RESEARCH ARTICLE

"I Just Need to Say Something": A Self-Determination Model of Voice

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ABSTRACT

Existing voice research tends to focus on the positive outcomes associated with promotive voice and the negative outcomes associated with prohibitive voice. We adopt a self-determination theoretical lens to examine what voicers stand to gain by engaging in both types of voice despite the potential backlash against them for their voice behavior (particularly prohibitive voice). We conducted two experience-sampling studies that examined the fluctuation of voice on a daily (Study 1) and weekly (Study 2) basis. In Study 1, we found that while promotive voice was positively associated with the voicer's psychological need satisfaction, prohibitive voice was not. In addition, the association between promotive voice and the voicer's psychological need satisfaction was stronger than that of prohibitive voice and the voicer's psychological need satisfaction. In Study 2, we found that both promotive voice and prohibitive voice were indirectly related to the voicer's authentic self-expression and helping behavior through the mediating mechanism of psychological need satisfaction, although the indirect effects of promotive voice were stronger than the indirect effects of prohibitive voice.

1 | Introduction

Voice is a form of employees' discretionary behavior intended to improve organizational functioning (Van Dyne and LePine 1998). Employees voice suggestions and concerns to identify errors, introduce new ideas, make process and procedural improvements, and increase safety and efficiency (Bashshur and Oc 2015; Chamberlin, Newton, and LePine 2017; Mowbray, Wilkinson, and Tse 2015). In the absence of employee voice, managers may make false assumptions about the extent to which employees are supportive of work decisions and procedures, thus overlooking problematic issues and defending the outdated status quo (Morrison 2011, 2014). Considered to be "self-initiated, future-focused, and change-oriented" (Sherf, Parke, and Isaakyan 2021, 116), voice plays an instrumental role in facilitating organizational success (Detert et al. 2013).

Despite its voluminous research, the extant literature on voice is predominantly focused on situational enablers (e.g., leader behavior, workplace climate) and personal deterrents of voice (e.g., fear, futility, and psychological safety; see Chamberlin, Newton, and LePine 2017), as well as how others react to voice behavior (Morrison 2023). As Lin and Johnson (2015, 1391) noted, "nearly all research regarding voice has examined how such behavior

influences recipients, with little attention to the consequences of such behavior for those who perform them." The nascent voicer-centric literature, which focuses on the impact of voice on the voicer, often distinguishes between *promotive* voice (aimed to identify opportunities for the organization to achieve improvement and innovation) and *prohibitive* voice (aimed to reveal areas of concerns and weaknesses; see Liang, Farh, and Farh 2012). Past research tends to focus on the positive effects, such as positive affect (Heydarifard and Krasikova 2023), of promotive voice to the voicer. In contrast, the extant literature paints a much more negative picture of how prohibitive voice impacts the voicer. For example, Welsh et al. (2022) showed that expressing prohibitive voice may lead voicers to "hide away" and avoid others due to increased worry and anxiety of how they are perceived.

Notably, however, several studies have demonstrated conspicuously similar rates of expression for both forms of voice, suggesting that current theory may be disconnected from empirical fact. For example, Huang et al. (2018) found closely aligned means of promotive and prohibitive voice across all three studies: Study 1: 3.96 (promotive) versus 3.64 (prohibitive); Study 2: 3.68 (promotive) versus 3.65 (prohibitive); Study 3: 4.39 (promotive) versus 4.24 (prohibitive). Song et al. (2020) also reported similar expressions of promotive (3.88) and prohibitive voice (3.65) among participants (e.g., Kakkar et al. 2016; Liang, Farh, and Farh 2012). If prohibitive voice has such detrimental effects on the voicer as widely assumed by voice scholars, then what do voicers stand to gain from engaging in such behavior? This question is important because oftentimes individuals engage in actions due to the foreseen or unforeseen benefits of the actions. We seek to provide clarity and posit that one viable explanation is that voice behavior, regardless of whether it is promotive or prohibitive, may fulfill a self-determined benefit for the voicer to "speak their mind." In other words, both promotive and prohibitive voice may serve the self-determined function of satisfying the voicer's psychological needs which may drive their subsequent authentic self-expression and helping behavior. We further strive to solve another puzzle in the literature. Namely, whereas some scholars suggest that promotive and prohibitive voice have the same motivational underpinning (Chamberlin, Newton, and LePine 2017; Sherf, Parke, and Isaakyan 2021), others suggest that they are distinct from one another in their nomological network (see Morrison 2023). In seeking to address this inconsistency, we suggest that while both forms of voice may help fulfill the voicer's psychological needs, a potential distinction may exist wherein promotive voice accomplishes need fulfillment more effectively than does prohibitive voice. By looking more closely at within-person variations of voice as they relate to need fulfillment, we integrate theoretical perspectives to clarify important discrepancies in the voice literature, offering a clearer path forward in understanding the type of voice displayed. Thus, our study uncovers an important new dimension to research that has predominantly focused on trait or situational determinants of voice and that fails to offer clear explanations regarding the psychological rewards associated with prohibitive voice.

Given that voice is a volitional and personally discretionary behavior, self-determination theory (SDT; Deci and Ryan 2000) offers a useful theoretical lens from the voicer's perspective. SDT posits that humans have the innate desire for growth, integration, and coherence that are fulfilled by autonomous self-regulation through internalizing external values into their own

identity (R. M. Ryan, Connell, and Deci 1985). Voice represents an autonomous action because the issues that are voiced reflect internalized work concerns (Kim et al. 2013). Engaging in autonomous actions will allow individuals to experience the satisfaction of psychological needs that consist of competence (the feeling that one has mastery over the environment), autonomy (the feeling that one is the initiator of one's own actions), and relatedness (the feeling that one is connected with others). As we explain below, when voicers engage in promotive/prohibitive voice, they internalize the value associated with the voice behavior. This contributes to the beliefs that they can make a difference in the workplace (competence need), have a sense of ownership (autonomy need), and allow others to either achieve positive or avoid negative outcomes and potentially enhance their relationships with others (relatedness need).

Although we expect both promotive voice and prohibitive voice to be positively associated with the voicer's psychological needs, we do not expect these relationships to be equal in strength. SDT posits that individuals are more likely to internalize values and behavioral regulations to the extent that "adopting values and behaviors that are manifest in the social world garners acceptance by the social world and permits efficacious functioning in it" (Deci and Ryan 2000, 239). Without gainsaying the benefits of prohibitive voice, we argue that prohibitive voice can evoke negative reactions from others because it uncovers organizational problems and weaknesses (e.g., Liang, Shu, and Farh 2019; Wei, Zhang, and Chen 2015). Given that prohibitive voice is less socially accepted than promotive voice, the behavior and the issues that are voiced are less likely to be internalized. As such, prohibitive voice may have a weaker effect on psychological need satisfaction than promotive voice. Finally, drawing upon SDT, we propose that psychological need satisfaction may result in positive outcomes both for the voicer in the form of engaging in authentic self-expression and for others in the form of helping behavior.

Figure 1 presents our hypothesized model. We examine these theoretical predictions using two experience-sampling studies with the intent of making the following contributions. First, the limited research examining a voicer-centric perspective suggests that voice may be costly for the voicer leading to depletion and negative affect (e.g., Lin and Johnson 2015; Starzyk, Sonnentag, and Albrecht 2018). Contrary to this pessimistic view, we argue that as autonomous actions, both promotive voice and prohibitive voice can have positive psychological benefits of greater need satisfaction. In addition, past research tends to focus on the organization benefits of the voice action itself (Chamberlin, Newton, and LePine 2017). Our study expands the scope by suggesting that voice is not the "end-game" of a voicer's prosocial contribution. Rather, voice can be a catalyst of prosocial actions by motivating the voicer to further engage in helping behavior toward others. Importantly, by examining the comparative effect of promotive and prohibitive voice, we offer greater theoretical clarity on how these may differentially provide need satisfaction. Second, we contribute to the SDT literature that tends to focus on contextual factors as the predictors of need satisfaction, such as leadership styles and job characteristics (Chiniara and Benstein 2016). Our study suggests that psychological needs can also be satisfied by an individual's voice action. Thus, our study confers an agentic role to an individual's
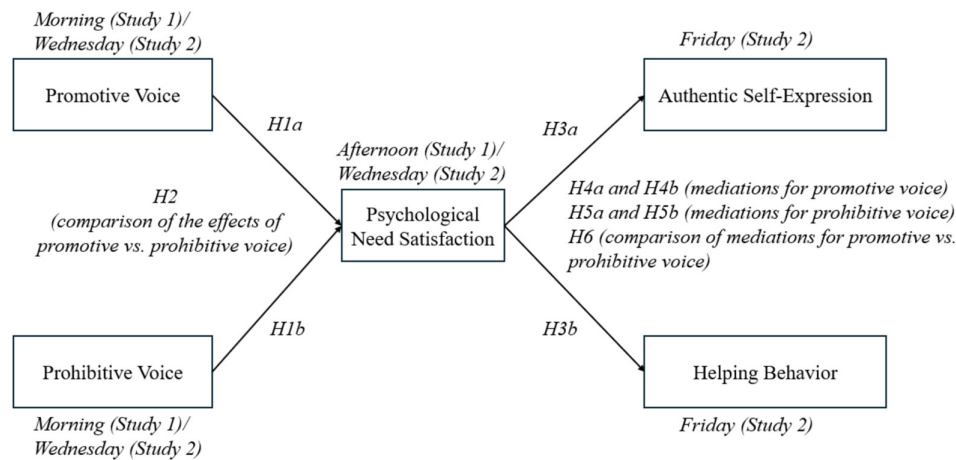
FIGURE 1 | Conceptual model.

voice by underscoring its effect on the individual's need satisfaction. Third, consistent with its view on more stable antecedents of voice, such as general characteristics of the person, the organization, and the job (e.g., Chamberlin, Newton, and LePine 2017; Chiniara and Benstein 2016), the vast majority of research examines between-person differences in the display and outcomes of voice (Morrison 2014). Departing from this approach, and in line with our voicer-centric approach, we examine the relationships between voice and need satisfaction on daily and weekly bases thereby controlling for between-person differences. This accounts for the fact that voice and need satisfaction may fluctuate considerably within a person (Liu et al. 2017; R. M. Ryan and Deci 2017) and enables a closer examination of these variations as they unfold and opportunities to express voice and fulfill one's psychological needs are presented, thereby examining need satisfaction in temporal proximity to voice while accounting for dynamic authentic self-expression and helping behavior.

2 | Theoretical Foundation

Voice refers to employees' discretionary communication intended to uncover areas of problems and concerns, make recommendations for changes, and identify opportunities for growth and development (Morrison 2011, 2014; Van Dyne and LePine 1998). One reason that employees engage in voice is that issues that are raised may be "a natural manifestation of one's identity" (Ashford and Barton 2007, 227). In other words, since employees speak up on issues that are important to them, expressing their views on these issues allows them to express who they are and what they care about. A large body of literature has examined the predictors of employees' tendencies to voice, such as their personality (e.g., proactive personality and conscientiousness) and the work environment (e.g., transformational leadership, psychological safety climate; e.g., Chamberlin, Newton, and LePine 2017). The extant literature has also examined how voice impacts the voice recipient, such as managerial endorsement and rated performance of the voicer (Burris 2012). Comparatively, there is much less research on how voicers themselves are impacted by speaking up. Several recent studies have started to address this omission but often from the perspective of its negative impact on voicers. For example, Starzyk, Sonnentag, and Albrecht (2018) examined how voice impacted the voicer's

own affective experience. Lin and Johnson (2015) showed that voice led to perceived ego depletion.

Meanwhile, one defining attribute of voice is that it represents a form of intentional behavior enacted by the voicer to have a positive influence on the environment. Discretionary behavior is self-expressive in the sense that it reflects personal choice and belief (Strauss and Parker 2014). Historically, SDT has focused on intrinsic reasons as the driver of autonomous actions, such that personal interest and values engender autonomous actions without necessarily considering the consequences of such actions (Deci and Ryan 2011). SDT also posits that autonomous actions can be driven by internalized extrinsic motivation (Deci and Ryan 1985). Individuals may engage in certain activities not necessarily because the activities are inherently self-gratifying but because the activities are integrated with their values and beliefs. Through internalization, the activities become part of who the person is and what the person wants to be and assimilate into their integrated self (Hardy et al. 2015). By internalizing organizational values, some employees become driven to take ownership of their job and engage in autonomous actions to improve their work outcomes (Strauss and Parker 2014). For example, Chamberlin, Newton, and LePine (2017, 15, emphasis added) noted that "employees engage in voice when they feel *obligated* to enact constructive changes." The development of an internalized sense of obligation may explain past research suggesting that voice can be driven by pro-organizational motives (Kim et al. 2013).

SDT suggests that autonomous self-regulation may impact the extent to which psychological needs are satisfied. As Sheldon et al. (2003, 369) pointed out, "as a result of the internalized motivation, individuals are likely to derive positive momentary feelings of autonomy, competence, and relatedness." SDT considers need satisfaction as key nutrients that are essential for bridging the gap between autonomous actions and the achievement of healthy human functioning (Crabtree and Pillow 2020). Although traditionally SDT focuses on how social contexts may either facilitate or hinder the satisfaction of psychological needs (Deci and Ryan 2000), autonomous actions can also serve as important drivers of psychological need satisfaction. For example, when individuals want money for self-integrated reasons (such as making money in order

to experience personal freedom), they are likely to experience high levels of psychological need satisfaction (Landry et al. 2016). Similarly, when individuals engage in civic actions, they experience psychological need satisfaction (Wray-Lake et al. 2019).

According to SDT, the internalization process involves an individual's attempt "to transform *socially sanctioned* mores or requests into personally endorsed values and self-regulations" (Deci and Ryan 2000, 235–236, emphasis added). Similarly, Deci, Olafsen, and Ryan (2017) noted that internalization can be heightened by receiving external support. When a certain behavior is less socially accepted, it may be less likely to be internalized because it is more difficult for the actor to absorb the value of the behavior as something of their own (Kaabomeir et al. 2023). These arguments suggest that autonomous actions that are socially acceptable will be more strongly associated with subsequent psychological need satisfaction than will autonomous actions that are negatively received by others.

Finally, although most SDT research focuses on how psychological need satisfaction impacts well-being (Sheldon et al. 2003), need satisfaction can also motivate actions that enable the development of self-coherence (Kernis and Goldman 2006). Self-coherence, by definition, means an individual's actions reflect their own values or the values that they internalize. A cornerstone of SDT is that through internalized motivation, individuals are able to anchor their action by how they feel and experience and what they believe in, rather than to yield to real or perceived external pressure that may bend them toward something that they do not own or endorse (S. W. Ryan and Ryan 2019). These arguments suggest that psychological need satisfaction may foster authentic self-expression that allows them to enact behavior consistent with their internalized values and facilitate the achievement of self-coherence (White et al. 2024). Psychological need satisfaction may also direct people toward actions that "connect and contribute to other people" (Sheldon et al. 2003, 358) and thereby allow them to be "integrated into the social context" (Chiniara and Benstein 2016, 126) via helping behavior. These theoretical arguments help explain why psychological need satisfaction based on promotive or prohibitive voice may in turn be associated with authentic self-expression and helping behavior.

3 | Hypotheses Development

Sherf, Parke, and Isaakyan (2021, 119) argued that "expressing one's ideas or concerns minimizes perceived tension between one's beliefs and behaviors." Y. Wang, Xiao, and Ren (2022, 178) also noted that "speaking out one's concerns fulfills the moral duty of organizational citizens," as voice reflects their genuine beliefs (Tangirala et al. 2013). From the perspective of SDT, voice, which is "an intentional communication of ideas or concerns" (Sherf, Parke, and Isaakyan 2021, 116), is a type of autonomous action reflecting internalized organizational values and beliefs.

As noted earlier, promotive voice represents an employee's attempt to bring positive outcomes to the organization. For example, an employee may suggest process changes to increase

efficiency and customer satisfaction. According to SDT, such internalized, autonomous actions may contribute to the voicer's psychological need satisfaction. First, competence is often associated with self-efficacy (Van den Broeck et al. 2008). Individuals whose competence needs are satisfied tend to believe that they can bring forth positive outcomes. Promotive voice is associated with an approach system whose goal is to demonstrate and achieve success (Lin and Johnson 2015). Given that individuals who engage in promotive voice may be viewed by others as "more effective in their jobs" (Chamberlin, Newton, and LePine 2017, 12), they are likely to experience a high level of competence need satisfaction. This is consistent with past research suggesting that promotive voicers experience pride in speaking out (Welsh et al. 2022). Second, autonomy refers to the ability to act in a self-determined way. Promotive voicers do so from within, without directives from others; as such, they take ownership of their action and enjoy the satisfaction of autonomy needs (Strauss and Parker 2014). Third, relatedness refers to the ability to connect with others and to belong. Promotive voice is intended to enact constructive changes and promote organizational functioning. Because such voice is prosocial in nature and can benefit the work group, it may evoke positive reactions from others, suggesting that promotive voice may enhance relatedness need satisfaction (Morrison 2023). Importantly, past research has argued that "need satisfaction is a global experience anchored in all three needs" and "indeed, a key premise of SDT is that all three psychological needs must be fulfilled together (R. M. Ryan and Deci 2017), in a balanced manner, for psychological well-being to occur" (Huyghebaert-Zouaghi et al. 2024, 295). Accordingly, focusing on psychological need satisfaction on the whole, we offer the following hypothesis:

Hypothesis 1a. *Promotive voice is positively associated with psychological need satisfaction.*

We expect prohibitive voice to be associated with the voicer's need satisfaction for similar reasons. First, the purpose of prohibitive voice is to avoid negative outcomes. For example, an employee may speak up about problematic production procedures that could potentially cause safety issues at work. Thus, from the voicer's perspective, such voice behavior may facilitate the attainment of important goals and prevent organizational failures. In other words, by expressing concerns about problematic issues at work, prohibitive voicers can experience a sense of mastery as they help the organization move away from a problematic state and maintain group performance (Sherf, Parke, and Isaakyan 2021). As such, prohibitive voice can allow voicers to experience a sense of accomplishment as they seek to impact the environment in a positive way (Welsh et al. 2022). Second, prohibitive voice, like other extra-role behavior, is voluntary in nature as voicers accept any outcomes associated with their actions. In other words, individuals engage in prohibitive voice because they internalize the value of the issues and take ownership of them through their discretionary actions. Finally, although some research has suggested that prohibitive voice may instigate negative reactions from others (e.g., Kakkar et al. 2016), it is important to note that the action is ultimately carried out for the greater good of the work group. The issues that are expressed, if left unaddressed, could potentially threaten the well-being of the organization or other employees. For example, if voicers do not speak up

about potential safety issues at work, their coworkers could get hurt or even killed. For this reason, Chamberlin, Newton, and LePine (2017) noted that prohibitive voice involves the desire for well-intended changes. In fact, prohibitive voicers are viewed as truth-tellers (MacMillan et al. 2020, see also C. Li et al. 2022), even if they are inconvenient truths. As Van den Broeck et al. (2008, 280) pointed out, "employees who feel part of a team and feel free to express their work-related and personal troubles are more likely to have their need for belongingness fulfilled than employees who feel lonely and lack confidants at work." Although others may ultimately react differently than voicers hope or expect them to, voicers can experience relatedness need satisfaction by the act of voice.

Hypothesis 1b. *Prohibitive voice is positively associated with psychological need satisfaction.*

As noted earlier, internalization of external values is theorized to hinge upon the extent to which the action is socially accepted. Due to possible negative reactions from others, prohibitive voice is less likely to be as fully internalized compared to promotive voice, which is constructive and positive in nature and thus is generally more socially accepted (Liang, Farh, and Farh 2012). Thus, unlike promotive voice that is positive and facilitatory to need satisfaction, prohibitive voice is likely to be more mixed in its effects on psychological needs, with some potential positive effects and some potential negative effects. These arguments suggest that *comparatively speaking*, the relationship between promotive voice and psychological need satisfaction will be stronger than the relationship between prohibitive voice and psychological need satisfaction.

More specifically, first, as C. Li et al. (2023, 1022) pointed out, "supervisors may evaluate employees' promotive voice as evidence of their competence and contribution to the organization's growth." This is because promotive voice underscores what is good in the aim to improve the current work environment, making it more likely for the voicer to receive positive feedback from others (Heydarifard and Krasikova 2023). In contrast, given the more critical nature of prohibitive voice, others may dismiss the issues that are raised (A. Chen and Trevino 2022). Additionally, supervisors may assume that the action is carried out to undermine their authority or to embarrass them (Liang, Farh, and Farh 2012). Feeling threatened, they may retaliate by accusing the voicer of failing to exercise sound judgments, causing them to experience a lower level of competence need satisfaction (Kakkar et al. 2016). Second, when engaging in prohibitive voice, the voicer must be strategic in terms of how (e.g., put a positive spin on the problem or express the ideas in a way that will not make anyone look bad; Chamberlin, Newton, and LePine 2017), when (e.g., when the target is in a positive mood; Liu et al. 2015), and to whom (e.g., identify recipients of the message who are less likely to feel offended or threatened; Qin et al. 2014) to bring up the issue. In other words, prohibitive voicers have to be careful with what they say and how they say it in order to protect themselves from retributions (such as lower performance ratings or undesirable task assignments, Burris 2012) as opposed to having the freedom and autonomy to express whatever that is in their mind. Thus, whereas prohibitive voice has to be done in a more judicious and controlled manner to be

effective (Huang et al. 2018), promotive voice allows the voicer to experience greater autonomy of expression (Heydarifard and Krasikova 2023; Ward et al. 2016). Accordingly, voicers may experience different levels of autonomy need satisfaction as a function of the type of voice expressed. Finally, as McClean et al. (2018) pointed out, when individuals assume risk by speaking up, their actions will be interpreted by others as reflecting "communal orientation." However, this does not mean that prohibitive voice satisfies the relatedness need to the same extent as does promotive voice. *Relatively speaking*, prohibitive voice is less likely to satisfy voicers' relatedness needs because it can "induce conflict and negative emotions" and upset interpersonal harmony (Liang, Farh, and Farh 2012, 76) and trigger feelings of threat (A. Chen and Trevino 2022). In other words, others who misunderstand prohibitive voicers as fault-finders may react with derogation or resentment (Chamberlin, Newton, and LePine 2017). This may potentially alienate the voicer's relationships with others whom they intend to benefit resulting in reduction of relatedness need satisfaction. In addition, by challenging existing practices and values, prohibitive voicers may face questions about their loyalty and organizational commitment, which may lower their sense of belongingness and relatedness (Wei, Zhang, and Chen 2015). Thus, unlike prohibitive voice that may invoke mixed reactions from others, promotive voice is associated with positive feedback from others (Liang, Shu, and Farh 2019).

Hypothesis 2. *Promotive voice is more positively associated with psychological need satisfaction than is prohibitive voice.*

As noted above, SDT posits that experiencing psychological need satisfaction may motivate individuals to engage in self-coherence behavior (acting in a way that is congruent with one's genuine values, beliefs, and needs) and helping behavior (acting in a way that supports others). In the sections below, we develop hypotheses on how psychological need satisfaction respectively impacts authentic self-expression and helping behavior.

SDT posits that psychological need satisfaction may "direct individuals' actions," naturally leading them to seek out coherence-enhancing behavior (Vansteenkiste, Ryan, and Soenens 2020, 6). Achieving coherence means what one does aligns with what one believes in. Accordingly, we focus on the effect of psychological need satisfaction on authentic self-expression that refers to behavior that aligns with the inner self and is self-anchored and genuine in nature (White et al. 2024). When individuals engage in authentic self-expression, they take ownership of their experiences and act accordingly. In other words, they are acting in a way that reflects their identity and that is personally meaningful (R. M. Ryan and Deci 2000). While authenticity can be a perception, we follow other researchers by conceptualizing it as behavior representing the action to enact one's true self (e.g., Cable, Gino, and Staats 2013; Cooper et al. 2018).

We expect a positive relationship between psychological need satisfaction and authentic self-expression. First, overall speaking, SDT posits that psychological need satisfaction orients individuals toward more coherence. Authentic self-expression represents an important means to promoting the "integration

and organization of the self-system" (Sedikides et al. 2019, 74) and is "self-determined by nature" (White et al. 2024, 323). By expressing who they are, individuals uphold their values and beliefs that are integral to their true self.

Second, more narrowly, when individuals experience competence need satisfaction, they may possess more internal self-regulation, allowing them to express themselves more authentically (Sheldon et al. 1997). In other words, when their competence needs are satisfied, individuals may enact behavior that is coherent with what they believe as representing who they are. Supporting this argument, past research has shown that being insecure can cause individuals to engage in inauthentic self-expression (Venaglia and Lemay 2017). Additionally, past research has shown that not having free will undermines authentic self-expression (Seto and Hicks 2016). In contrast, when individuals do not have to "navigate others' expectations or social constraints" (Schmader and Sedikides 2018, 233), they are free to be who they are. These arguments suggest a positive association between autonomy need satisfaction and authentic self-expression. Finally, past research has shown that individuals are less likely to engage in authentic self-expression when they perceive social exclusion (Oc et al. 2020). In contrast, a sense of belongingness means individuals do not have to risk social disapproval even if they express their true self (Schmader and Sedikides 2018). These arguments suggest that satisfaction of the relatedness need promotes authentic self-expression. Overall, these arguments are consistent with SDT suggesting that "when individuals feel that their psychological needs are met, they will be more likely to accept and freely express their internal states (values, emotions, and desires). Thus, from this perspective, psychological need satisfaction should facilitate authenticity" (Thomaes et al. 2017, 1046).

Hypothesis 3a. *Psychological need satisfaction is positively associated with authentic self-expression.*

According to SDT, psychological need satisfaction is important "not only intrapsychically but also socially" (Deci and Ryan 2000, 236). This is because our tendency to be prosocial is more likely to manifest when our basic psychological needs are satisfied (R. M. Ryan and Deci 2000). Accordingly, we propose a positive relationship between psychological need satisfaction and helping behavior. First, broadly, SDT posits that humans are naturally inclined toward integration and connection with the social structure (Deci and Ryan 2000). When their needs are satisfied, individuals have the nutrients that motivate them to act in a self-determined way, such as make the environment more successful through engaging in helping behavior, so as to integrate with the environment (White et al. 2024). This argument is consistent with Strauss and Parker (2014) who noted that psychological need satisfaction may motivate employees to engage in pro-organizational actions that can contribute to organizational effectiveness.

Second, narrowly speaking, when employees' competence need is satisfied, they tend to experience a higher level of efficacy beliefs which can predict prosocial behavior. For example, according to Parker, Bindl, and Strauss' (2010) proactive motivation model, one of the predictors of prosocial behavior

(such as helping behavior) is the motivational state of "can do" which refers to the perceived competence to enact actions that benefit others. Similarly, when employees perceive autonomy need satisfaction, they may see their actions as a reflection of their motives and values. Given that helping behavior is moral in nature and the true self is moral (Newman, De Freitas, and Knobe 2015), employees experiencing autonomy need satisfaction may engage in helping behavior that is congruent with how they view themselves (Ebrahimi, Kouchaki, and Patrick 2020). Finally, because helping behavior may foster a deep connection between an employee and coworkers, employees whose relatedness need is satisfied may be motivated to engage in helping behavior to maintain their connection with coworkers.

Hypothesis 3b. *Psychological need satisfaction is positively associated with helping behavior.*

The above hypotheses together form a mediation model. The voice literature suggests that voice represents a type of discretionary behavior allowing the voicers to speak their mind regarding work-related issues. Although promotive voice and prohibitive voice differ in their content, they can both signal well-intended desires to benefit the organization (by bringing about positive outcomes in the case of promotive voice and by preventing negative outcomes in the case of prohibitive voice). We argue that by engaging in either promotive or prohibitive voice, voicers internalize work issues into something that they identify with thereby allowing them to experience autonomous motivation. This SDT-based insight is important because it addresses the question we ask at the outset regarding what employees stand to gain from engaging in prohibitive voice despite the potential negative reactions toward them. Specifically, voice as a type of self-regulation powered by autonomous motivation may allow employees to experience psychological need satisfaction, in that they feel they can be the anchor of their own actions, be connected to others, and be efficacious in achieving their objectives (R. M. Ryan and Deci 2017). In other words, by being able to speak up (even if doing so may not always be in their best interest), voicers receive the psychological reward of need satisfaction. According to SDT, psychological need satisfaction represents a powerful driving force of individuals' behavior that allows them to achieve coherence and integration with the external worlds. Thus, we suggest that psychological need satisfaction, as a result of voice behavior, may motivate voicers to engage in authentic self-expression that allows them to maintain coherence and engage in helping behavior that integrates them with the social environment.

Hypothesis 4. *Psychological need satisfaction mediates the relationships between promotive voice and authentic self-expression (4a) and between promotive voice and helping behavior (4b).*

Hypothesis 5. *Psychological need satisfaction mediates the relationships between prohibitive voice and authentic self-expression (5a) and between prohibitive voice and helping behavior (5b).*

Finally, as noted above, we expect promotive voice to be more strongly related to need satisfaction than prohibitive

voice because the former is more "readily accepted" by others (McClean et al. 2018, 1872). Combined with the relationships that need satisfaction has with authentic self-expression and helping behavior, we propose the following hypothesis:

Hypothesis 6. *Promotive voice has stronger indirect relationships with authentic self-expression (6a) and helping behavior (6b) through psychological need satisfaction than prohibitive voice.*

4 | Study Overview

We conducted two experience-sampling studies to examine the self-determined effects of promotive and prohibitive voice. An experience-sampling study design allows us to temporally separate the variables based on the hypothesized order while controlling for the outcome variables from the previous time period, thereby explaining change in the outcome rather than static level. In addition, because voice can ebb and flow (Lin and Johnson 2015), an experience-sampling study design can capture the daily or weekly fluctuations of voice and the variables influenced by voice in our model, allowing a more fine-grained examination of the phenomena. Before reporting the two main studies, we first conducted a pilot study to examine the effect of overall voice on authentic self-expression and helping behavior. This pilot study allowed us to examine whether voice fluctuations within a person might lead to authentic self-expression and helping behavior, providing an important first step to justify a closer examination of mediation and moderation we hypothesized from a voicer-centric perspective. We then tested Hypotheses 1a, 1b, and 2 regarding the positive relationships that promotive voice and prohibitive voice have with psychological need satisfaction in Study 1, followed by a comprehensive test of our hypothesized model in Study 2.

5 | Pilot Study: Method

5.1 | Participants and Procedures

We recruited participants who attended weekend MBA classes offered at a large state university in China and who worked full time when the study was conducted. An announcement regarding the study was sent to 166 students, of which 116 voluntarily enrolled. Of these, 73 participants provided at least three pairs of the three-set daily responses and were included in the hypothesis testing. These participants completed a total of 432 surveys, representing a response rate of 74% (out of a total of $73 \times 8 = 584$ possible responses). The average age of the participants was 29.57 years ($SD = 2.70$), and 57.4% were female. Their average working hour per week was 40.49 ($SD = 6.38$), and average tenure was 4.68 years ($SD = 2.33$). These participants had a variety of job titles such as marketing analyst, engineer, and teacher.

After registering for the study, participants completed a baseline survey that contained demographic questions a few days before the daily surveys. For the daily data collections, participants were emailed twice a day during the 2-week study period. Voice was measured in the morning survey (from Tuesday morning to Friday morning) in which the participants reflected on the

extent to which they engaged in such behavior on the previous day. Authentic self-expression was measured in the afternoon survey (from Tuesday afternoon to Friday afternoon). We used the next morning survey (from Wednesday morning to Saturday morning) to assess the extent to which they helped others on the previous day. We chose the following morning to assess previous day's helping in order to minimize the potential effect of moods on the ratings of both dependent variables. Thus, across 2 weeks, we obtained eight possible pairs of three-set responses from each participant, with each pair containing three Level 1 variables that were included in three different surveys. For the administration of the morning survey, participants were sent an email at 7 a.m. and were instructed to complete the survey before noon (the survey was closed at noon). For the administration of the afternoon survey, participants were sent an email at 5 p.m. and were instructed to complete the survey before 10 p.m. (the survey was closed at 10 p.m.).

5.2 | Measures[1]

Because participants' first language was Chinese, we translated the measures from English to Chinese using a back-translation method (Brislin 1970). Specifically, one of the authors who was bilingual translated the measures into Chinese. Then, a second author who was also bilingual translated the measures back to English. Finally, a third author compared the two versions (the original and back-translation versions) and identified areas of disagreement. All three authors then worked together to resolve the differences in the translation process in order to increase the readability of the translated measures and ensure their fidelity to the original English measures.

5.2.1 | Voice (First Morning Survey)

We asked participants to recall their voice from the previous day using a three-item measure developed by Liu et al. (2017). At this phase, we were interested in fluctuations in overall voice, rather than relative effects of promotive voice and prohibitive voice. The measure was rated on a 5-point scale ranging from 1 (*never*) to 5 (*very frequently*). The average Cronbach's alpha across days was 0.93.

5.2.2 | Authentic Self-Expression (First Afternoon Survey)

We assessed authentic self-expression with the six-item authentic self-expression scale by Cable, Gino, and Staats (2013). The measure was rated on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The average Cronbach's alpha across days was 0.97.

5.2.3 | Helping Behavior (Second Morning Survey)

We assessed helping behavior with a three-item measure by H. W. Lee et al. (2019). The measure was rated on a 6-point scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The average Cronbach's alpha across days was 0.96.

5.3 | Analytic Strategy

We tested a two-level (daily observations at Level 1 being nested within individuals at Level 2) multilevel path analysis model with Mplus 8.3 (Muthén and Muthén 2012). Specifically, we simultaneously estimated the effects of voice on authentic self-expression and helping behavior, with random slopes for these relationships, random intercepts, and covariances among them. We group-mean centered the level 1 exogenous predictor (e.g., Ganster et al. 2023). We controlled for the previous day's authentic self-expression and helping behavior in using voice to predict authentic self-expression and helping behavior.

6 | Pilot Study: Results and Discussion

6.1 | Multilevel Confirmatory Factor Analysis

We conducted multilevel confirmatory factor analysis to examine the discriminant validity of our measures and model fit indices of all converging models were reported in Table 1. In the following models, we only allowed items to load on the factor they were intended for (i.e., no cross-loadings), and the error terms were not allowed to covary. The three-factor model (voice, authentic self-expression, and helping behavior, with items loading on their respective factors) fitted our data well ($\chi^2(102) = 257.85$, $p < 0.001$, CFI = 0.94, SRMR = 0.044) and was better than the best-fitting alternative two-factor model

(the items of voice and helping behavior loading onto one common factor, whereas the items of authentic self-expression onto another factor; $\chi^2(106) = 749.98$, $p < 0.001$, CFI = 0.76, SRMR = 0.146), with $\Delta\chi^2(4) = 492.13$, $p < 0.001$. A one-factor model with all items loading onto one common factor did not converge. These findings support the distinction among the constructs.

Table 2 shows the intraclass correlation coefficients (ICCs), means, standard deviations, and correlations among study variables at both Level 1 and Level 2. The unstandardized coefficients for our two-level model results are presented in Table 3. The main effect of voice on authentic self-expression was positive ($\gamma = 0.08$, $SE = 0.04$, $p = 0.035$), so was the effect on helping behavior ($\gamma = 0.16$, $SE = 0.05$, $p = 0.001$).

6.2 | Supplementary Analyses

We tested our model with positive affect (PA), negative affect (NA), and depletion measured on the first afternoon (same time as authentic self-expression) being included as control variables on authentic self-expression and helping behavior. These control variables were included, because voice may impact the voicer's depletion and affective experiences (Lin and Johnson 2015; Heydarifard and Krasikova 2023). The main effects of voice on authentic self-expression ($\gamma = 0.08$, $SE = 0.03$, $p = 0.011$) and helping behavior ($\gamma = 0.18$, $SE = 0.04$, $p < 0.001$) remained positive. Please refer to the results in Table A1.

TABLE 1 | Summary of CFA results.

Study	Factor number	Item loadings	df	χ^2	CFI	SRMR
Pilot study	3	V, A, H	102	257.85***	0.94	0.044
	2	V + H, A	106	749.98***	0.76	0.146
	2	V, A + H	106	1268.55***	0.56	0.159
Study 1	3	Prom, Proh, N	102	197.21***	0.99	0.030
	2	Prom + Proh, N	106	306.55***	0.97	0.077
	2	Prom + N, Proh	106	532.35***	0.94	0.150
	2	Proh + N, Prom	106	439.14***	0.95	0.136
	1	Prom + Proh + N	108	651.29***	0.93	0.177
Study 2	5	Prom, Proh, N, A, H	137	493.45***	0.90	0.039
	4	Prom + Proh, N, A, H	145	769.38***	0.82	0.048
	4	Prom + N, Proh, A, H	145	547.45***	0.89	0.042
	4	Proh + N, Prom, A, H	145	945.06***	0.77	0.079
	4	N + A, Prom, Proh, H	145	673.39***	0.85	0.044
	3	Prom + Proh + N, A, H	151	965.93***	0.77	0.081
	3	Prom + Proh + A, N, H	151	996.66***	0.76	0.068
	2	Prom + Proh + N + A, H	155	1146.60***	0.72	0.084
	1	Prom + Proh + N + A + H	157	1806.79***	0.53	0.139

Abbreviations: A = authentic self-expression, H = helping behavior, N = psychological need satisfaction, Proh = prohibitive voice, Prom = promotive voice, V = voice.
***$p < 0.001$.

TABLE 2 | Means, standard deviations, and correlations among variables (pilot study).

Variable	M	SD_2	SD_1	ICC	1	2	3	4	5
1. Voice	2.90	0.85	0.58	0.62		0.03	0.31***		
2. Authentic self-expression	4.56	0.77	0.39	0.76	0.47***		0.11*		
3. Helping behavior	3.39	0.69	0.53	0.55	0.76***	0.49***			
4. Age	29.57	2.70			0.17	−0.07	0.11		
5. Gender	1.57	0.50			−0.26*	−0.01	−0.13	−0.18	
6. Tenure (in years)	4.68	2.33			0.21	−0.18	0.06	0.54***	−0.22

Note: $N = 68$–73 at Level 2 (between-person, below the diagonal) and 432 at Level 1 (within-person, above the diagonal). For gender: 1 = male, 2 = female. Abbreviations: ICC = intraclass correlation, SD_1 = standard deviation at Level 1, SD_2 = standard deviation at Level 2.
*$p < 0.05$.
***$p < 0.001$.

TABLE 3 | Multilevel path analysis model with unstandardized coefficients (pilot study).

Predictors	Authentic self-expression[t]			Helping behavior[t]		
	Coeff.	*SE*	*p*	*Coeff.*	*SE*	*p*
Level 1 predictors						
Voice	**0.08**	**0.40**	**0.035**	**0.16**	**0.05**	**0.001**
Authentic self-expression[t−1]	0.49	0.50	0.328			
Helping behavior[t−1]				0.48	0.11	< 0.001

Note: N is 432 at Level 1 (within-person) and 73 at Level 2 (between-person). The part that is bold is the focal result. [t−1]Previous day, [t]Focal day.

6.3 | Brief Discussion

The pilot study offers evidence supporting that within-person variations in voice behavior were associated with the voicer's subsequent authentic self-expression and helping behavior. These results justify our main studies (Studies 1 and 2) that differentiate the two types of voice and examine their respective and relative effects through the mediating mechanism of psychological need satisfaction. One limitation of the pilot study should be noted. We separated the measures of authentic self-expression and helping behavior for the reason described above. However, given that they were positioned as parallel dependent variables, it would be ideal to examine them at the same time. We remedied this limitation in Study 2.

7 | Study 1: Method

7.1 | Participants and Procedures

Online MBA students enrolled in two large universities in the United States were invited to participate in the study. To protect anonymity, participants used a participant ID code when completing the study. We collected data from 93 participants (out of a total of 107 participants) that had at least two pair of daily responses out of a maximum four pairs of responses (Nezlek 2008). These individuals yielded 285 usable responses for our analyses, representing a response rate of 76.6% (out of a total of $93 \times 4 = 372$ possible responses). The average age of the participants was 30.97 years, and 50% were female. These

participants had a variety of job titles such as business operation and strategy director, marketing coordinator, and data analyst. Participants received course credit for their participation and those who were not working at the time of the study or were otherwise not interested in participating were given an equivalent alternative assignment.

The daily portion of study started on Tuesday morning that last until Friday afternoon. On each of the four mornings (Tuesday through Friday), participants were sent an email at 8 a.m. that contained the measures of promotive and prohibitive voice and psychological need satisfaction on the previous day and were instructed to complete the survey before 11 a.m. On each of the four afternoons (Tuesday through Friday), participants were sent an email at 6 p.m. that contained the psychological need satisfaction measure and were instructed to complete the survey before 9 p.m. The surveys were closed after they were due.[2]

7.2 | Measures

All the measures were rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

7.2.1 | Promotive and Prohibitive Voice (Morning Survey)

We asked participants to recall their voice behavior from the previous day. The original measures included five items for each

type of voice (Liang, Farh, and Farh 2012). However, based on feedback from potential participants that the survey was too long for them to complete in 5 min,[3] we decided to use the three highest loaded items for each measure (see Table A6). The average Cronbach's alphas across days were 0.88 for promotive voice and 0.87 for prohibitive voice.

7.2.2 | Psychological Need Satisfaction (Morning and Afternoon Surveys)

We assessed psychological need satisfaction with the six-item measure by N. Wang et al. (2020). The average Cronbach's alpha across days was 0.88.

7.3 | Analytic Strategy

We used the same analytic approach as in the pilot study to examine the respective and relative effects of promotive voice and prohibitive voice on psychological need satisfaction. We controlled for need satisfaction in the morning by regressing the afternoon measure on the morning measure, in addition to the two voice measures assessed in the morning.

8 | Study 1: Results and Discussion

Table 4 shows the ICCs, means, standard deviations, and correlations among study variables.

8.1 | Multilevel Confirmatory Factor Analysis

We conducted multilevel confirmatory factor analysis to examine the discriminant validity of our measures (Table 1). The three-factor model (promotive voice, prohibitive voice, and psychological need satisfaction) fitted our data well with $\chi^2(102) = 197.21$, $p < 0.001$, CFI = 0.99, SRMR = 0.030. The three-factor model fitted significantly better than the best-fitting alternative model (two-factor model with the items of promotive voice and prohibitive voice loading onto one common factor, whereas the items of need satisfaction onto another factor; $\chi^2(106) = 306.55$, $p < 0.001$, CFI = 0.97, SRMR = 0.077 with $\Delta\chi^2(4) = 109.34$, $p < 0.001$). These findings support the distinction among the constructs.

8.2 | Hypothesis Testing

The unstandardized coefficients for our two-level model results are presented in Table 5 and Figure 2. Hypothesis 1a suggests that promotive voice is positively associated with psychological need satisfaction. The main effect of promotive voice behavior on psychological need satisfaction was positive ($\gamma = 0.09$ $SE = 0.04$, $p = 0.045$), supporting Hypothesis 1a. Hypothesis 1b suggests that prohibitive voice is positively associated with psychological need satisfaction. The main effect of prohibitive voice behavior on psychological need satisfaction was not significant ($\gamma = -0.05$, $SE = 0.04$, $p = 0.144$), failing to support Hypothesis 1b. Hypothesis 2 suggests that promotive voice is more positively associated with psychological need satisfaction than is prohibitive voice. The difference of these effects was significant (difference = 0.14, $SE = 0.06$, $p = 0.028$), providing support for Hypothesis 2.

8.3 | Supplementary Analysis

Following past research, we conceptualize and measured psychological need satisfaction as a unitary construct (R. M. Ryan and Deci 2017). However, other scholars have modeled the needs separately, showing that they have unique predictors (e.g., Fernet et al. 2013; Kipp and Weiss 2015). Accordingly, we examined the effects of promotive and prohibitive voice on the three dimensions of psychological need satisfaction. Results of these analyses are presented in Table A2. Summarily, while promotive voice was positively related to relatedness need satisfaction, it was only marginally related to competence or autonomy need satisfaction. Prohibitive voice was not related to the satisfaction of any of the three needs. We also examined the comparative effects of promotive and prohibitive voice on each of the three needs. The difference was significant for autonomy (difference = 0.21, $SE = 0.11$, $p = 0.045$) and relatedness

TABLE 4 | Means, standard deviations, and correlations among variables (Study 1).

Variable	M	SD_2	SD_1	ICC	1	2	3	4	5
1. Promotive voice^{t-1}	3.38	0.86	0.60	0.51		0.41***	0.01		
2. Prohibitive voice^{t-1}	3.01	0.97	0.58	0.60	0.77***		−0.07		
3. Psychological need satisfaction^t	4.01	0.77	0.30	0.81	0.37***	0.12			
4. Age	30.97	7.63			0.04	−0.02	0.15		
5. Gender	0.50	0.50			0.23*	0.21*	0.23*	0.08	
6. Tenure (in years)	3.31	4.68			−0.01	0.06	0.05	0.56***	0.02

Note: $N = 93$ at Level 2 (between-person, below the diagonal) and 285 at Level 1 (within-person, above the diagonal). For gender: 1 = male, 0 = female. $^{t-1}$Morning, ^{t}Afternoon.
Abbreviations: ICC = intraclass correlation, SD_1 = standard deviation at Level 1, SD_2 = standard deviation at Level 2.
*$p < 0.05$.
***$p < 0.001$.

TABLE 5 | Multilevel path analysis model with unstandardized coefficients (Study 1).

	Psychological need satisfaction^t		
Predictors	*Coeff.*	*SE*	*p*
Level 1 predictors			
Promotive voice^{t-1}	**0.09**	**0.04**	**0.045**
Prohibitive voice^{t-1}	−0.05	0.04	0.144
Psychological need satisfaction^{t-1}	0.08	0.07	0.239

Note: $N = 93$ at Level 2 (between-person) and 285 at Level 1 (within-person). The part that is bold is the focal result. $^{t-1}$Morning, ^{t}Afternoon.
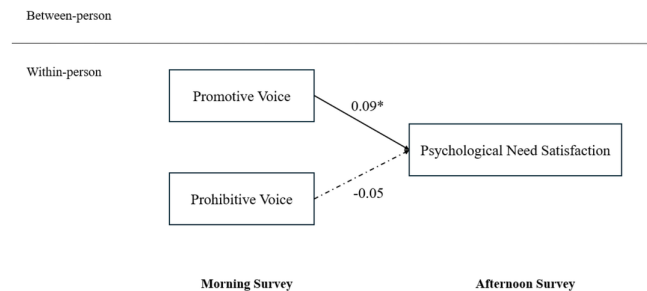
FIGURE 2 | Study 1 results.

(difference $= 0.39$, $SE = 0.13$, $p = 0.002$) needs in favor of promotive voice.

8.4 | Discussion

Study 1 shows that consistent with our prediction, promotive voice was positively related to psychological need satisfaction. However, countering our prediction, prohibitive voice was not meaningfully related to psychological need satisfaction. In addition, the comparison between the two shows that the association of promotive voice and psychological need satisfaction was stronger than prohibitive voice, offering support for our prediction. It is worth noting that neither promotive voice nor prohibitive voice had a significant bivariate correlation with psychological need satisfaction (see Table 4). However, the effect associated with promotive voice became significant whereas the effect associated with prohibitive voice remained nonsignificant in the regression equation. This could be a case of suppression effect. Specifically, because the two types of voice were correlated with one another, in a multiple regression equation, promotive voice revealed unique effects above and beyond the effects of prohibitive voice. In effect, prohibitive voice served as a control variable that allowed the unique effect of promotive voice to exhibit.

Study 1 has three limitations. First, we used abbreviated measures of promotive and prohibitive voice. While the use of abbreviated measures is common in experience-sampling studies (see Gabriel et al. 2019), it is still important to re-examine these findings with the full measures. Second, all the variables were measured on a daily basis. However, it is unclear whether individuals engage in voice behavior at such a high level of frequency. Thus, we used Study 2 to examine voice behavior on a weekly basis. Finally, Study 1 did not include the ultimate outcome variables, which we included in Study 2.

9 | Study 2: Method

9.1 | Participants and Procedures

We recruited participants through a data service company in China called Credemo[4] (e.g., Feng, Yang, and Yu 2023; Lian and Chen 2023; Zheng, Ruan, and Zheng 2021). To be eligible, participants must be working full time, work during the 6 weeks when the study was conducted, have a supervisor or manager whom they report to, and work in the same locations as his/her coworkers/supervisor. A total of 288 participants that met these criteria were recruited for this study. As described below, each participant completed two surveys each week (one on Mondays and one on Wednesdays) for 6 weeks. We retained participants who completed at least three sets of surveys out of six. In all, we retained 265 participants who completed a total of 1521 sets of surveys, representing a response rate of 96% (out of 1590 possible sets of responses). The average age of the participants was 32.68 years ($SD = 5.42$), their average tenure was 6.42 years ($SD = 3.67$), and average working hour per week was 44.98 h ($SD = 4.94$); 62.6% of them were female. These participants had a variety of job titles such as accountant, salesperson, and purchasing agent.

In terms of study procedures, participants completed a baseline survey that contained demographic questions a few days before the weekly surveys. For the weekly data collection, participants were emailed twice a week (Wednesdays and Fridays) for six consecutive weeks. Voice and psychological need satisfaction were included in the Wednesday survey. To avoid common method bias, we used the Friday survey to assess authentic self-expression and helping behavior. In terms of survey administration, participants were sent an email at 10 a.m. and were instructed to complete the survey before 11 p.m. (the survey was closed at 11 p.m.).[5]

9.2 | Measures

We translated the measures from English to Chinese using the same back-translation method as in the pilot study (Brislin 1970). The measure was rated on a 5-point scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).

9.2.1 | Promotive and Prohibitive Voice (Wednesday Survey)

We asked participants to recall their voice from the beginning of the week to the time of the survey using two five-item measures developed by Liang, Farh, and Farh (2012). The average Cronbach's alphas across days were 0.79 for promotive voice and 0.81 for prohibitive voice.

9.2.2 | Psychological Need Satisfaction (Wednesday Survey)

We assessed psychological need satisfaction using the 12-item measure by B. Chen et al. (2015). The average Cronbach's alpha across days was 0.79.

9.2.3 | Authentic Self-Expression (Friday Survey)

We used the same six-item measure used in the pilot study. Participants were instructed to respond to the items based on their actions after the Wednesday survey. The average Cronbach's alpha across days was 0.82.

9.2.4 | Helping Behavior (Friday Survey)

We used a two-item measure developed by Y. E. Lee et al. (2023). Participants were instructed to respond to the items based on what they did after the Wednesday survey. The average Cronbach's alpha across days was 0.83.

9.3 | Analytic Strategy

We tested a two-level (weekly observations at Level 1 being nested within individuals at Level 2) multilevel path analysis models with Mplus 8.3 (Muthén and Muthén 2012). Specifically, we simultaneously estimated the effects of promotive voice and prohibitive voice on psychological need satisfaction and the effects of psychological need satisfaction on authentic self-expression and helping behavior. We specified random slopes for these relationships, random intercepts, and covariances between them and group-mean centered the Level 1 exogenous predictor (e.g., Ganster et al. 2023). We controlled for authentic self-expression and helping behavior on Wednesday.

10 | Study 2: Results

Table 6 shows the ICCs, means, standard deviations, and correlations among study variables at both Level 1 and Level 2.

10.1 | Multilevel Confirmatory Factor Analysis

We conducted multilevel confirmatory factor analyses to examine the discriminant validity of our measures (see Table 1). Our five-factor model (promotive voice, prohibitive voice, psychological need satisfaction, authentic self-expression, and helping behavior) with original items did not converge, presumably due to the large number of parameters estimated. Thus, we decided to adopt the parceling strategy suggested by Little et al. (2002). We created three parcels with the original items for constructs with more than three items with random combinations of original items (Little et al. 2013). In the following models, we only allowed items/parcels to load onto the factor they were intended for (i.e., no cross-loadings), and the error terms were not allowed to covary. The five-factor model (promotive voice, prohibitive voice, psychological need satisfaction, authentic self-expression, and helping behavior) fitted our data well ($\chi^2(137) = 493.45$, $p < 0.001$, CFI = 0.90, SRMR = 0.039) and was better than all theoretically plausible alternative models, including the best-fitting alternative model (four-factor model with the items of promotive voice and psychological need satisfaction combined, and prohibitive voice, authentic self-expression, and helping behavior as separate factors; $\chi^2(145) = 547.45$, $p < 0.001$, CFI = 0.89, SRMR = 0.042) with $\Delta\chi^2(8) = 54$, $p < 0.001$. These findings support the distinction among the constructs.

10.2 | Hypothesis Testing

The unstandardized coefficients for our two-level model results are presented in Table 7 and Figure 3. Hypothesis 1 suggests

TABLE 6 | Means, standard deviations, and correlations among variables (Study 2).

Variable	M	SD_2	SD_1	ICC	1	2	3	4	5	6	7
1. Promotive voice[t−1]	4.25	0.56	0.24	0.81		0.26***	0.45***	0.31***	−0.04		
2. Prohibitive voice[t−1]	3.67	0.41	0.19	0.78	0.76***		0.33***	0.19***	−0.05*		
3. Psychological need satisfaction[t−1]	4.39	0.34	0.16	0.77	0.83***	0.65***		0.51***	−0.03		
4. Authentic self-expression[t]	4.35	0.46	0.21	0.79	0.83***	0.69***	0.87***		0.01		
5. Helping behavior[t]	2.92	0.73	0.36	0.77	0.54***	0.48***	0.39***	0.38***			
6. Age	32.68	5.42			−0.02	0.03	0.02	0.06	−0.18**		
7. Gender	1.63	0.49			0.04	−0.02	−0.03	−0.02	−0.05	−0.14*	
8. Tenure (in years)	6.42	3.67			−0.06	−0.002	0.01	0.02	−0.05	0.70***	−0.15*

Note: $N = 265$ at Level 2 (between-person, below the diagonal) and 1521 at Level 1 (within-person, above the diagonal). For gender: 1 = male, 2 = female. [t−1]Wednesday, [t]Friday.

Abbreviations: ICC = intraclass correlation. SD_1 = standard deviation at Level 1. SD_2 = standard deviation at Level 2.

*$p < 0.05$.
**$p < 0.01$.
***$p < 0.001$.

TABLE 7 | Multilevel path analysis model with unstandardized coefficients (Study 2).

Predictors	Psychological need satisfaction^{t-1}			Authentic self-expression^t			Helping behavior^t		
	Coeff.	*SE*	*p*	*Coeff.*	*SE*	*p*	*Coeff.*	*SE*	*p*
Level 1 predictors									
Promotive voice^{t-1}	**0.16**	**0.03**	**< 0.001**	−0.03	0.05	0.616	−0.18	0.06	0.002
Prohibitive voice^{t-1}	**0.07**	**0.02**	**0.001**	−0.08	0.07	0.255	−0.14	0.06	0.013
Psychological need satisfaction^{t-1}				**0.46**	**0.08**	**< 0.001**	**0.30**	**0.04**	**< 0.001**
Authentic self-expression^{t-1}				0.28	0.07	< 0.001			
Helping behavior^{t-1}							0.532	0.084	< 0.001

Note: N is 1521 at Level 1 (within-person) and 265 at Level 2 (between-person). The part that is bold is the focal result. $^{t-1}$Wednesday, ^{t}Friday.
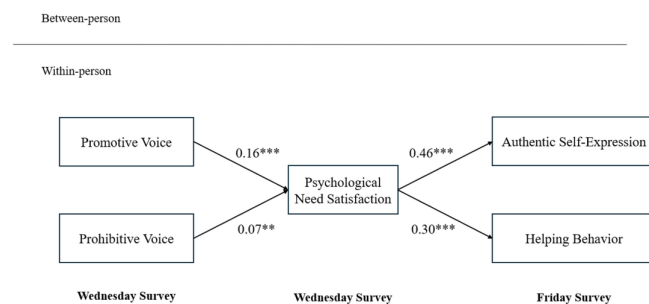
FIGURE 3 | Study 2 results.

that promotive voice (Hypothesis 1a) and prohibitive voice (Hypothesis 1b) would be positively related to psychological need satisfaction. Both promotive voice ($\gamma = 0.16$, $SE = 0.03$, $p < 0.001$) and prohibitive voice ($\gamma = 0.07$, $SE = 0.02$, $p = 0.001$) positively predicted psychological need satisfaction, supporting Hypotheses 1a and 1b. Hypothesis 2 suggests that promotive voice has a stronger relationship with psychological need satisfaction than prohibitive voice does. The difference was significant (difference $= 0.09$, $SE = 0.03$, $p = 0.002$), providing support for Hypothesis 2.

Hypothesis 3 suggests that psychological need satisfaction is positively related to authentic self-expression (Hypothesis 3a) and helping behavior (Hypothesis 3b). Psychological need satisfaction positively predicted both authentic self-expression ($\gamma = 0.46$, $SE = 0.08$, $p < 0.001$) and helping behavior ($\gamma = 0.30$, $SE = 0.04$, $p < 0.001$), supporting Hypotheses 3a and 3b. Hypothesis 4 suggests that psychological need satisfaction mediates the relationships between promotive voice and authentic self-expression (Hypothesis 4a) and between promotive voice and helping behavior (Hypothesis 4b). We estimated the indirect effects of promotive voice and prohibitive voice on authentic self-expression and helping behavior via psychological need satisfaction with their 95% confidence intervals using the 20000 Monte Carlo replications with R (Preacher, Zyphur, and Zhang 2010). The indirect effect of promotive voice on authentic self-expression was 0.075 (95% CI [0.043, 0.112]), while

the indirect effect of promotive voice on helping behavior was 0.049 (95% CI [0.030, 0.071]). These results offered support for Hypothesis 4. Hypothesis 5 argues that psychological need satisfaction mediates the relationships between prohibitive voice and authentic self-expression (Hypothesis 5a) and between prohibitive voice and helping behavior (Hypothesis 5b). The indirect effect of prohibitive voice on authentic self-expression was 0.033 (95% CI [0.012, 0.058]), while the indirect effect of prohibitive voice on helping behavior was 0.022 (95% CI [0.008, 0.037]). These results offered support for Hypothesis 5. Finally, Hypothesis 6 suggests that promotive voice has stronger indirect effects on authentic self-expression (Hypothesis 6a) and helping behavior (Hypothesis 6b) than prohibitive voice does. The difference between the indirect effects of promotive voice and prohibitive voice on authentic self-expression was 0.042 (95% CI [0.015, 0.074]). The difference between the indirect effects of promotive voice and prohibitive voice on helping behavior was 0.027 (95% CI [0.010, 0.046]). These results offered support for Hypothesis 6.[6]

10.3 | Supplementary Analyses

We conducted three sets of supplementary analyses. First, following the logics spelled out in the pilot study, we used depletion, PA, and NA measured on Wednesday as parallel mediators to psychological need satisfaction between promotive or prohibitive voice and authentic self-expression or helping behavior. Including these additional mediators did not change the conclusion of our findings (see Table A3). Second, we estimated the total effects of promotive voice and prohibitive voice on authentic self-expression and helping behavior, respectively (see Table A4). Third, just like in Study 1, we examined the respective and relative effects of promotive and prohibitive voice on the three dimensions of need satisfaction (see Table A5). While promotive voice was related to all three dimensions of need satisfaction, prohibitive voice was only related to the satisfaction of autonomy and competence needs. In addition, promotive voice was more strongly related to the satisfaction of competence (difference $= 0.11$, $SE = 0.04$, $p = 0.005$), autonomy (difference $= 0.15$,

$SE = 0.05$, $p = 0.005$), and relatedness (difference $= 0.12$, $SE = 0.04$, $p = 0.005$) needs than was prohibitive voice.

10.4 | Discussion

The results of Study 2 render strong support for our model. Specifically, both promotive voice and prohibitive voice were indirectly and positively related to the voicer's authentic self-expression and helping behavior through psychological need satisfaction. In addition, the indirect effect was more pronounced for promotive voice than for prohibitive voice. This study remedied some of the limitations in the pilot study and Study 1, by having both dependent variables of our model in the same survey and using the full scale of the two types of voice.

11 | General Discussion

Integrating the voice literature with SDT, we examined a self-determination model of how promotive and prohibitive voice lead to the voicer's engagement in authentic self-expression and helping behavior. We conducted two experience-sampling studies to test the model. In Study 1, we found that promotive voice was more strongly related to psychological need satisfaction than was prohibitive voice. In Study 2, we found that both promotive voice and prohibitive voice were positively and indirectly related to authentic self-expression and helping behavior via psychological need satisfaction, although the former indirect effect was stronger than the latter indirect effects.

11.1 | Theoretical Implications

Our study makes the following contributions to the voice literature. First, our paper seeks to answer a vexing question: What do employees stand to gain by engaging in voice behavior (particularly prohibitive voice) despite the potential risk of damaged reputation and career prospect (Kim et al. 2013)? One answer, based on SDT, is that individuals are able to gain the psychological benefits of need satisfaction. Across two studies, we found that promotive voice was associated with psychological need satisfaction (Study 1), and both types of voice were indirectly related to authentic self-expression and helping behavior through psychological need satisfaction (Study 2). These results challenge the negativity orientation that often characterizes the voicer-centric view, by showing that speaking out may not always be depleting (Lin and Johnson 2015). Indeed, our results held even when we controlled for important mediating mechanisms studied in prior research such as depletion and NA (Study 2). Thus, our results serve as antidotes to recent voice research that questions the value of voice for the voicer and suggests that employees should "focus their time and energy on task- and OCB-related contributions" (Chamberlin, Newton, and LePine 2017, 47) rather than risk depleting their energy in voicing concerns.

Second, we expand the voice literature by showing that voice does not have to be the endpoint of an employee's prosocial engagement. In contrast, voice can instigate positivity by motivating other prosocial actions such as helping behavior (Strauss and Parker 2014). Voice, as a discretionary behavior, may not only benefit the voicer but also others around them, suggesting that research focusing simply on how others react to the voicer presents an incomplete picture of the overall effects of voice. As such, we respond to Cangiano and Parker's (2016) suggestion that research on proactive behavior should expand beyond its current focus on the performance implications of such behavior, such as its self and social consequences (McClean et al. 2018).

Third, our study offers novel insights into the distinction between promotive and prohibitive voice, given that past research has shown that "the majority of antecedents exhibit no significant difference in their associations with promotive and prohibitive voice" (Chamberlin, Newton, and LePine 2017, 38). Specifically, we suggest that one key difference between the two types of voice is the extent to which they are internalized which may have important implications for how they impact need satisfaction and outcome variables (Strauss and Parker 2014). Our results offer some support to these arguments. Specifically, while promotive voice was related to psychological need satisfaction in Study 1, prohibitive voice was not. Although prohibitive voice was indirectly related to authentic self-expression and helping behavior through psychological need satisfaction in Study 2, the effect was weaker than promotive voice. These results are consistent with past research suggesting that given that prohibitive voice can trigger mixed reactions (Liang, Shu, and Farh 2019), employees who engage in prohibitive voice often have to "carefully control their expression of voice so that it is non-threatening" (Lin and Johnson 2015, 1385). While this may not diminish the value of their suggestions, it does come at a cost from a psychological need standpoint. Thus, our study addresses the inconsistent theorization in the voice literature, suggesting that while the two types of voice are similar in that both can satisfy important psychological needs, they are nevertheless different in terms of the strengths of these effects. As such, we add to the value of differentiating the voice constructs based on the content of voice.

Finally, our study underscores the need to examine the within-person fluctuations of voice while controlling for important, between-person confounding factors such as personality traits and environmental influences (through group-mean centering). Because individuals tend to demonstrate variability of voice over time, using a within-person approach through an experience-sampling design may allow us to capture its short-term effect on their own psychological need satisfaction soon after the voice behavior unfolds. Our results show that such within-person fluctuations are meaningful as they predict changes of psychological need satisfaction over a relatively short period of time. Thus, compared to the traditional between-person approach, our within-person approach offers greater fidelity to our theorization and a more accurate test of the voicer-centric effect.

Our study also has implications for SDT research. First, our study underscores the agentic role of the employee in satisfying their own psychological needs. Past research suggests that "the main source of need satisfaction is a person's social environment" (Kovjanic et al. 2012, 1032). However, existing research often fails to consider the possibility that "individuals can choose to pursue goals that have the potential to maximize their psychological need satisfaction" (Landry et al. 2016, 233). Our study goes beyond addressing this limitation. Specifically, we

not only show that discretionary behavior can foster psychological need satisfaction but also show that the effect may be contingent upon the specific type of discretionary behavior in question (promotive versus prohibitive voice). These results build on and extend past research showing that the extent to which helping behavior satisfies one's psychological needs depends on whether such behavior is driven by autonomous reasons (Weinstein and Ryan 2010). We show that not all discretionary behavior is similarly need satisfying and others' reactions may serve as an importance boundary condition of the psychological benefits of such behavior (Wray-Lake et al. 2019). Second, SDT research tends to focus on how within-person satisfaction of psychological needs impacts employees' well-being, leading to the criticism that past research fails to "document the implications of these fluctuations in terms of productivity and for employees' personal life" (Huyghebaert-Zouaghi et al. 2024, 295). Our study shows that psychological need satisfaction can be beneficial not just for self-coherence (in terms of authentic self-expression) but also for integration with the external world (in terms of helping behavior). According to SDT, negative work environment can frustrate needs, resulting in ill-being (Bartholomew et al. 2011). Given that need satisfaction and frustration are not polar opposite to one another, future studies should examine whether being forced to stay silent may cause employees to experience psychological need frustration (Trepanier, Femet, and Austin 2015). If supported by empirical findings, such parallel processes (whereby voice promotes positive outcomes through need satisfaction whereas involuntary silence results in negative outcomes through need frustration) may offer a greater integration between the voice literature and SDT. Third, our exploratory analysis examined the effects of the two types of voice on the three discrete dimensions of psychological need satisfaction. While some differences existed between the results of these two studies, two important common findings should be noted. First, promotive voice was more strongly related to need satisfaction than was prohibitive voice (except for the voice-competence relation in Study 1). These results are consistent with our argument that promotive voice is more facilitative of internalization than is prohibitive voice resulting in differences in need satisfaction not only at the global level but also at the dimensional level. Second, we found that prohibitive voice was not related to relatedness need satisfaction in either study. These results add to the caution that engaging in prohibitive voice may incur social consequences. Overall, although these results are exploratory in nature, they underscore the value of examining the unique nomological network of the discrete needs rather than just the global needs.

11.2 | Practical Implications

Many scholars have noted that voice is often suppressed in the workplace due to the false belief that such behavior is used for self-promotion or to challenge and undermine authority (Isaakyan et al. 2021; Sherf, Parke, and Isaakyan 2021). This belief may cause managers to negatively evaluate the performance of voicers, give them unfavorable task assignments, or even terminate them (Burris 2012). Our results suggest that because speaking up satisfies employees' psychological needs and increases their authentic self-expression and helping, organizations should value and promote employee voice. Managers first need to be aware of the value of voice not only for the organization but also for the voicer as well as for others around the voicer who may benefit from his/her helping. Managers then need to show that they genuinely want to hear from the employees by assuaging concerns of speaking up. They should also provide different channels for employees to express their opinions such as all-hands-on-deck and one-on-one meetings.

We found that employees may benefit less from engaging in prohibitive voice than promotive voice. Although some research has suggested that employees who engage in prohibitive voice can repackage the ideas to make them seem more positive and less antagonistic (Chamberlin, Newton, and LePine 2017) or moderate the frequency of prohibitive voice (Huang et al. 2018), it is unclear how manipulating the message may impact psychological need satisfaction. As MacMillan et al. (2020) showed in their qualitative research, worry about the risk associated with prohibitive voice seems to be overstated as managers do not prefer positive messages over negative ones. Thus, "raising negative issues does not mean they will be seen as negative people" (MacMillan et al. 2020, 1070).

11.3 | Limitations and Avenues for Future Research

Several study limitations should be noted, which may serve as avenues for future research. First, all the study measures were self-reported. We addressed the common method concern by temporally separating the study variables (Podsakoff et al. 2003). Also, by group-mean centering the predictors, we were able to limit the effect of exogenous variables such as positive or negative affectivity or personality (Gabriel et al. 2019; A. Li et al. 2022). Second and relatedly, although we propose that voice may predict need satisfaction that in turn predicts authentic self-expression and helping behavior, our studies do not allow us to make causal inferences. While the variable sequence in our model is consistent with SDT, future studies should use intervention studies to increase the internal validity of our model. Although experimental studies can help establish causality, "they are simply unable to capture many of the relevant dynamics that now require investigation" (Edwards and Greenberg 2009, 285). Third, when the study participants had low ratings on the voice measures, it could be simply because they had nothing to voice as they were satisfied with the work environment. Future research should take a deeper dive into the voice measures in order to determine what low scores on these measures mean and how they may impact employees' reactions. Fourth, we focus only on voice in the study and do not specifically examine silence. Voice and silence are not opposite to one another. In other words, voice does not imply the absence of silence or vice versa (Van Dyne, Ang, and Botero 2003). Given that past research has shown that voice and silence appear to have different nomological networks (Hao et al. 2022; Sherf, Parke, and Isaakyan 2021) and that employees may sometimes remain silent for strategic reasons (Parke et al. 2022), future research should examine whether and how voice and silence may impact employees' reactions differently. Fifth, our focus on the functional outcomes of voice is based on the central premises of the voice literature that voice is inherently prosocial and of the SDT literature that humans are prosocial in nature and satisfaction

of psychological needs provides the nutrients that motivate them to express such prosocial tendencies (Martela and Ryan 2016). However, past research has also shown that individuals may engage in voice for self-serving reasons (Zhou et al. 2022) or that they do so habitually (Lam et al. 2018). When voicing, the voicer may consider how doing so may advance their own interest besides benefiting the organization (Morrison 2014). How does the duality of voice motives impact the voicer's psychological need satisfaction and subsequent behavior? To address this question, future research should examine whether the beneficial effects of the two types of voice may vary based on the specific intentions behind the voice behavior.

12 | Conclusion

Ralph Waldo Emerson famously noted that "To be yourself in a world that is constantly trying to make you something else is the greatest accomplishment." By integrating the voice literature with SDT, we show that such an accomplishment can be realized when employees engage in voice behavior. Given the fundamental importance of psychological need satisfaction, our study adds to the chorus of calls urging organizations to give voice to employees. By doing so, employees will likely act more like themselves and become more helpful to others.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Endnotes

[1] All of the measures are presented in Table A6.

[2] The average completion time for the morning survey was 4.58 min, and the average completion time for the afternoon survey was 4.36 min.

[3] To increase participation, we told the potential participants that each survey would not take more than 5 min to complete.

[4] Credamo is a China-based data service provider like Mturk and Prolific. Currently, the service represents over three million respondents and uses a rigorous approach to screen bots and to remove and replace individuals who fail attention checks. Scholars from around the world (including at universities such as MIT and NYU) have published using this platform, including in top journals such as *Psychological Science*, *Journal of Experimental Social Psychology*, and *Journal of Marketing Research* (e.g., Gong et al. 2020; H. Li et al. 2024; Xu, Yu, and Tu 2023).

[5] The average completion time for the Wednesday survey was 14.74 min, and the average completion time for the Friday survey was 14.60 min.

[6] As shown in the last few columns of Table 7, the two types of voice appeared to have a negative association with helping behavior after the mediator was included in the regression equation. This could be a case of suppression effects (MacKinnon, Krull, and Lockwood 2000) whereby the direct and the mediated effects of an independent variable on a dependent variable have opposite signs (see Table A4). Given that the direct effect of voice on the ultimate outcome variables is not a central focus of the present research, we chose not to overinterpret these findings.

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Appendix A

TABLE A1 | Multilevel path analysis model with unstandardized coefficients with positive affect and negative affect (pilot study).

Predictors	Authentic self-expression^t			Helping behavior^t		
	Coeff.	*SE*	*p*	*Coeff.*	*SE*	*p*
Level 1 predictors						
Voice	**0.08**	**0.03**	**0.011**	**0.18**	**0.04**	**< 0.001**
Depletion^t	−0.10	0.08	0.187	0.03	0.05	0.593
Positive affect^t	0.12	0.07	0.094	0.18	0.08	0.018
Negative affect^t	−0.06	0.06	0.308	−0.06	0.06	0.269
Authentic self-expression^{t-1}	0.49	0.07	< 0.001			
Helping behavior^{t-1}				0.43	0.09	< 0.001

Note: N is 432 at Level 1 (within-person) and 73 at Level 2 (between-person). The part that is bold is the focal result. $^{t-1}$Previous day, ^{t}Focal day.

TABLE A2 | Analyses with the three discrete psychological needs as predictors (Study 1).

Predictors	Autonomy need satisfaction^t			Competence need satisfaction^t			Relatedness need satisfaction^t		
	Coeff.	*SE*	*p*	*Coeff.*	*SE*	*p*	*Coeff.*	*SE*	*p*
Level 1 predictors									
Promotive voice^{t-1}	**0.13**	**0.07**	**0.076**	**0.14**	**0.08**	**0.079**	**0.29**	**0.08**	**< 0.001**
Prohibitive voice^{t-1}	**−0.09**	**0.06**	**0.140**	**−0.03**	**0.06**	**0.650**	**−0.09**	**0.08**	**0.242**
Autonomy need satisfaction^{t-1}	−0.112	0.09	0.190						
Competence need satisfaction^{t-1}				0.06	0.09	0.491			
Relatedness need satisfaction^{t-1}							0.05	0.08	0.498

Note: N is 432 at Level 1 (within-person) and 73 at Level 2 (between-person). The part that is bold is the focal result. $^{t-1}$Previous day, ^{t}Focal day.

TABLE A3 | Multilevel path analysis model with unstandardized coefficients (Study 2).

Predictors	Psychological need satisfaction^{t-1}			Authentic self-expression^t			Helping behavior^t		
	Coeff.	*SE*	*p*	*Coeff.*	*SE*	*p*	*Coeff.*	*SE*	*p*
Level 1 predictors									
Promotive voice^{t-1}	**0.16**	**0.03**	**< 0.001**	0.05	0.04	0.200	−0.15	0.06	0.014
Prohibitive voice^{t-1}	**0.07**	**0.02**	**0.001**	−0.08	0.07	0.256	−0.15	0.06	0.011
Psychological need satisfaction^{t-1}				**0.41**	**0.08**	**< 0.001**	**0.26**	**0.07**	**< 0.001**
Depletion^{t-1}				−0.02	0.03	0.395	−0.05	0.04	0.215
Positive affect^{t-1}				0.05	0.03	0.062	0.19	0.06	0.002
Negative affect^{t-1}				0.01	0.02	0.720	0.05	0.06	0.457
Authentic self-expression^{t-1}				0.26	0.07	< 0.001			
Helping behavior^{t-1}							0.55	0.08	< 0.001

Note: N is 1521 at Level 1 (within-person) and 265 at Level 2 (between-person). The part that is bold is the focal result. $^{t-1}$Wednesday, ^{t}Friday. To conserve space, the effects of promotive voice and prohibitive voice on depletion, PA, and NA are not reported in the above table and can be obtained from the first author.

TABLE A4 | Multilevel path analysis model with unstandardized coefficients (Study 2).

	Authentic self-expression^t			Helping behavior^t		
Predictors	*Coeff.*	*SE*	*p*	*Coeff.*	*SE*	*p*
Level 1 predictors						
Promotive voice^{t-1}	**0.26**	**0.04**	**< 0.001**	**0.18**	**0.05**	**< 0.001**
Prohibitive voice^{t-1}	**0.10**	**0.04**	**0.015**	**0.08**	**0.06**	**0.154**
Authentic self-expression^{t-1}	0.06	0.10	0.571			
Helping behavior^{t-1}				0.53	0.09	< 0.001

Note: N is 1521 at Level 1 (within-person) and 265 at Level 2 (between-person). The part that is bold is the focal result. $^{t-1}$Wednesday, ^{t}Friday.

TABLE A5 | Analyses with the Three Discrete Psychological Needs as Predictors (Study 2).

	Autonomy need satisfaction^{t-1}			Competence need satisfaction^{t-1}			Relatedness need satisfaction^{t-1}		
Predictors	*Coeff.*	*SE*	*p*	*Coeff.*	*SE*	*p*	*Coeff.*	*SE*	*p*
Level 1 predictors									
Promotive voice^{t-1}	**0.26**	**0.04**	**< 0.001**	0.24	0.04	< 0.001	0.15	0.03	< 0.001
Prohibitive voice^{t-1}	**0.11**	**0.04**	**0.001**	0.12	0.03	< 0.001	0.02	0.03	0.467

Note: N is 1521 at Level 1 (within-person) and 265 at Level 2 (between-person). The part that is bold is the focal result. $^{t-1}$Wednesday (voice and need satisfaction were both measured on Wednesday).

TABLE A6 | Study measures.

Voice (pilot, $\alpha = 0.93$)

Yesterday, in my interaction with my direct supervisor, I …

1. gave constructive suggestions regarding work-related issues.
2. expressed my opinion, which was different from his/her opinion.
3. pointed out problems in our work or company.

Note: The original measure asked supervisors to report the extent to which their employees engage in voice. We revised the items to focus on the extent to which employees engage in voice.

Authentic self-expression (pilot, $\alpha = 0.97$)

1. Today, I could express myself at work.
2. Today, I did not feel I needed to hide who I really am at work.
3. Today, I could be myself at work.
4. Today, I did not have to act like someone I am not at work.
5. Today, I felt authentic in the job.
6. Today, I could be who I really am.

Note: In the original measure all the items started with "In this job." We revised the items to focus on the daily experience (starting with "today").

Helping behavior (pilot, $\alpha = 0.96$)

1. Yesterday at work, I helped someone at work with work-related problems.
2. Yesterday at work, I helped someone make progress on their work.
3. Yesterday at work, I helped someone avoid problems with their work.

Note: In the original measure all the items started with "Without being asked" to focus on the proactive nature. We replaced it with "Yesterday at work."

Depletion (pilot, $\alpha = 0.74$)

1. I felt mentally exhausted today.
2. I felt like my willpower was gone today.

Note: The original items ended with "right now." We replaced it with "today."

Positive affect and negative affect (pilot, $\alpha = 0.90$ and $\alpha = 0.94$)

1. Today, I was positive.
2. Today, I was pleasant.
3. Today, I was negative.
4. Today, I was unpleasant.

Note: The original items started with "right now." We replaced it with "today."

Promotive voice (Study 1, $\alpha = 0.88$)

1. Yesterday, I proactively developed and made suggestions for issues that might influence the unit.
2. Yesterday, I proactively suggested new projects which were beneficial to the work unit.
3. Yesterday, I raised suggestions to improve the unit's working procedure.

Note: We only used the three highest loading items from the original measure. We revised the original items to focus on the daily experience (starting with "Yesterday").

Prohibitive voice (Study 1, $\alpha = 0.87$)

1. Yesterday, I advised other colleagues against undesirable behaviors that would hamper job performance.
2. Yesterday, I spoke up honestly with problems that might cause serious loss to the work unit, even when/though dissenting opinions existed.
3. Yesterday, I dared to voice out opinions on things that might affect efficiency in the work unit, even if that would embarrass others.

Note: We only used the three highest loading items from the original measure. We revised the original items to focus on the daily experience (starting with "Yesterday").

Psychological need satisfaction (Study 1, $\alpha = 0.88$)

1. Yesterday, I felt I could pretty much be myself at work.
2. Yesterday, I felt I could pretty much decide how my job gets done.
3. Yesterday, I felt competent and capable at work.
4. Yesterday, I felt a sense of accomplishment from working.
5. Yesterday, I felt people at work cared about me.
6. Yesterday, I felt close and connected with people at work.

Note: We revised the original items to focus on the previous day's experience (starting with "Yesterday"). For the afternoon measure, we changed from "Yesterday" to "Today."

Promotive voice (Study 2, $\alpha = 0.79$)

1. This week, I proactively developed and made suggestions for issues that might influence the unit.
2. This week, I proactively suggested new projects which were beneficial to the work unit.
3. This week, I raised suggestions to improve the unit's working procedure.
4. This week, I proactively voiced out constructive suggestions that would help the unit reach its goals.
5. This week, I made constructive suggestions to improve the unit's operation.

Note: We revised the original items to focus on the weekly experience (starting with "This week").

(Continues)

Journal of Organizational Behavior, 2025

TABLE A6 | (Continued)

Prohibitive voice (Study 2, $\alpha = 0.81$)

1. This week, I advised other colleagues against undesirable behaviors that would hamper job performance.
2. This week, I spoke up honestly with problems that might cause serious loss to the work unit, even when/though dissenting opinions existed.
3. This week, I dared to voice out opinions on things that might affect efficiency in the work unit, even if that would embarrass others.
4. This week, I dared to point out problems when they appeared in the unit, even if that would hamper relationships with other colleagues.
5. This week, I proactively reported coordination problems in the workplace to the management.

Note: We revised the original items to focus on the weekly experience (starting with "This week").

Psychological need satisfaction (Study 2, $\alpha = 0.79$)

1. This week, I feel that the people I care about also care about me.
2. This week, I feel connected with people who care for me, and for whom I care.
3. This week, I feel close and connected with other people who are important to me.
4. This week, I experience a warm feeling with the people I spend time with.
5. This week, I feel confident that I can do things well.
6. This week, I feel capable at what I do.
7. This week, I feel competent to achieve my goals.
8. This week, I feel I can successfully complete difficult tasks.
9. This week, I feel a sense of choice and freedom in the things I undertake.
10. This week, I feel that my decisions reflect what I really want.
11. This week, I feel my choices express who I really am.
12. This week, I feel I have been doing what really interests me.

Note: We revised the original items to focus on the weekly experience (starting with "This week").

Authentic self-expression (Study 2, $\alpha = 0.82$)

1. Since Wed of this week, I could express myself at work.
2. Since Wed of this week, I did not feel I needed to hide who I really am at work.
3. Since Wed of this week, I could be myself at work.
4. Since Wed of this week, I did not have to act like someone I am not at work.
5. Since Wed of this week, I felt authentic in the job.
6. Since Wed of this week, I could be who I really am.

Note: In the original measure all the items started with "In this job." We revised the items to focus on the weekly experience (starting with "Since Wed of this week").

Helping behavior (Study 2, $\alpha = 0.83$)

1. Since Wed of this week, I helped a coworker with a difficult assignment by showing/teaching him/her how to do it.
2. Since Wed of this week, I helped a coworker with a heavy workload by showing/teaching him/her how to do it.

Note: We revised the items to focus on the weekly experience (starting with "Since Wed of this week").

Depletion (Study 2, $\alpha = 0.52$)

1. This week, I feel mentally exhausted.
2. This week, I feel like my willpower is gone.

Note: We revised the original items to focus on the weekly experience (starting with "This week").

Positive affect and negative affect (Study 2, $\alpha = 0.61$ and $\alpha = 0.66$)

1. This week, I was inspired.
2. This week, I was alert.
3. This week, I was excited.
4. This week, I was enthusiastic.
5. This week, I was determined.
6. This week, I was upset.
7. This week, I was nervous.
8. This week, I was distressed.
9. This week, I was scared.
10. This week, I was afraid.

Note: The original items asked the responder to rate the items based on the extent they felt this way in general. We replaced it with "this week."