

CAN YOU HANDLE THE PRESSURE? THE EFFECT OF PERFORMANCE PRESSURE ON STRESS APPRAISALS, SELF-REGULATION, AND BEHAVIOR

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Performance pressure focuses employee efforts toward enhanced performance. It is unclear, however, whether performance pressure serves as a productive or unproductive strategy for producing beneficial work behavior. Our research provides clarity on the dynamic nature of performance pressure. We theorize that reactions to performance pressure are influenced by daily fluctuations in how the pressure is appraised, and these fluctuations explain why performance pressure can be a double-edged sword, producing bright and dark side effects for organizations. We predict that, on a daily basis, performance pressure may be appraised as a threat, which promotes self-regulation depletion that explains dysfunctional behavior (i.e., incivility); daily performance pressure may also be appraised as a challenge, which elicits engagement that explains enhanced task proficiency and citizenship. Trait resilience is predicted to moderate these effects, promoting performance pressure to be appraised as a challenge rather than a threat, which then mitigates the depleting effects that produce dysfunctional behavior and enhances the engaging effects that produce functional behavior. Results from an experience sampling study support our predictions. Implications for theory and research are provided.

What breaks you down is not the amount of pressure you feel at one time, but it's the way you perceive and handle it.

—Ashish Patel¹

To be competitive and absorb market uncertainties, organizations often call on employees to enhance their abilities and performance (Sitkin, See, Miller, Lawless, & Carton, 2011). In many respects, restructuring efforts and the flattening of organizations have streamlined processes, which has reduced slack.

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¹ The quote is available at https://www.goodreads.com/author/quotes/10211736.Ashish_Patel.

However, these efforts have also created a sharp focus on employee performance (Loehr & Schwartz, 2001). As a result, employees may feel the need to work harder, better, and faster, particularly as they are keenly aware that their performance is linked to consequences. Meeting and exceeding performance expectations increases the odds of receiving promotions, raises, and other work perks. Not meeting performance expectations enhances the risk of being demoted, placed on probation, or terminated.

Demands for high performance in exchange for accolades and job security may be an effective way to motivate employees. Yet, the need to raise performance in the face of potential negative consequences can weigh heavily on employees, creating an inward pressure. This experience is called *performance*

pressure—the urgency to achieve high performance levels because performance is tied to substantial consequences (Mitchell, Baer, Ambrose, Folger, & Palmer, 2018). Arguably, performance pressure represents a significant source of employee work stress. To date, however, the literature has not presented a clear picture of how employees handle and react to this pressure. For instance, some research has shown that performance pressure boosts motivation and functional work behavior (e.g., Eisenberger & Aselage, 2009), while other research has found that it impairs functional behavior (e.g., creativity) (Shalley & Perry-Smith, 2001) and motivates unethical behavior (Mitchell et al., 2018; Robertson & Rymon, 2001). Even more confounding is that Gardner (2012) found that performance pressure produces both positive *and* negative outcomes within work teams.

These inconsistent findings suggest that performance pressure is potentially a double-edged sword, producing bright and dark side effects for organizations. Given the dysfunctional consequences of performance pressure, refraining from pressuring employees seems a logical strategy. However, research has shown that a lack of pressure is not entirely effective; without it, performance can stagnate (Gardner, 2012). The perplexing nature of performance pressure suggests that it may be a unique source of stress for employees. That is, research has generally found that stressors appraised as threatening produce dysfunctional behaviors and stressors appraised as challenging produce functional behaviors (see Ganster & Rosen, 2013). Because performance pressure can produce both types of behaviors, it may be that fluctuations in employees' subjective appraisal of the pressure—as threatening and challenging—across time explain these paradoxical outcomes. In their seminal theoretical work on stress, Lazarus and Folkman (1984: 33) suggested that a singular stressor may be appraised as both a threat and a challenge, and these appraisals may vary over time. Accordingly, we examine the double-edged nature of performance pressure by investigating how it is appraised in flux, and seek to understand why some employees are able to handle the pressure more functionally than others.

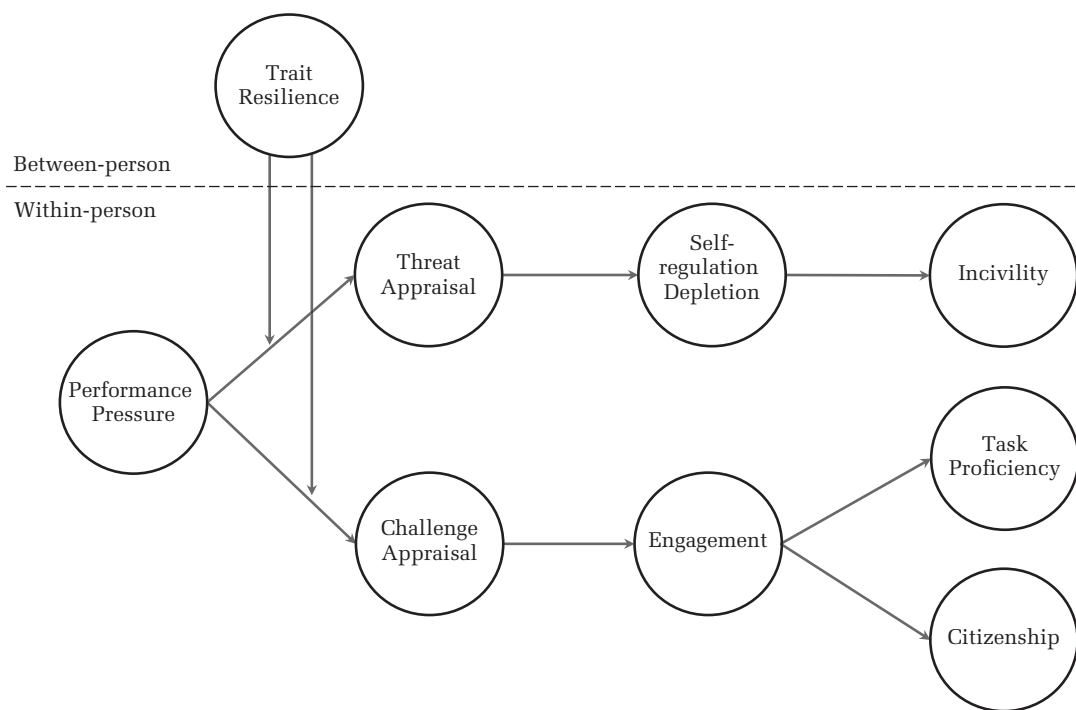
To shed light on the dynamic nature of performance pressure, we adopt a within-person experience sampling approach. From an integration of stress and self-regulation theories (e.g., Carver & Scheier, 1998; Lazarus & Folkman, 1984), we argue that performance pressure represents a unique source of work stress. Daily experiences of performance pressure, as well as how performance pressure is

appraised, can vary, which explains why functional and dysfunctional behaviors emerge. In particular, fluctuations in how performance pressure is appraised—as a threat or a challenge—differentially affect self-regulation—or internal self-resources (i.e., energy)—that allows for goal-directed behavior (Carver & Scheier, 1998). On a daily basis, performance pressure can be appraised as a threat, wherein the potential harm of the situation depletes self-resources associated with self-regulation (a state called self-regulation depletion [Baumeister, 2002]), which then elicit dysfunctional behaviors (e.g., incivility). On a daily basis, performance pressure can also be appraised as a challenge, wherein the potential benefits of the situation enhance self-resources associated with self-regulation (a state called engagement [Crawford, LePine, & Rich, 2010]), which then enhance functional behaviors (i.e., task proficiency, citizenship). In short, performance pressure is predicted to be associated with both threat and challenge appraisals, and these appraisals explain the benefits and drawbacks of the pressure.

Because performance pressure can produce paradoxical reactions, we also seek to explain why some employees handle the pressure better than others. Organizations can benefit from knowing which employees are more inclined to respond to the pressure functionally. Lazarus's (1966) theory has articulated that stress reactions are influenced by individuals' stable characteristics. Trait resilience influences how individuals appraise and cope with stressors across time because it creates an optimistic lens by which individuals tend to evaluate their surroundings (see Glantz & Johnson, 2002). High trait resilient individuals are able to react to stressors functionally because of their tendency to appraise stressors as challenging, whereas low trait resilient individuals react to stressors dysfunctionally because of their tendency to appraise stressors as threatening (Vaughn, Wager, Fredrickson, Noll, & Taylor, 2008). Given its influence on coping and self-regulatory functioning, we expect trait resilience to moderate the effects of daily performance pressure on stress appraisals, creating a more functional trajectory for the downstream effects of the stress experience. Figure 1 represents our hypothesized model.

Our research offers three primary contributions. First, our work contributes to the literature on performance pressure. Because there are inconsistent findings on how employees react to performance pressure, our work meets the call by Gardner (2012) to explain these disparate findings. Our work adds to theory on performance pressure by clarifying that daily fluctuations in how performance

FIGURE 1
Hypothesized Model



pressure is appraised matter. Our theorizing that the performance pressure experience changes on a daily basis—and is not a stable between-person phenomenon—helps to explain the paradoxical effects of the pressure. Daily fluctuations in how performance pressure is appraised (as a threat and challenge) sets in motion self-regulatory experiences (i.e., depletion and engagement) that have distinct effects on behavior. Notably, we find that trait resilience enhances the likelihood of functional outcomes and diminishes the likelihood of dysfunctional outcomes from the stress process. Thus, we offer theory to explain why bright and dark side effects emerge from performance pressure, and point to which employees are able to better handle the pressure over time.

Second, we contribute to the organizational stress literature. We argue that performance pressure is a unique and dynamic work stressor. Although Lazarus and Folkman (1984) suggested that a singular stressor may be appraised as a threat and a challenge, traditional applications of their theory within the organizational sciences have categorized stressors as a threat or a challenge—not both (e.g., Cavanaugh, Boswell, Roehling, & Boudreau, 2000; LePine, Podsakoff, & LePine, 2005; Podsakoff, LePine, & LePine, 2007). Further, other stress models (e.g., job demands–

control [Karasek, 1979], job demands–resources [Demerouti, Bakker, Nachreiner, & Schaufeli, 2001], conservation of resources [Hobfoll, 1989]) have emphasized that work stressors can only *drain* (rather than *boost*) internal energy states (i.e., self-regulation), and that certain factors (e.g., control) replenish energy. Despite the importance of these views, inconsistent findings point to the need for a fresh perspective that can explain the ebb and flow of the stress experience (e.g., Bakker, Demerouti, & Sanz-Vergel, 2014; Ganster & Rosen, 2013). Our work addresses calls by stress scholars (Bakker et al., 2014) by shifting the theoretical discussion toward a dynamic stress experience, where daily fluctuations in how a stressor is appraised explain how a single stressor can motivate different reactions. As Popper (1957: 39–40) argued, examining the dynamic process of a phenomenon provides explanation “of how and why something does happen.”

Third, we contribute to the organizational sciences on self-regulation by explaining how self-regulatory states occur in an ebb-and-flow pattern. We argue that certain work stressors (e.g., performance pressure) can both deplete and energize self-resources. Generally, this literature has considered factors that deplete energy and restore energy separately (for an

exception, see Christian, Eisenkraft, & Kapadia, 2015), with most studies focusing on self-regulation depletion associated with taxing and stressful situations (e.g., Chan & Wan, 2012; Dai, Milkman, Hoffmann, & Staats, 2015). Less attention has been given to positive self-regulatory states that emerge from these types of situations (cf. Britt, Adler, & Bartone, 2001). We address the call by Quinn, Spreitzer, and Lam (2012) to account for fluctuations in self-regulation by changing the theoretical conversation to consider a dynamic process, where daily fluctuations of the same stimuli differentially influence self-regulation.

THEORETICAL BACKGROUND

Pressure is the subjective experience of “any factor or combination of factors that increase the importance of performing well” (Baumeister, 1984: 610). Performance pressure is a specific type of pressure based on the belief that striving for performance excellence is needed and that performance efforts will be scrutinized and tied to significant consequences (Gardner, 2012; Gutnick, Walter, Nijstad, & De Dreu, 2012; Mitchell et al., 2018). The mix of expectations of higher performance and relevant consequences creates a tension or urgency for employees to perform well (Baumeister, 1984; Lazarus, 2000). The subjective experience of performance pressure is internalized, creating arousal. Accordingly, scholars have described performance pressure as an activator of the stress process (Gutnick et al., 2012; Lazarus, 2000).

Performance pressure, however, is different from other work stressors, such as heavy workloads (Karasek, 1979), or pressures to speed through the completion of tasks (i.e., time pressure) (Gardner, 2012). Performance pressure is an urgency to raise performance to attain desirable consequences and to avoid negative consequences (Lazarus, 2000). Employees who experience performance pressure understand that meeting and exceeding performance expectations can result in promotions, raises, and other benefits, and failing to meet expectations can result in probation, termination, and other harmful outcomes. These inherent consequences create desires to increase performance, which become internalized and create urgency (i.e., pressure) (Baumeister, 1984). This experienced pressure to elevate performance affects employees' well-being, stimulating psychological, emotional, and physiological reactions. Thus, performance pressure can represent a significant source of stress for employees.

The cognitive appraisal theory of stress (Lazarus & Folkman, 1984) suggests that how individuals appraise a stressor can elicit different coping processes. Stressors appraised as a threat create an internal focus on the potential harm or difficulty associated with addressing the situation. Stressors appraised as a challenge create an internal focus on the potential opportunities and growth from the situation. Stress research has shown that these contrasting appraisals motivate very different behaviors: threat appraisals motivate dysfunctional behavior, and challenge appraisals motivate functional behavior (for reviews, see Bliese, Edwards, & Sonnentag, 2017 and Ganster & Rosen, 2013). Given that past research has shown that performance pressure elicits both functional and dysfunctional behavior (Eisenberger & Aselage, 2009; Mitchell et al., 2018; Robertson & Rymon, 2001; Shalley & Perry-Smith, 2001), we argue that these paradoxical reactions can be explained by fluctuations in how performance pressure is appraised.

Scholars have noted the possibility of fluctuating stress experiences over time. For instance, Lazarus and Folkman (1984: 33) suggested that threat and challenge appraisals may not be mutually exclusive—that a stressor may be appraised as both a threat and a challenge. Carver and Scheier (1998) made similar arguments about self-regulation, which is a person's self-resource capacity to control responses to particular stimuli toward goal-directed behavior. In particular, they argued that attentional fluctuations in how a stressor is appraised explain whether self-regulation is in an enhanced or depleted state. Self-regulation is often described as a “bank” of self-resources (or energy). When individuals have a greater supply of self-resources, appropriate or controlled behavior occurs; when self-resources are depleted, inappropriate or uncontrolled behavior occurs. Consistent with this idea, emerging psychological theory on stress (Crum, Salovey, & Achor, 2013) has suggested that daily fluctuations of depletion and energy from stress represent a *stress paradox*, wherein a single source of stress (such as performance pressure) can elicit seemingly contradictory states of energy (or self-regulation).

Drawing from these principles (Carver & Scheier, 1998; Crum et al., 2013; Lazarus & Folkman, 1984), we propose that performance pressure represents a unique and dynamic stressor. Because performance pressure represents a “combination of factors” (both positive and negative) that create a sense of urgency to raise performance in light of consequences (Baumeister, 1984), employees are expected

to experience fluctuations in their attention to different aspects of performance pressure. Employees may focus on attributes of performance pressure that are daunting and taxing (i.e., threat appraisals), and they may also focus on attributes of performance pressure that are beneficial (i.e., challenge appraisals). These fluctuations in attention influence how performance pressure is appraised across time, which thus influences self-regulation differently (i.e., depletion and engagement) and explains why both functional and dysfunctional behaviors can emerge.

The Effect of Performance Pressure Appraised as a Threat on Self-Regulation

Performance pressure may be appraised as threatening. By its very nature, performance pressure relays to employees that past efforts are not good enough and that they must stretch their capabilities to enhance performance (Sitkin et al., 2011). Elevated performance expectations require employees to question, revise, or discard previous efforts and adapt old routines to effectively address performance demands (Rousseau, 1997). Demands for higher performance may focus employees' attention on whether their daily efforts were ineffective at meeting performance goals (Dalal, Lam, Weiss, Welch, & Hulin, 2009). Further, employees may focus on the impending negative consequences if performance is not raised. In this respect, performance pressure may emphasize the tenuous nature of employees' employment and the fact that their employment hinges on elevating performance. In all, a focus on negative aspects of performance pressure can result in the pressure being appraised as a threat.

Stressors appraised as threatening create a negative coping process that is depleting to self-regulation (Folkman & Lazarus, 1988). At times when an employee appraises performance pressure as threatening, that employee should become focused on and overwhelmed by the foreboding and worrisome aspects of the situation (Folkman & Lazarus, 1985). In particular, employees would concentrate on the difficulties of raising performance and the negative consequences that will likely result if performance demands are not met. Any form of negative stewing is a taxing experience, with theory and research demonstrating that it drains self-regulation (see Baumeister, 2002). This drained state is referred to as *self-regulation depletion* or a deficiency of self-resources and energy, where individuals lack the ability to maintain executive

functions (e.g., making active choices, solving complex problems) (see Baumeister, 2002). For instance, research has shown that threat appraisals constrict blood flow and the physical functioning of the heart, which decrease energy (Seery, 2011). In addition, threat appraisals have been found to diminish psychological states, impairing concentration and heightening perceptions that tasks are overly difficult (Hagger, Wood, Stiff, & Chatzisarantis, 2010). Accordingly, threat appraisals stemming from performance pressure will deplete self-resources associated with self-regulation. Employees' focus on the impending doom of performance pressure (i.e., threat appraisal) will drain their self-resources, leaving them in a state of self-regulation depletion.

Hypothesis 1. On a daily basis, there is a positive indirect effect of performance pressure on self-regulation depletion through threat appraisal.

The Effect of Performance Pressure Appraised as a Challenge on Self-Regulation

Performance pressure may also be appraised as a challenge. High performance expectations can create a foundation for growth and development (e.g., Rousseau, 1997; Sitkin et al., 2011). It is in this way that performance pressure may be viewed as an opportunity for employees to restructure their capabilities and direct their attention toward completing tasks more effectively and efficiently. For instance, research has shown that performance pressure allows employees to demonstrate their capabilities (James & Wooten, 2010) and stimulates exploration and learning that facilitates enhanced performance (Winter, 2000). Further, some of the urgency experienced from performance pressure stems from the potential for positive consequences, such as promotions, raises, or avenues for growth, which should motivate increased performance (Baumeister, 1984). Overall, a focus on the positive aspects of performance pressure (opportunities for growth and potential for personal gain) would result in the pressure being appraised as a challenge.

Stressors appraised as a challenge instigate a positive coping process that reinforces self-regulation (Folkman & Lazarus, 1985). At times when an employee appraises performance pressure as challenging, that employee should become focused on the opportunities of raising their performance, such as growth, development, and rewards. This positive coping experience will enhance self-resources needed for the self-regulation of behavior. For

instance, individuals challenged by events exhibit a steadied cognitive state of rational deliberation, positive thinking, and self-adaptation (McCrae, 1984), as well as positive emotions such as excitement (Folkman & Lazarus, 1985). Thus, challenge appraisals stemming from performance pressure should enhance self-resources (Macey & Schneider, 2008). Within the organizational sciences, an enhanced state of self-regulation is referred to as *engagement* (Crawford et al., 2010). Engagement harnesses physical, cognitive, and affective energy (Kahn, 1990; Rich, LePine, & Crawford, 2010). Physical energy is evident by a state of exertion and active physical ability. Cognitive energy is captured by a heightened sense of awareness and mental dexterity. Emotional energy is reflected in empathic connections with others and an excitement for work. The sources of energy occur simultaneously as engagement (Kahn, 1992), creating an agentic force that concurrently lies in the “hands, head, and heart” of employees (Ashforth & Humphrey, 1995: 110). Thus, employees’ focus on the benefits afforded from performance pressure (i.e., challenge appraisal) will fuel self-regulation, reflected in engagement.

Hypothesis 2. On a daily basis, there is a positive indirect effect of performance pressure on engagement through challenge appraisal.

The Indirect Effect of Performance Pressure on Employee Behavior

According to stress (Lazarus, 1966) and self-regulation theories (Carver & Scheier, 1998), unpacking a dynamic stress process is critical to understanding why diverging behaviors emerge from stress experiences. In this respect, we investigate the indirect effect of performance pressure (through stress appraisals and self-regulatory states) on different forms of job performance behavior. Given our focus on understanding a dynamic stress process, we targeted job performance behaviors that are also dynamic in nature. Rotundo and Sackett (2002) identified three broad categories of job performance that produce within-person variations: deviance (behavior that harms the organization and its members [Robinson & Bennett, 1995]), task performance (behavior that accomplishes duties and responsibilities toward enhancing goods or services for organizations [Motowidlo, 2003]), and citizenship (behavior that contributes to goals by enhancing the social and psychological environment [Motowidlo, 2003]). Deviance is a dysfunctional type of job performance because it is harmful and undermines the organization’s bottom line (Pearson & Porath, 2005). Hence, it is counterproductive to

organizations (Motowidlo, 2003). Task performance and citizenship represent functional types of job performance, as these behaviors enhance organizational productivity (Podsakoff, Whiting, Podsakoff, & Blume, 2009) and add value to organizations (Motowidlo, 2003).

Research by Dalal et al. (2009) demonstrated that job performance behaviors significantly vary within-person, and that each is explained by specific concomitant states. They found that negative states uniquely explain within-person dysfunctional job performance behaviors, and positive states uniquely explain within-person functional job performance behaviors. Importantly, Dalal et al. (2009) found that a negative state explained only interpersonal forms of deviance—uncivil interpersonal acts toward others at work, which we examine in our research. Given past evidence of the within-person effects for dysfunctional and functional performance behaviors, we theorize that fluctuations in appraisals and self-regulatory states from performance pressure will explain the emergence of dysfunctional performance behaviors (i.e., incivility) and functional performance behaviors (i.e., task proficiency, citizenship).

Indirect effect of performance pressure on incivility. *Incivility* is a form of interpersonal deviance representing a subtle breach of social etiquette and norms of appropriate interaction (Robinson, 2008), such as being rude, discourteous, or showing disregard toward others (Andersson & Pearson, 1999). The low-intensity nature of incivility makes it difficult for observers to understand the intentionality of these behaviors. In this respect, incivility is a relatively safe form of deviance because the actor is less likely to be called out on, or punished for, the behavior (O’Reilly, Robinson, Berdahl, & Banki, 2015).

We propose that performance pressure appraised as threatening will elicit incivility because these employees will be in a depleted state of self-regulation. Self-regulation assists in maintaining appropriate behavior—it provides individuals with the needed self-resources to control their behavior and meet appropriate behavioral standards (Baumeister, 2002; Carver & Scheier, 1998). In short, a pool of self-resources is needed to maintain appropriate behavior because acting civilly requires executive control and effort (Andersson & Pearson, 1999). Conversely, a depleted state of self-regulation leaves employees too fatigued to monitor and direct their behavior to meet appropriate standards. Being depleted blunts employees’ ability to uphold appropriate expectations regarding interpersonal treatment, prompting incivility (Baumeister, Schmeichel, & Vohs, 2007). As Pearson,

Andersson, and Porath (2005: 181) argued, when focused on negative work pressures, employees have “less energy, motivation, and time to attend to civility,” resulting in incivility. Because performance pressure appraised as threatening depletes self-resources, employees in this diminished capacity will be too drained to monitor their behavior, resulting in incivility toward others.

Hypothesis 3. On a daily basis, there is a positive indirect effect of performance pressure on incivility through threat appraisal and self-regulation depletion.

Indirect effect of performance pressure on task proficiency and citizenship. *Task proficiency* involves meeting and potentially exceeding in-role requirements. Proficient employees carry out their core job responsibilities well and ensure core tasks are completed properly (Griffin, Neal, & Parker, 2007). Task proficiency adds to organizational performance in that proficient employees transform or replenish raw materials and add intellectual insights needed for products and services (Campbell, 1990). *Citizenship* improves the social and psychological work environment by fostering cooperation and social interactions among workgroup members (e.g., being courteous, assisting with work-related problems) (Organ, 1988). These behaviors raise organizational performance and enhance productivity by freeing up resources, helping with coordination, and enabling adaptability toward changing goals and needs (see Podsakoff, MacKenzie, Paine, & Bachrach, 2000). A meta-analysis has shown that citizenship effectively contributes to and enhances unit- and organization-level performance (Podsakoff et al., 2009). Moreover, employees perceive that both task proficiency and citizenship influence their performance ratings (Lam, Hui, & Law, 1999; Motowidlo & Van Scotter, 1994), as they believe these behaviors set a positive impression in the minds of supervisors and influence reward recommendations (Allen & Rush, 1998; Kiker & Motowidlo, 1999).

We theorize that performance pressure appraised as a challenge will enhance employee engagement, which, in turn, will enhance task proficiency and citizenship. Raising task proficiency and engaging in citizenship takes energy (e.g., Lemoine, Parsons, & Kansara, 2015). Appraising performance pressure as a challenge elevates self-resources for the self-regulation of behavior. Heightened self-resources are captured by engagement because it encompasses enhanced physical energy, sharpened cognitive thinking, and elevated emotional resources (Kahn, 1992). Engagement broadens “the repertoire of thoughts and actions that a person has

available to them” (Quinn et al., 2012: 363). Consequently, employees challenged by performance pressure will have the needed self-resources (i.e., energy) offered by engagement to be proficient on tasks and to be notable citizens.

Hypothesis 4. On a daily basis, there is a positive indirect effect of performance pressure on (a) task proficiency and (b) citizenship through challenge appraisal and engagement.

The Moderating Influence of Trait Resilience

Lazarus’s (1966) transactional theory of stress suggests that certain traits can influence the stress process because some traits alter how individuals cognitively process information about stressors. Integrating Lazarus’s arguments with our theoretical foundation suggests that certain traits may influence employees’ attention in the performance pressure stress experience, focusing their attention to certain features of the pressure. This focus can alter the way in which the pressure is appraised, which then affects the performance pressure experience.

Psychology research on stress has identified *trait resilience* as a particularly impactful individual characteristic for the stress process. Trait resilience captures the tendency for individuals to effectively adapt to and cope with stress, loss, hardship, or adversity (Block & Kremen, 1996; Smith, Dalen, Wiggins, Tooley, Christopher, & Bernard, 2008). In this respect, trait resilience is akin to hardiness or ego resilience in that it allows individuals to withstand or rebound from difficult conditions (Glantz & Johnson, 2002). Within the ebb and flow of daily life, trait resilience gives individuals the ability to navigate stress experiences positively (Block & Kremen, 1996) because it protects individuals from focusing on negative aspects of stressors (Charney, 2004). For instance, meta-analytic evidence has shown that trait resilience provides individuals with the flexibility to maintain a cool head and heart to deal with stressful, demanding, and changing circumstances (Vaughn, Thompson, & Gotlib, 2011).

In this respect, trait resilience is considered an often-neglected yet highly influential personal resource for ongoing stress experiences (Smith, Tooley, Christopher, & Kay, 2010). Research by Ong, Bergeman, Bisconti, and Wallace (2006) examined the moderating effects of trait resilience in a series of within-person daily studies of stress. Their studies demonstrated that trait resilience plays a critical role by mitigating negative reactions to daily stressors. They found that low trait resilient individuals had difficulty coping with daily

stress. Conversely, high trait resilient individuals were buffered from, and functionally resisted, taxing and threatening reactions to stressors. Ong et al. (2006: 742) concluded that trait "resilience has relevance not only to those undergoing significant life challenge but also to those experiencing daily stressors that spontaneously arise and subside in naturally occurring contexts."

One of the reasons trait resilience aids in the ongoing stress experience is that it offers individuals the ability to effectively filter information about stressors. Specifically, research has demonstrated that high, rather than low, trait resilience allows individuals to disregard, reject, or look past information about a stressor that is negative or potentially harmful (Florian, Mikulincer, & Taubman, 1995; Rhodewalt & Zone, 1989). Further, high rather than low trait resilient individuals are more likely to find beneficial aspects of, and resources to deal with, stressful situations (e.g., Kobasa & Puccetti, 1983). It is for these reasons that high rather than low trait resilient individuals are less likely to appraise a stressor as threatening and, instead, are more likely to appraise a stressor as challenging (Tugade & Fredrickson, 2004).

Trait resilience also affects how individuals cope with stress. In the face of stressors, trait resilience offers energy in that it captures a powerful orientation toward cognitive pervasiveness, emotional stability, and physiological endurance (Waugh et al., 2008). Trait resilience equips individuals to protect and replenish their reservoir of self-resources, allowing them to feel "alive" rather than "drained" during stress experiences (Ryan & Frederick, 1997). Waugh et al. (2008) discovered that the drawbacks of low trait resilience and the benefits of high trait resilience stem from an area of the brain that is responsive to aversive and threatening contextual cues. Low trait resilient individuals experience a prolonged reaction in this area of the brain when presented with threatening information; this taxing experience then drains energy. High trait resilient individuals did not respond to aversive and threatening contextual cues in the same manner. Instead, they were better able to harness appropriate resources to handle the demands. Waugh et al. (2008) concluded that these results explain why low trait resilient individuals find it difficult to handle, recover, and rebound from stress; their cognitive processing focuses their attention on taxing and harmful (threatening) information about stressors, resulting in energy depletion. By contrast, high trait resilient individuals' cognitive processing focuses their attention on positive (challenging) information about stressors and stimulates an accumulation of appropriate

resources for dealing with stressors. Arguably, the way that high trait resilient individuals are able to deflect threatening aspects of stressors and focus on challenging aspects of stressors should influence self-regulatory states in relation to performance pressure.

We theorize that trait resilience will moderate the daily fluctuating effects of performance pressure on stress appraisals that then influence self-regulatory states and behavior. On a daily basis, low trait resilient individuals should have less ability to ignore negative aspects of performance pressure (e.g., difficulties in improving performance, the potential for negative consequences if demands are not met), making them more likely to appraise the pressure as threatening. By focusing on the threat of performance pressure, these low trait resilient employees will experience self-regulation depletion, which will elicit incivility. Conversely, high trait resilient individuals should possess greater ability to focus on the beneficial aspects of performance pressure (e.g., opportunities for growth and development, potential rewards when demands are met), making them more likely to appraise the pressure as challenging. By focusing on the challenge of performance pressure, these high trait resilient employees will experience an enhanced state of engagement that will afford higher levels of proficiency and citizenship.

Hypothesis 5. On a daily basis, the positive indirect effect of performance pressure on (a) self-regulation depletion (through threat appraisal) will be stronger when trait resilience is lower rather than higher, and, on a daily basis, the positive indirect effect of performance pressure on (b) engagement (through challenge appraisal) will be stronger when trait resilience is higher rather than lower.

Hypothesis 6. On a daily basis, the positive indirect effect of performance pressure on incivility (through threat appraisal and self-regulation depletion) will be stronger when trait resilience is lower rather than higher.

Hypothesis 7. On a daily basis, the positive indirect effect of performance pressure on (a) task proficiency and (b) citizenship (through challenge appraisal and engagement) will be stronger when trait resilience is higher rather than lower.

METHODS

Sample and Procedure

We employed an experience sampling methodology (ESM). This design allowed us to examine daily fluctuations of the within-person effects of performance pressure on threat and challenge appraisals,

self-regulation states of depletion and engagement, and dysfunctional and functional behavior (i.e., incivility, task proficiency, citizenship), and to test the cross-level moderating effects of trait resilience. Participants were recruited through a series of online classified advertisements to complete a one-time registration survey, and two daily surveys (one at noon and another after their work day) across 10 days. Participants were compensated \$1.00 for completing each noon survey, \$2.00 for completing each after-work survey, and a bonus of \$5 for completing both surveys on all 10 days of the study. A total of 266 individuals indicated interest in participating in the study. The registration survey included measures of trait resilience, the between-person control variables, and demographics. Due to the importance of careful responding in survey studies (e.g., Clark, Girona, & Young, 2003), we embedded instructed response items in each of the surveys (Meade & Craig, 2012). A sample instructed response item is: "I go running with monkeys. Choose Disagree." Participants who provided incorrect responses to these items were not included in our analyses.

Based on eligibility criteria and careful response checks, we registered 144 individuals for the study. On each day of the study, participants received the noon survey shortly before noon, and were instructed to complete this survey by 1:30 p.m. This survey contained the performance pressure measure. At 4:30 p.m., participants received the after-work survey and were instructed to complete it as soon as possible after leaving work for the day. This survey contained measures of the other study variables. The sample for analysis included 945 total observations, nested within 108 participants. The average number of observations completed per participant was 8.75. On average, participants were 39.8 years old ($SD = 10.3$) and had worked at their company for 5.88 years ($SD = 5.42$); 65.7% of the sample was female and 63.9% identified as Caucasian. Participants worked in a variety of industries—education, healthcare, and manufacturing were most frequently cited—and 50.9% held nonsupervisory positions.

Measures

To capture within-person variations for the study variables (performance pressure, self-regulation depletion, engagement, incivility, task proficiency, citizenship, and the control variables), in each daily survey, measures were adapted to rate the items based on respondents' experiences each day at work. Unless indicated, participants responded to items based on a five-point scale of 1 = *strongly disagree*, 5 = *strongly agree*.

Performance pressure. Daily performance pressure was assessed with Mitchell et al.'s (2018) four-item measure. Sample items include "Today, I feel tremendous pressure to produce results" and "Today, I feel that if I don't produce at high levels, my job will be at risk" ($\alpha = .91$).

Threat appraisal. Daily threat appraisal was assessed with three items from Drach-Zahvy and Erez (2002). Sample items include "Today, I felt threatened" and "The demands of work hindered my abilities today" ($\alpha = .91$).

Challenge appraisal. Daily challenge appraisal was assessed with three items from Drach-Zahvy and Erez (2002). Sample items include "Today, I was challenged in a positive way" and "Today, I was provided opportunities to overcome obstacles" ($\alpha = .89$).

Self-Regulation depletion. Daily self-regulation depletion was assessed with four items from Welsh and Ordóñez (2014). Example items include "Today, I have felt mentally exhausted" and "Today, my mental energy has been running low" ($\alpha = .94$).

Engagement. Daily engagement was assessed with nine items representing emotional, cognitive, and physical engagement from Rich et al. (2010). Example items include "I felt energetic at my job today" and "I exerted my full effort on my job today" ($\alpha = .93$).

Incivility. Daily incivility was assessed with three items from Cortina, Magley, Williams, and Langhout's (2001) measure. Respondents indicated the extent to which they had engaged in the listed behavior that day. Participants read: "Please indicate your agreement about whether you engaged in the listed behavior *today*." Sample items include: "Criticized another coworker" and "Ignored a coworker" ($\alpha = .82$).

Task proficiency. Daily task proficiency was assessed with Griffin et al.'s (2007) three-item measure. Respondents indicated their agreement with whether they had engaged in the listed behavior that day. Participants read: "Please indicate your agreement about whether you engaged in the listed behavior *today*." Sample items include: "Carried out the core parts of your job well" and "Completed your core tasks well using the standard procedures" ($\alpha = .93$).

Citizenship. Daily citizenship was assessed with four items from Lee and Allen's (2002) measure. Respondents indicated their agreement with whether they had engaged in the listed behavior that day. Participants read: "Please indicate your agreement about whether you engaged in the listed behavior *today*." Sample items include: "Helped others at work"

and “Willingly gave my time to help others who had work-related problems” ($\alpha = .90$).

Trait resilience. Prior to beginning the daily surveys, trait resilience was assessed in the registration survey, with three items from Smith et al.’s (2008) measure. Example items include “I tend to bounce back quickly after hard times” and “It does not take me long to recover from a stress event” ($\alpha = .76$).

Control variables. Because research has demonstrated that state affect influences reactions to stressors (see Ganster & Rosen, 2013), we controlled for within-person positive and negative state affect with shortened three-item measures from Watson, Clark, and Tellegen (1988). Respondents indicated the extent to which they had felt each of the positive states (i.e., “Enthusiastic,” “Happy,” “Energetic”) and negative states (i.e., “Upset,” “Angry,” “Distressed”) that day on a five-point scale (1 = *very slightly or not at all*, 5 = *extremely*) (state positive affect $\alpha = .91$ and state negative affect $\alpha = .91$).

Additionally, we examined the possibility that trait resilience may overlap with other, similar constructs (e.g., emotional stability, control, self-efficacy, self-esteem) and, thus, whether trait resilience is truly driving the model’s interaction effects. To investigate this possibility, we ran our analyses while controlling for core self-evaluations (CSE) and the performance pressure \times CSE interaction, because CSE represents the four core personality traits self-esteem, self-efficacy, emotional stability, and locus of control (Judge, Erez, Bono, & Thoresen, 2003). We assessed CSE in the registration survey with Judge et al.’s (2003) 12-item measure; respondents rated items on a five-point scale (1 = *very slightly or not at all*, 5 = *extremely*) ($\alpha = .85$). These analyses allowed us to examine the incremental validity of our predictions over the moderating role of CSE (e.g., Lopez-Kidwell, Grosser, Dineen, & Borgatti, 2013; Raffiee & Feng, 2014). The direction, magnitude, and form of our hypothesized effects held. These results strengthen support for the role of trait resilience in explaining the effects of our model. Following suggested procedures regarding the inclusion and exclusion of control variables, we did not include CSE or the performance pressure \times CSE interaction in our final analyses because our results were significant irrespective of these controls (Becker, 2005; Carlson & Wu, 2012).

RESULTS

Descriptive Statistics and Correlations

Table 1 reports the descriptive statistics and zero-order correlations among the variables.

Hypothesis Testing

Testing the hypothesized model relied on sufficient within-person variance in our constructs. We calculated the amount of within-person (σ^2) and between-person (τ_{00}) variance in each of the daily variables. Results suggest that a significant proportion of the variance existed at the within-person level (performance pressure = 49.7%, threat appraisal = 45.7%, challenge appraisal = 56.4%, self-regulation depletion = 49.9%, engagement = 56.9%, incivility = 57.1%, task proficiency = 60.9%, citizenship = 56.6%, state positive affect = 42.2%, state negative affect = 56.9%) (cf. Ilies, Schwind, Wagner, Johnson, DeRue, & Ilgen, 2007; LeBreton & Senter, 2008). Thus, we analyzed our model following procedures for multilevel path analysis with robust full maximum likelihood estimation using Mplus version 8.0 (Muthén & Muthén, 2012). These procedures allow researchers to model and control for the variance in and among constructs that reside at the between-person level (Preacher, Zyphur, & Zhang, 2010), and ultimately provide unbiased parameter estimates at the within-person level. This method also allows for testing the cross-level moderating effects of a between-person variable on the within-person-level effects.²

Other procedures recommended by Preacher et al. (2010) were also used. Error variances and correlations were not constrained to be fixed, the between-person variables were grand-mean centered, and the within-person predictor (i.e., performance pressure) was group-mean centered. Because our overall model included the cross-level moderation of within-person

² At the request of the editorial team, supplemental analyses were conducted. First, we examined the crossover effects (i.e., effects across days) of performance pressure, stress appraisals, and mood, as well as whether performance pressure appraised as a threat and challenge carried over from one day to the next. The results show that positive effects cross over to influence the next-day stress experience. For instance, task proficiency and citizenship positively influenced challenge appraisals; challenge appraisals crossed over to fuel next-day challenge appraisals. Second, we investigated the possibility of state affect (i.e., mood) as a predictor of performance pressure and stress appraisals. The results showed that mood colored the stress experience. When in a negative mood, employees were more likely to experience performance pressure as threatening and then became depleted, but the effects did not carry over to behaviors; when in a positive mood, employees were more likely to experience challenge appraisals that enhanced engagement, resulting in enhanced task proficiency. These results can be made available upon request to the first author.

TABLE 1
Descriptive Statistics and Correlations

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
<i>Within-person Variables</i>													
1. Performance pressure	2.74	.75	(.91)	.33	.14	.42	.09	.15	-.01	.04	-.07	.25	
2. Threat appraisal	1.66	.56	.44	(.89)	-.11	.45	-.28	.42	-.26	-.05	-.36	.34	
3. Challenge appraisal	3.23	.75	.10	-.18	(.93)	-.06	.57	-.01	.38	.39	.34	-.09	
4. Self-regulation depletion	2.66	.81	.53	.57	-.05	(.94)	-.21	.28	-.19	-.07	-.40	.47	
5. Engagement	3.55	.61	.04	-.42	.70	-.29	(.93)	-.18	.58	.36	.53	-.21	
6. Incivility	1.53	.55	.19	.67	-.07	.37	-.38	(.82)	-.16	.00	-.20	.18	
7. Task proficiency	4.07	.57	-.11	-.49	.42	-.29	.72	-.44	(.93)	.31	.31	-.16	
8. Citizenship	3.35	.73	.04	-.11	.56	-.04	.38	-.06	.25	(.90)	.27	-.05	
9. State positive affect	4.15	1.10	-.03	-.48	.39	-.47	.64	-.33	.38	.30	(.91)	-.39	
10. State negative affect	2.30	.99	.24	.45	-.00	.61	-.18	.29	-.12	.08	-.33	(.91)	
<i>Between-person Variables</i>													
11. Trait resilience	3.67	.69	-.20	-.26	-.06	-.37	.12	-.16	.19	.11	.27	-.29	(.76)

Notes: $n = 945$ observations, 108 participants. Correlations above the diagonal are group-mean centered relationships among the daily, within-person variables; correlations under the diagonal are between-person correlations. Correlations between the daily variables and trait variables were computed by aggregating participants' daily scores and then correlating them with trait scores. Cronbach's α coefficients are reported on the diagonal. For within-person correlations, values above $|\ .06 |$ are significant at $p < .05$ and values above $|\ .08 |$ are significant at $p < .01$. For between-person correlations, values above $|\ .18 |$ are significant at $p < .05$ and values above $|\ .24 |$ are significant at $p < .01$.

indirect effects, we integrated these procedures with Preacher, Rucker, and Hayes's (2007) recommendations for moderated mediation. Accordingly, the direct effects of performance pressure were controlled in the equations for the self-regulatory states and dependent variables, the direct effects of threat and challenge stress appraisals were controlled in the equations for the dependent variables, and the direct effects of self-regulation depletion on citizenship and task proficiency, and of engagement on incivility, were controlled in the equations. Finally, the indirect effects were computed using the distribution-of-the-product method (MacKinnon, Fritz, Williams, & Lockwood, 2007) to compute a 95% bias-corrected confidence interval around the indirect effects. This method appropriately accounts for Type I error, and has been shown to be more suitable for computing indirect effects compared to typical tests (e.g., Sobel test) (Tofighi & MacKinnon, 2011). Within-person incremental variance explained by our model was computed with pseudo R -squared values following Raudenbush and Bryk's (2002) Equation 4.20.

Table 2 displays the results of the multilevel path analytic model. Hypothesis 1 predicted that, on a daily basis, there is a positive indirect effect of performance pressure on self-regulation depletion through threat appraisal. The results show that the direct effect of performance pressure on threat appraisal was significant and positive ($\gamma = .14, p < .001$), and the direct effect of threat appraisal on self-regulation depletion was significant and positive

($\gamma = .37, p < .001$). Further, the indirect effect of performance pressure on self-regulation depletion, through threat appraisal, was significant ($\rho = .05, p < .001, 95\% \text{ CI} = [.024, .084]$), supporting Hypothesis 1.

Hypothesis 2 predicted that, on a daily basis, there is a positive indirect effect of performance pressure on engagement through challenge appraisal. The results show that the direct effect of performance pressure on challenge appraisal was significant and positive ($\gamma = .20, p < .001$) and the direct effect of challenge appraisal on engagement was significant and positive ($\gamma = .38, p < .001$). The indirect effect of performance pressure on engagement, through challenge appraisal, was significant ($\rho = .07, p < .001, 95\% \text{ CI} = [.045, .108]$), supporting Hypothesis 2.

Hypothesis 3 predicted that, on a daily basis, there is a positive indirect effect of performance pressure on incivility through threat appraisal and self-regulation depletion. The results show that the direct effect of self-regulation depletion on incivility was significant and positive ($\gamma = .10, p < .01$). The indirect effect of performance pressure was significant on incivility ($\rho = .01, p < .05, 95\% \text{ CI} = [.001, .010]$), supporting Hypothesis 3.

Hypothesis 4 predicted that, on a daily basis, there is a positive indirect effect of performance pressure on (a) task proficiency and (b) citizenship through challenge appraisal and engagement. The results show that the direct effects of engagement were significant and positive on task proficiency ($\gamma = .36, p < .001$) and citizenship ($\gamma = .28, p < .001$). The indirect

TABLE 2
Path Analytic Results from the Estimated Multilevel Model

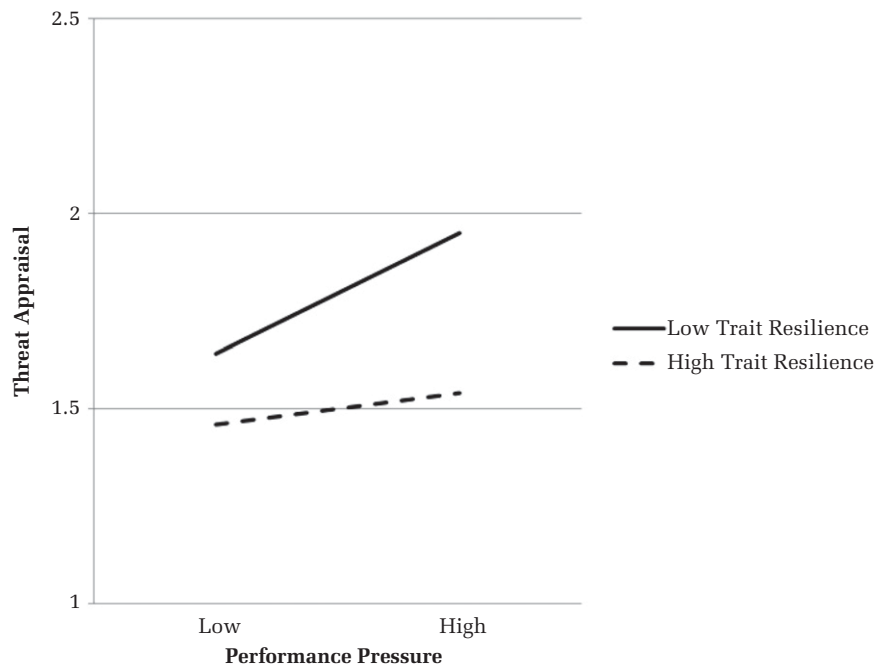
Variables	Threat Appraisal		Challenge Appraisal		Self-regulation Depletion		Work Engagement		Incivility		Task Proficiency		Citizenship	
	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>	<i>b</i>	<i>SE</i>
Level 1 (within-person; daily)														
Performance pressure	.14**	.03	.20**	.04	.29**	.04	.07*	.03	-.01	.03	.05	.03	.01	.04
Threat appraisal					.37**	.05	-.15*	.06	.15**	.05	.00	.06	.11*	.06
Challenge appraisal					-.15**	.05	.38**	.05	.07*	.03	.09**	.03	.13**	.04
Self-regulation depletion									.10**	.03	-.03	.02	-.04	.04
Engagement											.36**	.07	.28**	.06
State positive affect									-.01	.04	.02	.03	.03	.03
State negative affect									-.01	.02	-.05	.03	-.07*	.03
Level 2 (between-person)														
Trait resilience	-.22*	.09	-.08	.10										
Performance pressure × trait resilience	-.12**	.04	.25*	.06										
Pseudo- <i>R</i> ²		.09*		.12*		.17*		.23*		.06*		.26*		.14*

Notes: *n* = 945 observations, 108 participants. Performance pressure (the Level 1 predictor) was group-mean centered; Level 2 variables were grand-mean centered.

* *p* < .05

** *p* < .01, two-tailed.

FIGURE 2
Interaction between Performance Pressure and Trait Resilience on Threat Appraisal



effects of performance pressure were significant on task proficiency ($\rho = .03, p < .01, 95\% \text{ CI} = [.013, .043]$) and citizenship ($\rho = .02, p < .01, 95\% \text{ CI} = [.009, .035]$), supporting Hypothesis 4.

Hypothesis 5a predicted that, on a daily basis, the positive indirect effect of performance pressure on self-regulation depletion through threat appraisal is stronger when trait resilience is lower rather than higher. The results show the cross-level performance pressure \times trait resilience interaction term was significant on threat appraisal ($\gamma = -.12, p < .01$). Figure 2 shows the direct effect of performance pressure on threat appraisal was stronger when trait resilience was lower ($\gamma = .22, p < .001$) rather than higher ($\gamma = .06, \text{n.s.}$). As predicted, the indirect effect of performance pressure on self-regulation depletion through threat appraisal was stronger when trait resilience was lower ($\rho = .08, p < .001, 95\% \text{ CI} = [.037, .134]$) rather than higher ($\rho = .02, \text{n.s.}, 95\% \text{ CI} = [-.004, .052]$). The difference in strength between these two effects was significant ($\Delta\rho = .06, p < .05, 95\% \text{ CI} = [.016, .104]$).

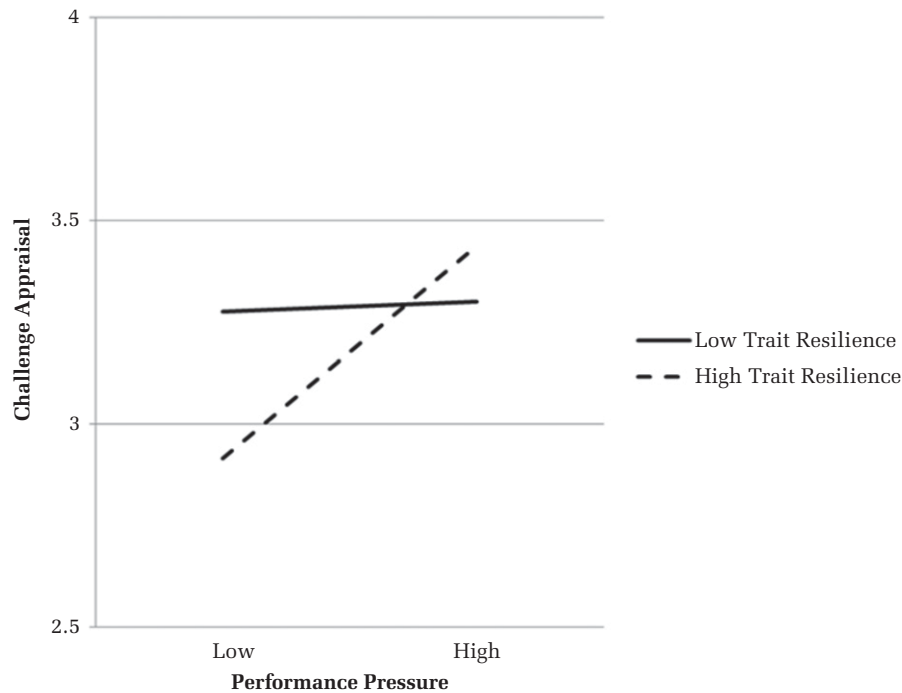
Hypothesis 5b predicted that, on a daily basis, the positive indirect effect of performance pressure on engagement through challenge appraisal is stronger when trait resilience is higher rather than lower. The results show the cross-level performance pressure \times trait resilience interaction term was significant on

threat appraisal ($\gamma = .25, p < .001$). Figure 3 shows that the direct effect of performance pressure on challenge appraisal was stronger when trait resilience was higher ($\gamma = .37, p < .001$) rather than lower ($\gamma = .03, \text{n.s.}$). As predicted, the indirect effect of performance pressure on engagement was stronger when trait resilience was higher ($\rho = .14, p < .001, 95\% \text{ CI} = [.081, .206]$) rather than lower ($\rho = .01, \text{n.s.}, 95\% \text{ CI} = [-.031, .053]$). The difference in strength between these two effects was significant ($\Delta\rho = .13, p < .05, 95\% \text{ CI} = [.057, .202]$).

Regarding the moderating effect of trait resilience, Aguinis, Gottfredson, and Culpepper (2013) highlighted that it is important to understand cross-level interaction effects in terms of their practical significance to the variables of interest. In particular, they suggest reporting the proportion of variance in the within-person effects as a function of the between-person moderator. Following their recommendations for these computations, we found that trait resilience accounted for 16.67% and 28.89% of the total variance in threat and challenge appraisals, respectively, across employees. These values are comparable to those reported for other cross-level interaction effects cited in published work (e.g., Liu, Song, Li, & Liao, 2017).

Hypothesis 6 predicted that, on a daily basis, the positive indirect effect of performance pressure on

FIGURE 3
Interaction between Performance Pressure and Trait Resilience on Challenge Appraisal



incivility through threat appraisal and self-regulation depletion is stronger when trait resilience is lower rather than higher. As predicted, the results showed that the indirect effect was stronger when trait resilience was lower ($\rho = .01$, $p < .05$, 95% CI = [.002, .016]) rather than higher ($\rho = .00$, n.s., 95% CI = [−.001, .006]). The difference in strength between these two effects was significant ($\Delta\rho = .01$, $p < .05$, 95% CI = [.001, .011]).

Hypothesis 7 predicted that, on a daily basis, the positive indirect effects of performance pressure on (a) task proficiency and (b) citizenship through challenge appraisal and engagement will be stronger when trait resilience was higher rather than lower. The results showed that the indirect effect of performance pressure on task proficiency was stronger when trait resilience was higher ($\rho = .05$, $p < .01$, 95% CI = [.023, .082]) rather than lower ($\rho = .00$, n.s., 95% CI = [−.011, .019]), and that the difference in the strength of these effects was significant ($\Delta\rho = .05$, $p < .05$, 95% CI = [.010, .082]). Similarly, the results showed that the indirect effect of performance pressure on citizenship was stronger when trait resilience was higher ($\rho = .04$, $p < .01$, 95% CI = [.017, .067]) rather than lower ($\rho = .00$, n.s., 95% CI = [−.009, .016]), and that the difference in the strength of these effects was significant ($\Delta\rho = .04$, $p < .05$,

95% CI = [.009, .063]). Overall, these results support Hypothesis 7a and 7b.

DISCUSSION

We theorized and found that the daily performance pressure experience explains both functional and dysfunctional outcomes. A focus on the negative aspects of performance pressure (e.g., difficulties of improving performance) prompts threat appraisals, which creates a taxing experience that depletes self-regulation and leaves these employees less able to control their behavior with social etiquette (i.e., leads them to act uncivilly). A focus on the positive aspects of performance pressure (e.g., opportunities) prompts challenge appraisals, which engages a positive, self-reinforcing effect on self-regulation through engagement that promotes functional work behaviors (i.e., task proficiency, citizenship). Trait resilience was an influential characteristic in this stress experience because it creates a lens by which employees filter the pressure. Low trait resilient employees were more likely to appraise the pressure as threatening, thereby enabling a state of self-regulation depletion that eventuates in incivility. High trait resilient employees were more likely to appraise the pressure as challenging, thereby fostering

a state of engagement that motivates higher levels of task proficiency and citizenship.

Theoretical Implications

Our study has several implications for theory. First, our research contributes to the performance pressure literature, which has produced inconsistent findings on outcomes of such pressure—some studies have shown that it enhances functional behavior (e.g., Eisenberger & Aselage, 2009), while others have shown that it produces dysfunctional behavior (e.g., Robertson & Rymon, 2001; Shalley & Perry-Smith, 2001). We suggest that the paradoxical outcomes produced by performance pressure demonstrate it to be a double-edged sword. Our work sought to understand this paradox by offering theory to explain performance pressure as a dynamic stress experience. Examining performance pressure at a static point in time captures only a snapshot of its effects. Our within-person approach allowed us to demonstrate that performance pressure is appraised in flux. Daily appraisals of performance pressure can differ, which produces diverging self-regulatory states and behaviors. This dynamic perspective shows that the benefits of performance pressure can be mixed for organizations unless employees have high trait resilience. Trait resilience offers an optimistic lens by which employees appraise the pressure, focusing their attention toward its beneficial and challenging features, and away from its potentially harmful and threatening features, which promotes an accumulation of self-regulatory resources reflected in engagement that enhances task proficiency and citizenship behaviors.

Our work also extends the stress literature. A number of theoretical models have been offered to explain stress-coping dynamics (e.g., job demands–control [Karasek, 1979], job demands–resources [Demerouti et al., 2001], conservation of resources [Hobfoll, 1989]), but these models have described stressors as solely a *drain* on energy and self-regulation. Further, organizational scholars who have applied Lazarus and Folkman's (1984) theory of stress have typically categorized work stressors as a threat or a challenge (e.g., Cavanaugh et al., 2000; LePine et al., 2005; Podsakoff et al., 2007) rather than considering the possibility of a singular stressor as both threatening and challenging. These dominant views infer a static, negative stress experience related to self-regulation. In contrast, our work enriches theory by outlining a dynamic stress process, where appraisals of a stressor can fluctuate daily. Thus, our theory shifts the conversation to consider

how a singular stressor may set in motion different stress experiences that result in distinct types of behaviors.

We also contribute to work in the organizational sciences on self-regulation. Our research highlights the value of exploring self-regulation variation and uncovering why this may occur. Within the organizational sciences, less attention has been given to examining fluctuations (see Quinn et al., 2012), and, instead, most research has treated self-regulation as if it is a static phenomenon. Our research demonstrates that the process is dynamic—that self-regulation is impacted by daily fluctuations in how stressors are appraised. Although research on self-regulation in the organizational sciences has focused on self-regulation depletion, with less attention given to self-regulation as an engaging process (for an exception, see Christian et al., 2015), a critical tenet of self-regulation theory (Baumeister, 2002) is that self-resources can be depleted but also bolstered (like a muscle) as people find effective ways to handle stress. Our findings support this theoretical perspective and indicate that stressors can be both draining and engaging to the self-regulation of behavior.

Lastly, our dynamic approach to understanding the stress process and self-regulation sheds light on relationships among variables that may be masked in between-person studies. Dalal, Bhawe, and Fiset (2014) argued that some variables explain different forms of job performance within-person compared to between-person. If we, for example, had examined only the between-person effects of performance pressure on task proficiency, that relationship might be presumed to be negative (indeed, the between-person correlation of these variables trended negatively: $r = -.11$). However, within-person relationships can differ “in sign, form, and/or size” of theorized between-person effects (Dalal et al., 2014: 1397), which is why the nature of the within-person relationships are often different. As Lanaj, Kim, Koopman, and Matta (2017: 38) noted, “Effect sizes tend to be smaller in experience sampling research... because these studies focus on explaining within-person variance rather than total variance.” In this way, a between-person study would miss the opportunity to reveal that performance pressure can be appraised as a challenge. Examining within-person effects offers the data to support “a stress effect, indicating that psychological well-being fluctuates” over time (Ganster & Rosen, 2013: 1097). The results of our ESM support these arguments and show that performance pressure appraisals incite different self-regulatory states that motivate specific forms of behavior. These findings may not have surfaced in a

between-person study. Accordingly, we address the call by Quinn et al. (2012) to track energetic states and how these fluctuations affect behavior. We hope our framework aids others to further unpack self-regulatory and stress outcomes.

Managerial Implications

An organization's success is only as good as its employees' productiveness; this reality contributes to an urgency (pressure) for employees to perform well. Because of this, performance pressure can serve as a source of stress for employees. The results of our study suggest that performance pressure can be a double-edged sword, motivating both dysfunctional and functional outcomes. On a daily basis, employees may appraise such pressure as a threat, which depletes their self-regulation and then motivates uncivil behavior. Also on a daily basis, employees may appraise it as a challenge, which enhances their self-regulation and subsequent task proficiency and citizenship. A key takeaway is finding ways to influence employees to regularly appraise performance pressure as a challenge rather than a threat. Managers should take care in how they relay performance expectations to employees to reduce the likelihood that those expectations are negatively construed (i.e., threat appraisal). Instead, the benefits and opportunities of performance pressure should be explained and emphasized to employees.

Another implication for managers is the benefits afforded by trait resilience. We found that high trait resilient employees paid attention to challenging aspects of performance pressure while seemingly ignoring threatening aspects of the pressure. High trait resilient employees were more likely to experience engagement from performance pressure, which is needed to enhance functional job performance behaviors. Notably, low trait resilient employees were more likely to appraise performance pressure as threatening, which created a draining effect that resulted in dysfunctional behavior. Organizations are increasingly using personality measures to assess important attributes in hiring and screening processes because certain traits influence positive motivational states and behaviors (see Morgeson, Campion, Dipboye, Hollenbeck, Murphy, & Schmitt, 2007). Of course, this advice comes along with the caveat that the measures are psychometrically sound and are paired with other screening techniques (e.g., critical incident interviews). Our findings suggest that there is value to screening for trait resilience, especially for those who will experience performance pressure.

Limitations and Future Research Directions

We acknowledge several limitations in our research. For example, scholars have argued that collecting data from a single source may promote common method variance (CMV) bias (Podsakoff, MacKenzie, & Podsakoff, 2012). However, collecting sensitive behaviors from the focal source has been demonstrated in meta-analysis to be more accurate than other reports (Carpenter, Rangel, Jeon, & Cottrell, 2017). Further, we addressed the possibility of CMV in our study's design and statistical tests. First, our predictor and criterion variables were separated in time in our surveys (beginning- and end-of-day surveys). Second, we controlled for within-person negative and positive affect, which could contribute to CMV inflations (Podsakoff et al., 2012). Third, we conducted multilevel confirmatory factor analysis and demonstrated that our measurement model provided a reasonable fit to the data ($\chi^2 [df] = 3852.12 [657]$, comparative fit index [CFI] = .90, root mean square error of approximation [RMSEA] = .072; standardized root mean square residual [SRMR] = .07) and a better fit than a variety of alternative models. Fourth, our design and analyses included a moderator variable, which scholars have demonstrated cannot be inflated by CMV (Podsakoff et al., 2012; Siemsen, Roth, & Oliveira, 2010). As Podsakoff et al. (2012: 543) concluded, "although interaction and quadratic effects can be severely deflated by method bias, they cannot be artifacts of it." We found significant cross-level interaction effects of trait resilience; the indirect effect of performance pressure on self-regulatory states (through stress appraisals) and on behavior (through stress appraisals and self-regulatory states) were significant. Thus, it is unlikely that CMV presented a bias and, based on Podsakoff et al.'s (2012) arguments, if CMV were present, the interactions would have been deflated by CMV.

As another possible limitation, our daily surveys captured stress appraisals and self-regulatory states at the same point in time, highlighting causality concerns regarding the ordering of our mediators. Although theory supports the causal ordering of our mediators, we examined an alternative, reverse causal model, where self-regulatory states influenced appraisals, and compared it to our hypothesized model. Following Kline's (2011) recommendation, we used Akaike's Informative Criterion (AIC) and Bayesian Information Criterion (BIC) to compare the nonnested models (for examples, see Matta, Scott, Colquitt, Koopman, & Passantino, 2017; Ou, Tsui, &

Kinicki, 2014). Smaller AIC and BIC values indicate a superior model fit to the data, suggesting which model is most likely to replicate (Kline, 2011). The results show that our hypothesized model (AIC = 13868.66 and BIC = 14145.18) had smaller AIC and BIC values compared to the alternative, reverse causal model (AIC = 13906.76 and BIC = 14183.28), suggesting our model was a superior fit to the data compared to the reverse causal model. Thus, the results of this test reduce concerns related to the reverse causal ordering of our mediators.

Our findings provide a foundation for future research. Our work provides initial evidence that fluctuations in how performance pressure is appraised affects its downstream reactions. We did not, however, examine factors within the work environment or about the person that might trigger a threatening performance pressure experience versus a challenging performance pressure experience. In this regard, taking an approach such as that used by Gabriel and Diefendorff (2015) in examining within-episode changes might prove beneficial. An examination of the precipitating conditions (e.g., environmental uncertainty) that trigger bright and dark side performance pressure appraisals would be a useful next step. For instance, negative work events (e.g., heavy workloads, difficult task requirements, work conflicts) may prompt employees to appraise performance pressure as a threat, whereas positive work events (e.g., reaching short-term goals, fulfilling a customer's request, social support) may prompt employees to appraise performance pressure as a challenge. It could also be that nonwork events or employee characteristics heighten performance pressure and its appraisal as a threat and challenge. As an example, employees who are dealing with traumatic or daunting home-life issues (e.g., financial troubles, illnesses) might experience more pressure to perform, and subsequent feelings of threat, because work accolades are needed to take care of nonwork demands. Additionally, given Gabriel and Diefendorff's (2015) study, scholars could adopt a similar approach to uncover whether challenge and threat appraisals are experienced simultaneously, or whether these appraisals ebb and flow throughout a given day. This type of investigation could shed light on the causal patterns in the performance pressure stress experience.

Scholars might also consider expanding upon our foundation and other within-person frames to address research inconsistencies. It could be that, like performance pressure, certain stressors may be appraised in flux. For instance, work on the role of autonomy has been inconclusive about how it affects behaviors (see Sonnentag, 2015). Examining

autonomy in terms of a fluctuating stress process might lend clarity to these inconsistent findings (see Bakker et al., 2014). Additionally, research on ethical decision making has found inconsistencies with regard to the relationship between ethical intentions and ethical behaviors; it is not always clear whether ethical intentions predict ethical behaviors (Jennings, Mitchell, & Hannah, 2015). Examined as a within-person process, perhaps individuals' ethical intentions, when exposed to morally intense ethical dilemmas (e.g., a very harmful situation), will be more likely to lead to ethical behaviors. Conversely, when exposed to less morally intense ethical issues (e.g., resulting harm is not obvious), individuals may be less inclined to transmit good intentions into desirable ethical behaviors. Overall, we believe a within-person approach can be beneficial to unraveling inconsistent findings with respect to a range of organizational phenomena.

Future research might also consider other moderators that influence the stress process. For instance, some personality traits may dull the salience of stressors (e.g., emotional stability), while other traits may create an illuminating effect (e.g., perfectionism). Although our control variable analyses demonstrated that the CSE did not moderate the performance pressure stress experience in our data, it may influence stress experiences associated with other stressors (e.g., work overload), or it could influence the performance pressure stress experience in a different context (e.g., when the climate is high in egoism). Additionally, contextual factors may play a moderating role with respect to our model. Quinn et al. (2012) noted that social structures (e.g., support, strong network ties) may serve as resources for self-regulation. Thus, certain social structures may affect the way employees appraise performance pressure. Alternatively, it may be that employees in organizations with an error management culture (e.g., Van Dyck, Frese, Baer, & Sonnentag, 2005) are more likely to persevere through performance pressure knowing that their organization will support them even if they make mistakes.

CONCLUSION

Performance pressure represents a significant source of stress for employees. Our research shows that daily variations in the appraisal of performance pressure influence how employees react to this stressor. By demonstrating that daily fluctuations in appraisals of performance pressure exist, we help to resolve one of the puzzles previously identified in the literature—that performance pressure serves as a

double-edged sword because fluctuations in appraisals influence paradoxical self-regulatory states and behaviors. Threat appraisals stemming from performance pressure depletes employees so that they are unable to maintain civil interactions. Challenge appraisals stemming from performance pressure fuels engagement and productive behavior. Trait resilience influences the performance pressure stress experience such that high trait resilient employees are better able to handle the pressure because they are more likely to view it as challenging, which heightens engagement and functional behaviors. We hope our research will encourage future scholarship to more fully consider dynamic, within-person stress processes and the characteristics of individuals who are more or less likely to handle stressors functionally across time.

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