49%
NCO	110	51%
Gender		
Male	198	92%
Female	17	8%
Missing	1	<1%
Race		
American Indian or Alaskan Native	2	1%
Asian	10	5%
Black or African American	29	13%
Native Hawaiian or Pacific Islander	5	2%
White	148	69%
Multi-Ethnic	6	3%
Missing	16	7%
Hispanic		
Yes	55	25%
No	160	74%
Missing	1	<1%

Table 2 presents mean differences between junior-enlisted and NCOs across all response variables. Results from *t*-tests revealed that NCOs rated every variable higher than junior-enlisted Soldiers. Effect sizes ranged from medium to large, suggesting relatively robust differences. The strongest effect of rank was observed for voice ($d = 0.90$), supporting H1. Intercorrelation coefficients and scale reliabilities are presented in Table 3. Coefficient alphas exceeded .80 for all variables except TiL ($\alpha = .62$) and results show moderate to strong positive correlations between all variables ($r = .30 – .66$).

Table 2
Mean Differences for Junior-Enlisted and NCO Status

	Junior-enlisted		**NCO**			
	M	*SD*	*M*	*SD*	*t-value*	*d*
Horizontal Social Inclusion	3.41	.69	3.64	.69	**2.46****	0.33
Vertical Informational Inclusion	2.92	.80	3.43	.91	**4.36*****	0.60
Voice	3.22	.69	3.77	.52	**6.57*****	0.90
Psychological Empowerment	3.23	.67	3.67	.64	**5.05*****	0.67
Trust-in-Leader	3.01	.66	3.20	.68	**2.07***	0.28
Workgroup Identification	3.00	.95	3.40	.98	**3.02*****	0.41

Notes. Junior-enlisted (n =106); NCO (n = 110).
* $p < .05$; ** $p < .01$; *** $p < .001$. All significant at $p < .05$ with Holm-Bonferroni-correction.

Table 3
Correlations and Reliability Coefficients

	HSI	VII	Voice	Empwr	TiL	WGI
Horizontal Social Inclusion	(.89)					
Vertical Informational Inclusion	**.66**	(.90)				
Voice	**.39**	**.39**	(.88)			
Empowerment	**.45**	**.51**	**.59**	(.88)		
Trust-in-Leader	**.34**	**.49**	**.30**	**.43**	(.62)	
Workgroup Identification	**.51**	**.43**	**.31**	**.54**	**.36**	(.90)

Notes. n = 216; *HSI* = Horizontal Social Inclusion; *VII* = Vertical Informational Inclusion; *Empwr* = Empowerment; *TiL* = Trust-in-Leader; *WGI* = Workgroup Identification.
All significant at $p < 0.05$, with Holm-Bonferroni-correction; Diagonal indicates Cronbach alpha reliability coefficients, presented in parentheses.

We tested all hypotheses by conducting specific hierarchical regression analyses. The results of each model are found in Table 4. H1 proposed that rank would positively predict voice. The results of the first model supported H1, as rank contributed significant variance to voice (R^2 = .169) and positively predicted voice (β =.55, $p < .001$). H2a proposed that the psychosocial variables of TiL and WGI would predict unique variance in voice even after accounting for rank. The second model added TiL and WGI and supported H2a. The addition of TiL and WGI to the regression model contributed significant incremental variance (ΔR^2 =.085, $p < .001$), with significant coefficients for both TiL (β =.2, $p < .01$) and WGI (β =.11, $p < .05$). H2b proposed that the inclusive climate variables VII and HSI would predict unique variance in voice even after accounting for rank, WGI, and TiL. The third model, which added VII and HSI to the preceding model, found partial support for H2b. Although including these variables contributed significant incremental variance (ΔR^2 =.048, $p < .001$), the results revealed a significant coefficient for HSI (β =.22, $p < .05$) and a null effect for VII. Additionally, this model altered the significance of the TiL and WGI coefficients, such that the effect of TiL was reduced to a non-significant trend (β =.13, $p < .10$) and the effect of WGI was nullified entirely. Finally, H3a proposed that psychological empowerment would be the strongest predictor of voice even after accounting for all other variables. The regression results generally supported H3a, as

psychological empowerment contributed the largest significant incremental variance of the regression models (ΔR^2 =.121, $p < .001$), with a strong positive relationship between psychological empowerment and voice (β =.45, $p < .001$). This model also revealed significant coefficients for HSI (β =.19, $p < .05$) and rank (β =.33, $p < .001$), with null effects for TiL, WGI, and VII, partially supporting H3b. To test the prominence of each predictor more precisely, we conducted a dominance analysis, which is reported in Table 4. The results further supported H3a, with the most prominent predictor of voice being psychological empowerment (ΔR^2 = .192), followed by rank (ΔR^2 = .091), HSI (ΔR^2 = .052), VII (ΔR^2 = .039), TiL (ΔR^2 = .025), and WGI (ΔR^2 = .024).

Table 4
Regression Model Predicting Voice Behavior

	Model1		Model2		Model3		Model4		Dom
Variable	Est.	SE	Est.	SE	Est.	SE	Est.	SE	
(Intercept)	-0.28	0.06**	-0.24	0.06**	-0.22	0.06**	-0.17	0.05**	
Rank (Junior-Enlisted vs. NCO)	0.55	0.08**	0.47	0.08**	0.44	0.08**	0.33	0.08**	.091
Workgroup Identification			0.11	0.04*	0.04	0.05	-0.07	0.05	.024
Trust-in-Leader			0.20	0.06**	0.13	0.07 †	0.06	0.06	.025
Vertical Informational Inclusion					0.05	0.06	-0.02	0.06	.039
Horizontal Social Inclusion					0.22	0.08*	0.19	0.07*	.052
Psychological Empowerment							0.45	0.07**	.192
R^2	.169		.254		.302		.423		
ΔR^2			.085		.048		.121		
F			15.47		8.65		43.94		
p			< .001		< .001		< .001		

Notes. N = 216; *Dom* = Dominance
†$p < .10$, *$p < .05$, **$p < .01$

The magnitude of psychological empowerment's relevance to voice, coupled with its theoretical relevance to voice, led us to consider an exploratory post-hoc regression analysis, with psychological empowerment as the outcome, and VII, HSI, WGI, TiL, and rank as potential predictors. We conducted a similar hierarchical regression as above, with model 1 consisting of rank, model 2 adding WGI and TiL, and model 3 adding HSI and VII. The results of the exploratory analysis are reported in Table 5. These results revealed that psychological empowerment was significantly predicted by rank (β = .23, $p < .01$), WGI (β = .23, $p < .001$), TiL (β = .16, $p < .05$) and VII (β = .15, $p < .05$), with no significant effects of HSI. Dominance

analyses revealed that the most prominent predictor of psychological empowerment was WGI (ΔR^2 = .147), followed by VII, (ΔR^2 = .098), TiL (ΔR^2 = .071), HSI (ΔR^2 = .067), and rank (ΔR^2 = .052). We discuss the implications of these results in the following section.

Table 5
Regression Model Predicting Psychological Empowerment

	Model1		Model2		Model3		Dom
Variable	Est.	SE	Est.	SE	Est.	SE	
(Intercept)	-0.23	0.06***	-0.15	0.05*	-0.12	0.05*	
Rank (Junior-Enlisted vs. NCO)	0.44	0.09***	0.29	0.08***	0.23	0.07**	.052
Workgroup Identification			0.29	0.04*	0.23	0.04***	.147
Trust-in-Leader			0.25	0.06**	0.16	0.06**	.071
CfI: Vertical					0.15	0.06*	.098
CfI: Horizontal					0.07	0.07	.067
R^2	.107		.396		.434		
ΔR^2			.289		.039		
F			53.6		7.15		
p			< .001		< .001		

Notes. N = 216; *Dom* = Dominance
*p < .05, **p < .01, ***p < .001

Discussion

Drawing on research concerning voice behavior (Morrison, 2014) and organizational inclusive climates (Key-Roberts et al., 2020), we investigated the relevance of inclusive military climates on Soldier voice while accounting for established predictors of voice behavior. These established predictors included social status (i.e., rank), psychological empowerment, and psychosocial perceptions of leader and peer social bonds (i.e., TiL and WGI). The results revealed that rank, psychological empowerment, and peer-driven factors of inclusive climates are highly relevant to voice behavior. Below we describe our interpretations.

Rank as a Generalized Antecedent

NCOs reported higher ratings for all variables. One explanation is that NCOs develop more positive attitudes towards inclusion, leadership, and peer relations as they experience more authority and career-centric rewards within the Army. As Soldiers gain more experience, they may develop expertise in both their specialty, but also in how the Army operates. With this knowledge, they understand how to best navigate the Army and therefore feel more comfortable and generally positive in their attitudes towards to the Army. Another possibility is that the NCO population may simply hold more homogenously positive attitudes about the Army in general, as demonstrated by NCO's retention over time, or the selection process for NCOs may favor candidates who hold positive attitudes toward the Army. For example, the attraction-selection-attrition hypothesis argues that organizations tend to retain subordinates whose values more

closely align with the organization (Schneider et al., 2000). NCOs, as a more senior (i.e., retained) group of enlisted Soldiers, may hold values that better align with Army values and thus may have more favorable feelings about the organization overall. In contrast, individuals whose values are less aligned, and who have more negative feelings about the Army organization, have likely already left (i.e., attrition), thus eliminating these individuals from the senior enlisted ranks. The large variation in effect sizes across the attitudes is important to note. Such variation suggests that the true drivers of rank differences are likely multifaceted and viable as a topic for future research.

Factors Related to Voice Behavior

As indicated above, we observed that rank was a robust predictor of voice, further evidenced by the large effect size observed in the initial *t*-test ($d = 0.90$). This finding is consistent with current voice theories that assert that professional social status should foster increased rates of voice behavior (Morrison, 2014). Within the U.S. Army, NCOs have greater authority and autonomy than junior-enlisted. Therefore, NCOs are likely more certain that their suggestions will be seriously considered, thereby evoking lower perceptions of risk and futility in speaking up. Additionally, the supervisory role of NCOs makes them more central to workflow processes than junior-enlisted. Research has shown that subordinates who are more critical to task-interaction networks are more likely to express voice, likely because their heightened perceptions of impact foster a greater sense of responsibility for guiding team performance (Venkataramani & Tangirala, 2010). In addition to factors influencing NCOs' comfort with speaking up, it is also possible that junior-enlisted are more likely to be explicitly afraid of being punished or censured for speaking up than NCOs, a common phenomenon identified in general research on organizations (e.g., Pinder & Harlos, 2001). Research has long shown that lower-ranking subordinates often assume that voice is inherently risky, and so they remain silent unless trust is developed about voicing ideas and concerns (Burke et al., 2007). Leaders who wish to empower Soldiers to contribute to their units will need to ensure that Soldiers are comfortable speaking up in general, particularly if such individuals are lower-ranking and presumably have different experiences and perceptions of the work environment.

Our findings replicate the long-known relationship between social bonds (i.e., TiL and WGI) and voice behavior (Morrison, 2014). However, these results also reveal that inclusive group norms (i.e. HSI) are a more dominant predictor of voice than TiL, WGI, and VII, as including HSI nullified the significance of the other three. We were surprised that VII was not an observed predictor of voice, especially given that VII assesses communication up and down the chain of command. However, the ARI model of inclusive military climates does predict group interaction norms to be more proximal to outcomes than leader actions (Key-Roberts et al., 2020). Therefore, if leaders want to leverage the full spectrum of diverse perspectives from subordinates, focusing on leader-subordinate relationships may be insufficient. Leaders may need to prioritize inclusive group norms, such as treating others with respect, speaking up if someone is being excluded, and actively building on other's ideas during decision-making processes (Brown et al., 2020; Key-Roberts et al., 2020). Ultimately, to foster voice from one Soldier, leaders must ensure that the entire unit feels comfortable voicing opinions to one another, as well as to their leaders.

Consistent with prior research (Chamberlin et al., 2018), the present research revealed the strongest predictor of voice behavior to be psychological empowerment. The existence of such a strong relationship is not surprising when one compares the primary barriers to voice with the foundational elements of psychological empowerment. These voice barriers are perceptions of risk and futility. Risk refers to the fear that speaking up with result in some form of retaliation (e.g., ridicule, ostracism, punishment) whereas futility refers to the fear that speaking up will not have any meaningful impact (Morrison, 2014). Comparatively, the foundational elements of psychological empowerment are meaning, competence, self-determination, and impact. Specifically, we consider self-determination and impact. Self-determination refers to a sense of choice in initiating and directing actions (Deci & Ryan, 2012). Self-determined subordinates feel they have the authority to make autonomous decisions about the best way to go about their work. Impact refers to perceptions that individuals can meaningfully influence strategic, administrative, or operational work outcomes (Ashforth, 1989).

When self-determination and impact are compared with voice-related risk and futility, it seems reasonable to propose there is a strong inverse relationship between high levels of empowerment and high levels of risk and/or futility. Research has shown that fear of aversive outcomes reduces job commitment and extra-role behaviors (Latham & Pinder, 2005) and the more futile individuals perceive a situation, the less likely they are to attempt to improve it (Ashforth & Saks, 2000). The proposed inverse relationship between empowerment and voice barriers seems analogous to the extensive research on learned helplessness, which has shown that exposure to uncontrollable aversive events can lead individuals to perceive their behaviors to be irrelevant to the outcomes they experience (Abramson et al., 1978). As it stands, these propositions are general predictions, as the specific relationship between voice-related barriers and psychological empowerment has not been examined and the true relationship between these factors is likely more complex than presented here. We recommend that future research more closely examine how specific voice-related concerns relate to the motivational dispositions of those who hold them.

Factors Related to Psychological Empowerment

Due to the strong effect of psychological empowerment in predicting voice, we explored possible antecedents of psychological empowerment by examining its strongest correlates in our dataset. The exploratory dominance analysis revealed empowerment is most prominently predicted by WGI, VII, TiL, and then rank. Although VII did not predict voice, its role in predicting empowerment provides support for the possibility that leadership practices may indirectly influence voice through other mediating mechanisms (e.g., psychological empowerment). Future research, perhaps using longitudinal data, will be necessary to prove a causal mediation between leadership practices, psychological empowerment, and voice behavior, but this hypothesis does align with the current organizational literature. In a recent meta-analysis, Chamberlin et al. (2018) revealed that management practices that solicit voice and reduce perceptions of risk foster psychological empowerment, which increases voice behavior and ultimately benefits organizational functioning. Voice theories also align with these propositions, arguing that subordinates are only prepared to speak up if they first are motivated to improve the organization and perceive that ideas will be well-received (Morrison, 2014). If our hypothesis is correct, then longitudinal research would reveal that changes in VII preempt changes in

psychological empowerment, which then fosters similar changes in voice behaviors. Finally, we found that NCOs reported greater empowerment than junior-enlisted. This difference is expected, as NCOs' greater authority likely fosters greater perceptions of self-determination and impact, both of which are necessary components of psychological empowerment. Although exploratory, these results suggest that the motivational consequences of leadership experiences and practices are relevant to fostering empowerment.

As noted earlier, WGI and TiL are explicitly individual-level psychosocial attitudes pertaining to individuals' relationships with their leaders and peers in the unit. Soldiers regularly transition to different units across their career and the degree to which strong relationships are developed with leaders and peers influences their psychological well-being and professional competence (Adrian et al., 2018). Furthermore, research has shown that when individuals know their work performance affects others, and the individuals value those relationships, such individuals will take a more active role in their work role (Grant & Parker, 2009). Thus, we suggest that strong social bonds with leaders and peers co-occur with and potentially have causal relationships with psychological empowerment. This finding contributes to the long-established relationship between social bonds and Soldiers' work motivations (Shils & Janowitz, 1948; Pawiński & Chami, 2019), leading us to suggest that clarifying the antecedents and outcomes of psychological empowerment will inform military psychology.

Limitations and Future Directions

This research supports the theoretical argument that inclusive climates leverage diversity, particularly diverse voices and perspectives (Key-Roberts et al., 2020; Nishii, 2013; Shore et al., 2011). Future research is needed to test if results pertaining to general psychological climates for inclusion generalize to organizational climates for inclusion.

One limitation of the present research pertains to potential measurement issues. After the unexpected finding that VII did not explain unique variance in voice, we reviewed the VII, HSI, and voice measures. First, there are clear parallels between certain HSI items and voice (e.g., Soldiers speak up when others are being excluded). Also, the majority of voice items refer to peer targets explicitly (e.g., "I advise other colleagues against undesirable behaviors that would hamper job performance"), implicitly (e.g., "I dare to point out problems when they appear in the unit, even if that would hamper relationships with other unit members"), or are ambiguous (e.g., "I proactively voice out constructive suggestions that help the unit reach its goals"). Essentially, the voice measure is more similar to peer-focused measures (i.e., HSI) than leader-focused measures (i.e., VII). Research suggests that there are distinct antecedents of expressing voice to peer than of expressing voice to leaders (Detert et al., 2013). For a more precise understanding of the antecedents of voice behavior, we propose a need for voice behavior measures that differentiate targets (i.e., leaders, peers) as well as voice behavior measures that differentiate underlying social concerns (i.e., risk, futility).

Finally, given the dangerous nature of military occupations (Shortland et al., 2019), it is unclear if other industry research generalizes to military populations. Unfortunately, there is a dearth of research on both voice and psychological empowerment in military populations. For example, Van Dyne and LePine (1998) is a classic paper on voice with over 3,200 citations at the

time of this writing. We searched Google Scholar for papers that cited Van Dyne and LePine (1998), using the search terms “military”, “soldiers”, and “officers”, and found only 21 results, very few of which were peer-reviewed studies. Similar results were observed for Spreitzer (1995), a classic paper on psychological empowerment. We recommend that military researchers explore research questions related to voice and psychological empowerment, including testing if encouraging voice empowers Soldiers or if empowering Soldiers motivates them to pursue voice opportunities. We also recommend researchers disentangle perceptions of empowerment from other attitudes that may be pertinent to expressing voice behavior. Chief among these pertinent attitudes are psychological safety, which enables individuals to feel safe to take risks and voice ideas (Key-Roberts et al., 2020) as well as prosocial motivations, which are intrinsic motivations to benefit the organization (Liang et al., 2012). Understanding how leadership and group norms interact with these perceptions over time will better enable the Army to prepare Soldiers to speak up with thoughts or concerns relevant to the mission.

Finally, we make a practical recommendation. Leaders should foster regular voice behavior as a long-term investment in their Soldiers and units. Although a lack of voice is often implicated during disastrous events (e.g., the Challenger space shuttle), the benefits of voice more often manifest over a long period of time, in which daily voice behaviors continuously raise issues before they reach critical status (Sherf et al., 2019). Even in conditions where voice behavior averts a specific mistake (e.g., medical operations), effective leaders regularly encourage voice as a normal daily process (Farh & Chen, 2018). Our results suggest that leaders should take notice of how their Soldiers express voice in their daily operations, not just from subordinate-to-leader, but also peer-to-peer. Is it a regular practice for Soldiers to raise issues and have mission-relevant conversations as part of their daily operations? And are these raised issues considered during decision making? Although regular voice behaviors can appear slightly disruptive in the short-term, their practice is a valuable long-term investment (Sherf et al., 2019). Leaders who value and foster regular voice behaviors will train Soldiers to address minor issues before they become serious. Additionally, when a critical event is imminent, Soldiers will be trained to speak up and ensure the relevant information is known to their leaders and teams.

Conclusion

In this report, we have argued that Army leaders rely on their subordinates to keep them informed and then examined factors that contribute to Soldiers’ readiness to speak up. Specifically, we have argued that inclusive climates play a strong role in empowering Soldiers to express voice behavior. Commanders cannot be everywhere at once. They must rely on their entire chain of command carrying information from the individual Soldier who notices something all the way up the chain of command. Commanders cannot risk the negative consequences of Soldiers who notice something but refrain from saying something. Thus, more information is needed regarding the factors that encourage voice behavior. The evidence presented here demonstrates that psychological empowerment and individual perceptions of inclusive group interaction norms are pertinent to voice behavior. We also reveal that leaders’ managing of informational inclusion, a Soldier’s trust-in-leader, and unit-level social bonds are relevant to psychological empowerment. These findings align with managerial research, which argues that empowering organizations share information, encourage autonomous action, and authorize teams to hold themselves accountable (Seibert et al., 2004). If the Army wishes to

ensure a well-informed leadership, we propose that leaders monitor for the prevalence of Soldier voice behavior and do their utmost to foster and reinforce it. As the Army prepares for an increasingly decentralized world where lower-ranking leaders must make local decisions, the factors which contribute to an individual's willingness to speak up will create a more informed and agile Army.

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