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**Linking Work Events with Work Engagement: Mediating Role of Emotions and
Moderating Role of Psychological Capital**

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Abstract

This dissertation examines work engagement as a dynamic state shaped by emotional responses to workplace events. Drawing on the affective events theory (AET; Weiss & Cropanzano, 1996) and the broaden-and-build theory (BBT; Fredrickson, 2001), it investigates psychological capital (PsyCap; Luthans, Youssef & Avolio, 2007) as a key resource moderating the link between events, emotion, and engagement process. Four studies provide converging evidence for these relationships. A cross-sectional Study 1 ($N = 748$) showed that positive and negative emotions mediate the link between work events and engagement, with lower PsyCap associated with greater sensitivity to negative events. Two experimental vignette studies ($N = 572$; $N = 494$) confirmed this “affective bridge,” although PsyCap’s moderating role proved less consistent, suggesting context dependence. Finally, a 10-day diary Study 4 among public transport drivers ($N = 197$) replicated the indirect effect of events on engagement via emotions and further demonstrated that lower PsyCap is linked to stronger emotional responses, whereas higher PsyCap stabilises engagement, making it less dependent on daily positive experiences. Overall, work engagement emerges as a continuously “refuelled” emotional process rather than a stable trait. PsyCap plays a dual role: it stabilises engagement under favourable conditions but is also linked to heightened sensitivity when expectations are not met. These findings highlight the importance of aligning organisational practices with employees’ emotional dynamics and resource profiles.

Keywords: *work engagement, psychological capital (PsyCap), work events, emotions.*

Streszczenie

Rozprawa doktorska analizuje zaangażowanie w pracę jako stan dynamiczny, kształtowany przez reakcje emocjonalne w odpowiedzi na wydarzenia w miejscu pracy. Opierając się na teorii zdarzeń afektywnych (Weiss i Cropanzano, 1996) oraz teorii poszerzającej i budującej funkcji pozytywnych emocji (Fredrickson, 2001), badano kapitał psychologiczny (PsyCap; Luthans, Youssef i Avolio, 2007) jako kluczowy zasób moderujący związek między wydarzeniami, emocjami a procesem zaangażowania. Cztery badania dostarczyły dowodów na istnienie tych zależności. Badanie przekrojowe ($N = 748$) wykazało, że pozytywne i negatywne emocje mediuje związek między wydarzeniami w pracy a zaangażowaniem, przy czym niższy poziom PsyCap wiąże się z większą wrażliwością na zdarzenia negatywne. Dwa badania eksperymentalne oparte na scenariuszach ($N = 572$; $N = 494$) potwierdziły istnienie „pomostu afektywnego”, choć moderująca rola PsyCap okazała się mniej spójna, co sugeruje zależność od kontekstu. Wreszcie, 10-dniowe badanie dziennikowe przeprowadzone wśród kierowców transportu publicznego ($N = 197$) pozwoliło na replikację efektu pośredniego wydarzeń na zaangażowanie poprzez emocje. Wykazano w nim ponadto, że niższy poziom PsyCap wiąże się z silniejszymi reakcjami emocjonalnymi, podczas gdy wysoki poziom PsyCap stabilizuje zaangażowanie, czyniąc je mniej zależnym od codziennych pozytywnych doświadczeń. Podsumowując, zaangażowanie w pracę jawi się jako stale „doładowywany” proces emocjonalny, a nie stabilna cecha. PsyCap pełni podwójną rolę: stabilizuje zaangażowanie w sprzyjających warunkach, ale wiąże się również z podwyższoną wrażliwością, gdy oczekiwania nie zostają spełnione. Wyniki te podkreślają znaczenie dopasowania praktyk organizacyjnych do dynamiki procesów emocjonalnych oraz profilu zasobów pracowników.

Słowa kluczowe: *zaangażowanie w pracę, kapitał psychologiczny (PsyCap), wydarzenia w pracy, emocje.*

Introduction

Work engagement is associated with commitment, enthusiasm, absorption, and significant effort (Schaufeli, 2012). Engaged employees have high energy, feel a sense of identification with their work, and work harder, which, in turn, can impact organisations' business results (Christian et al., 2011; Harter et al., 2010). Indeed, work engagement is positively related to in-role and out-of-role performance (Halbesleben & Wheeler, 2008), customer satisfaction (Salanova et al., 2005) and objective financial returns (Xanthopoulou et al., 2009). It is therefore not surprising that the concept of employee work engagement has attracted considerable interest from academics and practitioners (Bakker & Albrecht, 2018). However, although there is ample evidence of the positive effects of work engagement, its psychological underpinnings and relationship to work events have not yet been sufficiently explored. Since work engagement is defined as a dynamic process that depends on the situations employees encounter at work (Bakker & Bal, 2010; Bledow et al., 2011), the influence of work experiences on work engagement seems particularly important. Moreover, employees' personal resources—especially their ability to control and influence working conditions and workplace experiences—might help them to better cope with an emotionally demanding work environment (Xanthopoulou et al., 2013) and predict their occupational well-being (Mäkikangas & Kinnunen, 2003). Workplace engagement is, therefore, not only a consequence of employees' experiences at work but also the result of the interaction between environmental factors and employees' psychological characteristics.

In this project, I propose that psychological resources, operationalised as psychological capital (PsyCap), may play a role in the relationship between employees' experiences at work, their emotional reactions to these experiences, and their work engagement. Although the effects of work experiences and emotions at work on behaviour have not been neglected (Casper et al., 2019; S. Gross et al., 2011; Ohly & Schmitt, 2015;

Weigelt et al., 2021), the evidence on the role of employees' psychological resources in shaping the relationship between what happens at work and how it affects work-related emotions and engagement remains relatively fragmented and narrow. This project aims to fill this research gap.

The Concept of Work Engagement

When defining work engagement, it is worth starting with Kahn's (1990) concept, as he was the first to attempt to define it. In his understanding, an engaged employee is physically, cognitively, and emotionally involved in their work. Thus, fully engaged employees not only perform their tasks according to their responsibilities at work but also apply significant cognitive and emotional effort to their work. Kahn (1990) also suggested that individuals' perceptions of their work environment play a crucial role in the relationship between work context and engagement. Factors such as support from colleagues, guidance from superiors, and organisational culture can significantly influence an employee's engagement at work, as empirical studies have repeatedly shown (Bakker & Demerouti, 2008; Mauno et al., 2010). In addition, according to Kahn, people are more likely to be engaged if they have sufficient personal resources, such as energy and time, to concentrate fully on their professional tasks.

Apart from Kahn's proposal and some other definitions of work engagement (see Albrecht, 2010; Bakker & Leiter, 2010), the most popular and widely accepted is that of Schaufeli and Bakker (2004), who describe engagement as "a positive, fulfilling, work-related state of mind characterised by vigour, dedication and absorption" (p. 295). Vigour refers to a high level of energy and motivation to apply oneself to work. Dedication means being firmly involved in the work and feeling enthusiasm and pride for the work. Finally, absorption means concentration on the work and the feeling that time flies by (Schaufeli & Bakker, 2004). Schaufeli et al. (2002) essentially suggest that the concept of work engagement is

constant and pervasive, independent of any particular event or object. This approach enables the investigation of individual differences in work engagement and the exploration of their causes. However, several authors have shown that an individual's work engagement is related to specific work tasks or circumstances and can be viewed as an experiential state (Bakker & Bal, 2010; Bledow et al., 2011; Reina-Tamayo et al., 2017). This finding suggests that employee engagement at work can vary depending on daily events or even momentary experiences at work. Such variability within an individual is usually investigated through a diary study that captures the short-term dynamics of this concept (Schaufeli, 2012).

Although overall engagement at work is positively associated with state engagement at work, daily events at work—such as supportive interactions with colleagues, experiencing autonomy, and receiving positive feedback from customers—typically account for most of the variability. To summarise, work engagement varies both between and within individuals and likely contains both trait- and state-related components (Bakker, 2014).

When defining work engagement, it should also be noted that it differs from job satisfaction, as it is associated with high activation (vigour and absorption in work) and high enjoyment of work (dedication); in contrast, job satisfaction takes a more passive form (Bakker, 2011). Furthermore, job satisfaction, which is an evaluative state expressing satisfaction with and positive feelings about one's work (Judge & Kammeyer-Mueller, 2012), is considered and measured as an attitude towards work. In contrast, work engagement reflects how employees use their energy rather than being an attitude towards a job or organisation. Thus, although work engagement is likely to be influenced by and influence work attitudes, they are two distinct constructs (Judge & Kammeyer-Mueller, 2012). While employees who are generally satisfied with their work tend to show enthusiasm for their specific work activities, this is not always the case. Work engagement also differs from another concept, namely organisational commitment (Bakker, 2014). As defined by Solinger

et al. (2008), organisational commitment is a psychological attachment to the organisation characterised by an emotional attachment to the organisation, internalisation of its values and goals, and a behavioural commitment to work for the organisation. It is therefore considered a distinct attitude from work engagement. In contrast to organisational commitment, which reflects a long-term psychological attachment to an organisation (Allen & Meyer, 1990), work engagement is a more dynamic motivational state characterised by drive, dedication and absorption in one's tasks (Schaufeli & Bakker, 2004).

Despite these theoretical distinctions, practitioners frequently blur the line between work engagement and performance. Although these two concepts are related (Harter et al., 2024), they differ significantly in their definitions, measurements, temporal aspects, and relationships with other constructs (Christian et al., 2011). In contrast to work engagement, job performance refers to employees' actual output or results and includes the quality and quantity of completed tasks. Job performance is often measured by specific performance metrics, such as achieving sales targets, customer feedback, or completing projects on time (Harter et al., 2024). Regarding measurement methods, work engagement is usually assessed through self-report or questionnaires that capture employees' emotional and cognitive engagement in their work (Bakker & Demerouti, 2008). These assessments aim to capture the subjective experience of engagement. Another important difference lies in the temporal aspect of these constructs. Work engagement can fluctuate over time and is influenced by various organisational factors (Bakker & Demerouti, 2008). Employees may feel highly engaged one day and less engaged the next, depending on their circumstances. Whilst job performance can also fluctuate, it is often assessed over time (e.g., quarterly or annually) and it is influenced by both engagement and external factors such as workload and available resources (Rich et al., 2010). Lastly, work engagement is often a predictor of higher job performance, as engaged employees tend to be more motivated, proactive, and committed to their tasks, thereby

contributing to improved outcomes (Christian et al., 2011). However, job performance is not solely determined by work engagement; it can also be influenced by other factors such as job demands, resources, and external conditions. Conversely, high job performance may, in some cases, enhance work engagement, as successful outcomes can boost motivation (Hakanen et al., 2008).

Work engagement in the Job Demands-Resources Model

The most widely used theoretical framework for work engagement is the job demands-resources (JD-R) model (Demerouti et al., 2001). This model explains how both positive (*job resources*) and negative (*job demands*) job characteristics influence employee health, well-being and motivation (Schaufeli & Taris, 2014). Job demands are physical, social, psychological or organisational aspects that require continuous physical or mental effort (Demerouti et al., 2001), such as work overload, role conflict, role stress, shift work, time pressure, or emotionally demanding work (Bakker & Demerouti, 2017). Job demands can trigger occupational stress and, if they are associated with persistent psychological costs, can lead to burnout, anxiety or depression (Bakker et al., 2003). Job resources, on the other hand, refer to aspects of work such as performance feedback, peer support, involvement in decision-making, job control or coaching from supervisors that reduce the negative psychological consequences of work demands and create opportunities for development or personal growth (Demerouti et al., 2001). Job resources are critical to an employee's well-being and fuel motivational processes that lead to higher work engagement (Bakker & Demerouti, 2007). This relationship occurs because employees view job resources as important for achieving their professional goals, thereby increasing their motivation and engagement. Job resources can also directly support employee skills development, learning and improvement. For example, when presented as an ongoing process, constructive feedback from a supervisor can lead to a better understanding of one's job role and, consequently, higher work engagement.

Similarly, the fulfilment of basic psychological needs for autonomy and competence can increase the willingness to invest effort and skills in work tasks.

Empirical evidence from numerous studies conducted in different occupations and countries consistently confirms a positive relationship between job resources and work engagement, emphasising their critical role in fostering a motivated and engaged workforce (see Schaufeli & Taris, 2014). Longitudinal research demonstrates that job resources are a stronger predictor of work engagement than job demands (e.g., Mauno et al., 2007). However, the relationship between job demands and work engagement is ambiguous and depends on how employees perceive these demands. Job demands perceived as obstacles are negatively related to work engagement, whereas demands perceived as challenges are positively correlated with engagement (Crawford et al., 2010). Interestingly, the interaction between job demands and job resources becomes more important and contributes to maintaining high levels of work engagement when it coexists with high job demands (Bakker et al., 2007; Hakanen et al., 2005). Employees tend to perform better when their work environment offers a combination of work demands and work resources.

Although the JD-R model is recognised as one of the leading frameworks for explaining work engagement and is valued for its generality and flexibility, allowing it to be applied across a variety of work contexts (see Schaufeli & Taris, 2014), it has some weaknesses. The JD-R model is a heuristic rather than a specific model that explains the underlying psychological processes behind the relationship between resources, demands and outcomes. The heuristic nature of the JD-R model lies in its conceptual framework, which categorises job characteristics into two broad categories—resources and demands—rather than relying on well-defined, specific constructs. In contrast to models with well-defined theoretical constructs, the JD-R model provides a flexible framework for examining how job characteristics influence employee health, well-being, and motivation. Consequently,

the JD-R model provides a unifying framework that allows studies to be based on and test the same core assumptions regardless of the specific job characteristics measured. This feature could be seen as a strength, but it comes at the price of limited generalisability. For example, if an interaction effect between time pressure and control on work engagement is observed (see Kühnel et al., 2012), this does not mean that similar interactions between all demands and all resources occur for all outcome variables.

Furthermore, the JD-R model functions as a descriptive framework rather than an explanatory model, mapping the interactions between variable categories without specifying a specific psychological explanation (Schaufeli & Taris, 2014). It assumes that (1) work demands by definition can consume energy and ultimately lead to exhaustion and (2) work resources by definition have motivational potential and can promote engagement at work, which in turn can lead to positive organisational outcomes. These theoretical propositions of the JD-R model are derived from how work demands and work resources are conceptualised and therefore do not explain the relationships studied.

The final weakness of the JD-R model to mention here is its primary focus on general workplace characteristics, without considering specific situations or events that may occur there. While general factors, such as work resources and demands, are undoubtedly important, workers regularly encounter unique, contextual situations that can significantly affect their work engagement. For example, the way an employee responds to a difficult project, a change in leadership or a personal conflict with a colleague may be very different from the way they respond to general work demands or resources. If these specific events and circumstances are not taken into account, the model is limited in its ability to fully capture the dynamic nature of work engagement and its various influencing factors in the real world (Schaufeli & Taris, 2014).

Events at Work and Work Engagement: Affective Events Theory

The relationships between work events and subsequent behaviour are described in the affective events theory (AET; Weiss & Cropanzano, 1996). AET also assumes the existence of the environment–emotions–behaviour chain. However, unlike the JD-R model, it focuses on events rather than stable features of the work environment and defines them as significant events at work that elicit emotional reactions or mood changes in employees (Weiss & Cropanzano, 1996). Therefore, changes in circumstances at work can serve as proximal stimuli for specific affective reactions and as distal causes of behaviours and attitudes towards work. For example, when employees are publicly criticised by their supervisor (a negative event), they may experience anger or frustration (a negative affective reaction), which may then lead to reduced engagement in the next task (decreased work engagement). Interestingly, AET also takes into account the role of work environment characteristics and considers these as factors that influence the occurrence of positive and negative affective events.

Although Weiss and Cropanzano (1996) originally discussed the effects of affective experiences and their situational causes on job satisfaction, their theory has been successfully applied to studies of work engagement (Bledow et al., 2011; Ouweneel, le Blanc & Schaufeli 2012). In this context, events serve as situational antecedents of affect, influencing workplace engagement through individuals' emotional reactions. Positive events promote positive emotions and increase engagement at work, while negative events lead to negative emotions and thus decrease engagement (Bledow et al., 2011). For example, if employees are praised by their supervisor for their continuous work, the resulting mood boost should increase their engagement. Conversely, the experience of failure that runs counter to personal goals is likely to reduce engagement at work.

An event can be described as “a happening, especially an important happening [and] something that occurs in a certain place during a particular period of time” (Weiss

& Cropanzano, 1996, p. 31). Events can range from everyday routine occurrences, such as receiving a request to complete a task urgently or dealing with a miscommunication between team members, to more significant experiences, such as promotions or conflicts with colleagues. AET assumes that events trigger employees' emotional reactions, which, in turn, influence their attitudes, motivation, and behaviour at work. Weiss and Cropanzano (1996) also proposed a definition of affective events, describing them as "things [that] happen to people in the work environment" (p. 11) to which "people react emotionally". Positive events, such as recognition of achievements or supportive interactions with colleagues, are likely to evoke positive emotions and increase job satisfaction and work engagement. Conversely, negative events, such as workplace incivility or excessive workloads, can lead to emotional exhaustion, stress, and disengagement. Both positive and negative events will influence both negative and positive emotions to some extent. For example, Bledow et al. (2011) found that employees who reported negative events also reported lower levels of positive affect and work engagement. In addition, several studies indicate that both positive and negative events can influence positive and negative emotions simultaneously (Mignonac & Herrbach, 2004; Ohly & Schmitt, 2015).

Current research on the meaning of work events takes an event-clustering approach, grouping events rather than focusing on specific, isolated occurrences (e.g. Ohly & Schmitt, 2015; Wang et al., 2020). One of the first attempts to categorise work events was made by Basch and Fisher (1998). They categorised affective events and distinguished 27 clusters: 14 categories of positive work events (e.g. actions of colleagues and actions of management, goal achievement, recognition and challenging tasks) and 13 categories of negative work events (e.g. lack of goal achievement, lack of recognition, making mistakes and actions of colleagues and management). This categorisation provided a more systematic understanding of how positive and negative events can shape employees' emotional experiences at work and has

been widely used by other researchers (e.g. Bledow et al., 2011; Casper et al., 2019; Penza & Gasiorowska, 2024). A different event categorisation was proposed by Ohly and Schmitt (2015), who suggested a simplified but still comprehensive taxonomy of 11 clusters of affective work events: four positive clusters (e.g., goal achievement and praise, appreciation, positive feedback) and seven negative clusters (e.g., obstacles to goal achievement and conflict and communication problems). The authors also suggested that these 11 event clusters can be further grouped into a two-dimensional space defined by agency and communion, as these are considered fundamental dimensions of human experience (Abele & Wojciszke, 2007). Other researchers (e.g. S. Gross et al., 2011; Junça-Silva et al., 2017; Parrish et al., 2008) tend to code employees' reactions to the occurrence of affective events into relatively uniform positive (or negative) categories. To a certain extent, this approach seems appropriate, as valence and the distinction between positive and negative events are based on the occurrence of different positive and negative affective states. According to the appraisal theory of emotions (Lazarus, 1991), appraisals in the first appraisal process (primary appraisal) involve determining whether the event or situation is favourable or harmful (positive or negative). Therefore, in my research project, I assume that events can be categorised by valence, i.e., as either positive or negative.

Broaden-and-Build Theory as an Affective Pathway to Work Engagement

Although AET provides a useful and influential framework for explaining the impact of work events on emotions and affect-driven behaviours, the specific pathway through which positive and negative work-related emotions influence work engagement remains incomplete in terms of its functional significance. I propose that a more detailed examination of this psychological content can be conducted using the broaden-and-build theory (BBT; Fredrickson, 2001). BBT assumes that positive and negative emotions play different roles in shaping people's repertoires of thought and action. According to BBT, positive emotions

broaden an individual's view of their environment and encourage them to discover new ways of acting and thinking, which ultimately promotes their engagement at work (Fredrickson, 2001). Conversely, negative emotions narrow people's repertoire of thought and action, interrupt the ongoing flow of action and hinder engagement at work (Fredrickson & Joiner, 2002). In addition, employees with positive emotions are more likely to experience proactive motivational states (Parker et al., 2010), work towards challenging goals (Ilies & Judge, 2005) and be engaged at work (Ouweneel, le Blanc, Schaufeli & van Wijk, 2012). In contrast, people who are confronted with negative emotions often try to down-regulate their emotional responses (J. J. Gross, 2014), which consumes regulatory resources and can impair engagement at work. In addition, people experiencing negative affect tend to narrow and focus their attention significantly more by selectively attending to negative information (Conway et al., 2013). As a result, negative affect hinders the ability to fully engage in an ongoing activity, feel energised at work and commit to a task.

BBT also includes the *build* hypothesis (Fredrickson, 1998), which states that positive emotions have the potential to build personal resources—those aspects of the self that are important for goal attainment and personal growth (Bakker & Demerouti, 2007). These resources, in turn, contribute to employees' well-being and work engagement. People who have these resources are more likely to take advantage of opportunities at work, manage challenges at work effectively and ultimately be successful and satisfied in their job role. The *build* hypothesis has also been confirmed, as people who experience more positive emotions than others show more optimism (Fredrickson et al., 2003), proactivity (Fritz & Sonnentag, 2009), resilience (Cohn et al., 2009), hope and meaning in life (Fredrickson et al., 2008) over time.

An important aspect of explaining emotions in the workplace is addressing the challenges associated with defining and measuring them, as these issues are critical to

understanding how both positive and negative emotions influence work engagement. There is a variety of definitions and overlapping terms regarding emotions in the literature (Oatley & Jenkins, 1992). Most contemporary definitions of emotions are based on this interactive perspective. For example, Fischer et al. (1990), following Frijda's (1986) definition, describe emotions as a "discrete, innate, functional, biosocial system of action and expression" (p. 84). This interactive view of emotions suggests that emotions are not isolated, internal states, but dynamic responses to external and internal stimuli that involve complex biological, psychological and social factors. Emotions are seen both as reflections of the individual's experiences and as means of communicating those experiences to others, enabling adaptive responses in different contexts, including the workplace. This perspective challenges the traditional, rather simplistic views that treat emotions as mere reactions to events (Ashkanasy & Dorris, 2017). Instead, emotions are an integral part of decision-making, social interactions and overall functioning. Defining and measuring emotions requires a multidimensional approach that takes into account their complexity, context and role in influencing behaviour, especially in work environments where emotional experiences have a significant impact on work engagement (Avey et al., 2008; Salanova et al., 2011).

Researchers also distinguished between emotions, moods and the broader concept of affect. Watson and Tellegen (1985) conceptualised affect using a circumplex model with two orthogonal dimensions: positive and negative affect. Within this framework, discrete emotional states are distributed around the circumplex. For example, high levels of positive and negative affect indicate excitement, while high levels of positive affect and low levels of negative affect indicate happiness. Conversely, high levels of negative affect and low levels of positive affect are associated with discomfort, whereas low levels of both positive and negative affect are associated with a calm or neutral state. Later, Russell and Carroll (1999) proposed an alternative view: the circumplex is better understood in terms of the dimensions

of arousal (from high to low) and valence (positive or negative). Thus, affect is a broad term that refers to the overall experience of feelings or emotions and encompasses both short-term emotional reactions and longer-lasting moods. In contrast, emotions are more specific, intense and short-lived reactions to specific stimuli or events (Keltner et al., 2018). In line with Watson and Tellegen's (1985) conceptualisation, my research project adopts a bidimensional approach to emotion, treating positive and negative emotions as independent dimensions. While emotions may appear to exist on a single continuum at any given moment—ranging from very positive to very negative—research demonstrates that positive and negative emotions function as independent dimensions when examined over time (Diener et al., 1995). This independence is supported by evidence showing that positive and negative emotions can each separately predict important outcomes, such as overall job satisfaction (Fisher, 2002). Given this theoretical foundation, this study treats positive and negative emotional reactions as containing unique information and analyses their effects on work engagement separately rather than as opposite ends of a single emotional spectrum. This approach excludes the arousal dimension because valence is inherently captured through the intensity of positive and negative affect, providing sufficient distinction between emotional experiences for the purposes of this study. Additionally, incorporating arousal would add unnecessary complexity without substantially improving explanatory power, and arousal tends to be less reliable when self-reported (Barrett, 1998).

Psychological Capital and Its Importance for Work Engagement

JD-R, AET and BBT emphasise the importance of individual dispositions that predispose employees to certain responses to their experiences in their work environment. According to the JD-R model, work engagement is a function of job demands and work resources provided by the organisation (Schaufeli & Bakker, 2004), as well as of employees' personal resources that influence their overall behaviour at work (Bakker & Demerouti,

2008). For example, employees with high self-efficacy are more likely to see challenging situations as manageable, which can reduce stress and increase their engagement with the task at hand. Similarly, employees with a high level of optimism are more likely to view setbacks as temporary and under their control, which can help them maintain their motivation and engagement even under difficult circumstances. In this way, personal resources not only serve as a buffer against the negative effects of high job demands but also promote engagement, productivity, and well-being at work (Bakker & Demerouti, 2007).

Similarly, Weiss and Cropanzano (1996) proposed in their AET that individual dispositions can influence how events elicit affective reactions. First, Weiss and Cropanzano explained that affective dispositions relate to stable personality traits, specifically positive and negative affectivity. Positive affectivity, which is characterised by a tendency towards positive emotions and moods, can indeed be an invaluable resource that helps employees cope with stress and manage difficult situations effectively (Fredrickson et al., 2000). For example, individuals with high levels of positive affectivity approach stressful tasks with optimism and view challenges as opportunities for growth rather than insurmountable obstacles. This constructive attitude not only improves their coping mechanisms but also enhances their resilience, enabling them to recover more quickly from setbacks. However, as it is a stable trait, positive affectivity cannot be developed and strengthened in employees to better cope with different work situations. It is therefore worth considering other personal resources that can potentially be developed (Gilbert et al., 2018).

In this context, the BBT offers an additional perspective on the role of personal resources for well-being and performance at work. The BBT assumes that positive emotions expand people's repertoire of thought and action and enable them to build up lasting personal resources over time (Fredrickson, 2001). In contrast to stable personality traits such as positive affectivity, personal resources such as resilience, self-efficacy and psychological

flexibility can be cultivated through repeated experiences with positive emotions. Employees who frequently experience joy, gratitude or interest in their work are more likely to develop adaptive coping mechanisms, social support networks and problem-solving skills. These resources, in turn, help them to cope effectively with the demands of the workplace and enhance their engagement (Ouweneel, le Blanc & Schaufeli, 2012).

More specifically, personal resources refer to a person's resilience and sense of being able to control and influence their environment, especially when circumstances are difficult (Hobfoll et al., 2003). Personal resources thus support goal attainment, protect against threats and the associated physiological and psychological costs, and promote personal growth. Previous studies have shown that personal resources and work engagement are related. For example, Xanthopoulou et al. (2007) found that self-efficacy, optimism and organisational self-esteem predict job performance and engagement by increasing employees' motivation and persistence in the face of challenges. Interestingly, other studies by Xanthopoulou et al. (2013) showed that only self-efficacy, but not optimism, buffered the negative effects of emotional demands and emotion-rule dissonance on work engagement and enhanced the positive effects, with higher engagement observed especially in the presence of high emotional demands and dissonance. In more recent studies, authors examine various constructs recognised as personal resources and their relationship with work engagement, e.g. the use of strength, self-leadership, adaptability, resilience, psychological detachment and PsyCap (Inam et al., 2021; Matsuo, 2022; Mazzetti & Schaufeli, 2022; Nehra, 2023; Rozkwitalska et al., 2022; Vincent et al., 2024). The specific personal resources and their role in the relationship between environmental factors and work engagement vary across studies and will continue to be discussed.

As mentioned earlier, one of the possible personal resources is psychological capital (PsyCap). This interactive, synergistic resource contributes to a better understanding of the

relationships between work events, employee emotions and workplace engagement. Luthans, Youssef and Avolio (2007) defined PsyCap as:

“an individual’s positive psychological state of development characterized by: 1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks, 2) making a positive attribution (optimism) about succeeding now and in the future, 3) persevering toward goals, and when necessary, redirecting paths to goals (hope) to succeed, and 4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resilience) to attain success” (p. 3).

PsyCap is positively related to job satisfaction, psychological well-being, and organisational commitment, and negatively related to attitudes such as cynicism, turnover intentions, anxiety, and work stress (Avey, Reichard, et al., 2011), and is a key determinant of workplace engagement (Alessandri et al., 2018). Individuals with a high PsyCap are likely to be more engaged, put more energy into their work and be more committed to achieving their goals, leading to greater engagement in their work (George et al., 2022; Rozkwitalska et al., 2022). Some studies have shown that PsyCap helps to cushion the impact of work demands, leading to higher work engagement (Grover et al., 2018; Lupsa et al., 2019). In addition, other studies have found that PsyCap improves work resources; employees with this personal resource are more likely to utilise work resources effectively (Spence Laschinger & Fida, 2014; Paterson et al., 2014), leading to a stronger sense of work engagement. Building on this, PsyCap not only helps with coping with job demands but also encourages a more proactive and resourceful approach to work. By strengthening employees' resilience, hope, efficacy and optimism, PsyCap encourages them to see challenges as opportunities for growth, which, in turn, increases their motivation to utilise available resources effectively. This increased ability

to utilise work resources—such as peer support, access to training, or autonomy—further contributes to an individual's overall engagement. In addition, by fostering a positive and adaptive mindset, PsyCap helps employees manage stress more effectively, reduce burnout, and maintain sustained performance and enthusiasm for their work (Avey, Reichard et al., 2011; Cheung et al., 2011). Ultimately, the dynamic interplay between PsyCap, work resources and work engagement emphasises the importance of fostering personal resources to improve both individual well-being and organisational outcomes.

As Saks and Gruman (2014) summarise, personal resources are essential for employee engagement. Such resources help individuals cope with emotionally demanding work environments (Xanthopoulou et al., 2013) and have been shown to predict occupational well-being (Mäkikangas & Kinnunen, 2003). While previous studies have examined the role of specific behavioural or motivational factors in the relationship between work events and job engagement (Demerouti & Cropanzano, 2017; Wang et al., 2020), there is a growing need to identify more integrative psychological constructs that not only capture multiple relevant skills and dispositions, but are also measurable, developable, and controllable in organisational contexts. In this respect, PsyCap appears particularly promising. It provides a theoretically grounded and empirically validated framework encompassing four core components—self-efficacy, optimism, hope, and resilience—that are positively associated with desirable work outcomes. In addition, PsyCap is considered more stable than momentary states such as emotions, but also more malleable than enduring personality traits such as core self-evaluations (Luthans et al., 2008), making it a suitable target for development through training interventions. This dual nature—both impactful and trainable—increases its practical value in promoting employee performance and well-being. However, to my knowledge, no previous studies have examined the role of such an overarching, core psychological resource in explaining the impact of work events on employee engagement.

Research Hypotheses and Overview of Studies

Rooting my project in the literature review provided earlier in this thesis, I conceptualise work engagement as a transient experience that is triggered by positive events and hindered by negative events, with the emotions experienced at work mediating the relationship between workplace events and work engagement. Drawing on two perspectives, firstly AET, in which specific work events trigger affective states and affect-driven behaviours (Weiss & Cropanzano, 1996), and secondly BBT, in which a broadening effect of positive affect contrasts with a constricting effect of negative affect (Fredrickson, 2001), I propose that a more frequent occurrence of positive events, such as performance feedback, peer support and development opportunities, would increase employees' positive emotions while reducing negative ones, which could consequently increase work engagement. Similarly, a more frequent occurrence of negative events, such as completing a task under time pressure or experiencing conflict with a supervisor or colleague, would decrease employees' positive emotions and evoke negative emotions, which in turn would interrupt engagement at work. To summarise, I expect that experiencing positive (negative) events at work followed by positive (negative) emotions would predict higher (lower) levels of work engagement. Therefore, I hypothesise the following:

H1. The relationship between the perceived frequency of positive events at work and work engagement will be mediated by work-related positive emotions (H1a) and negative emotions (H1b): a more frequent occurrence of positive events is associated with a higher level of employees' positive emotions and with a lower level of employees' negative emotions, which in turn are associated with higher work engagement.

H2. The relationship between the perceived frequency of negative events at work and work engagement will be mediated by work-related positive emotions (H2a) and negative emotions

(H2b): a more frequent occurrence of negative events is associated with a lower level of employees' positive emotions and with a higher level of employees' negative emotions, which in turn are associated with lower work engagement.

Next, I base my hypotheses on the definition of PsyCap proposed by Luthans, Youssef and Avolio (2007) and predict that the relationship between perceived frequency of positive and negative events and work engagement will be moderated by PsyCap. Considering the components of PsyCap, namely self-efficacy, optimism, hope, and resilience (Luthans, Avolio et al., 2007), I propose that PsyCap acts as an additional resource that keeps employee work engagement at a relatively constant, high level. In turn, a low level of PsyCap means that employees' work engagement depends on external factors, i.e., events at work. Therefore, I expect the relationships between perceived frequency of positive and negative events and work engagement to be stronger for employees with low PsyCap levels and weaker for those with high PsyCap levels. Furthermore, I hypothesise that PsyCap is associated with employee engagement at work by altering the relationships between positive and negative events and the consequent emotional reactions. In line with Luthans, Avolio et al. (2007), who stated that PsyCap is the "positive appraisal of circumstances and probability for success based in motivated effort and perseverance" (p. 550), I propose that PsyCap stabilises the emotions experienced in response to events at work. Thanks to PsyCap, employees' emotions—both positive and negative—are less dependent on events at work. Employees with a high PsyCap score, as opposed to those with a low score, can cope particularly well with challenging working conditions, which in turn can prevent them from experiencing negative emotions in the face of negative events. In fact, high PsyCap individuals tend to experience positive emotions even in the face of events that may be perceived as stressful by their colleagues (Avey et al., 2008). Therefore, I propose that PsyCap is also a critical buffer through which

negative situations are mentally reframed and reinterpreted in a more positive light. People with high PsyCap are also confident that they can accomplish tasks at work, and they proactively plan their work and apply focused energy. For this reason, positive events at work are unlikely to trigger an additional increase in their relatively high positive emotions or decrease their relatively low negative emotions. Based on the above, I hypothesise the following:

H3. PsyCap will moderate the relationships between the perceived frequency of positive work events (H3a), the perceived frequency of negative work events (H3b), and work engagement: the relationships will be stronger among individuals with low PsyCap and weaker among individuals with high PsyCap.

H4. PsyCap will moderate the relationships between the perceived frequency of positive work events (H4a), the perceived frequency of negative work events (H4b), and positive work-related emotions: the relationships will be stronger among individuals with low PsyCap and weaker among individuals with high PsyCap.

H5: PsyCap will moderate the relationships between the perceived frequency of positive work events (H5a), the perceived frequency of negative work events (H5b), and negative work-related emotions: The relationship will be stronger among individuals with low PsyCap and weaker among individuals with high PsyCap.

Furthermore, I propose that PsyCap is linked not only to the emotional response to an event but also to the initial evaluation of it. I expect that PsyCap acts as a buffer, making an individual's evaluation of work events more stable and less reactive. Individuals with high levels of PsyCap would thus demonstrate a weaker link between the event type and its

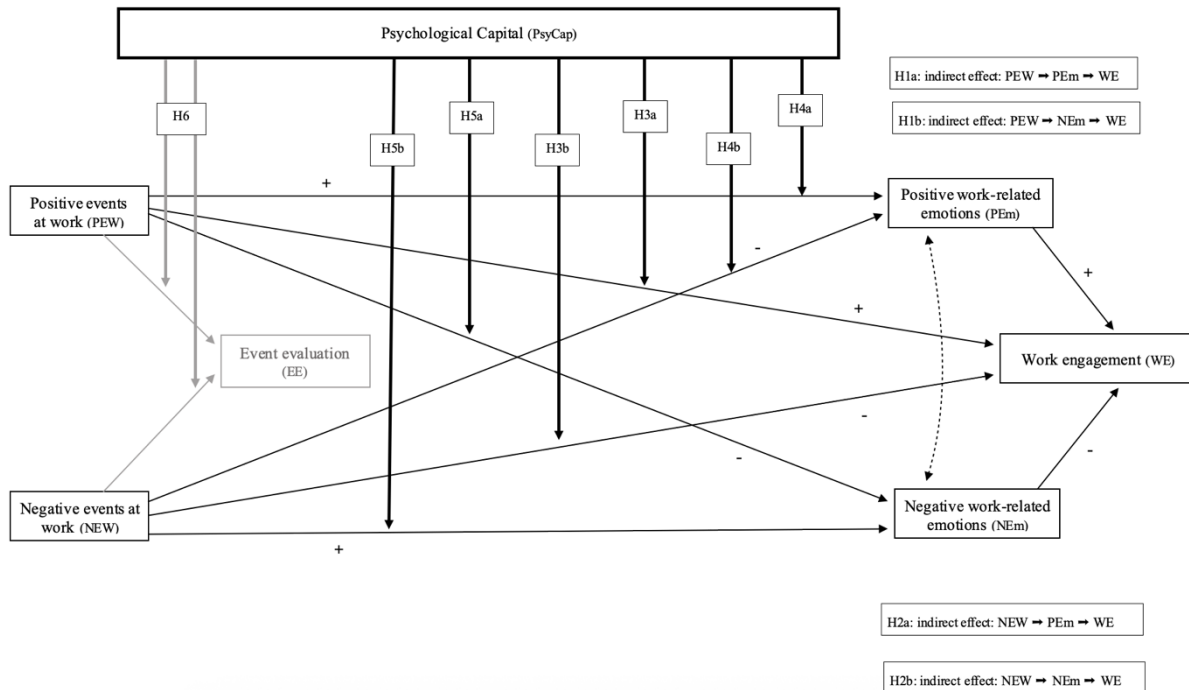
evaluation compared to those with low PsyCap, who would show a stronger, more volatile association. Based on the above, I also hypothesise:

H6. Psychological capital (PsyCap) will moderate the relationship between work events and their evaluation. The link between the type of event (positive vs. negative) and the employee's evaluation of it will be weaker for individuals with high PsyCap, whose responses are expected to be more stable, than for those with low PsyCap, who will show a stronger, more reactive association between event type and evaluation.

In summary, I consider PsyCap to be a buffer that helps employees cope with negative events, resulting in significantly fewer negative emotions being experienced without suppressing employees' positive emotions. Furthermore, I assume that when positive events occur, PsyCap acts as a bank of positive resources, making engagement at work less dependent on the emotions resulting from the work events. Figure 1 graphically represents my conceptual model, proposing the mediating role of positive and negative work-related emotions in the relationship between positive and negative work events and work engagement and the moderating role of PsyCap in the relationship between work events, positive and negative emotions, and work engagement.

Figure 1.

Model of the Relations Between Events at Work and Work Engagement: The Mediating Role of Work-Related Emotions and the Moderating Role of Psychological Capital



To investigate the mediating role of emotions and the moderating role of PsyCap in the relationship between work events and work engagement, I conducted four studies using different methods. In a cross-sectional study 1, I examined the relationships between the variables defined in my theoretical model. In experimental study 2, I tested the moderating role of PsyCap in the relationships between positive or negative events at work and participants' evaluation of the event and between positive or negative events at work and their accompanying emotions. In experimental study 3, I tested the moderating role of PsyCap when participants experienced a positive or negative work event (compared to a neutral event) and the mediating role of emotions between these work events and work engagement. Finally, in a diary study 4 conducted with employees from a specific company, I investigated the moderating role of PsyCap in the relationship between daily experienced work events, the emotions associated with these events, and daily levels of work engagement. Combining these

three methods, i.e., cross-sectional design, experimental design, and diary data collection, increases the validity of the generalizability of the studies.

This research project contributes to the literature in several ways. First, it provides a better understanding of the event–emotion engagement process through the application of AET (Weiss & Cropanzano, 1996) and the extension of this theory by BBT (Fredrickson, 2001). Although the effects of events and emotions at work on behaviour have been investigated (Ohly & Schmitt, 2015; Weigelt et al., 2021), studies on the combined relationship between events at work, work-related emotions, and engagement remain relatively fragmented and limited. This project aims to fill this research gap. Second, I respond to the call for research to better understand positive psychology in human resource management (Gruman & Budworth, 2022). I am investigating the relationship between employees' organisational experiences and engagement at work, including the psychological factors that an organisation can develop in employees. In this project, I use the construct PsyCap, which has its origins in positive organisational behaviour (POB), a field dedicated to exploring and understanding individuals' well-being, productivity, and realisation of their maximum potential (Seligman et al., 2005). Finally, I examine the role of PsyCap in the relationship between work-related events, associated emotions, and engagement at work from an international perspective by conducting the study with samples from different countries, i.e., the United States, the United Kingdom, and Poland. Many organisations today operate and employ workers in an international environment (World Atlas of Global Issues, 2018). I anticipate that incorporating this perspective into my research will provide valuable insights for HR developers to adapt internal organisational policies to the specific needs and characteristics of employees.

Transparency Statement

This project adheres to the ethical guidelines specified in the APA Code of Conduct and the Declaration of Helsinki and was approved by the Ethics Committee for Human Research of SWPS University, Faculty of Psychology, in Wrocław (no. 02/P/04/2023). Across studies, all participants provided informed consent within the survey system. Across studies, I report how I determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study, and we followed JARS (Kazak, 2018). All studies' hypotheses, designs, sample sizes, exclusion criteria, and analyses were preregistered. All data, analyses codes, and preregistrations are available at <https://researchbox.org/6600>. Data analysis was conducted using SPSS 29, Jamovi 2.7 and Mplus 8.1.

Study 1

Study 1 aimed to investigate whether positive and negative emotions mediate the relationship between the perceived frequency of positive and negative events and engagement at work. Specifically, I tested hypothesis 1 from my theoretical model, which posits that the link between positive events and work engagement is mediated by both positive (H1a) and negative (H1b) emotions, and hypothesis 2, which suggests that the link between negative events and work engagement is mediated by both positive (H2a) and negative (H2b) emotions. Furthermore, I examined the moderating role of PsyCap in these relationships. Consistent with my theoretical model, I hypothesised that individuals with high levels of PsyCap would exhibit a weaker relationship between the perceived frequency of work events and work engagement than individuals with low levels of PsyCap (H3a and H3b). I also expected that the relationships between work events and work-related emotions (both positive and negative) would be weaker for high-PsyCap individuals and stronger for low-PsyCap individuals (H4a, H4b, H5a, and H5b).

The study hypotheses, sample size, exclusions, and data analysis were preregistered at https://aspredicted.org/4LT_4Q8¹.

Method

Participants and Recruitment

The total sample consisted of 748 participants (388 women, 354 men, 5 non-binary, 1 not stated; $M_{\text{age}} = 36.92$ years; $SD = 11.54$) employed in companies and administration units. Data collection was conducted in two stages. First, I recruited employees from Poland ($n = 254$) via social media platforms (e.g., LinkedIn, Facebook). Then, I replicated the study with a sample of U.S. employees ($n = 494$) recruited via the Prolific Academic platform.

The sample size for the Polish part was not predetermined; I recruited as many participants as possible over the two weeks. To determine the sample size for the US study, I relied on the effect size from the study on the Polish sample (an increase in R^2 of 2.1% when adding PsyCap as a moderator to the model). A prior power analysis using G*Power (Faul et al., 2007) indicated that a sample of 492 U.S. participants would be necessary to detect an effect of a similar size, assuming $\alpha = .05$ and a conventionally assumed power of .80. In the combined sample ($N = 748$), most participants had completed either a bachelor's degree or a master's degree, and worked in IT and the administration sector, followed by sales and banking. Most of them were employed in large companies (over 300 employees). Regarding job positions, most participants were specialists, managers, or office workers. Detailed sociodemographic characteristics for the total sample, as well as a comparative breakdown of the Polish and U.S. sub-samples, are provided in Appendix A1 (see Table A1). The Polish sample was younger than the U.S. sample, included more women and more people with a university degree, but had shorter work experience.

¹ This study has been published in the [Polish Psychological Bulletin \(Penza & Gasiorowska, 2024\)](#).

Procedure and Materials

After participants gave their informed consent, they answered demographic questions about gender, age, education level, employment status, position type, company size, and employment sector. Participants who were unemployed or ran their own business were thanked at this point. Participants who reported being employed were then directed to another part of the study and completed five questionnaires that assessed work engagement, PsyCap, positive and negative work-related emotions, and the occurrence of positive and negative work events, in random order. No data was discarded at the end of the study.

Perceived Frequency of Positive and Negative Events at Work. Participants were asked to rate on a scale from 0 = *never* to 6 = *every day* how often they experience each of the 30 situations that may occur in their workplace (the complete set of items is provided in Appendix B1). The selection and formulation of the situations were based on the Event–Emotion Matrix (Basch & Fisher, 1998). For the Polish sample, the scale was back-translated into Polish. Half of these events were positive (e.g., praise from a superior or the realisation of a hard-to-achieve goal), while the other half were negative (e.g., work overload or conflict with a colleague). The responses were averaged to calculate a separate score for positive and negative events.

Positive and Negative Work-Related Emotions. I used the short version of the Positive and Negative Affect Scale (Watson et al., 1988) with modified instructions. The scale consists of 10 positive adjectives (e.g., interested, excited) and 10 negative adjectives (e.g., distressed, upset). On a 5-point scale ranging from 1 = *very low* to 5 = *extremely high*, participants indicated the extent to which the scale reflected how they felt about their work in the past year (the modified instruction and item list are provided in Appendix B2). The items were averaged to calculate an overall score separately for positive and negative work-related emotions.

Work Engagement. I used a short version of the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2006; with the Polish adaptation by Chirkowska-Smolak, 2012, for the Polish sample), which consists of nine items (e.g., “At my job, I feel bursting with energy” and “My work inspires me”). Participants responded on a 7-point frequency scale ranging from 0 = *never* to 6 = *always/every day*. The items were averaged to determine an overall work engagement score.

Psychological Capital. I used the Psychological Capital Questionnaire (PCQ-12; Avey, Avolio et al., 2011), which consists of 12 items (e.g., “I feel confident in representing my work ideas in meetings with management”, “If I should find myself in a jam about my work, I think of many ways to get out of it”). Permission to use the PCQ for research purposes and the Polish version of the instrument was obtained from www.mindgarden.com. Participants answered the questions on a 6-point Likert scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*. The items were averaged to calculate an overall PsyCap score.

Results

Descriptive Statistics

The descriptive statistics, Cronbach’s α s and correlations between the variables for the total sample are presented in Table 1. Detailed descriptive statistics and correlation matrices for the Polish and U.S. sub-samples are provided in Appendix A2 (see Tables A2 and A3). In the total sample ($N = 748$), the perceived frequency of positive work events correlated positively and significantly with the perceived frequency of negative work events. The correlation between the perceived frequency of positive events and positive work-related emotions showed a moderate and positive relationship, as did the correlation between the perceived frequency of negative events and negative work-related emotions. Positive and negative work-related emotions were negatively correlated. Both PsyCap and work engagement correlated strongly and positively with positive work-related emotions.

Comparative analyses (see Appendix A2) revealed a consistent pattern of correlations across both sub-samples. However, t-tests showed that the U.S. sample reported significantly higher levels of PsyCap but lower levels of engagement, work-related emotions, and negative events than the Polish sample.

Table 1

Descriptive Statistics, Cronbach's Alphas, and Correlations for Study Variables in the Total Sample in Study 1

Variable	<i>M</i>	<i>SD</i>	α	1	2	3	4	5
1. Perceived frequency of positive events at work	2.87	0.96	.87	—				
2. Perceived frequency of negative events at work	1.70	0.92	.87	.45**	—			
3. Positive work-related emotions	3.46	0.81	.92	.46**	.05	—		
4. Negative work-related emotions	1.77	0.72	.90	-.05	.44**	-.19**	—	
5. Psychological capital	4.53	0.80	.90	.39**	-.09*	.58**	-.46**	—
6. Work engagement	3.55	1.28	.94	.46**	.05	.79**	-.23**	.57**

Note. $N = 748$.

* $p < .05$, ** $p < .01$.

Common Method Variance

Because all data in this study were obtained from a single source at a single point in time, they may be subject to common method variance (CMV; Podsakoff et al., 2003), which can inflate correlations between variables (Spector, 2006). Therefore, before testing my conceptual model, I examined whether a single factor could account for all of the variance in my data (Podsakoff et al., 2003). The basic assumption of this technique is that if there is substantial CMV, either a single factor will emerge from factor analysis or a common factor will explain most of the covariance between the measurements. To analyse the data, I conducted a confirmatory factor analysis using MPlus 8.1 (Muthén et al., 2017) with maximum likelihood estimation with robust errors. I found that a one-factor model was not a good fit to the data, considering all fit indices (RMSEA = .293, 90% CI = [.273, .314], SRMR = .137, CFI = 0.699, TLI = 0.498). These findings suggest that CMV is unlikely to explain my results.

Hypotheses Testing

To analyse the data, I conducted a preregistered a path analysis with MPlus 8.1 (Muthén et al., 2017) using a maximum likelihood (ML) estimator. I tested for indirect effects by examining bootstrap confidence intervals using a 10,000-sample bootstrap procedure. The logic behind the analyses is the same as for a hierarchical regression analysis. The path model estimated in the first step includes predictors (perceived frequency of positive and negative work events), mediators (positive and negative work-related emotions), and the dependent variable (work engagement). I allowed both mediators to correlate with each other. As the model was saturated, it had the best possible fit as it perfectly reproduced all variances, covariances and means ($\chi^2 = 0$, $df = 0$, RMSEA = 0, 90% CI [0, 0], SRMR = 0, CFI = 1.00, TLI = 1.00). The results (standardised path coefficients) are shown in Table 2 as Step 1.

Positive and negative work-related emotions, together with the perceived frequency of positive and negative work events, explained 65% of the variance in work engagement.

Given the cross-sectional nature of the data, I tested a reversed model to rule out alternative explanations (see Appendix C1). In this alternative model, work engagement was treated as a predictor of the perceived frequency of work events. The comparison of fit indices (AIC and BIC) indicated that the original theoretical model was more parsimonious and better supported by the data than the reversed one.

Table 2*Results of the Path Analysis in Study 1*

Path	Regression step 1		Regression step 2		Simple slopes analysis step 3					
					Low PsyCap		Medium PsyCap		High PsyCap	
	β	SE	β	SE	β	SE	β	SE	β	SE
Direct effects										
PEW → WE	.13***	.03	.11***	.03	.10*	.05	.11**	.03	.11**	.03
NEW → WE	-.00	.03	.00	.03	.01	.05	.00	.03	-.00	.03
Detailed paths										
PEW → PEm	.55***	.03	.29***	.04	.29***	.05	.29***	.04	.29***	.04
NEW → PEm	-.19***	.04	-.04	.03	-.03	.04	-.03	.03	-.04	.04
PEm → WE	.72***	.03	.67***	.03	.67***	.03	.67***	.03	.67***	.03
PEW → NEm	-.32***	.04	-.12**	.04	-.13*	.06	-.12**	.04	-.11*	.04
NEW → NEm	.59***	.04	.47***	.03	.57***	.05	.47***	.04	.36***	.06
NEm → WE	-.09**	.03	-.05†	.03	-.05†	.03	-.05†	.03	-.05†	.03
Covariances										
PEm ↔ NEm	-.07**	.03	.06*	.02						
Main effect of PsyCap										
PsyCap → PEm			.46***	.03						
PsyCap → NEm			-.36***	.03						
PsyCap → WE			.12***	.03						
Moderation by PsyCap										
PsyCap x PEW → PEm			-.00	.03						
PsyCap x PEW → NEm			.01	.03						
PsyCap x NEW → PEm			-.00	.03						
PsyCap x NEW → NEm			-.10***	.03						
PsyCap x PEW → WE			.00	.02						
PsyCap x NEW → WE			-.01	.02						
R ² (WE)	65.0%		65.7%							

Note. N = 748.

PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Mediation by Positive and Negative Work-Related Emotions. To test for possible mediation effects as predicted in hypotheses H1a, H1b, H2a, and H2b, I used a bias-corrected bootstrapping procedure with 10,000 samples (Hayes, 2017). The significance of the total, direct, and indirect effects was tested in a saturated model, allowing all path coefficients to be estimated (step 1 in Table 2). The total effect of positive events on work engagement was significant, $\beta = .55$, $SE = .03$, 95% boot CI [.48, .62], such that a higher perceived frequency of positive events at work led to higher work engagement. The relative indirect effect via positive work-related emotions was significant, $\beta = .39$, $SE = .03$, 95% boot CI [.34, .45], as well as the relative indirect effect via negative work-related emotions, $\beta = .03$, $SE = .01$, 95% boot CI [.01, .05]. Controlling for the mediators, the direct effect of the perceived frequency of positive events on work engagement was significant, $\beta = .13$, $SE = .03$, 95% boot CI [.07, .19].

Furthermore, the total effect of the perceived frequency of negative events on work engagement was also significant, $\beta = -.20$, $SE = .04$, 95% boot CI [-.27, -.12], indicating that a higher perceived frequency of negative events led to lower work engagement. The indirect effect via positive work-related emotions was significant, $\beta = -.14$, $SE = .03$, 95% boot CI [-.19, -.09], as well as the indirect effect via negative work-related emotions, $\beta = -.05$, $SE = .02$, 95% boot CI [-.09, -.02]. The direct impact of the perceived frequency of negative events on work engagement was not significant, $\beta = -.001$, $SE = .03$, 95% boot CI [-.06, .05].

Altogether, the pattern of results indicates that positive and negative work-related emotions mediate the relationships between perceived frequency of positive and negative events and work engagement. These patterns of results provided formal support for the mediation hypotheses H1a, H1b, H2a and H2b.

Moderation by Psychological Capital. In the second step, I added PsyCap as a moderator acting on the paths of perceived frequency of positive and negative events.

I investigated its impact on work engagement (H3a and H3b) and positive and negative work-related emotions (H4a, H4b, H5a, and H5b). My theoretical model was again saturated; hence, it had the best possible fit: $\chi^2 = 0$, $df = 0$, RMSEA = 0, 90% CI [0, 0], SRMR = 0, CFI = 1.00, TLI = 1.00. The results (standardised path coefficients) are presented in Table 2 (step 2). Interactions with PsyCap explained an additional 0.5% of variance in work engagement. The main effects of PsyCap on positive and negative work-related emotions, as well as work engagement, were significant. The only significant interaction I found was between PsyCap and perceived frequency of negative events on negative work-related emotions, providing initial support for hypothesis H5b. I found no support for hypotheses H3a, H3b, H4a, H4b, and H5a.

In the next step, I decomposed the interaction between PsyCap and perceived frequency of negative events using the pick-a-point approach and simple-slopes analysis and tested my hypothesised model at three levels of the moderator: Mean, 1 SD above the mean, and 1 SD below the mean (Hayes, 2017). The standardised path coefficients estimated for three levels of PsyCap are presented in step 3 in Table 2. The analysis revealed that the path between perceived frequency of negative events and negative work-related emotions was stronger for participants with low PsyCap than for participants with medium or high PsyCap, consistent with H5b.

Finally, I tested for possible indirect effects separately for low-, medium-, and high-PsyCap participants, again using a bias-corrected bootstrapping procedure with 10,000 samples (Hayes, 2017). The bootstrap results of the indirect effects for low, medium, and high PsyCap are presented in Table 3.

Table 3*Mediation Effect at Three Levels of the Moderator (PsyCap) in Study 1*

Effects	Low PsyCap				Medium PsyCap				High PsyCap			
	β	SE	BC 95% CI		β	SE	BC 95% CI		β	SE	BC 95% CI	
			Lower	Upper			Lower	Upper			Lower	Upper
PEW $\rightarrow$ WE												
Indirect effect via PEm	.20	.04	.12	.27	.20	.03	.14	.25	.19	.03	.14	.25
Indirect effect via NEm	.01	.01	.000	.02	.01	.00	.000	.02	.01	.00	.000	.02
Joint indirect effect of PEW	.20	.04	.13	.27	.20	.03	.15	.26	.20	.03	.15	.26
Direct effect of PEW	.10	.05	.004	.20	.11	.03	.04	.17	.11	.03	.05	.17
Total effect of PEW	.31	.06	.19	.41	.31	.04	.23	.38	.31	.04	.24	.38
NEW $\rightarrow$ WE												
Indirect effect via PEm	-.02	.03	-.08	.04	-.02	.02	-.07	.02	-.03	.03	-.08	.04
Indirect effect via NEm	-.03	.02	-.07	.004	-.02	.01	-.05	.003	-.02	.01	-.04	.002
Joint indirect effect of NEW	-.05	.04	-.12	.02	-.05	.03	-.10	.003	-.05	.03	-.10	.01
Direct effect of NEW	.01	.05	-.08	.10	.00	.03	-.05	.06	-.00	.03	-.07	.07
Total effect of NEW	-.04	.05	-.14	.07	-.04	.03	-.11	.02	-.05	.04	-.12	.03

Note: $N = 748$; 10,000 bootstrap samples.

SE = standard error; BC = bias corrected; CI = confidence interval.

PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions;

NEm = Negative work-related emotions; WE = Work engagement.

Although I found that PsyCap moderated the relationship between the perceived frequency of negative events and negative work-related emotions, the relationship between negative work-related emotions and work engagement was not significant. Therefore, I could not detect an indirect effect of negative events on work engagement via negative emotions, regardless of the level of PsyCap. The remaining paths were not moderated by PsyCap, so the results were similar across the sample. The total effect of the perceived frequency of negative events on work engagement was not significant; similarly, neither the direct effect nor the two indirect effects were significant. The total and the direct effects of the perceived frequency of positive events on work engagement were significant and positive. The indirect effect via positive work-related emotions was significant, whereas the indirect effect via negative work-related emotions was not. And so, I observed both direct and indirect effects of the perceived frequency of positive events at work on engagement, regardless of PsyCap level.

The initial moderation model indicated that several assumed paths were nonsignificant. To further explore the data, I tested an alternative moderation model excluding these insignificant paths. The results showed fit to the data (see Appendix C2), demonstrating that even after removing non-significant paths, the main effects of PsyCap remained significant and continued to moderate the relationship between the perceived frequency of negative events and negative work-related emotions.

Furthermore, I conducted the mediation and moderation analyses separately for the Polish and U.S. sub-samples to examine potential cultural variations. Detailed results regarding the differences in mediation and moderation patterns between these groups, along with the results of Multi-Group Analyses (MGA), are provided in Appendix A3 (see Tables A4–A9). A comparison of the two sub-samples showed that the mediation of positive emotions in the relationship between work events and engagement was consistent across cultures. In both the U.S. and Polish samples, positive emotions significantly mediated the

impact of both positive events (H1a) and negative events (H2a) on work engagement. These findings suggest that the motivational power of positive emotions is a universal mechanism, regardless of the cultural context. However, differences between the countries were primarily observed in the health-impairment process (negative emotions) and the extent to which PsyCap moderated these paths, with the Polish sample showing more evidence for the protective role of personal resources.

A summary of the hypotheses tested in the total sample, along with their support status, is presented in Table 4.

Table 4

Summary of Hypotheses Tested in the Total Sample in Study 1

Hypotheses	Study 1 (<i>N</i> = 748)
H1a: Indirect effect PEW → PEm → WE	Supported
H1b: Indirect effect PEW → NEm → WE	Supported
H2a: Indirect effect NEW → PEm → WE	Supported
H2b: Indirect effect NEW → NEm → WE	Supported
H3a: Interaction PsyCap x PEW → WE	Not supported
H3b: Interaction PsyCap x NEW → WE	Not supported
H4a: Interaction PsyCap x PEW → PEm	Not supported
H4b: Interaction PsyCap x NEW → PEm	Not supported
H5a: Interaction PsyCap x PEW → NEm	Not supported
H5b: Interaction PsyCap x NEW → NEm	Supported

Note. PEW = Perceived frequency of positive events at work;
NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions;
WE = Work engagement.

Discussion

As predicted, my findings from Study 1 support the mediation model, attesting to the role of both positive and negative work-related emotions in the relationship between the perceived frequency of work events and engagement. The results are consistent with AET (Weiss & Cropanzano, 1996), validating the environmental–emotional–behavioural chain.

From the perspective of BBT (Fredrickson, 2001), the analysis confirmed a strong, positive association between positive work-related emotions and work engagement. In contrast, while the association between negative work-related emotions and work engagement was statistically significant, its magnitude was considerably lower, indicating an asymmetrical impact of emotional valence on engagement.

Regarding the role of personal resources, my results showed that PsyCap operates as a moderator of the relationship between the frequency of negative work events and negative emotional responses. However, the moderated mediation in the total sample was partially supported: when PsyCap was included in the structural model, the path from negative emotions to engagement was only marginally significant. These results suggest that while PsyCap buffers the initial affective reaction to negative events, it does not significantly increase the variance explained in work engagement by reducing negative work-related emotions. These results are consistent with empirical evidence suggesting that personal resources often function more effectively as inhibitors of negative strain than as direct drivers of work engagement (Xanthopoulou et al., 2007). My findings suggest a functional decoupling between the buffering and motivational processes, in which PsyCap primarily serves to mitigate the psychological costs associated with negative events without necessarily amplifying the subsequent motivational path to engagement.

Finally, whereas the primary analysis focused on the total sample, I conducted additional Multi-Group Analyses (MGA) to explore potential cultural boundary conditions (detailed results are provided in Appendix A3). These supplementary analyses suggest that the functional role of PsyCap may be contingent on national emotional norms (Wojciszke, 2004). The data indicate that PsyCap may primarily serve as a buffer against negative experiences in contexts where positive affect is normative. In contrast, it may function as a stabilising resource for engagement in environments with a higher frequency of negative

emotional expression. These cross-cultural variations, while secondary to the main theoretical model, highlight the importance of considering cultural factors as boundary conditions for the effectiveness of personal resources in organisational settings.

Study 2

One of the limitations of Study 1 is the lack of preregistration and the arbitrary choice of sample size. The lack of a significant relationship between negative emotions and work engagement in the study may therefore be due to its insufficient statistical power. Another limitation is the cross-sectional design, which precludes causal inferences about the relationship between the variables I am interested in. Although I explored the possible reverse model and showed that it fit the data worse than the original model, to improve the validation of the moderating role of PsyCap within the event-emotion process, I conducted a preregistered experimental study in which I manipulated events, differentiating between positive and negative work situations, and measured the evaluation of the events and the emotions associated with a particular work event as dependent variables. I hypothesised that PsyCap would interact with the type of work event in predicting positive emotions (H4). Specifically, the interaction was expected to manifest in positive events, such that individuals low in PsyCap would report stronger positive emotions than those high in PsyCap. For negative events, no such moderation effect was expected, as both groups were anticipated to report similarly low levels of positive emotions. Next, I hypothesised that PsyCap would interact with the type of work event in predicting negative emotions (H5). Specifically, the interaction was expected to manifest in negative events, such that individuals low in PsyCap would report more intense negative emotions than those high in PsyCap. For positive events, no such moderation effect was expected, as both groups were anticipated to report similarly low levels of negative emotions.

Additionally, I hypothesised that PsyCap would moderate the effect of the type of work event on event evaluation (H6). Specifically, I predicted a significant interaction effect for both event types, but with different patterns. For negative events, I hypothesised that individuals with low PsyCap would report significantly more negative evaluations than those with high PsyCap. For positive events, I hypothesised that individuals with low PsyCap would report significantly more positive evaluations than those with high PsyCap.

The study hypotheses, sample size, exclusions, and data analysis were preregistered at https://aspredicted.org/9L6_5DC²

Method

Participants and Recruitment

As a first step, I calculated the minimum acceptable sample size for my experiment. Given the results of my previous study (weak interaction between PsyCap and perceived frequency of negative events at work), I expected a small effect size of R^2 of .014 ($\alpha = .05$, two-tailed) with a power of $(1 - \beta) = .80$ and this study aimed at reaching 555 participants. Factoring for potential attrition due to failed attention checks, I recruited 886 participants (609 women, 274 men, 3 other/not stated; $M_{\text{age}} = 34.25$ years; $SD = 10.35$; $M_{\text{seniority}} = 11.83$ years; $SD = 9.43$) who were employed in companies and administration units in Poland for more than one year. I used a professional panel (SW Panel) to conduct the recruitment process. Participants took part in an online study in exchange for points redeemable for rewards. I excluded 314 participants who did not answer at least one of the two attention-

² In the preregistration, I made an obvious error in phrasing of moderation effect of PsyCap on event evaluation and positive emotions. The relationships described there should be stronger for individuals with low PsyCap than for those with high PsyCap, not the other way around.

check questions correctly³. The final sample comprised 572 participants (409 women, 161 men, 2 other/not stated; $M_{\text{age}} = 33.53$ years; $SD = 9.66$; $M_{\text{seniority}} = 11.19$ years; $SD = 8.75$).

Detailed information about the sample is presented in Appendix A4 (see Table A10).

Procedure and Materials

After giving informed consent, participants were asked about their current employment status and the duration of their professional activity. Those who were unemployed, self-employed, or volunteering at this time, as well as participants who had been employed for less than one year, were excluded from the study. Next, participants answered demographic questions on gender, age, education level, position, length of service and employment sector, and completed the Psychological Capital Questionnaire (PCQ-12; Avey, Avolio et al., 2011), as in Study 1. Participants were then randomly assigned to one of two experimental conditions and were asked to describe either the most positive work event ($n = 312$) or the most negative work event they had experienced recently ($n = 260$). After doing that, participants were asked to rate it on a scale from $-5 = \text{very negative}$ to $+5 = \text{very positive}$ (this variable served as a manipulation check). They were then presented with a short version of the Positive and Negative Affect Scale (Watson et al., 1988) with modified instructions to measure positive and negative event-related emotions (see Appendix B3). Participants were asked to answer the questionnaire based on their perception of how they would feel if they were an employee experiencing the event they described. At the end of the study, participants were debriefed, and participants in the negative condition were given

³ In the first attention check, after the demographic questions part, participants were asked to write today's date. A total of 82 participants provided incorrect responses to this question. The second attention check was related to a question about describing a work event, either positive or negative, depending on the experimental condition. Participants were instructed to describe a work event using at least five words. Responses containing fewer than five words and not related to work events were excluded from the analysis, resulting in the exclusion of 232 participants. In the preregistration, I assumed exclusion of participants who incorrectly answered at least 1 out of 3 attention check questions. In the third attention check, I gave participants a brief instruction in the middle of the study not to answer one question "How often do you feel energized in your work?" with answers using a 7-point frequency scale (0 as *never* to 6 as *always/every day*) and assumed I exclude those, who would answer this selected question. However, due to the high number of exclusions (more than 88% of the original sample), I decided not to consider the third attention check.

additional instructions to help them improve their current mood. All study materials were in Polish.

Results

Descriptive Statistics

Table 5 presents the descriptive statistics, Cronbach's α s, and correlations between the variables. Work event evaluation was positively and significantly correlated with positive event-related emotions, while it was moderately negatively correlated with negative event-related emotions. Positive and negative event-related emotions were correlated negatively. PsyCap was weakly correlated with positive and negative work-related emotions, as well as with the evaluation of the event.

Table 5

Descriptive Statistics, Cronbach's Alphas, and Correlations for Study Variables in Study 2

Variable	<i>M</i>	<i>SD</i>	α	1	2	3
1. Evaluation of the work event	0.77	4.15	—	—		
2. Positive event-related emotions	3.45	0.95	.91	.58**	—	
3. Negative event-related emotions	2.35	0.98	.93	-.53**	-.59**	—
4. Psychological capital	4.47	0.79	.91	.09*	.21**	-.18**

Note. $N = 572$.

* $p < .05$, ** $p < .01$.

Manipulation Check

To verify the effectiveness of the experimental manipulation, I conducted an independent samples t-test comparing event evaluations between the positive and negative event conditions. The results revealed a significant difference, $t(493.64) = -57.60$, $p < .001$, $d = 1.56$, indicating a large effect. Participants in the positive event condition ($M = 4.28$, $SD = 1.39$) rated the events significantly more positively than those in the negative event

condition ($M = -3.43$, $SD = 1.74$). These results confirm that the experimental manipulation was successful.

Hypotheses Testing

To test my preregistered hypothesis, I conducted three moderation analyses using Hayes PROCESS macro for SPSS (Model 1; Hayes, 2017) with experimental manipulation (work events: positive vs. negative) as predictor, PsyCap as moderator, their interaction, and the following dependent variables: a) the level of positive emotions accompanying a given event, b) the level of negative emotions accompanying a given work event, c) the evaluation of a given event at work.

For the level of positive emotions accompanying a given event, the overall model was again significant, $F(3, 567) = 114.05$, $p < .001$, $R^2 = 37.6\%$. The effect of experiment manipulation was significant, $\beta = .57$, $SE = .03$, $t = 17.34$, $p < .001$, indicating that positive events were associated with more positive emotions compared to negative events. The effect of PsyCap was positive and significant, $\beta = .20$, $SE = .03$, $t = 5.93$, $p < .001$. However, again, the interaction between PsyCap and experimental manipulation was not significant, $\beta = .03$, $SE = .03$, $t = 0.99$, $p = .324$.

For the level of negative emotions accompanying a given event, the overall model was significant, $F(3, 567) = 82.92$, $p < .001$, $R^2 = 30.5\%$. The effect of the experimental manipulation was significant, $\beta = -.52$, $SE = .03$, $t = -14.86$, $p < .001$, indicating that positive events were associated with less negative emotions than negative events. The effect of PsyCap was significant and negative, $\beta = -.17$, $SE = .03$, $t = -4.88$, $p < .001$. However, the interaction between PsyCap and experimental manipulation was not significant, $\beta = .04$, $SE = .03$, $t = 1.10$, $p = .273$.

For the evaluation of a given event at work, I found the overall model was significant, $F(3, 567) = 1190.65$, $p < .001$, and it accounted for $R^2 = 86.3\%$ of the DV variance.

As a manipulation check, a significant main effect of the experimental manipulation was found, $\beta = .92$, $SE = .01$, $t = 59.49$, $p < .001$, indicating that this evaluation was more positive for positive than negative events. A significant main effect of PsyCap was also observed, $\beta = .07$, $SE = .01$, $t = 4.32$, $p < .001$, such that participants with higher PsyCap evaluated the events more positively than those with low PsyCap. However, the interaction between PsyCap and experimental manipulation was not significant, $\beta = .02$, $SE = .01$, $t = 1.20$, $p = .232$.

To summarise, this study failed to show that PsyCap moderated the relationship between the valence of events at work (positive vs. negative) and the corresponding positive and negative emotions, as well as participants' evaluations of the events. Consequently, H4, H5, and H6 were not supported.

Additional Analyses (Not Preregistered)

Since my preregistered analyses were relatively simple and did not account for the relationships between measured dependent variables, I decided to conduct additional analyses not included in the preregistration to provide further insight into the topic. In this alternative model, I predicted the mediating role of event evaluation in the relationship between the type of work event (positive vs. negative) and the corresponding positive and negative emotions, as well as the moderating role of PsyCap in each relationship.

To analyse the data, I employed a path analysis in MPlus 8.7 (Muthén et al., 2017), using a maximum likelihood (ML) estimator. The path model estimated in the first step considered the predictor (experimental manipulation: positive vs. negative work events), the mediator (event evaluations), and two dependent variables (positive and negative emotions corresponding to the event). Additionally, I assumed that positive and negative work-related emotions would be correlated. As the model was saturated, it had the best possible fit, as it perfectly reproduced all the variances, covariances and means ($\chi^2 = 0$, $df = 0$,

RMSEA = 0, 90% CI [0, 0], SRMR = 0, CFI = 1.00, TLI = 1.00). The results (standardised path coefficients) are presented in Table 6 as step 1. Experimental manipulation, together with event evaluation, accounted for 34.8% of positive emotions and 29.2% of negative emotions.

Mediation by the Event Evaluation. To test for a possible mediation effect of event evaluation, I used a bias-corrected bootstrapping procedure with 10,000 samples (Hayes, 2017). The significance of the total, direct and indirect effects was tested in a saturated model to estimate all path coefficients (step 1 in Table 6). The total effect of experimental manipulation on positive emotions was significant, $\beta = .58$, $SE = .04$, 95% boot CI [.51, .65], such that recalling and describing a positive (vs. negative) work event led to a higher level of positive emotions. The relative indirect effect via event evaluation was significant, $\beta = .26$, $SE = .09$, 95% boot CI [.08, .44]. After controlling for the event evaluation, the direct effect of experimental manipulation on positive emotions was significant, $\beta = .32$, $SE = .10$, 95% boot CI [.14, .51].

Furthermore, the total effect of experimental manipulation on negative emotions was also significant, $\beta = -.53$, $SE = .04$, 95% boot CI [-.60, -.45], which implies that recalling a positive (vs. negative) work event led to a lower level of negative emotions. The indirect effect via event evaluation was significant, $\beta = -.31$, $SE = .09$, 95% boot CI [-.50, -.13]. After controlling for the mediator, the direct effect of experimental manipulation on corresponding negative emotions was significant, $\beta = -.21$, $SE = .10$, 95% boot CI [-.41, -.03].

Altogether, the pattern of results indicates that event evaluation mediates the experimental manipulation (positive vs. negative work event) and corresponding positive and negative emotions relationships.

Table 6*Results of the Path Analysis in Study 2*

Path	Regression step 1		Regression step 2	
	β	SE	β	SE
Direct effects				
Event $\rightarrow$ PEm	.32**	.09	.40***	.09
Event $\rightarrow$ NEm	-.21*	.10	-.27**	.09
Detailed paths				
Event $\rightarrow$ EE	.93***	.02	.92***	.01
EE $\rightarrow$ PEm	.28**	.10	.19*	.09
EE $\rightarrow$ NEm	-.34**	.10	-.27**	.09
Covariances				
PEm $\leftrightarrow$ NEm	-.27***	.03	-.25***	.03
Main effect of PsyCap				
PsyCap $\rightarrow$ EE			.07***	.01
PsyCap $\rightarrow$ PEm			.18***	.03
PsyCap $\rightarrow$ NEm			-.15***	.03
Moderation by PsyCap				
PsyCap x event $\rightarrow$ EE			.02	.02
PsyCap x event $\rightarrow$ PEm			.03	.03
PsyCap x event $\rightarrow$ NEm			.04	.03
R^2 (PEm)	34.8%		38.1%	
R^2 (NEm)	29.2%		31.5%	

Note. $N = 572$.

Event = type of work event (experimental manipulation); PEm = corresponding positive emotions; NEm = corresponding negative emotions; EE = event evaluation.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Moderation by Psychological Capital. In the second step, I added PsyCap and its interaction with the experimental manipulation to the model to investigate its effect on event evaluation and positive and negative emotions. The model fitted to the data well, $\chi^2 = 0$, $df = 0$, $p < .001$, RMSEA = 0, 90% CI [0, 0], SRMR = .000, CFI = 1.00, TLI = 1.00. The results (standardised path coefficients) are presented in Table 6 (step 2). Including interactions with PsyCap explained an additional 3.3% of the variance in positive emotions and an additional 2.3% of the variance in negative emotions. The main effects of PsyCap on

event evaluation, and positive and negative emotions were significant; however, interaction effects between PsyCap and experimental manipulation on event evaluation and on positive and negative emotions were not significant.

Finally, to further validate the robustness of the findings, I conducted additional analyses controlling for the agency and communion dimensions of the work events described by participants. These dimensions were included to account for potential variance related to personal responsibility and social relationships within the events, which might influence emotional responses independently of PsyCap. The results indicated that including these dimensions did not alter the primary interaction effects, which remained non-significant. Appendix C3 details these auxiliary analyses and the corresponding statistical outcomes.

In Table 7, I presented the summary of my preregistered and not preregistered hypotheses tested in Study 2.

Table 7

Summary of Hypotheses Tested in Study 2

Hypotheses	Study 2 (<i>N</i> = 572)
Preregistered hypotheses	
H4: Interaction PsyCap x work event → PEm	Not supported
H5: Interaction PsyCap x work event → NEm	Not supported
H6: Interaction PsyCap x work event → EE	Not supported
Not preregistered hypotheses	
Indirect effect work event → EE → PEm	Supported
Indirect effect work event → EE → NEm	Supported
Interaction PsyCap x work event → EE	Not supported
Interaction PsyCap x work event → PEm	Not supported
Interaction PsyCap x work event → NEm	Not supported

Note. Work event = type of work event (experimental manipulation: positive vs. negative); PEm = corresponding positive emotions; NEm = corresponding negative emotions; EE = event evaluation.

Discussion

My preregistered hypotheses focused on the interaction between PsyCap and work events (positive vs. negative) in predicting event evaluations and the positive and negative emotions that accompany these events. Contrary to my expectations, none of these interactions was supported. In particular, the expected moderating effect of PsyCap on the relationships between work events and event evaluations, and between work events and positive and negative emotions, did not reach statistical significance. A possible explanation for the lack of a significant moderating effect is that PsyCap may operate primarily as a direct predictor of work-related outcomes rather than a buffer (Luthans et al., 2015). This suggests that high levels of PsyCap may generally contribute to higher emotional well-being and positive event evaluations, regardless of the nature of the event. Another possible explanation is a ceiling effect, where the overall high level of PsyCap in the sample limits the variance needed to detect a moderating effect (Kline, 2023).

To further investigate the relationship between work events, evaluations, emotions, and the moderation effect of PsyCap, I conducted additional (not preregistered) analyses. Firstly, these analyses showed that event evaluation mediated the relationship between event type (positive vs. negative) and both positive and negative emotions. Positive events led to more positive evaluations, which in turn increased positive emotions and decreased negative emotions. This mediation effect underscores the importance of how events are perceived in shaping emotional outcomes. These results align well with cognitive appraisal theory (Lazarus & Folkman, 1984), which posits that individuals' emotional responses to events are not determined by the events themselves, but by their subjective cognitive appraisals of those events. Secondly, while investigating the moderation effect of PsyCap, I found that it had significant direct effects on event evaluation and emotions, but its interaction with event type was non-significant. This suggests that while individuals high in PsyCap generally respond

more positively to work events, PsyCap does not change how event type (positive vs. negative) affects evaluations and emotions. I assume that the interplay between PsyCap and specific work events is likely more intricate than simply differentiating between positive and negative ones. Recent research by Reindl et al. (2021) supports this by demonstrating that a multidimensional approach to assessing work events provides a more nuanced understanding of their effects on employees' psychological reactions than traditional models that categorise events solely by positive or negative valence. In a similar vein, Wang et al. (2020) found that achievement and recognition work events, despite both being positively valenced, had distinct effects on the fulfilment of different psychological needs and on eliciting positive affect. Additionally, Ohly and Schmitt (2015) proposed a comprehensive taxonomy of work events, categorising them into 11 clusters within a two-dimensional framework defined by agency and communion. This suggests that a simple positive-negative dichotomy may not fully capture the significant differences in how events are perceived and how employees respond to them.

Finally, I conducted additional analyses controlling for the agency and communion dimensions of work events (detailed in Appendix C3). These dimensions were included to account for potential variance related to personal responsibility and social relationships within the events. However, including these dimensions did not alter the primary findings; the interaction effects between PsyCap and experimental manipulation remained non-significant. This suggests that in this study, PsyCap did not function as a personal resource that buffered or amplified immediate emotional responses to isolated events. While this deviates from some earlier findings (e.g., Luthans et al., 2015; Newman et al., 2014), it highlights the importance of context-dependent boundary conditions for PsyCap's moderating effects, preventing the overgeneralisation of its protective role in controlled settings.

Study 3

Given my conclusion from Study 2 that the specific type of work event may alter the role of PsyCap in the relationship between work events and emotional responses, I conducted another preregistered experiment examining the moderating role of PsyCap, this time concerning a single type of work event using a vignette procedure. Moreover, I introduced an additional condition in which a neutral event served as a reference point, enabling me to more accurately assess the impact of positive and negative work events. Based on participants' descriptions of work events from Study 2, I selected an event related to salary payment. Such an event seemed to be universal across different positions and industries, and it allowed for the creation of a neutral condition. As demonstrated in Study 1, the role of PsyCap in the relationship between work events, associated emotions, and work engagement may be culturally specific and depend on differences in the overall level of PsyCap represented by a given group. Therefore, a second alteration in Study 3, was that I recruited working participants from the United Kingdom. The final modification in this study concerned measurement methods. PANAS (Watson et al., 1988) assesses general affective states but was not specifically designed for the occupational context, as it encompasses emotions applicable to a broad range of life situations rather than exclusively to workplace experiences. To more precisely capture both positive and negative emotions within work settings, I replaced the brief form of PANAS with the Job-related Affective Well-being Scale (JAWS; Van Katwyk et al., 2000), a scale that was explicitly developed to assess emotions within the work environment, thereby providing a more contextually relevant measure for examining the impact of work-related events on employees' emotional experiences. Since my study focused on participants' evaluations of a specific work situation, I modified the JAWS instructions by asking participants to select the answer that best indicated how they would feel after experiencing the work event they had just read about and imagined.

Additionally, to assess the robustness of the examined effects, I measured work engagement with the Job Engagement Scale (JES; Crawford et al., 2013). Initially, the scale designed by Rich et al. (2010) was intended to measure Kahn's (1990) conceptualisation of engagement, which posits that engagement emerges from fully "bringing oneself" into work at the physical, emotional, and cognitive levels. This definition differs from the approach proposed by Schaufeli and Bakker (2004), who conceptualised engagement as an overarching, general state of mind, whereas Kahn's definition suggests a more focused state centred on and embedded within the job role. However, research indicated that the JES overlaps less with related work attitudes than the UWES (Schaufeli et al., 2006), making it potentially more useful in defining the boundaries of the work engagement construct (Byrne et al., 2016).

To summarise, in Study 3, I manipulated the valence of a work event related to being paid for work (vs. neutral condition), measured the emotions accompanying this event as mediators, and assessed momentary work engagement as the dependent variable.

I hypothesised that experiencing a positive (vs. neutral) work event would lead to higher work engagement, while experiencing a negative (vs. neutral) event would lead to lower engagement. Consistent with hypotheses 1 and 2 from my overall model, these effects were expected to be mediated by emotions associated with the event. Specifically, the indirect effect of a positive work event on work engagement will be significantly stronger when channelled through positive emotions (H1a) than through negative emotions (H1b).

Conversely, the indirect effect of a negative work event on work engagement will be weaker when mediated by positive emotions (H2a) rather than negative ones (H2b). Next,

I hypothesised that, for individuals high in PsyCap, I would observe a weaker effect of the valence of work event (positive and negative versus neutral) on work engagement than for individuals low in PsyCap (H3a and H3b). Furthermore, I expected that PsyCap would also

moderate the effects of work events on emotional reactions. Specifically, I hypothesised that for both positive and negative work events, the resulting positive emotions (H4a and H4b) and negative emotions (H5a and H5b) would be weaker for individuals high in PsyCap and stronger for those low in PsyCap. This indicates that high PsyCap acts as a buffer, weakening the emotional impact of both good and bad events in the workplace.

The study hypotheses, sample size, exclusions, data analysis, and additional exploratory analyses were preregistered at https://aspredicted.org/WQK_S3C.

Method

Participants and Recruitment

Given the weak interaction between PsyCap and the perceived frequency of negative events at work that I found in Study 1, I expected a small effect size of R^2 of .014. Assuming $\alpha = .05$, two-tailed) and the power of $(1 - \beta) = .80$, a priori power analysis with G*Power (Faul et al., 2007) revealed that a sample of 555 participants would be required to detect such an effect. Therefore, I recruited 556 participants (277 women, 273 men, 4 non-binary/third gender, 2 preferred not to say; $M_{\text{age}} = 38.43$ years; $SD = 10.95$; $M_{\text{seniority}} = 18.32$ years; $SD = 11.17$) who were employed full-time or part-time and located in the UK. Recruitment was conducted using Prolific Academic, and participants took part in an online study in exchange for £0.75. I excluded 62 participants who answered at least one of the two attention-check questions incorrectly⁴. The final sample comprised 494 participants (248 women, 240 men, 4 non-binary/third gender, 2 preferred not to say; $M_{\text{age}} = 38.63$ years; $SD = 10.98$; $M_{\text{seniority}} = 18.49$ years; $SD = 11.30$). Participants in the final study had

⁴ In the first attention check, following the demographic questions, participants were asked to write today's date; 25 participants provided incorrect responses. In the second attention check, participants were instructed to select *strongly disagree*; 37 participants failed to do so and were excluded from the study.

an average of 15.62 years of education ($SD = 3.85$), with educational attainment ranging from 2 to 27 years.

Procedure and Materials

After providing informed consent, participants answered demographic questions regarding their gender, age, years of education, and seniority. Following this, they were asked to fill in two blocks, presented in random order. One block included Psychological Capital Questionnaire (PCQ-12; Avey, Avolio et al., 2011), the same as in Study 1. The other block included the experimental part, where participants were randomly assigned to one of three conditions. They were presented with a scenario that could occur in a work setting and were asked to carefully read the description and imagine themselves in the situation for at least 30 seconds. The neutral scenario involved a regular salary being deposited into the participant's bank account ($n = 154$); the negative scenario involved a much-deserved pay raise not being granted, unlike other employees who applied for and received it ($n = 164$), and the positive scenario involved the participant receiving an unexpected increase in their regular salary ($n = 176$). The vignettes used for this manipulation are presented in Appendix B4. After reading the scenario, participants were asked to indicate the perceived likelihood of such work events occurring in their current role. After these two blocks, participants completed the manipulation check, the Job-related Affective Well-being Scale (JAWS; Van Katwyk et al., 2000), and the Job Engagement Scale (JES; Crawford et al., 2013), presented in a randomised order. As part of the manipulation check, participants were asked to evaluate the situation on a scale ranging from $-5 = \textit{very negative}$ to $+5 = \textit{very positive}$. The JAWS used the common stem "This situation would make me feel..." followed by affective terms such as *energetic*, *angry* or *content*. Items were rated on a scale ranging from $1 = \textit{strongly disagree}$ to $5 = \textit{strongly agree}$. The JES included nine items assessing how participants would invest their energies at work after experiencing the event described in the given scenario (e.g., "After

experiencing this event, I would work with intensity on my work”), using the same scale from 1 = *strongly disagree* to 5 = *strongly agree*. At the end of the study, participants were debriefed, and those in the negative condition received additional instructions to help improve their current mood. All study materials were in English.

Results

Descriptive Statistics

The descriptive statistics, Cronbach’s α s, and correlations between the variables are shown in Table 8. Positive event-related emotions were negatively and significantly correlated with negative event-related emotions, and were strongly positively correlated with momentary work engagement. Negative event-related emotions showed a strong negative correlation with momentary work engagement. PsyCap showed no significant correlation with positive or negative work-related emotions; however, there was a weak positive correlation with momentary work engagement.

Table 8*Descriptive Statistics, Cronbach's Alphas, and Correlations for Variables in Study 3*

Variable	<i>M</i>	<i>SD</i>	α	1	2	3	4
1. Event evaluation (manipulation check)	0.49	3.55		—			
2. Positive event-related emotions	2.64	0.93	.90	.87**	—		
3. Negative event-related emotions	2.33	0.86	.86	-.80**	-.72**	—	
4. Momentary work engagement	3.12	0.97	.96	.65**	.69**	-.63**	—
5. Psychological capital	4.41	0.71	.89	.00	.02	-.04	.20**

Note. $N = 494$.** $p < .01$.

Manipulation Check

To verify the effectiveness of the experimental manipulation, I conducted a one-way ANOVA with event evaluation as the DV and condition (positive, neutral, and negative events) as a between-subject factor. The analysis revealed a significant effect of condition, $F(2, 298) = 679, p < .001, \eta^2 = .82$, indicating that participants' responses differed across event types. The Games-Howell post-hoc test showed that participants in the negative event condition rated the event significantly more negatively ($M = -3.59, SD = 1.31$) than those in the neutral condition ($M = 2.56, SD = 2.37$), $t(234) = 28.4, p < .001$, and those in the positive condition ($M = 2.49, SD = 2.37$), $t(276) = -29.55, p < .001$. However, participants' event evaluations in the positive scenario condition did not significantly differ from those in the neutral scenario condition, $t(322) = 0.27, p = .962$. These results demonstrated that only the negative event condition manipulation was successful.

Hypotheses Testing

To test my preregistered hypothesis, I used a path analysis with MPlus 8.7 (Muthén et al., 2017) with a maximum likelihood (ML) estimator. I tested total, direct, and indirect effects by examining bootstrap confidence intervals using a bootstrap procedure with 10,000 samples. The logic behind the analyses is similar to a hierarchical regression analysis. The path model estimated in the first step considered predictors (positive vs. neutral and negative vs. neutral work event, with the independent variable dummy-coded), mediators (positive and negative event-related emotions), and a dependent variable (momentary work engagement). I allowed both mediators to correlate with each other. Since the model was saturated, it had the best possible fit, perfectly reproducing all variances, covariances, and means ($\chi^2 = 0, df = 0, RMSEA = 0, 90\% CI [0, 0], SRMR = 0, CFI = 1.00, TLI = 1.00$). The results (standardised path coefficients) are shown in Table 9 as step 1. Positive and negative event-

related emotions, along with positive vs. neutral and negative vs. neutral work events, explained 43.8% of the variance in momentary work engagement.

Table 9*Results of the Path Analysis in Study 3*

Path	Regression step 1		Regression step 2		Simple slopes analysis step 3					
	β	SE	β	SE	Low PsyCap		Medium PsyCap		High PsyCap	
Direct effects										
PEW → MWE	.01	.04	.02	.04	-.04	.05	.02	.04	.09 [†]	.05
NEW → MWE	-.02	.06	-.06	.06	-.06	.07	-.06	.06	-.06	.07
Detailed paths										
PEW → PEm	.03	.04	.03	.03	.04	.05	.03	.04	.03	.07
NEW → PEm	-.72***	.03	-.72***	.03	-.69***	.04	-.72***	.03	-.76***	.05
PEM → MWE	.40***	.06	.38***	.05	.38***	.05	.38***	.05	.38***	.05
PEW → NEm	-.04	.04	-.04	.04	-.05	.05	-.04	.04	-.03	.05
NEW → NEm	.69***	.04	.69***	.04	.62***	.06	.69***	.04	.76***	.06
NEm → MWE	-.29***	.05	-.26***	.05	-.26***	.05	-.26***	.05	-.26***	.05
Covariances										
PEM ↔ NEm	-.15***	.03	-.14***	.02						
Main effect of PsyCap										
PsyCap → PEm			.08**	.03						
PsyCap → NEm			-.08**	.03						
PsyCap → MWE			.17***	.03						
Moderation by PsyCap										
PsyCap x PEW → PEm			-.00	.03						
PsyCap x PEW → NEm			.00	.04						
PsyCap x NEW → PEm			-.03	.03						
PsyCap x NEW → NEm			.07 [†]	.04						
PsyCap x PEW → MWE			.07 [†]	.04						
PsyCap x NEW → MWE			-.00	.04						
R^2 (MWE)	43.8%		46.9%							

Note. $N = 494$.

PEW = Positive vs. neutral work event; NEW = Negative vs. neutral work event; PEm = Positive event-related emotions; NEm = Negative event-related emotions;

MWE = Momentary work engagement.

[†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Mediation by Positive and Negative Event-Related Emotions. To test for possible mediation effects as predicted in my hypotheses, I used a bias-corrected bootstrapping procedure with 10,000 samples (Hayes, 2017). The significance of the total, direct, and indirect effects was tested in a saturated model, allowing all path coefficients to be estimated (step 1 in Table 9). The total effect of the positive (vs. neutral) event on momentary work engagement was not significant, $\beta = .02$, $SE = .02$, 95% boot CI $[-.02, .07]$, such that the occurrence of a positive (vs. neutral) event did not substantially impact levels of momentary work engagement. The relative indirect effect of positive (vs. neutral) event via positive event-related emotions was not significant either, $\beta = .01$, $SE = .02$, 95% boot CI $[-.02, .05]$, nor was the relative indirect effect via negative event-related emotions, $\beta = .01$, $SE = .01$, 95% boot CI $[-.01, .04]$. Controlling for the mediators, the direct effect of the positive (vs. neutral) event on momentary work engagement was also not significant, $\beta = .01$, $SE = .04$, 95% boot CI $[-.06, .09]$.

In contrast, the total effect of the negative (vs. neutral) event on momentary work engagement was significant, $\beta = -.49$, $SE = .05$, 95% boot CI $[-.58, -.40]$, indicating that the negative (vs. neutral) event substantially decreased momentary work engagement. The indirect effect of negative (vs. neutral) event via positive event-related emotions was significant, $\beta = -.29$, $SE = .04$, 95% boot CI $[-.38, -.21]$, as well as the indirect effect via negative event-related emotions, $\beta = -.20$, $SE = .03$, 95% boot CI $[-.27, -.13]$. Finally, controlling for mediators, the direct effect of the negative (vs. neutral) event on momentary work engagement was not significant, $\beta = -.02$, $SE = .06$, 95% boot CI $[-.14, .09]$.

Altogether, the pattern of results indicates that positive and negative event-related emotions mediated the relationship between negative (vs. neutral) events and momentary work engagement. These findings supported the mediation hypotheses H2a and H2b.

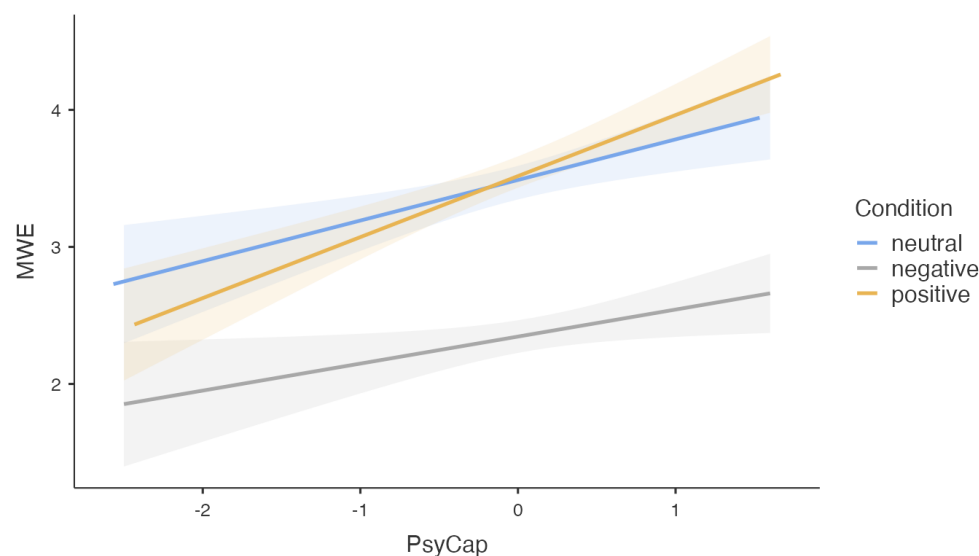
Moderation by Psychological Capital. In the second step, I added PsyCap as a moderator for the effects of both positive (vs. neutral) and negative (vs. neutral) events. I investigated its impact on momentary work engagement and on positive and negative event-related emotions. My theoretical model was again saturated, resulting in the best possible fit, with $\chi^2 = 0$, $df = 0$, RMSEA = 0, 90% CI [0, 0], SRMR = 0, CFI = 1.00, TLI = 1.00. The results (standardised path coefficients) are presented in Table 9 (step 2). Including interactions with PsyCap explained an additional 3.1% of the variance in momentary work engagement. The main effects of PsyCap on positive and negative event-related emotions, as well as on momentary work engagement, were significant. There were two marginally significant interactions: between PsyCap and the positive (vs. neutral) event on momentary work engagement, and between PsyCap and the negative (vs. neutral) event on negative event-related emotions. These results provide initial support for two of the moderation hypotheses, H3a and H5b.

In the next step, I decomposed these two interactions using the pick-a-point approach and simple-slopes analysis and tested my hypothesised model at three levels of the moderator: Mean, 1 SD above the mean, and 1 SD below the mean (Hayes, 2017). The standardised path coefficients estimated for three levels of PsyCap are shown in step 3 in Table 9. The analysis revealed that the positive (vs. neutral) event significantly predicted momentary work engagement only for participants with high PsyCap. This relationship was not significant for those with medium or low PsyCap, contrary to my preregistered moderation hypothesis (H3a). As presented in Figure 2, the interaction between PsyCap and the type of work event (positive, neutral, or negative) indicates that the relationship between PsyCap and work engagement is contingent on the specific event. The positive event condition shows a steep positive slope, revealing that higher levels of PsyCap are associated with a much stronger increase in engagement. In contrast, the neutral event condition also

exhibits a positive relationship with PsyCap, though it is noticeably weaker than that of the positive event. The negative event condition, however, displays a nearly flat slope, suggesting that PsyCap has a minimal effect on work engagement when individuals experience a negative event. This indicates that PsyCap is most beneficial in promoting engagement during positive and neutral circumstances but does not appear to act as a significant buffer against the detrimental effects of negative events.

Figure 2.

Moderating Effect of PsyCap on Momentary Work Engagement in Study 3



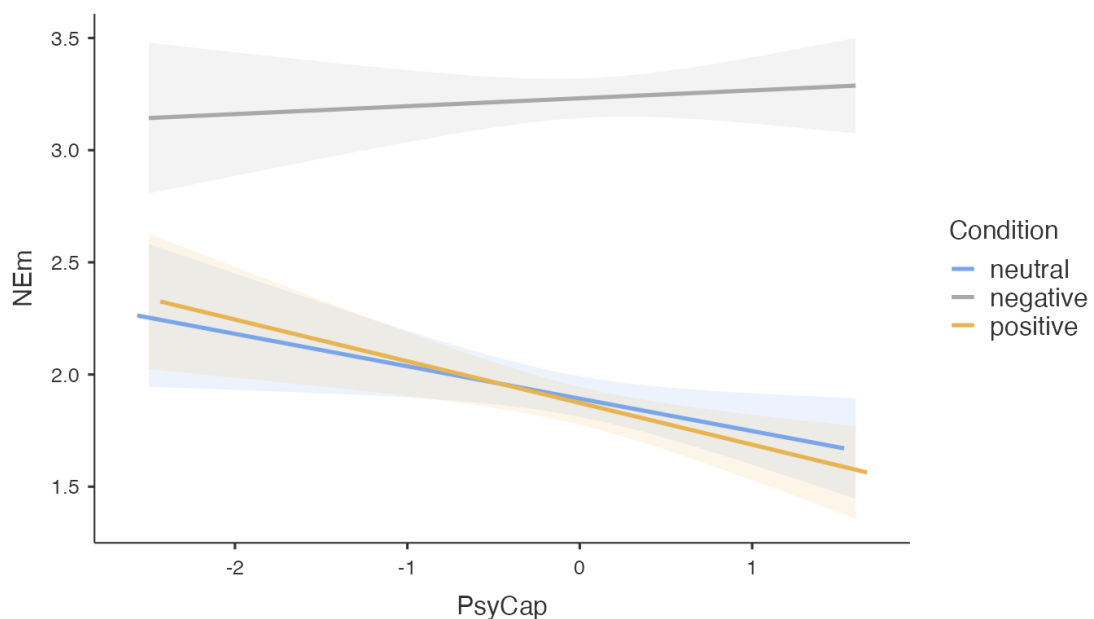
Note. MWE = Momentary work engagement. Shaded areas represent 95% CI.

In the second interaction, the decomposition revealed that the link between the negative (vs. neutral) event and negative event-related emotions was stronger for participants with high PsyCap than for participants with medium and low PsyCap (Figure 3). This finding contradicts my preregistered moderation hypothesis (H5b), which predicted that the effect of a negative event would be stronger for participants with low PsyCap. As shown in Figure 3, PsyCap's moderating effects vary by event type. The negative event was associated with the highest level of negative event-related emotions, which remained consistently high regardless

of PsyCap. This indicates that PsyCap did not buffer against the negative emotional impact of negative events. The positive and neutral events show a clear negative slope. This suggests that the moderating role of PsyCap is significant for positive and neutral events, leading to lower levels of negative emotions triggered by such events. This directly contradicts the moderation hypothesis, which predicted that PsyCap would mitigate the effect of negative events. Instead, our findings suggest that PsyCap's main contribution is to reduce negative emotional reactions in more benign contexts, or to help people maintain a stable emotional state.

Figure 3.

Moderating Effect of PsyCap on Negative Event-related Emotions in Study 3



Note. NEm = Negative event-related emotions. Shaded areas represent 95% CI.

Finally, I tested for possible indirect effects separately for low-, medium-, and high-PsyCap participants, again using a bias-corrected bootstrapping procedure with 10,000 samples (Hayes, 2017). The bootstrap results for the indirect effects across low, medium, and high PsyCap levels are presented in Table 10. Most importantly, the index of moderated

mediation was not statistically significant, as the confidence interval included zero, $\beta = -.02$, $SE = .01$, 95% boot CI $[-.05, .003]$. Therefore, there is no evidence that PsyCap moderates the indirect effects of emotions in the relationship between work events and momentary work engagement.

Table 10*Mediation Effect at Three Levels of the Moderator (PsyCap) in Study 3*

Effects	Low PsyCap				Medium PsyCap				High PsyCap			
	β	SE	BC 95% CI		β	SE	BC 95% CI		β	SE	BC 95% CI	
			Lower	Upper			Lower	Upper			Lower	Upper
PEW $\rightarrow$ MWE												
Indirect effect via PEm	.01	.02	-.03	.06	.01	.02	-.02	.04	.01	.02	-.04	.06
Indirect effect via NEm	.01	.01	-.01	.05	.01	.01	-.006	.03	.009	.01	-.02	.03
Joint indirect effect of PEW	.03	.03	-.03	.09	.02	.02	-.01	.07	.02	.03	-.04	.09
Direct effect of PEW	-.04	.05	-.15	.06	.02	.04	-.05	.09	.09	.05	-.01	.19
Total effect of PEW	-.02	.06	-.13	.10	.04	.04	-.03	.12	.11	.06	-.01	.23
NEW $\rightarrow$ MWE												
Indirect effect via PEm	-.26	.04	-.34	-.19	-.27	.04	-.35	-.20	-.29	.04	-.38	-.21
Indirect effect via NEm	-.16	.03	-.24	-.10	-.18	.03	-.25	-.11	-.20	.04	-.28	-.13
Joint indirect effect of NEW	-.42	.05	-.52	-.34	-.46	.04	-.55	-.37	-.49	.05	-.59	-.39
Direct effect of NEW	-.06	.07	-.02	.08	-.06	.06	-.18	.04	-.06	.07	-.21	.08
Total effect of NEW	-.49	.06	-.61	-.37	-.52	.04	-.61	-.44	-.55	.07	-.68	-.41

Note: $N = 494$; 10,000 bootstrap samples.*SE* = standard error, *BC* = bias corrected, *CI* = confidence interval.

PEW = Positive vs. neutral work event; NEW = Negative vs. neutral work event; PEm = Positive event-related emotions; NEm = Negative event-related emotions; MWE = Momentary work engagement.

To summarise, the moderation analysis yielded two marginally significant interactions. The first, between PsyCap and the negative (vs. neutral) event, showed that the connection between this event and negative event-related emotions was more pronounced for participants with high PsyCap than for those with medium or low PsyCap. This outcome is contrary to my hypothesis that PsyCap would act as a buffer against the negative effects of stressful events. Instead, it suggests a more complex and potentially counterintuitive process where high PsyCap individuals are more emotionally reactive to certain events. Further analysis indicates that while the effect on negative emotions is stronger for high-PsyCap individuals in the negative (vs. neutral) context, the overall level of negative emotions is actually lower for high-PsyCap individuals in the positive and neutral event conditions. This finding points to a nuanced moderating role of PsyCap, which may be more effective in regulating emotions in benign rather than stressful situations.

The second marginally significant interaction showed that the positive (vs. neutral) event significantly predicted momentary work engagement only for participants with high PsyCap, a relationship that was not significant for those with medium and low PsyCap, which was also contrary to my preregistered hypothesis. This suggests that PsyCap may act as a booster of positive experiences. In other words, individuals with higher PsyCap may be better equipped to capitalise on positive work events, transforming them into a more substantial increase in momentary work engagement.

In addition to the primary hypotheses, I conducted several preregistered auxiliary analyses, which are detailed in Appendix C4. These analyses explored the moderating effects of individual PsyCap components, the relationship between PsyCap and event appraisals, and a robustness check on a subsample of participants who found the events realistic. Overall, these supplementary tests indicated that none of the individual PsyCap components (self-efficacy, hope, optimism, or resilience) significantly moderated the mediation pathways.

Furthermore, while the robustness check replicated the mediation results for negative events, the marginally significant interaction effects observed in the full sample disappeared, highlighting the instability of PsyCap's moderating role in this context.

In Table 11, I presented the summary of my hypotheses from the theoretical model tested in Study 3.

Table 11

Summary of Hypotheses from the Theoretical Model Tested in Study 3

Hypotheses	Study 3 (<i>N</i> = 494)
Preregistered hypotheses	
H1a: Indirect effect PEW → PEm → MWE	Not supported
H1b: Indirect effect PEW → NEm → MWE	Not supported
H2a: Indirect effect NEW → PEm → MWE	Supported
H2b: Indirect effect NEW → NEm → MWE	Supported
H3a: Interaction PsyCap x PEW → MWE	Not supported
H3b: Interaction PsyCap x NEW → MWE	Not supported
H4a: Interaction PsyCap x PEW → PEm	Not supported
H4b: Interaction PsyCap x PEW → NEm	Not supported
H5a: Interaction PsyCap x NEW → PEm	Not supported
H5b: Interaction PsyCap x NEW → NEm	Not supported

Note. PEW = Positive vs. neutral work event; NEW = Negative vs. neutral work event; PEm = Positive event-related emotions; NEm = Negative event-related emotions; MWE = Momentary work engagement.

Discussion

My findings provide partial support for the central mediation hypotheses, attesting that both positive and negative emotions act as mediators in the relationship between negative (vs. neutral) events and momentary work engagement. This aligns with well-established theories, such as the BBT (Fredrickson, 2001), which posits that positive emotions broaden an individual's thought-action repertoire and build enduring psychological resources. From this perspective, experiencing positive emotions after work events may facilitate openness,

creativity, and resilience, which, in turn, sustain or even enhance momentary work engagement despite adverse circumstances. Conversely, negative emotions may narrow one's thought–action repertoire, leading to avoidance, withdrawal, or rumination, thereby undermining engagement. Similarly, AET (Weiss & Cropanzano, 1996) suggests that work events serve as proximal triggers of affective reactions, which subsequently shape attitudes and behaviours at work. In this framework, it is not the event per se but the emotional response it elicits that influences engagement. A negative work event may thus lower engagement primarily through evoking negative emotions, while positive affective responses can buffer this effect and help employees remain engaged. Together, these theoretical perspectives explain why emotions play a central mediating role: they are the immediate psychological mechanisms through which everyday workplace events translate into fluctuations in momentary engagement. The absence of mediation effects in the path from positive (vs. neutral) event through emotions to momentary work engagement may be explained by the manipulation check results, which showed that only the negative event condition was successful.

Next, the moderation hypotheses yielded more complex and nuanced results than initially predicted. Contrary to my hypothesis that PsyCap would act as a buffer against the negative effects of stressful events, the analysis revealed only a weak interaction, indicating that high-PsyCap individuals showed a more pronounced connection between negative (vs. neutral) events and negative emotions. This surprising finding challenges the widely accepted notion of PsyCap as a robust protective factor (Avey et al., 2010). It is possible that individuals high in PsyCap, being more attuned to their emotional states and possessing a higher level of self-awareness, might experience a heightened, though likely transient, emotional response to negative events. This does not necessarily contradict the buffering effect; rather, it suggests a more dynamic process where the initial emotional reaction is

stronger, but the subsequent emotional regulation and return to a positive state are more efficient. The finding that high-PsyCap individuals maintain lower overall levels of negative emotions in neutral and positive contexts supports this interpretation, indicating that their emotional regulation skills are most effective in benign situations.

The second marginally significant interaction, indicating that a positive event significantly predicted work engagement only for high-PsyCap participants, offers a compelling insight into PsyCap's role. This result is inconsistent with my preregistered hypothesis but supports the concept of PsyCap as a “booster” of positive experiences. This is in line with the work of Luthans et al. (2015), who propose that PsyCap not only helps people cope with adversity but also enables them to capitalise on opportunities and positive experiences. Individuals with higher levels of self-efficacy and optimism, for instance, may be better equipped to recognise, amplify, and utilise positive events to enhance their motivation and engagement.

Finally, I conducted a series of preregistered auxiliary analyses to further scrutinise the robustness of the findings (detailed in Appendix C4). These tests included an examination of individual PsyCap components and a robustness check on a subsample of participants who perceived the experimental scenarios as highly realistic. The results across these additional analyses remained consistent with the primary findings: none of the individual PsyCap dimensions significantly moderated the emotional pathways. Furthermore, when the sample was restricted to participants who viewed the scenarios as realistic, the marginally significant interactions observed in the full sample disappeared. This underscores the instability of PsyCap's moderating role in this experimental context and suggests that the observed boundary effects are weak. These findings, while supplementary, prevent the overgeneralisation of PsyCap as a universal buffer and suggest that its effectiveness may be

constrained by the intensity or realism of the workplace stimuli, as well as the specific population characteristics, such as the observed ceiling effect in PsyCap scores.

Study 4

Drawing on the findings from previous studies, I conducted Study 4 to test the theoretical model using a daily diary approach. My studies 1-3, while providing valuable insights, were limited by their scenario-based and retrospective nature. The vignette methodology, although useful for establishing internal validity, may not fully capture the dynamic, in-the-moment processes described by AET (Weiss & Cropanzano, 1996). According to this model, work events trigger immediate emotional reactions that, in turn, influence behaviour and attitudes. To more accurately assess these daily processes, a diary study was a more suitable method.

The diary study enabled me to address several limitations of previous research. First, by collecting data on participants' real-life experiences in their natural work environment, I avoided the artificiality of vignette scenarios and instead examined authentic, day-to-day work events. This approach also minimised the risk of retrospection bias, as participants reported their experiences and emotions shortly after they occurred, allowing for more precise observation of the short-term dynamics between variables. Furthermore, this fourth study was conducted in a homogeneous group of employees from one organisation performing the same kind of work. Such an approach allowed me to control potential confounding factors related to inter-organisational differences or variations in job roles. It also provided a clearer context for testing the relationships in my model. Ultimately, the diary study methodology offered a more realistic and ecologically valid way to evaluate the moderating role of PsyCap, assessing its function in employees' daily work lives rather than in hypothetical scenarios.

In summary, this diary study aimed to test the hypotheses derived from my theoretical model, focusing on the day-to-day dynamics of the proposed relationships. In line with the

hypotheses tested in the previous studies, I expected the daily frequency of positive work events to be positively related to daily work engagement. In contrast, the frequency of negative work events would be negatively related to it. Moreover, I hypothesised that these effects would be mediated by the daily emotions associated with the events. Specifically, the indirect effect of positive work events on daily work engagement will be stronger when mediated by positive emotions (H1a) rather than negative ones (H1b). Conversely, the indirect effect of negative work events on daily work engagement will be significantly weaker when channelled through positive emotions (H2a) than through negative emotions (H2b).

Furthermore, I explored the moderating role of PsyCap. I hypothesised that PsyCap would moderate the relationships between both positive (H3a) and negative (H3b) daily work events and daily work engagement. I expected these relationships to be stronger for employees with low PsyCap and weaker for those with high PsyCap. Finally, I proposed that PsyCap would also moderate the relationship between daily work events and daily event-related emotions. Specifically, I hypothesised that the links between a daily frequency of positive events and both positive (H4a) and negative (H5a) emotions, as well as the links between a daily frequency of negative events and both positive (H4b) and negative (H5b) emotions, would all be stronger for employees with low PsyCap and weaker for those with high PsyCap.

The study hypotheses, sample size, exclusions, data analysis, and additional exploratory analyses were preregistered at <https://aspredicted.org/5ymw-v5k9.pdf>.

Method

Participants and Recruitment

In collaboration with the company's HR department, I invited 1737 bus and tram drivers employed by a Polish public transport company to participate in the study. To contact

the employees, I used various methods, including emails with the link to the baseline survey, a company newsletter, leaflets, and face-to-face conversations. Two hundred forty-two of them responded to the invitation, resulting in a 13.93% response rate. All responders completed the initial baseline survey (T0). I excluded 20 participants from the database because they did not correctly complete the two attention checks⁵ or did not provide a valid phone number, which was required to send reminders to complete the daily survey⁶. Therefore, the sample consisted of 222 participants who completed the baseline survey (T0) and were eligible for the diary phase. Of these, 197 participants completed the diary at least once (147 men, 49 women, and 1 other; $M_{\text{age}} = 41.39$ years; $SD = 10.59$). The majority of the sample (182 participants, or 82%) completed at least three diary entries.⁷ Of this group, 77 participants completed the diary for all 10 or more workdays ($M_{\text{days}} = 11$, $SD = 0.80$, $Mdn = 10$, range 10-12). To assess whether there were systematic differences between participants who dropped out of the diary phase and those who filled it in at least once, I performed a dropout analysis. There were no significant differences in any of the background variables, namely gender, $\chi^2(2, 222) = 1.116$, $p = .572$, age, $t(31.4) = -0.745$, $p = .462$, overall tenure, $t(32) = -0.616$, $p = .542$, tenure in the company, $t(32.6) = 1.320$, $p = .196$, trait work engagement, $t(27.8) = 1.080$, $p = .289$, trait positive affectivity, $t(26.9) = 0.803$, $p = .429$, trait negative affectivity, $t(31.6) = -0.250$, $p = .805$, and PsyCap, $t(28.6) = 0.428$, $p = .672$.

⁵ In the first attention check, after the demographic questions part, participants were asked to write today's date. A total of 14 participants provided incorrect responses to this question. The second attention check was related to a question about describing a work event, either positive or negative. Participants who failed to provide at least one description of an event were not invited to participate in the diary part of the study. Only two employees did not provide a response to the question about event descriptions. A total of 226 participants successfully passed both attention checks.

⁶ Among the participants who successfully passed the attention checks, four did not provide valid phone numbers.

⁷ In the pre-registration for this study, I specified that the final analyses would only include participants who completed the diary for at least three days. However, in the final analyses, I included all participants who completed the daily diary part at least once.

Procedure and Materials

To conduct this study, I constructed a web-based survey comprising a general and a diary questionnaire. I collaborated with a mass SMS messaging platform to send reminders to participants about the daily diary surveys. Participants received a link to the general questionnaire via their work email address. The study introduction included detailed information on the research purpose and how to complete the daily diary. After participants provided informed consent, they answered demographic questions about gender, age, education level, overall tenure, and tenure with the company. They were also asked to provide their personal phone number to allow for notifications about the daily survey, which included a link to the questionnaire. The storage and processing of these numbers were consulted and agreed upon with the University Data Protection Officer. Then, participants were also asked to specify the time of day they preferred to receive the SMS notification with the link to the daily survey so they would be able to fill it in immediately after work. Next, participants were directed to another part of the study and completed three questionnaires assessing their general level of work engagement, positive and negative affectivity, and PsyCap. Ultimately, they were asked to list the positive and negative events they or other employees in their position typically encounter daily.

The daily diary study was launched two weeks after the T0 survey closed. Participants were asked to complete measurements of daily-level variables immediately after work for 10 consecutive working days. However, because this group of employees works in a shift system with days off interspersed throughout their schedules, capturing 10 consecutive working days required extending the data collection period to 15 days. On the first screen of the diary questionnaire, participants were asked whether the current day was a working day or a day off. When they indicated that it was a day off, the survey ended. On a working day, they proceeded to the subsequent parts of the daily diary study. Here, they completed a series

of short questionnaires in a randomised order, reporting on the positive and negative events they experienced that day, their work-related emotions throughout the day, and their daily work engagement. The study did not offer monetary compensation. However, those who completed the daily diary study were offered the chance to enter a prize draw for material rewards.

The T0 survey included the following questionnaires:

1. **Trait work engagement.** I used a short version of the Utrecht Work Engagement Scale (UWES-9; Schaufeli et al., 2006; Polish adaptation by Chirkowska-Smolak, 2012), which consists of nine items (e.g., “At my job, I feel bursting with energy” and “My work inspires me”). Participants responded on a 7-point frequency scale ranging from 0 = *never* to 6 = *always/every day*. The items were averaged to determine an overall work engagement score.
2. **Positive and Negative Affectivity.** I used the short version of the Positive and Negative Affect Scale (Watson et al., 1988). The scale consists of 10 positive adjectives (e.g., interested, excited) and 10 negative adjectives (e.g., distressed, upset). On a 5-point scale ranging from 1 = *very low* to 5 = *extremely high*, participants indicated the extent to which the scale reflected how they feel in general in their lives. The items were averaged to calculate an overall score separately for positive and negative affectivity.
3. **Psychological Capital.** I used the Psychological Capital Questionnaire (PCQ-12; Avey, Avolio et al., 2011), which consists of 12 items (e.g., “I feel confident in representing my work ideas in meetings with management”, “If I should find myself in a jam about my work, I think of many ways to get out of it”). Permission to use the PCQ for research purposes, including the Polish version of the instrument, was obtained from www.mindgarden.com. Participants answered the questions on

a 6-point Likert scale ranging from 1 = *strongly disagree* to 6 = *strongly agree*. The items were averaged to calculate an overall PsyCap score.

The diary survey included the following measures:

1. **Day-level work engagement.** I used the ultra-short UWES-3 (Schaufeli et al., 2019) with modified instructions to measure state work engagement (Breevaart et al., 2012) using the items: “Today, I felt bursting with energy”, “Today, my work inspired me”, and “Today, I was immersed in my work”. The items were rated on a 7-point scale ranging from 0 = *strongly disagree* to 6 = *strongly agree* (the modified instruction and item list are provided in Appendix B5). I computed an overall work engagement factor score for each working day.
2. **Day-level positive and negative emotions.** I used the short version of the Job-related Affective Well-being Scale (JAWS; Van Katwyk et al., 2000; with the Polish adaptation by Basińska et al., 2014), which consists of 4 items for positive work-related emotions (e.g., “Today, my job made me feel excited”), and 4 items for negative work-related emotions (e.g., “Today, my job made me feel angry”). Participants responded on a 5-point scale on which emotions they experienced during their workday, ranging from 1 = *strongly disagree* to 5 = *strongly agree*. The items were averaged to calculate an overall score separately for positive and negative work-related emotions for each working day.
3. **Positive and negative work events.** The list of positive and negative events was compiled based on the actual events experienced by participants at work (the complete set of items is provided in Appendix B6). I categorised and combined the events they described into a list of 29 positive events (e.g., “driving conditions were good today” or “a co-worker helped me”) and a list of 38 negative events (e.g., “I had a fight on the

bus/tram” or “there were traffic jams in the city”)⁸. During the daily diary phase, participants were asked to select all the positive and negative events they had experienced at work that day.

Results

Descriptive Statistics

The descriptive statistics, Cronbach’s α s, and correlations between the variables are shown in Table 12. The within-person reliability of the daily-level variables was calculated using the multilevel approach as suggested by Geldhof et al. (2014). The results revealed that most constructs possessed satisfactory internal consistency. At the person level, trait work engagement was strongly and positively correlated with PsyCap and, crucially, demonstrated high convergence with the mean of day-level work engagement. PsyCap showed robust links with both higher positive affectivity and lower negative affectivity. At the day level, the associations highlighted the dynamic role of daily experiences. Day-level work engagement was most powerfully predicted by the contemporaneous emotional state, showing an exceptionally strong positive correlation with day-level positive emotions and a strong negative correlation with day-level negative emotions. Furthermore, the occurrence of daily events was reliably linked to emotional fluctuations: day-level positive events were positively associated with positive emotions. In contrast, negative events were associated with both a reduction in positive emotions and an increase in negative emotions. These findings collectively demonstrate a strong cross-level convergence of the stable and dynamic measures and highlight the central role of daily affective experiences in influencing momentary work engagement.

⁸ The discrepancy in the number of positive and negative events stems from the number of events described by participants during the general questionnaire phase: 467 mentions of positive events and 663 mentions of negative events.

Table 12*Descriptive Statistics, Cronbach's Alphas, and Correlations for Study Variables in Study 4*

Variable	<i>M</i>	<i>SD</i>	α (within)	α (between)	1	2	3	4	5	6	7	8	9
1. Trait work engagement	4.37	1.13	.91	—	—								
2. Positive affectivity	3.50	0.52	.79	—	.45**	—							
3. Negative affectivity	1.86	0.61	.84	—	-.23**	-.18*	—						
4. Psychological capital	4.42	0.64	.84	—	.54**	.52**	-.47**	—					
5. Day-level positive events	0.26	0.13	—	—	.41**	.14*	-.20**	.32**	—	-.30***	.41***	-.40***	.38***
6. Day-level negative events	0.15	0.10	—	—	-.06	.08	.03	.04	.26**	—	-.44***	.45***	-.35***
7. Day-level positive emotions	3.09	0.87	.31	.71	.69**	.22**	-.10	.33**	.38***	-.30***	—	-.68***	.70***
8. Day-level negative emotions	2.58	0.91	.36	.59	-.46**	-.13	.25**	-.32**	-.38***	.39***	-.76***	—	-.56***
9. Day-level work engagement	4.15	1.24	.44	.79	.71**	.35**	-.07	.33**	.33***	-.14	.90***	-.61***	—

Note. Day-level data were averaged across 15 days. Correlations below the diagonal are person-level correlations ($N = 197$). Correlations above the diagonal are day-level correlations ($N = 1575$).

* $p < .05$, ** $p < .01$, *** $p < .001$.

Fluctuations over time

To examine the proportion of variance attributed to different levels of analysis, I calculated the intra-class correlation (ICC) for each day-level variable using an Unconditional Means Model with a Bayesian estimator in Mplus. The results showed that the variance for all day-level variables was significantly partitioned between individuals. Specifically, the ICC for work engagement was .52, indicating that 52% of the total variance was attributable to between-person variations. Similarly, positive events (with an ICC of .50) and negative events (with an ICC of .55) were highly influenced by person-level factors, with 50% and 55% of their variance, respectively, being attributable to stable differences between individuals. For emotions, the ICC for positive emotions was .52, indicating that 52% of the variance was between persons, whereas negative emotions had a slightly lower, though still substantial, ICC of .44, with 44% of the variance attributable to stable individual differences. This indicates that a significant portion of the variance in all assessed variables is due to stable differences between differences. Consequently, in all cases, the substantial remaining variance (ranging from 45% to 56%) resided at the within-person level, justifying the application of multilevel modelling.

Hypotheses Testing

To analyse the data, I conducted a multilevel structural equation model (MSEM) using MPlus 8.7 (Muthén et al., 2017) with Bayesian estimation. Given the nested nature of the data (days nested within participants), the model was partitioned into within-participant and between-participant levels. Following the hypotheses focused on day-to-day dynamics, the parallel mediation paths were specified at the within-participant level, where daily positive and negative work events (predictors) were linked to daily work engagement (dependent variable) via daily positive and negative emotions (mediators). To ensure a rigorous test of

these within-participant effects, the between-participant level accounted for the hierarchical structure by estimating the relationships between the latent means of the variables (average levels of emotions and engagement). This decomposition allows for the isolation of daily, intra-individual processes from stable, between-participant differences, providing a direct test of my proposed daily-level hypotheses.

The analysis revealed good model fit to the data, as indicated by a posterior predictive p-value (*ppp*) of .452. This value suggests that there is no systematic discrepancy between the observed and replicated data. Furthermore, the 95% credible interval for the difference between the observed and replicated χ^2 values, $CI = [-15.42, 24.35]$, included zero, providing additional support for acceptable model fit. The model possessed 26 free parameters. The Deviance Information Criterion (DIC) was 3516.58, and the Estimated Number of Parameters (pD) was 470.38. Given the satisfactory posterior predictive p-value and the credible interval including zero, I proceeded to interpret the model's parameters presented in Table 13. The multilevel path model accounted for a substantial proportion of the variance in daily work engagement. At the within-level, the model explained 56.6% of the variance in daily fluctuations of work engagement. At the between-level, the model explained 79.7% of the variance in between-person differences in average work engagement.

Table 13*Results of the Multi-level Analysis in Study 4*

Path	Regression step 1				Regression step 2			
	<i>b</i>	posterior SD	95% CI	<i>p</i>	<i>b</i>	posterior SD	95% CI	<i>p</i>
Within-participants level								
Direct effects								
PEW → WE	0.80	0.17	[0.43, 1.12]	< .001	-0.73	1.99	[-4.29, 3.52]	.726
NEW → WE	0.02	0.22	[-0.44, 0.42]	.950	-3.06	2.36	[-7.24, 1.36]	.210
Detailed paths								
PEW → PEm	2.19	0.15	[1.94, 2.48]	< .001	5.07	1.12	[2.89, 7.31]	< .001
NEW → PEm	-2.99	0.19	[-3.33, -2.59]	< .001	-2.69	1.76	[-6.02, 0.87]	.136
PEm → WE	0.81	0.04	[0.73, 0.88]	< .001	0.78	0.07	[0.64, 0.92]	< .001
PEW → NEm	-2.21	0.15	[-2.53, -1.94]	< .001	-5.46	1.24	[-7.89, -3.06]	< .001
NEW → NEm	3.52	0.20	[3.09, 3.88]	< .001	4.14	1.87	[0.53, 7.90]	.026
NEm → WE	-0.18	0.03	[-0.25, -0.11]	< .001	-0.16	0.06	[-0.27, -0.05]	.004
Covariances								
PEm ↔ NEm	-0.17	0.01	[-0.19, -0.15]	< .001	-0.14	0.01	[-0.16, -0.12]	< .001
PEW ↔ NEW	0.000	0.000	[-0.001, 0.000]	.306	0.000	0.000	[0.21, -0.001]	.430
Between-participants level								
Detailed paths								
PEm → WE	1.50	0.08	[1.35, 1.66]	< .001	1.34	0.21	[0.91, 1.74]	< .001
NEm → WE	0.20	0.10	[0.03, 0.40]	.052	0.09	0.24	[-0.39, 0.52]	.754
Covariances								
PEm ↔ NEm	-0.17	0.03	[-0.24, -0.13]	< .001	-0.16	0.03	[-0.24, -0.11]	< .001
Moderation by PsyCap								
Cross-level moderation								
PsyCap × PEW → PEm					-0.60	0.24	[-1.10, -0.13]	.012
PsyCap × PEW → NEm					0.67	0.28	[0.13, 1.21]	.016
PsyCap × NEW → PEm					-0.10	0.39	[3.40, -0.90]	.796
PsyCap × NEW → NEm					-0.04	0.42	[-0.87, 0.77]	.924
PsyCap × PEW → WE					0.39	0.46	[-0.62, 1.16]	.458
PsyCap × PEW → WE					0.62	0.51	[-0.37, 1.48]	.550
<i>R</i> ² within-person (WE)			56.6%				99.4%	
<i>R</i> ² between-person (WE)			79.7%				95.6%	

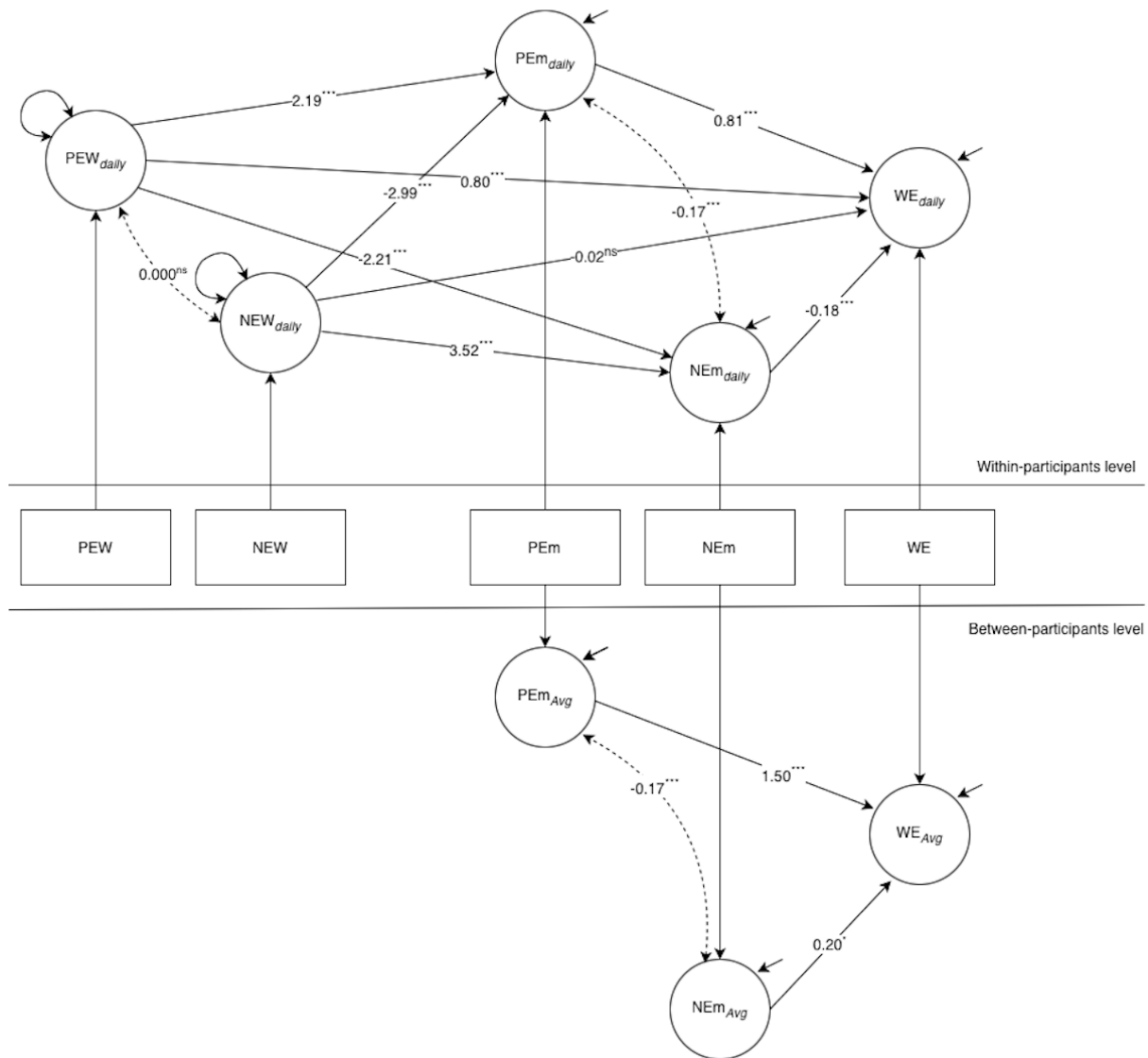
Note. *N* = 197.

posterior SD = posterior standard deviation; CI = credible interval. PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement.

Mediation by Positive and Negative Work-Related Emotions. I tested for the mediation effects predicted in hypotheses H1a, H1b, H2a, and H2b at the within-participants level (daily fluctuations). Specifically, I examined how daily positive and negative work events related to daily work engagement, with daily positive and negative emotions as mediating factors. The significance of the direct, specific indirect, and total indirect effects was assessed by examining the 95% Credible Intervals for the posterior distributions. An effect was considered statistically significant if the 95% credible interval did not contain zero. The results for the full model, including all path coefficients, are presented in Table 13 (step 1) and in Figure 4.

Figure 4.

Multilevel structural equation model (MSEM) of the relationship between daily work events, emotions, and work engagement in Study 4



Note. PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement. Unstandardised coefficients are presented. Solid lines represent regression paths; a double-headed dashed arrow indicates a correlation.

*** $p < .001$, * $p < .05$, ^{ns} = nonsignificant.

At the within-participants level (day-level), the total effect of daily positive events on daily work engagement was statistically significant ($b = 2.17$, post SD = 0.16, $p < .001$, 95% CI [1.89, 2.51]). Examining the specific indirect effects showed that daily positive events increased the daily level of work engagement primarily via increased positive emotions ($b = 1.77$, post SD = 0.14, $p < .001$, 95% CI [1.54, 2.08]) and via a weaker, but significant path through decreased negative emotions ($b = 0.40$, post SD = 0.08, $p < .001$, 95% CI [0.24, 0.56]). The total effect of daily negative events on daily work engagement was also statistically significant ($b = -3.05$, post SD = 0.21, $p < .001$, 95% CI [-3.49, -2.62]). Daily negative events decreased the daily level of work engagement primarily via decreased positive emotions ($b = -2.41$, post SD = 0.20, $p < .001$, 95% CI [-2.79, -2.04]), and also via a weaker path through increased negative emotions ($b = -0.63$, post SD = 0.12, $p < .001$, 95% CI [-0.87, -0.40]).

At the between-participants level, the individual differences in work engagement were significantly predicted by the average level of positive emotions ($b = 1.50$, post SD = 0.08, $p < .001$, 95% CI [1.36, 1.66]) and the average level of negative emotions ($b = 0.21$, post SD = 0.10, $p = .013$, 95% CI [0.03, 0.40]). Interestingly, while average positive emotions strongly boosted engagement, average negative emotions showed a weak but significant positive direct relationship with average engagement at this level.

Overall, the multilevel analysis supported the mediation hypotheses, demonstrating the critical role of daily emotions. At the day-level (within-participants), the results showed the expected asymmetry for positive events: the positive effect on daily work engagement was stronger when channelled through increased positive emotions (H1a) than through decreased negative emotions (H1b). However, for negative events, the analysis revealed a pattern opposite to that hypothesised: the negative relationship between negative events and engagement was significantly stronger when channelled through the depletion of positive

emotions than through the increase in negative emotions. This finding contradicts the hypothesised dominance of the negative channel (H2b) and highlights that the loss of positive emotions is the primary driver of daily disengagement. At the between-level, the process was more selective, with the average level of positive emotions acting as the dominant predictor of stable engagement differences.

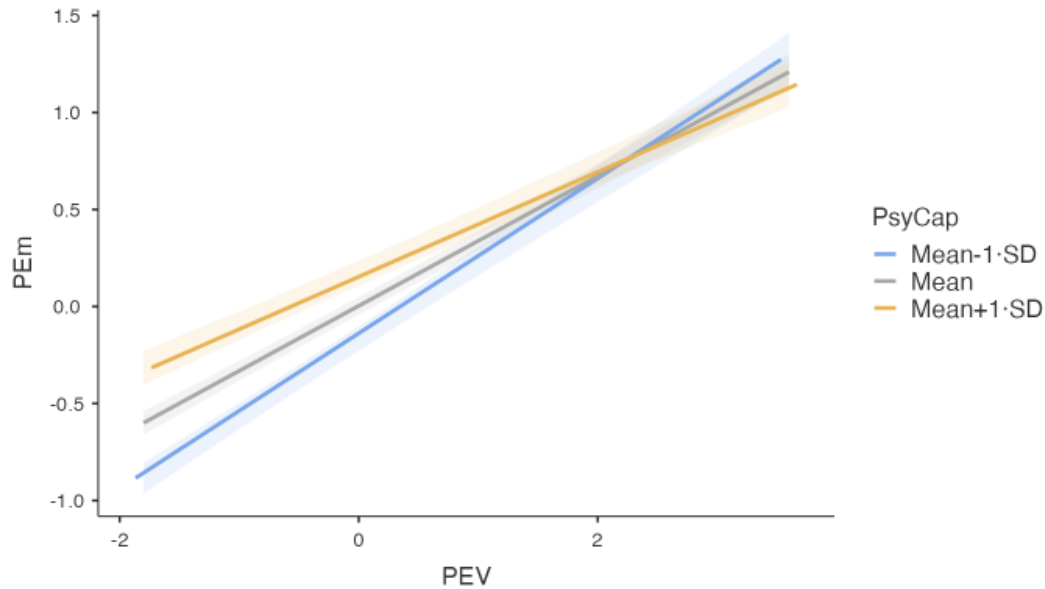
Moderation by Psychological Capital. In the second step, I added PsyCap as a between-participants moderator acting on the within-participants level. Specifically, I tested whether individual differences in PsyCap explain the variance in random slopes, representing the daily links between work events, emotions, and work engagement (hypotheses H3a-H5b).

Given that the Bayesian estimator was used, traditional model fit indices were not calculated. However, the model demonstrated good technical adherence to estimation assumptions. Specifically, the analysis yielded no evidence of estimation issues, such as Heywood cases; all within- and between-participants residual variances were successfully estimated as positive and statistically significant (95% CI excluding zero), attesting to the existence of true variance in the variables and random effects. The model possessed 47 free parameters, and the Deviance Information Criterion (DIC) was 4074.33. Notably, the mediation model tested in the preceding step had already demonstrated acceptable model fit ($ppp = .452$), providing a solid foundation for the current moderated mediation structure.

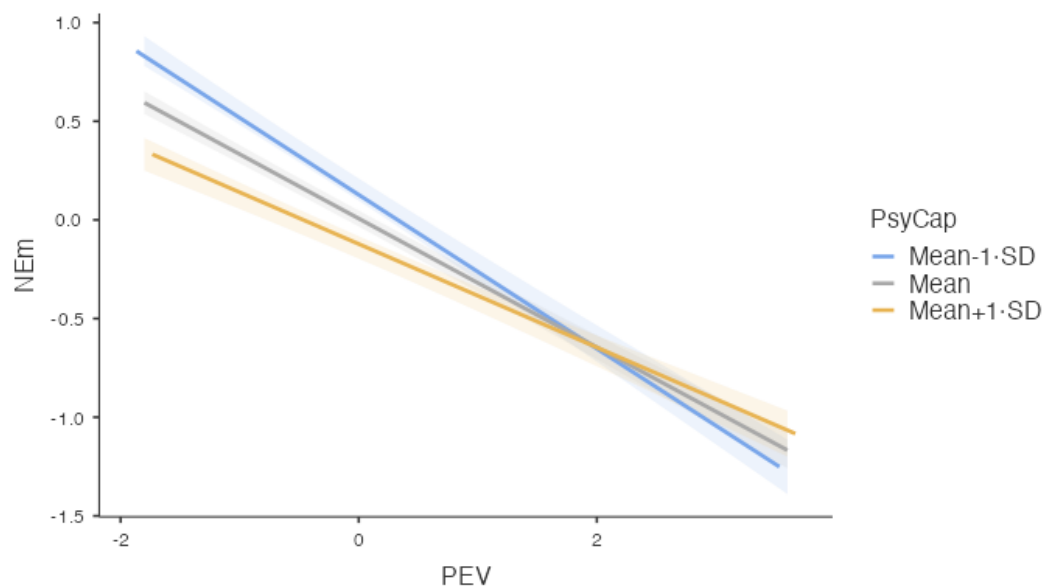
The moderation analysis revealed two significant cross-level interaction effects, where PsyCap, as a between-participants resource, significantly moderated the within-person relationships between daily events and emotions (see Table 13, step 2). Specifically, PsyCap significantly moderated the relationships between daily positive events and positive emotions and between daily positive events and negative emotions, supporting the role of personal resources in differentiating emotional reactivity to positive stimuli.

In contrast, the moderation effects for all other hypothesised paths were not statistically significant. PsyCap did not significantly moderate the emotional reactions to daily negative events or the direct relationships between daily events and work engagement as the 95% Credible Intervals for these effects included zero and p -values exceeded .05. These results indicate that while PsyCap differentiates emotional responses to positive events, it does not significantly alter the immediate behavioural or emotional impact of negative daily demands in this model.

In the next step, I decomposed the significant cross-level interactions. The simple slopes analysis demonstrated that the daily relationship between positive events and positive emotions was significant across all levels of PsyCap, and that the strength of this relationship was significantly moderated by individual PsyCap level. The positive effect of daily positive events on positive emotions was strongest for participants with low PsyCap ($b = 2.78$, post SD = 0.25, $p < .001$, 95% CI [2.29, 3.29]) and progressively weakened as PsyCap increased to its high level ($b = 1.99$, $p < .001$, post SD = 0.23, 95% CI [1.57, 2.46]). Similarly, the negative link between daily positive events and negative emotions was significant at all levels of the moderator, but its magnitude decreased as PsyCap increased. This relationship was most pronounced for individuals with low PsyCap ($b = -2.93$, post SD = 0.25, $p < .001$, 95% CI [-3.44, -2.44]) compared to those with high PsyCap ($b = -2.06$, post SD = 0.25, $p < .001$, 95% CI [-2.57, -1.57]). As presented in Figure 5a and 5b, high PsyCap acts as an emotional buffer, making an individual's daily emotional reactivity to positive events more stable (i.e., less dependent on external fluctuations).

Figure 5a.*Moderating Effect of PsyCap on Positive Emotions in Study 4*

Note. Variables were standardised (z-scores) to facilitate interpretation. PEV = Daily frequency of positive work events; PEm = Daily positive work-related emotions. Shaded areas represent Standard Errors (SE).

Figure 5b.*Moderating Effect of PsyCap on Negative Emotions in Study 4*

Note. Variables were standardised (z-scores) to facilitate interpretation. PEV = Daily frequency of positive work events; NEm = Daily negative work-related emotions. Shaded areas represent Standard Errors (SE).

The analysis of moderated mediation provided strong support for the conditioning role of PsyCap in the emotional processes following positive work events (see Table 14). Specifically, the index of moderated mediation was statistically significant for the indirect effect of positive events on engagement through positive emotions ($b = -0.47$, post SD = 0.19, $p = .012$, 95% CI [-0.87, -0.10]) and through negative emotions ($b = -0.10$, post SD = 0.06, $p = .02$, 95% CI [-0.238, -0.014]). Further examination of the conditional indirect effects revealed that for positive events, the mediation mechanism was significant across all levels of the moderator, but its strength decreased as PsyCap increased. The indirect effect via positive emotions was highest for individuals with low PsyCap ($b = 2.18$, post SD = 0.26, $p < .001$, 95% CI [1.69, 2.70]) and lowest for those with high PsyCap ($b = 1.56$, post SD = 0.21, $p < .001$, 95% CI [1.17, 2.00]). In contrast, while negative events indirectly predicted lower engagement through both positive and negative emotions, these processes were not significantly moderated by PsyCap, as the indices of moderated mediation for these paths included zero in their Credible Intervals. These findings indicate that the emotional impact of negative daily work events on the daily level of work engagement is a more universal process, less influenced by an individual's level of PsyCap in this sample.

Table 14

Mediation Effect of Daily Work Events on Work Engagement at Three Levels of the Moderator (PsyCap) in Study 4

Effects	Low PsyCap				Medium PsyCap				High PsyCap			
	<i>b</i>	posterior SD	95% CI		<i>b</i>	posterior SD	95% CI		<i>b</i>	posterior SD	95% CI	
			Lower	Upper			Lower	Upper			Lower	Upper
PEW → WE												
Indirect effect via PEm	2.18	0.26	1.69	2.70	1.87	0.20	1.49	2.27	1.56	0.21	1.17	2.00
Indirect effect via NEm	0.47	0.17	0.15	0.83	0.40	0.15	0.13	0.71	0.33	0.13	0.10	0.61
Joint indirect effect of PEW	2.66	0.26	2.15	3.19	2.28	0.20	1.89	2.69	1.90	0.22	1.48	2.36
Direct effect of PEW	0.65	0.47	-0.26	1.60	0.87	0.43	0.06	1.67	1.12	0.57	-0.03	2.05
Total effect of PEW	3.33	0.50	2.35	4.33	3.18	0.42	2.33	3.98	3.07	0.57	1.83	3.99
NEW → WE												
Indirect effect via PEm	-2.38	0.35	-3.16	-1.79	-2.43	0.31	-3.13	-1.95	-2.49	0.38	-3.32	-1.86
Indirect effect via NEm	-0.64	0.24	-1.12	-0.22	-0.63	0.23	-1.10	-0.21	-0.62	0.23	-1.12	-0.20
Joint indirect effect of NEW	-3.05	0.33	-3.72	-2.39	-3.10	0.28	-3.67	-2.58	-3.16	0.38	-3.93	-2.45
Direct effect of NEW	-0.77	0.57	-1.91	0.35	-0.47	0.42	-1.17	0.53	-0.06	0.50	-1.02	1.04
Total effect of NEW	-3.83	0.63	-5.15	-2.64	-3.52	0.43	-4.41	-2.71	-3.17	0.53	-4.37	-2.27

Note: *N* = 197.

posterior SD = posterior standard deviation; CI = credible interval.

PEW = Daily frequency of positive events at work; NEW = Daily frequency of negative events at work; PEm = Daily positive work-related emotions; NEm = Daily negative work-related emotions; WE = Daily work engagement.

Overall, the cross-level moderation analysis provided partial support for the hypothesised role of PsyCap as a resource buffer. The results demonstrated that PsyCap significantly differentiates the day-to-day emotional dynamics, specifically in response to positive work events. Significant indices of moderated mediation indicated that the indirect effects of daily positive events on work engagement—channelled through both positive and negative emotions—were conditional on the individual’s level of PsyCap. Decomposition of these effects showed that positive work events have a stronger impact on emotional and, consequently, engagement-related outcomes for employees with low PsyCap compared to those with high PsyCap. These findings indicate that individuals with lower PsyCap are more reactive to positive external stimuli, whereas those with high PsyCap exhibit greater emotional stability. In contrast, PsyCap did not significantly condition the processes following negative work events. Furthermore, PsyCap did not moderate the direct relationship between daily events and work engagement. In summary, while PsyCap acts as a significant emotional buffer for positive daily experiences, the daily impact of negative work events on the daily level of work engagement appears to be a universal process that is not significantly differentiated by this personal resource in the current sample.

In Table 15, I presented the summary of my hypotheses from the theoretical model tested in Study 4.

Table 15*Summary of Hypotheses from the Theoretical Model Tested in Study 4*

Hypotheses	Study 4 (<i>N</i> = 197)
H1a: Indirect effect PEW → PEm → WE	Supported
H1b: Indirect effect PEW → NEm → WE	Supported
H2a: Indirect effect NEW → PEm → WE	Supported
H2b: Indirect effect NEW → NEm → WE	Supported
H3a: Interaction PsyCap x PEW → WE	Not supported
H3b: Interaction PsyCap x NEW → WE	Not supported
H4a: Interaction PsyCap x PEW → PEm	Supported
H4b: Interaction PsyCap x PEW → NEm	Supported
H5a: Interaction PsyCap x NEW → PEm	Not supported
H5b: Interaction PsyCap x NEW → NEm	Not supported

Note. PEW = Daily frequency of positive events at work; NEW = Daily frequency of negative events at work; PEm = Daily positive work-related emotions; NEm = Daily negative work-related emotions; WE = Daily work engagement.

Discussion

My findings from Study 4 provide a nuanced understanding of how daily work events shape employee work engagement through emotional mechanisms, and how personal resources like PsyCap buffer these effects. By using a daily diary methodology, I was able to capture the short-term dynamics of the environmental–emotional–behavioural chain, thereby providing high ecological validity for the tested model.

Consistent with AET (Weiss & Cropanzano, 1996), my results showed that daily fluctuations in work engagement are significantly driven by immediate emotional reactions to workplace stimuli. However, the observed asymmetry in these processes challenges some traditional assumptions. While positive events boosted work engagement primarily through positive emotions, the impact of negative events was driven more by the depletion of positive emotions than by the increase in negative affect. This finding offers a sophisticated extension of the “positive-negative asymmetry” research. While Baumeister and colleagues (2001)

argue that “bad is stronger than good,” my results suggest that the “strength” of negative events lies specifically in their power to undermine existing positive states. This aligns with BBT (Fredrickson, 2001), suggesting that negative events are detrimental not only because they cause distress, but also because they effectively quench the positive emotions that serve as the primary fuel for daily engagement.

The most significant contribution of this study lies in identifying PsyCap as a cross-level moderator of emotional reactivity to positive stimuli. The results revealed that individuals with low PsyCap exhibited significantly higher emotional reactivity to positive events. From the BBT (Fredrickson, 2001) standpoint, for resource-lean individuals, each positive event was vital for initiating the broaden-and-build process. In contrast, for individuals with high PsyCap, the relationship between positive events and positive emotions was attenuated, indicating greater affective stability and a potential ceiling effect. These individuals likely possess abundant personal resources, making their daily engagement less dependent on external, incidental “injections” of positivity. This finding is consistent with Luthans, Youssef and Avolio (2007), who describe PsyCap as a stabiliser of well-being.

Interestingly, the moderating role of PsyCap was not observed in the context of negative work events. The immediate emotional toll and subsequent drop in engagement following daily stressors appeared to be a universal within-person process that was not significantly differentiated by stable personal resources in this sample. These findings indicate that while PsyCap functions as an effective stabiliser of the “build” process (positive path), it may not significantly buffer the immediate affective collapse triggered by acute daily negative incidents.

General Discussion

The primary objective of my dissertation was to examine the role of psychological capital (PsyCap) in the complex relationship between work events, emotional reactions, and work engagement. Integrating the affective events theory (AET; Weiss & Cropanzano, 1996) with the broaden-and-build theory (BBT; Fredrickson, 2001), I conceptualised work engagement as a transient state driven by emotional responses to workplace events, in which PsyCap serves as a critical internal resource that stabilises these processes.

The findings of Study 1 demonstrated that emotional reactions serve as a dual-pathway mechanism. Specifically, the results indicated that both positive and negative work-related emotions mediate the relationship between the perceived frequency of work events and work engagement: more frequent positive events were associated with higher levels of work engagement via higher levels of positive emotions, whereas negative events were associated with lower levels of work engagement via higher levels of negative emotions. Additionally, the analysis of the interaction terms revealed that PsyCap serves as a significant personal resource, moderating the relationship between negative work events and negative work-related emotions. Specifically, the negative direction of the interaction suggests a buffering effect: for individuals with lower PsyCap, work-related emotions were highly sensitive to the frequency of negative events. In contrast, for employees with higher levels of PsyCap, this relationship was significantly attenuated.

Study 2 sought to address the causal limitations of the first study by employing a preregistered experimental design that manipulated the valence of work events (positive vs. negative). Regarding the boundary role of PsyCap, the findings of Study 2 did not support the hypothesised moderation effects. Specifically, the interaction between the experimental manipulation (positive vs. negative events) and PsyCap was not significant. Despite the lack

of moderation, additional non-preregistered path analyses provided deeper insight into the internal structure of the event-emotion process. These analyses revealed that the relationship between the experimental manipulation (event type) and subsequent emotional reactions was significantly mediated by event evaluation. Specifically, the results indicated that recalling a positive (vs. negative) work event led to more positive cognitive evaluations, which in turn increased positive emotions and decreased negative emotions. Furthermore, while PsyCap maintained significant direct effects on all endogenous variables in this model—confirming that high-resource individuals generally maintain more positive evaluations and higher positive emotions—it did not significantly alter the strength of the paths between event type, evaluation, and emotions.

Study 3 aimed to further scrutinise the emotional process by introducing a neutral reference condition and employing a more context-specific measure of work-related emotions. Regarding the mediation pathways, the results remained consistent with the previous studies, confirming that positive and negative events significantly predict work engagement through the “affective bridge” of emotions. Additionally, Study 3 provided a more complex and unexpected picture of PsyCap’s effects. While the analysis revealed marginally significant interactions, the patterns of these effects were contrary to the preregistered hypotheses. Specifically, rather than buffering the impact of negative events, the results showed that the relationship between positive events and momentary work engagement was significant only among individuals with high PsyCap. Furthermore, the link between negative events and negative emotions was unexpectedly stronger for participants with high PsyCap.

Study 4 employed a daily diary design to capture the dynamic, within-person processes between work events, emotions, and engagement in a naturalistic work environment. The results provided robust support for the mediation pathways, confirming

that daily positive events act as fuel for daily work engagement by boosting positive emotions, whereas daily negative events trigger an immediate drop in daily work engagement, mostly via a decrease in positive emotions. Crucially, this study provided the most definitive evidence for the moderating role of PsyCap, specifically in the context of daily positive events. The analysis revealed a significant cross-level interaction: individuals with low PsyCap exhibited significantly greater emotional reactivity to positive events. Interestingly, PsyCap did not significantly buffer the immediate emotional toll of daily negative events.

Across four studies—ranging from cross-sectional and experimental to a daily diary design—the results consistently support the core framework of AET (Weiss & Cropanzano, 1996). The findings confirm that work engagement is not merely a stable trait but a dynamic state, significantly shaped by the “affective bridge” of emotions triggered by specific work events. By employing a multi-method approach, particularly the daily diary study, this research aligns with the “dynamic turn” in organisational psychology. Recent meta-analytic evidence (Pletzer et al., 2025) confirms that work engagement possesses a substantial dynamic component, characterised by significant within-person fluctuations. While earlier studies emphasised stable correlates (e.g., Christian et al., 2011; Schaufeli et al., 2002), new research focuses on the within-person level to better understand the nuances of this volatility (e.g., Breevaart et al., 2012; Digutsch & Diestel, 2021). My findings extend this perspective by demonstrating that specific work events serve as primary “shocks” that trigger these fluctuations. These results reinforce the concept of engagement as a fluid state that requires constant emotional refuelling through positive workplace interactions.

This fluid nature of work engagement is driven primarily by the affective mechanisms identified in my research. Interestingly, while positive emotions consistently mediated the link between positive events and work engagement, the role of negative emotions showed

more variability. These findings align with BBT (Fredrickson, 2001), suggesting that positive emotions actively expand an individual's repertoire of thoughts and actions, which directly fuels work engagement. In contrast, negative events act as “demands” that drain energy, yet their impact on work engagement may be more complex and moderated by individual coping mechanisms, such as emotion regulation strategies (Chen et al., 2022). Specifically, such regulatory abilities enable employees to redirect energy toward goal-oriented tasks rather than being depleted by negative emotions, thereby preserving work engagement. This asymmetry between the positive and negative pathways suggests that the motivational process (fuelled by positive emotions) is more direct and less susceptible to individual interference than the health-impairment process (triggered by negative emotions).

The robust mediation of positive work-related emotions across all four studies reinforces the conceptualisation of positive work events as critical “micro-resources.” This consistency—observed across diverse methodologies from controlled experiments to real-time diary assessments—underscores the universal nature of the upward emotional process: positive events reliably translate into heightened work engagement. This effect aligns with research by Costantini and Sartori (2018) and Miralles et al. (2015), which demonstrates that positive emotions serve as a necessary threshold and mediator for sustainable engagement. Such a distinction is vital for understanding the dynamic nature of engagement whereas positive experiences provide a steady “boost,” the “drain” from negative events can be mitigated by effective self-regulation. My findings emphasise that in high-performance work environments, fostering positive emotional triggers may be a more reliable strategy for sustaining work engagement than simply eliminating negative events.

Another alternative explanation for the observed effects, particularly the complex role of negative emotions, can be found in Bledow et al.'s (2011) affective shift model. This model suggests that work engagement is not only tied to the presence of positive emotions

but also arises from a dynamic interplay of positive and negative emotions. According to this perspective, a shift from experiencing negative emotions to high levels of positive emotions following a negative event could have enormous motivational potential and significantly improve work engagement. However, it must be noted that my research did not fully capture this phenomenon, as it focused on the immediate or cumulative impact of events rather than on the precise sequence of events and the subsequent temporal progression of emotions. While my diary study captured daily fluctuations, it did not analyse affective shifts within specific episodes in which a negative emotion is directly followed by a positive one. Consequently, while my findings emphasise that fostering positive emotional triggers is a reliable strategy for sustaining work engagement, the potential motivational “rebound” following negative events remains an area for future investigation using more granular, event-based sequential sampling.

Given that emotions serve as the engine of work engagement, the crucial question arises: what determines the strength and stability of this engine under different conditions? This question leads to the second core pillar of my research: the critical examination of the role of PsyCap. While the previous sections established the “affective bridge,” the moderating role of PsyCap proved more elusive and complex than I had initially hypothesised. Across the four studies, the expected universal buffering effect was inconsistent, revealing instead a nuanced interplay where PsyCap functions as both a stabiliser of positive states and, in certain contexts, a factor that intensifies emotional reactivity. This evolution of findings—from partial support in the initial cross-sectional phase to paradoxical findings in the experimental and daily diary stages—highlights the need to move beyond static models to capture the functional boundary conditions of personal resources.

The cross-sectional study suggested a "buffering" effect, indicating that PsyCap buffers the initial affective reaction to negative events, but it does not significantly increase the variance explained in work engagement through the reduction of negative work-related emotions. The observed buffering effect on the event-emotion link is well-supported by the core tenets of PsyCap theory, which posits that individuals with high levels of hope, efficacy, resilience, and optimism possess the cognitive flexibility to reframe negative stimuli, thereby reducing their immediate emotional impact (Luthans, Youssef & Avolio, 2007). This finding also aligns with a substantial body of research demonstrating that PsyCap serves as a vital psychological resource that "cushions" the blow of workplace stressors (Abbas et al., 2014; Avey et al., 2008). The fact that this buffering effect did not translate into a significant change in general work engagement in my Study 1 suggests a boundary condition of the cross-sectional design. While such designs capture a snapshot of psychological resources, they may lack the temporal sensitivity to track how emotional regulation incrementally builds sustained work engagement. This initial ambiguity provided the empirical rationale for the subsequent experimental and longitudinal stages of my project, which aimed to capture these processes in real time.

The divergence in the moderating role of PsyCap across the two experimental studies offers a nuanced perspective on how personal resources interact with specific workplace stimuli. In the first experimental study, which relied on the retrospective recall of personal events, the lack of significant interactions suggests that when employees reflect on past experiences, their stable personal resources may not be the primary factor differentiating their emotional reactions. This finding can be explained by research on the reconstructive nature of memory, which suggests that retrospective evaluations often rely on global semantic knowledge rather than the specific, resource-dependent affective nuances experienced in the moment (Robinson & Clore, 2002). As memory for emotions fades, individuals may rely

more on general cognitive scripts about how they *should* feel, which may diminish the detectable influence of personal resources such as PsyCap. This shift may also be attributed to the temporal distance between the actual event and the moment of reporting. According to the state-trait perspective (Luthans, Youssef & Avolio, 2007), while PsyCap is defined as a *state-like* construct that is relatively stable, its functional impact is most potent during immediate, real-time interactions with environmental stimuli. In a retrospective setting, the *state* component of the reaction fades, and individuals tend to provide a more global, *trait-consistent* summary of their well-being. This shift often overshadows the nuanced, momentary moderating effects that personal resources have on immediate emotional appraisal. Consequently, the lack of results in this experimental study likely reflects a methodological boundary of the recall method: it captures the cognitive reconstruction of an experience rather than the dynamic interplay between personal resources and environmental shocks that occurs in situations at work (Beal & Weiss, 2003; Luthans, Avolio et al., 2007).

The controlled environment of my experimental Study 3 study revealed that PsyCap functions less as a universal *buffer* and more as an *amplifier* of positive experiences. The failure to confirm the buffering hypothesis in negative contexts here—where high-PsyCap individuals actually reported higher levels of negative emotions—suggests that high personal resources may entail a cost of increased sensitivity to violations of workplace standards. Viewed through the lenses of expectancy violation theory (EVT; Burgoon, 2015), violations of expected behaviour are physiologically and psychologically arousing, drawing heightened attention to the anomalous event. Highly optimistic individuals with a strong sense of self-efficacy, such as those with high PsyCap, hold positive expectations regarding workplace standards. When a situation (such as an unfair salary outcome, which was part of my experiment manipulation in the negative condition) drastically contradicts these standards, it constitutes a negative expectancy violation. EVT posits that negative violations produce

significantly worse outcomes—including more intense negative emotional reactions—than negative confirmations, which occur when individuals with lower expectations already anticipate unfavourable treatment. Consequently, the unexpected nature of the negative event for high-PsyCap individuals paradoxically intensifies their momentary negative distress, as the severe deviation from their expectations triggers stronger arousal and a harsher negative evaluation. This intensified reaction may be further explained by the high levels of resources observed in the sample. As noted in my second experimental study, the high mean scores and low variance of PsyCap suggest a ceiling effect. When a sample consists of highly resourceful individuals, PsyCap may act as a constant *main effect* that directly fuels work engagement, rather than as an *interaction effect* that only activates during specific events. This effect aligns with recent critiques by Newman et al. (2014), who suggest that the moderating power of PsyCap may be more evident in high-stress or “weak” organisational environments where internal resources are truly tested. Conversely, the steep increase in work engagement observed among high-PsyCap participants in response to positive events points toward a mechanism of resource capitalisation. Rather than acting as a shield against loss, PsyCap appears to function as a facilitator, allowing individuals to “squeeze” more motivational value from favourable circumstances. These individuals, characterised by higher levels of hope and optimism, are better equipped to rapidly translate positive stimuli into heightened states of positive emotions. This interpretation recontextualises existing literature: PsyCap may not be a universal filter for all stressors but rather a dynamic resource that operates most effectively in benign or supportive environments, where it stabilises emotions and enables the full utilisation of positive growth triggers (Fredrickson, 2001).

Finally, the daily diary study provided the most granular perspective on these dynamics, shifting the focus from hypothetical scenarios and retrospective recalls to the real-time fluctuations of organisational life. The most significant contribution of this stage lies in

identifying PsyCap as a cross-level moderator of emotional reactions, specifically in response to positive stimuli. My results revealed that individuals with low PsyCap exhibited significantly stronger emotional reactions to positive events. This finding can be interpreted through the lens of the conservation of resources theory (COR; Hobfoll, 1989). Individuals with lower personal resources may exist in a state of relative “resource malnutrition,” making them more dependent on external “injections” of positivity to fuel their work engagement. For them, a positive event acts as a critical external resource injection. Conversely, individuals with high PsyCap possess a “resource caravan” that provides internal stability, leading to the observed ceiling effect—their engagement is already high and stable, making them less sensitive to daily fluctuations in positive events. This effect aligns with Luthans, Avolio et al. (2007), who describe PsyCap as a stabiliser of well-being.

However, while PsyCap appears to effectively stabilise the *build* process of positive experiences, its protective function encountered a significant boundary when faced with the acute demands of daily stressors. Interestingly, PsyCap did not moderate the effects of negative events. This finding contradicts the “stress-resistor” hypothesis often associated with PsyCap in cross-sectional studies (e.g., Peng et al., 2013). However, in a daily diary context, this suggests that the immediate emotional toll of negative events is a universal human response that may, in the short term, bypass stable personal resources. According to dynamic model of affect (DMA; Reich et al., 2003), during stressful moments, information processing becomes more simplified and urgent, which might explain why even high-PsyCap individuals cannot fully buffer the immediate drop in work engagement following a negative event. The DMA posits that high-stress situations force a shift from complex, multidimensional information processing to cognitive simplicity, where the primary goal is rapid adaptation to the threat. Under these conditions, the independence between positive and negative emotions collapses, and they become inversely coupled. This interdependence implies that the

occurrence of a negative work event does not merely coexist with positive states but actively suppresses them to narrow attention on the demand. Consequently, the immediate depletion of positive energy—and the subsequent drop in work engagement—appears to be a fundamental, evolutionarily driven survival mechanism that, in the short term, overrides stable individual differences such as PsyCap. While PsyCap may aid in the subsequent uncoupling of emotions and faster recovery, it does not seem to prevent the initial affective collapse triggered by the stressor's demand for cognitive simplicity.

In summary, my research project has systematically unpacked the work events and psychological conditions under which work engagement flourishes or falters. By moving from broad cross-sectional snapshots to granular, real-time assessments, my findings highlight that work engagement is a highly volatile state, primarily fuelled by the immediate “affective bridge” of positive emotions. While negative events act as powerful disruptors that can override individual differences by demanding cognitive simplicity, positive events emerge as critical “micro-resources” that sustain the motivational engine of work.

The most vital contribution of my dissertation is the nuanced re-evaluation of PsyCap. Rather than acting as a universal, one-size-fits-all buffer against all workplace stressors, PsyCap appears to function as a complex regulatory resource. It operates most effectively as a stabiliser of well-being in benign environments and an amplifier of positive experiences, allowing resourceful individuals to capitalise on favourable circumstances. Paradoxically, the same high expectations that fuel this capitalisation may create a vulnerability—a “cost of optimism”—when workplace standards are violated, intensifying distress. Ultimately, these findings suggest that the effectiveness of personal resources is not absolute but is deeply contingent on the nature of the work events, the timing of the reaction, and the baseline saturation of the individual's “resource caravan.” By identifying these functional boundaries,

this research provides a more realistic framework for understanding employee personal resources and work engagement in the modern, high-pressure workplace.

Limitations and Directions for Future Research

To conclude the empirical portion of my dissertation, it is essential to acknowledge the methodological and conceptual boundaries that contextualise the current findings. While the multi-method approach—spanning cross-sectional, experimental, and daily diary designs—was intended to capture the “dynamic turn” in organisational psychology, each stage encountered specific trade-offs that limit the scope of the conclusions.

A primary methodological boundary was identified in Study 1, which relied on a cross-sectional, single-source design. Although my preliminary analyses indicated that common method variance was not a substantial concern in the data, the single-source nature of the study still precludes definitive causal inferences. Furthermore, the recruitment for the Polish sub-sample was not preregistered and was based on an arbitrary sample size, which may have resulted in insufficient statistical power to detect more subtle interactions. This concern is echoed throughout the project, as the observed moderating effects of PsyCap, when present, were consistently small in terms of explained variance. Such “underpowered” conditions, particularly in field studies, make it notoriously difficult to capture the complex interplay of personal and environmental factors.

The reliance on the retrospective recall of personal events in the experimental Study 2 further highlights the limitations of memory-based reporting. As retrospective evaluations often rely on global semantic knowledge and general cognitive scripts rather than momentary affective nuances, the detectable influence of personal resources like PsyCap may have been diminished by the temporal distance between the event and the report. Similarly, while the second experiment established internal validity through a controlled vignette procedure, it lacked the ecological realism of actual workplace interactions, potentially failing to mirror

the full physiological arousal triggered by real-life expectancy violations. Furthermore, the daily diary study was conducted within a homogeneous group of public transport drivers. While this allowed for rigorous control of inter-organisational confounding factors, it may limit the generalisability of the findings to professional sectors where the nature of daily work events and social interactions varies significantly.

Statistical and measurement constraints might also have influenced the results, particularly regarding the elusive nature of the moderation effects. Across several studies, high mean PsyCap scores and their low variance suggested a “ceiling effect.” In samples of highly resourceful individuals, PsyCap may act more as a constant main effect, fuelling work engagement directly, rather than as a conditional buffer that only activates in response to specific shocks. This finding aligns with the previously mentioned critiques by Newman et al. (2014), which suggest that the moderating power of personal resources may be more evident in high-stress organisational environments, where internal resources are truly tested. Moreover, while the diary study captured daily fluctuations, it did not utilise event-based sequential sampling. Consequently, the potential for a motivational “rebound”—where an affective shift from negative to positive emotions following a stressor improves engagement—remains an area for future investigation.

Finally, the functional role of PsyCap remains subject to broader conceptual and cultural boundary conditions. As suggested by the supplementary analyses in my first, cross-sectional study, the effectiveness of personal resources may be contingent on national emotional norms. Furthermore, findings on EVT (Burgoon, 2015) suggest that high PsyCap may entail a “cost of optimism” in certain negative contexts, where high expectations intensify emotional distress when standards are violated. Future research should explicitly investigate these cognitive and cultural mechanisms to provide a more comprehensive

framework for understanding how individuals navigate the complexities of the modern workplace.

Final Conclusion

My dissertation demonstrates that maintaining work engagement is not a static achievement but a continuous emotional process of “refuelling” through positive experiences. By moving beyond a simplified view of PsyCap as a universal shield, my research reveals its dual nature: as a powerful stabiliser that allows individuals to flourish in positive environments, but also as a source of heightened sensitivity when organisational expectations are unmet. These findings suggest that for modern organisations, fostering work engagement requires more than just providing resources; it demands a deep understanding of the workday's emotional rhythm and the recognition that even the most well-resourced employees are subject to the immediate, universal impact of workplace shocks. Ultimately, my dissertation shifts the focus from employees' stable traits to dynamic ways they *respond* to the unfolding narrative of their professional lives, offering a more dynamic and human-centric perspective on organisational well-being.

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Appendices A. Sociodemographic and Comparative Analyses

Appendix A1. Detailed Sociodemographic Characteristics of the Samples in Study 1

Table A1

Detailed Sociodemographic Characteristics of the Samples in Study 1

Sociodemographic Characteristics	The whole sample (<i>N</i> = 748)		U.S. participants (<i>n</i> = 494)		Polish participants (<i>n</i> = 254)		Comparison of U.S. and Polish samples
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Age	<i>M</i> = 36.92	<i>SD</i> = 11.54	<i>M</i> = 38.74	<i>SD</i> = 12.75	<i>M</i> = 33.38	<i>SD</i> = 7.58	<i>t</i> (730.65) = 7.20***
Gender							
women	388	51.9	240	48.6	148	58.3	$\chi^2(3) = 8.66^*$
men	354	47.3	248	50.2	106	41.7	
non-binary	5	0.7	5	1	0	0	
not stated	1	0.1	1	0.2	0	0	
Education							
less than secondary	32	4.3	32	6.5	0	0	$\chi^2(4) = 137.85^{***}$
secondary education	69	9.2	47	9.5	22	8.7	
bachelor's degree	318	42.5	270	54.7	48	18.9	
master's degree	209	27.9	92	18.6	117	46.1	
postgraduate	120	16	53	6.5	67	26.4	
Period of employment							
less than 1 year	78	10.4	17	3.4	61	24	$\chi^2(4) = 249.08^{***}$
1–2 years	101	13.5	25	5.1	76	29.9	
3–5 years	108	14.4	56	11.3	52	20.5	
5–10 years	135	18	99	20	36	14.2	
more than 10 years	326	43.6	297	60.1	29	11.4	

Table A1 (continued)*Detailed Sociodemographic Characteristics of the Samples in Study 1*

Sociodemographic Characteristics	The whole sample (<i>N</i> = 748)		U.S. participants (<i>n</i> = 494)		Polish participants (<i>n</i> = 254)		Comparison of U.S. and Polish samples
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
Job position							
blue-collar worker	62	8.3	56	11.3	6	2.4	$\chi^2(8) = 136.17^{***}$
office worker	104	13.9	80	16.2	24	9.4	
specialist/senior specialist	253	33.8	104	21.1	149	58.7	
researcher/teaching staff	41	5.5	33	6.7	8	3.1	
line manager	38	5.1	29	5.9	9	3.5	
middle manager	141	18.9	94	19	47	18.5	
senior manager/executive	34	4.5	23	4.7	11	4.3	
other	72	9.6	72	14.6	0	0	
not stated	3	0.4	3	0.6	0	0	
Employment industry							
administration	126	16.8	46	9.3	80	31.5	$\chi^2(11) = 165.39^{***}$
artistic/creative	30	4	22	4.5	8	3.1	
banking/finance/insurance	68	9.1	37	7.5	13	12.2	
construction/real estate	22	2.9	20	4	2	0.8	
education/trainings	61	8.2	48	9.7	13	5.1	
gastronomy/hotel/tourist	23	3.1	20	4	3	1.2	
IT/engineering	130	17.4	72	14.6	58	22.8	
production/logistics	59	7.9	22	4.5	37	14.6	
health care	53	7.1	43	8.7	10	3.9	
sales/customer service	73	9.8	61	12.3	12	4.7	
transport	9	1.2	9	1.8	0	0	
other	94	12.6	94	19	0	0	
Size of the employing company							
small (up to 50 employees)	195	26.1	141	28.5	54	21.3	$\chi^2(2) = 9.19^*$
middle (50–300)	152	20.3	112	22.7	40	15.7	
large (more than 300)	401	53.6	241	48.8	160	63.0	

* $p < .05$, *** $p < .001$.

Appendix A2. Descriptive Statistics for the U.S. and the Polish Sample

The descriptive statistics, Cronbach α s, and the correlations between the variables for the U.S. and the Polish samples are presented separately in Tables A2 and A3. To test differences in means between these two samples, I conducted a series of two-sample t-tests. U.S. participants, in comparison to Polish participants, revealed a lower level of the perceived frequency of negative work events, $t(746) = -2.51, p = .012$, a lower level of both negative and positive work-related emotions, respectively $t(453.49) = -6.93, p < .001$ and $t(682.96) = -3.43, p < .001$, a lower level of work engagement $t(659.41) = -2.07, p = .039$, but a higher level of PsyCap, $t(746) = 2.08, p = .019$. The difference in the perceived frequency of positive work events between the U.S. and the Polish participants was not significant $t(613.86) = 0.8, p = .424$.

Table A2

Descriptive Statistics, Cronbach's Alphas, and Correlations for Study Variables for the U.S. Sample in Study 1

Variable	<i>M</i>	<i>SD</i>	α	1	2	3	4	5
1. Perceived frequency of positive events	2.89	1.02	.88	—				
2. Perceived frequency of negative events	1.64	0.95	.88	.49**	—			
3. Positive work-related emotions	3.40	0.88	.93	.49**	.06	—		
4. Negative work-related emotions	1.64	0.66	.91	.00	.45**	-.18**	—	
5. Psychological capital	4.58	0.81	.91	.44**	-.11*	.60**	-.42**	—
6. Work engagement	3.49	1.39	.95	.50**	.07	.82**	-.26**	.61**

Note. $N = 494$.

* $p < .05$, ** $p < .01$.

Table A3

Descriptive Statistics, Cronbach's Alphas, and Correlations for Study Variables for the Polish Sample in Study 1

Variable	<i>M</i>	<i>SD</i>	α	1	2	3	4	5
1. Perceived frequency of positive events	2.84	0.82	.82	—				
2. Perceived frequency of negative events	1.82	0.86	.85	.39**	—			
3. Positive work-related emotions	3.58	0.61	.85	.39**	.00	—		
4. Negative work-related emotions	2.03	0.75	.90	-.14*	.43**	-.34**	—	
5. Psychological capital	4.45	0.79	.89	.27**	-.04	.60**	-.54**	—
6. Work engagement	3.67	1.02	.89	.33**	-.02	.70**	-.29**	.50**

Note. $N = 254$.

* $p < .05$, ** $p < .01$.

Appendix A3. A Comparative Analysis of the U.S. and Polish Samples

As my sample included both Polish and U.S. employees, I conducted additional analyses to test whether my hypothesised model was robust in both countries. To test the difference between the two samples in a Multi-Group Analysis (MGA), I examined the χ^2 change between the unconstrained model, in which I allowed for the possibility of different path coefficients between the two groups, and the constrained model, in which I assumed that the path coefficients would be the same in the two samples. A χ^2 comparison showed that the unconstrained model fitted the data better than the constrained model ($\chi^2 = 34.471$, $df = 18$, $p = .011$), suggesting that at least some path coefficients were different in the two samples. A further χ^2 comparison showed significant differences between the Polish and U.S. samples for seven path coefficients (Table A4).

Table A4*Results of the Multi-Group Analysis in Study 1*

Path	Multi-Group Analysis				Chi-square comparison
	U.S. sample (<i>n</i> = 494)		PL sample (<i>n</i> = 254)		
	β	SE	β	SE	
Direct effects					
PEW→ WE	.11**	.04	.08	.06	3.87*
NEW → WE	.04	.04	-.07	.06	1.33
Detailed paths					
PEW→ PEm	.28***	.05	.30***	.05	0.02
NEW → PEm	-.03	.04	-.09†	.05	1.01
PEm → WE	.67***	.03	.60***	.06	5.56*
PEW → NEm	-.07	.05	-.21***	.05	7.95**
NEW → NEm	.45***	.05	.48***	.05	0.17
NEm → WE	-.10**	.03	.03	.06	4.19*
Covariances					
PEm ↔ NEm	.03	.03	.02	.03	0.07
Main effect of PsyCap					
PsyCap → PEm	.49***	.04	.49***	.05	0.97
PsyCap → NEm	-.33***	.05	-.43***	.05	7.78**
PsyCap → WE	.11**	.04	.15*	.06	3.68†
Moderation by PsyCap					
PsyCap x PEW → PEm	.05	.04	-.10*	.05	6.34*
PsyCap x PEW → NEm	.01	.04	.05	.05	0.56
PsyCap x NEW → PEm	-.02	.04	.04	.05	0.06
PsyCap x NEW → NEm	-.10**	.04	-.11*	.05	0.08
PsyCap x PEW → WE	-.02	.03	.05	.05	1.82
PsyCap x NEW → WE	.01	.03	-.05	.05	0.99
<i>R</i> ² (WE)	70.6%		50.9%		

Note. PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Structural Model for the U.S. and Polish Samples

Because a Multi-Group Analysis (MGA) using χ^2 comparison showed significant differences between the Polish and U.S. samples in terms of seven path coefficients (Table A4), I tested for indirect effects by examining bootstrap confidence intervals using a 10,000-sample bootstrap procedure separately for the U.S. and Polish samples. As both models were saturated, they had the best possible fit ($\chi^2 = 0$, $df = 0$, RMSEA = 0, 90% CI [0, 0], SRMR = 0, CFI = 1.00, TLI = 1.00). The results (standardised path coefficients) are

presented as step 1 in Table A5 (U.S. sample) and Table A6 (Polish sample). Positive and negative work-related emotions, together with the perceived frequency of positive and negative work events, explained 69.9% of the variance in work engagement in the U.S. sample and 49.5% of the variance in work engagement in the Polish sample.

Table A5*Results of the Path Analysis for the U.S. Sample in Study 1*

Path	Regression step 1 (N = 494)		Regression step 2 (N = 494)		Simple slopes analysis step 3					
	β	SE	β	SE	Low PsyCap		Medium PsyCap		High PsyCap	
					β	SE	β	SE	β	SE
Direct effects										
PEW → WE	.15***	.03	.11***	.04	.13*	.06	.11**	.04	.10*	.04
NEW → WE	.02	.03	.04	.03	.03	.05	.04	.03	.05	.04
Detailed paths										
PEW → PEm	.60***	.04	.28***	.05	.22**	.07	.28***	.05	.33***	.05
NEW → PEm	-.23***	.04	-.03	.04	-.00	.06	-.03	.04	-.05	.05
PEm → WE	.72***	.03	.67***	.03	.67***	.04	.67***	.04	.67***	.04
PEW → NEm	-.28***	.04	-.07	.05	-.08	.08	-.07	.05	-.05	.05
NEW → NEm	.59***	.05	.45***	.05	.55***	.05	.45***	.06	.35***	.08
NEm → WE	-.13***	.03	-.10**	.03	-.10**	.03	-.10**	.03	-.10**	.03
Covariances										
PEm ↔ NEm	-.08*	.03	.03	.03						
Main effect of PsyCap										
PsyCap → PEm			.49***	.04						
PsyCap → NEm			-.33***	.05						
PsyCap → WE			.11***	.04						
Moderation by PsyCap										
PsyCap x PEW → PEm			.05	.04						
PsyCap x PEW → NEm			.01	.04						
PsyCap x NEW → PEm			-.02	.04						
PsyCap x NEW → NEm			-.10**	.04						
PsyCap x PEW → WE			-.02	.03						
PsyCap x NEW → WE			.01	.03						
R ² (WE)	69.9%		70.6%							

Note. PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Table A6*Results of the Path Analysis for the Polish Sample in Study 1*

Path	Regression step 1 (<i>N</i> = 254)		Regression step 2 (<i>N</i> = 254)		Simple slopes analysis step 3					
					Low PsyCap		Medium PsyCap		High PsyCap	
	β	SE	β	SE	β	SE	β	SE	β	SE
Direct effects										
PEW → WE	.09 [†]	.05	.08	.06	.03	.09	.08	.05	.14 [*]	.06
NEW → WE	-.05	.06	-.07	.06	-.02	.09	-.07	.06	-.11	.07
Detailed paths										
PEW → PEm	.46 ^{***}	.07	.30 ^{***}	.05	.41 ^{***}	.08	.30 ^{***}	.06	.20 [*]	.08
NEW → PEm	-.18 ^{**}	.07	-.09 [†]	.05	-.13 [†]	.06	-.09	.06	-.05	.08
PEm → WE	.65 ^{***}	.05	.60 ^{***}	.06	.60 ^{***}	.06	.60 ^{***}	.06	.60 ^{***}	.06
PEW → NEm	-.36 ^{***}	.06	-.21 ^{***}	.05	-.26 ^{**}	.10	-.21 ^{***}	.06	-.17 [*]	.07
NEW → NEm	.57 ^{***}	.06	.48 ^{***}	.05	.59 ^{***}	.07	.48 ^{***}	.06	.37 ^{***}	.08
NEm → WE	-.03	.07	-.03	.06	.03	.07	.03	.07	.03	.07
Covariances										
PEm ↔ NEm	-.20 ^{***}	.06	.02	.03						
Main effect of PsyCap										
PsyCap → PEm			.49 ^{***}	.05						
PsyCap → NEm			-.43 ^{***}	.05						
PsyCap → WE			.15 [*]	.06						
Moderation by PsyCap										
PsyCap x PEW → PEm			-.10 [*]	.05						
PsyCap x PEW → NEm			.05	.05						
PsyCap x NEW → PEm			.04	.05						
PsyCap x NEW → NEm			-.11 [*]	.05						
PsyCap x PEW → WE			.06	.05						
PsyCap x NEW → WE			-.05	.05						
<i>R</i> ² (WE)	49.5%		50.9%							

Note. PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement.

[†]*p* < .10, ^{*}*p* < .05, ^{**}*p* < .01, ^{***}*p* < .001.

Mediation by Positive and Negative Work-Related Emotions in the U.S. and Polish Samples

I tested for the effects predicted in hypotheses H1a, H1b, H2a, and H2b separately in the two country samples using a 10,000-sample bias-corrected bootstrapping procedure (Hayes, 2017). The significance of the total, direct, and indirect effects was tested in the saturated models so that all path coefficients could be estimated (step 1 in Tables A5 and A6).

In the U.S. sample, the overall effect of positive events on engagement at work was significant, $\beta = .62$, $SE = .04$, 95% boot CI [.54, .69], such that a higher perceived frequency of positive events at work led to higher engagement at work. The relative indirect effect via positive work-related emotions was significant, $\beta = .43$, $SE = .04$, 95% boot CI [.36, .51], as was the relative indirect effect via negative work-related emotions, $\beta = .04$, $SE = .01$, 95% boot CI [.02, .06]. Controlling for mediators, the direct effect of the perceived frequency of positive events on engagement at work was significant, $\beta = .15$, $SE = .04$, 95% boot CI [.07, .22].

In addition, the total effect of perceived frequency of negative events on work engagement was also significant, $\beta = -.23$, $SE = .04$, 95% boot CI [-.31, -.15], indicating that higher perceived frequency of negative events led to lower work engagement. The indirect effect via positive work-related emotions was significant, $\beta = -.17$, $SE = .03$, 95% boot CI [-.23, -.11], as was the indirect effect via negative work-related emotions, $\beta = -.08$, $SE = .02$, 95% boot CI [-.12, -.05]. Controlling for mediators, the direct effect of perceived frequency of negative events on work engagement was not significant, $\beta = .02$, $SE = .03$, 95% boot CI [-.05, .08].

In the Polish sample, the total effect of positive events on work engagement was significant, $\beta = .40$, $SE = .07$, 95% boot CI [.27, .53]. The relative indirect effect via positive work-related emotions was significant, $\beta = .30$, $SE = .05$, 95% boot CI [.22, .40], but the

relative indirect effect via negative work-related emotions was not significant, $\beta = .01$, $SE = .02$, 95% boot CI [-.04, .06]. Controlling for mediators, the direct effect of the perceived frequency of positive events on work engagement was insignificant, $\beta = .09$, $SE = .06$, 95% boot CI [-.02, .19].

Consequently, the total effect of the perceived frequency of negative events on work engagement was also significant, $\beta = -.18$, $SE = .07$, 95% boot CI [-.33, -.04]. The indirect effect via positive work-related emotions was significant, $\beta = -.12$, $SE = .04$, 95% boot CI [-.21, -.03], but the indirect effect via negative work-related emotions was not, $\beta = -.02$, $SE = .04$, 95% boot CI [-.09, .06]. Controlling for mediators, the direct effect of perceived frequency of negative events on work engagement was not significant, $\beta = -.05$, $SE = .06$, 95% boot CI [-.16, .07]).

Overall, the findings suggested that the indirect role of positive and negative work-related emotions in the relationships between the perceived frequency of positive and negative events and work engagement differed between the U.S. and the Polish participants. The mediating effects of positive emotions were consistently observed in both samples, thereby supporting hypotheses H1a and H1b and indicating a robust pattern. However, the indirect effects via negative emotions were specific to the U.S. sample. Consequently, hypotheses H2a and H2b were only supported in the U.S. sample.

Moderation by Psychological Capital in the U.S. and Polish Samples

Next, I added PsyCap as a moderator operating on the paths from the perceived frequency of positive and negative events. I investigated its impact on work engagement (H3a and H3b) and positive and negative work-related emotions (H4a, H4b, H5a, H5b) separately for these two samples. My theoretical models for both the U.S. and Polish samples were again saturated, they had the best possible fit, $\chi^2 = 0$, $df = 0$, RMSEA = 0, 90% CI [0, 0], SRMR = 0, CFI = 1.00, TLI = 1.00. The results (standardised path coefficients) are presented

in step 2 in Table A5 (U.S. sample) and in Table A6 (Polish sample). Interactions with PsyCap explained an additional 0.7% of the variance in work engagement for the U.S. sample and an additional 1.4% for the Polish sample. The main effects of PsyCap on positive and negative work-related emotions and work engagement were significant in both samples. In the U.S. sample, I observed a significant interaction between PsyCap and the perceived frequency of negative events on negative work-related emotions, providing initial support for the hypothesis H5b. In this group, I found no support for the hypotheses H3a, H3b, H4a, H4b and H5a. In the Polish participants, I found two significant interactions: one between PsyCap and the perceived frequency of negative events on negative work-related emotions, similar to the U.S. sample, supporting hypothesis H5b, and another between PsyCap and the perceived frequency of positive events on positive work-related emotions, which initially supported the hypothesis H4a and occurred only in the Polish sample.

In the following steps, I decomposed the above interactions using the pick-a-point approach and simple-slopes analysis and tested my hypothesised model at three levels of the moderator: mean, 1 *SD* above, and 1 *SD* below the mean (Hayes, 2017). The standardised path coefficients estimated for three levels of PsyCap are presented in step 3 in Table A5 (U.S. sample) and in Table A6 (Polish sample). For the US sample, the analysis showed that the association between the perceived frequency of negative events and negative work-related emotions was stronger for participants with low PsyCap than for participants with medium and high PsyCap, supporting H5b. In the Polish sample, the paths between the perceived frequency of negative events and negative work-related emotions, as well as between the perceived frequency of positive events and positive work-related emotions, were stronger in participants with low PsyCap than in participants with medium and high PsyCap. These results support hypotheses H4a and H5b.

Finally, I tested the indirect effects separately for the low, medium, and high PsyCap participants in both samples, again using a bias-corrected bootstrapping procedure with 10,000 samples (Hayes, 2017). The bootstrap results of indirect effects for the low, medium, and high PsyCap are presented in Table A7 (U.S. sample) and in Table A8 (Polish sample).

Table A7

Mediation Effect at Three Levels of the Moderator (PsyCap) in the U.S. Sample in Study 1

Effects	Low PsyCap				Medium PsyCap				High PsyCap			
	β	SE	BC 95% CI		β	SE	BC 95% CI		β	SE	BC 95% CI	
			Lower	Upper			Lower	Upper			Lower	Upper
PEW → WE												
Indirect effect via PEm	.15	.05	.06	.25	.19	.04	.12	.26	.22	.04	.15	.30
Indirect effect via NEm	.01	.01	-.01	.03	.01	.01	-.003	.02	.01	.01	-.004	.02
Joint indirect effect of PEW	.16	.05	.07	.26	.19	.04	.13	.27	.23	.04	.16	.30
Direct effect of PEW	.13	.06	.006	.24	.11	.04	.03	.19	.10	.04	.02	.17
Total effect of PEW	.29	.07	.16	.42	.31	.05	.22	.39	.32	.04	.24	.40
NEW → WE												
Indirect effect via PEm	-.00	.04	-.08	.07	-.02	.03	-.08	.04	-.03	.03	-.10	.03
Indirect effect via NEm	-.06	.02	-.09	-.02	-.04	.01	-.07	-.02	-.03	.01	-.07	-.02
Joint indirect effect of NEW	-.06	.04	-.14	.03	-.06	.03	-.13	-.004	-.07	.04	-.14	-.001
Direct effect of NEW	.03	.05	-.07	.13	.04	.03	-.03	.10	.05	.04	-.03	.12
Total effect of NEW	-.03	.06	-.14	.08	-.03	.04	-.10	.05	-.02	.04	-.10	.06

Note: $N = 494$; 10,000 bootstrap samples.

SE = standard error; BC = bias corrected; CI = confidence interval.

PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement.

Table A8

Mediation Effect at Three Levels of the Moderator (PsyCap) in the Polish Sample in Study 1

Effects	Low PsyCap				Medium PsyCap				High PsyCap			
	β	SE	BC 95% CI		β	SE	BC 95% CI		β	SE	BC 95% CI	
			Lower	Upper			Lower	Upper			Lower	Upper
PEW → WE												
Indirect effect via PEm	.24	.06	.14	.36	.18	.04	.11	.27	.12	.05	.04	.22
Indirect effect via NEm	-.01	.02	-.05	.03	-.01	.02	-.04	.03	-.00	.01	-.04	.02
Joint indirect effect of PEW	.24	.06	.13	.35	.18	.04	.10	.27	.11	.05	.03	.22
Direct effect of PEW	.03	.09	-.15	.21	.08	.05	-.02	.19	.14	.06	.01	.26
Total effect of PEW	.26	.09	.08	.45	.26	.07	.13	.39	.25	.08	.10	.41
NEW → WE												
Indirect effect via PEm	-.08	.04	-.17	.01	-.05	.03	-.12	.01	-.03	.05	-.12	.06
Indirect effect via NEm	.02	.04	-.07	.11	.01	.04	-.05	.09	.01	.03	-.04	.07
Joint indirect effect of NEW	-.06	.06	-.18	.05	-.04	.05	-.14	.05	-.02	.05	-.13	.08
Direct effect of NEW	-.02	.09	-.20	.19	-.07	.06	-.17	.05	-.11	.07	-.25	.04
Total effect of NEW	-.08	.10	-.28	.10	-.11	.06	-.23	.01	-.13	.09	-.31	.03

Note: $N = 254$; 10,000 bootstrap samples.

SE = standard error; BC = bias corrected; CI = confidence interval.

PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement.

For the U.S. participants, regardless of the level of PsyCap, the total effect of the perceived frequency of positive events on work engagement was significant and positive. The direct effect of positive events on work engagement was also significant. The indirect effect via positive work-related emotions was significant, while the indirect effect via negative work-related emotions was not. Furthermore, the total effect of the perceived frequency of negative events on work engagement was not significant, nor was the direct effect of negative events on work engagement and the indirect effect via positive emotions. The indirect effect via negative work-related emotions was significant and negative. The index of moderated mediation was significant, $\beta = .01$, $SE = .006$, 95% boot CI [.001, .025], providing evidence that this indirect effect varied depending on the level of PsyCap. Further decomposition demonstrated that this indirect effect was stronger among participants with low PsyCap, and gradually weakened at medium and high levels of PsyCap, as presented in Table A7. To sum, in this sample, I observed both direct and indirect effects of the perceived frequency of positive events at work on engagement, regardless of PsyCap level. In contrast, the perceived frequency of negative events was associated with work engagement only indirectly via negative work-related emotions, and this effect was moderated by PsyCap.

In the Polish sample, the total, direct, and indirect effects of the perceived frequency of negative work events on work engagement were insignificant, as was the indirect effect of the perceived frequency of positive events on work engagement through negative work-related emotions. Furthermore, the total effect of the perceived frequency of positive events on work engagement was significant and positive regardless of the level of PsyCap. However, the direct effect of the perceived frequency of positive events on engagement at work was only significant for high PsyCap participants, while it was not significant for low and medium PsyCap participants. The indirect effect via positive work-related emotions was significant in

the whole sample. The index of moderated mediation was significant and negative, $\beta = -.06$, $SE = .03$, 95% boot CI $[-.12, -.003]$, indicating that this indirect effect was stronger for participants with low PsyCap than for those with medium and high PsyCap, as presented in Table A8. In the Polish sample, I observed both direct and indirect effects of the perceived frequency of positive events at work on engagement for high PsyCap participants, while for participants with low PsyCap, this effect was primarily indirect. Although the indirect effect was positive in both groups, it was significantly stronger for low PsyCap participants than for high PsyCap participants.

In summary, although a significant interaction between PsyCap and the perceived frequency of negative events on negative work-related emotions was observed in both samples, the moderated mediation analysis revealed a significant effect only in the U.S. sample. This suggests that the indirect effect of negative events on work engagement via negative emotions was stronger among low PsyCap than among high PsyCap. In the Polish sample, while negative events were associated with negative work-related emotions, these emotions did not significantly predict work engagement, rendering the overall indirect effect non-significant. In the Polish sample, I also identified an interaction between PsyCap and the perceived frequency of positive events on positive work-related emotions. Specifically, I observed that the perceived frequency of positive work events was associated with work engagement, both indirectly and directly in high PsyCap participants and indirectly only in low PsyCap participants. This indirect effect was stronger for low PsyCap participants than for those high in PsyCap. In the U.S. sample, perceived frequency of positive work events was associated with work engagement levels both directly and indirectly through positive work-related emotions, regardless of the level of PsyCap. In Table A9, I have presented the summary of my hypotheses tested in the U.S. and Polish samples.

Table A9*Summary of Hypotheses Tested in the U.S. and Polish Samples in Study 1*

Hypotheses	U.S. sample (<i>n</i> = 494)	PL sample (<i>n</i> = 254)
H1a: Indirect effect PEW → PEm → WE	Supported	Supported
H1b: Indirect effect PEW → NEm → WE	Supported	Not Supported
H2a: Indirect effect NEW → PEm → WE	Supported	Supported
H2b: Indirect effect NEW → NEm → WE	Supported	Not Supported
H3a: Interaction PsyCap x PEW → WE	Not supported	Not Supported
H3b: Interaction PsyCap x NEW → WE	Not supported	Not supported
H4a: Interaction PsyCap x PEW → PEm	Not supported	Supported
H4b: Interaction PsyCap x NEW → PEm	Not supported	Not supported
H5a: Interaction PsyCap x PEW → NEm	Not supported	Not supported
H5b: Interaction PsyCap x NEW → NEm	Supported	Supported

Note. PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement.

Appendix A4. Detailed Sociodemographic Characteristics of the Sample in Study 2

Table A10

Detailed Sociodemographic Characteristics of the Sample in Study 2

Sociodemographic Characteristics	Participants	
	<i>n</i>	%
Education		
elementary education	5	0.9
lower secondary education	6	1.0
basic vocational education	39	6.8
secondary education	239	41.8
undergraduate (bachelor's degree)	88	15.4
postgraduate (master's degree)	157	27.4
postgraduate (doctoral degree)	38	6.6
Type of position held		
internship	13	2.3
blue-collar worker	181	31.6
office worker/assistant	127	22.2
specialist/senior specialist	165	28.8
manager/leader/foreman	77	13.4
executive/managing director	9	1.6
Employment industry		
administration	59	10.3
advertising/graphics/creation/photography	2	0.3
advice/consulting	6	1.0
banking	18	3.1
beauty/recreation/healthy lifestyle	11	1.9
call centre	4	0.7
construction	18	3.1
education/trainings	28	4.9
energy engineering	9	1.6
engineering	16	2.8
finances	8	1.4
gastronomy/hotel/tourist	23	4.0
human resources	25	4.4
insurance	10	1.7
internet/e-commerce/new media	5	0.9
IT	36	6.3
law	5	0.9
marketing	9	1.6
media/art/entertainment	3	0.5
OHS/environmental protection	9	1.6
manufacturing	59	10.3
public relations	2	0.3
quality control	6	1.0
real estate	1	0.2
research and development	9	1.6
sales/customer service	80	14.0
shopping	8	1.4
supply chain	7	1.2
transport/forwarding trade	31	5.4
other	65	11.3

Note. $N = 572$.

Appendices B. Research Instruments and Materials

Appendix B1. List of items for the Perceived Frequency of Positive and Negative Events in Study 1

Instruction (English version – U.S. Sample): Below is a list of situations that may occur at work. Indicate how often you experienced them during the past year using the scale:

Instruction (Polish version – Polish Sample): Poniżej znajduje się lista sytuacji, które mogą wystąpić w pracy. Zaznacz jak często ich doświadczyłeś_aś w ostatnim roku korzystając ze skali:

0 – never / nigdy

1 – a few times a year or less / kilka razy w roku lub rzadziej

2 – once a month or less / raz w miesiącu lub rzadziej

3 – a few times a month / kilka razy w miesiącu

4 – once a week / raz w tygodniu

5 – a few times a week / kilka razy w tygodniu

6 – every day / każdego dnia

No.	Polish Version	English Version	Type
1	Otrzymanie pochwały ze strony przełożonego za dobrze wykonane przeze mnie zadanie.	Receiving praise from my supervisor for a job well done.	(+)
2	Otrzymanie uznania za osiągnięcia w pracy w postaci np. premii.	Receiving recognition for achievements at work, such as a bonus.	(+)
3	Otrzymanie pozytywnej opinii na temat mojej pracy ze strony klienta.	Receiving positive feedback on my work from a client.	(+)
4	Realizacja trudnego do osiągnięcia celu.	Achieving a difficult goal.	(+)
5	Udział w planowaniu strategii biznesowej mojej firmy.	Participating in planning my company's business strategy.	(+)
6	Planowanie zadań z wyprzedzeniem.	Planning tasks in advance.	(+)

7	Realizacja wcześniej zaplanowanych zadań zgodnie z harmonogramem.	Successfully completing previously planned tasks according to schedule.	(+)
8	Planowanie własnego rozwoju w firmie m.in. udział w szkoleniach.	Planning my own development in the company, including participating in training.	(+)
9	Otrzymanie nowego projektu do realizacji w roli kierującego projektem.	Receiving a new project to manage.	(+)
10	Oddelegowanie do udziału w nowym projekcie.	Being delegated to participate in a new project.	(+)
11	Otrzymanie nowego, odpowiedzialnego zadania.	Receiving a new, responsible task.	(+)
12	Kolega lub koleżanka z zespołu prosi mnie o pomoc.	A colleague from the team asking me for help.	(+)
13	Szkolenie innych pracowników.	Training other employees.	(+)
14	Poznanie nowych ludzi podczas rozpoczęcia nowej pracy lub zaangażowania w nowy projekt.	Meeting new people when starting a new job or getting involved in a new project.	(+)
15	Sprawnie działający sprzęt lub programy, na których pracuję.	Efficiently functioning equipment or programs I work with.	(+)
16	Przeciążenie pracą, zbyt duża liczba zadań do wykonania.	Work overload, too many tasks to perform.	(-)
17	Awaria sprzętu lub programu w krytycznym momencie, gdy jest najbardziej potrzebny.	Equipment or program failure at a critical moment when it is most needed.	(-)
18	Reklamacja ze strony klienta dotycząca Twojej pracy.	A complaint from a client regarding my work.	(-)
19	Konflikt z kolegą lub koleżanką z pracy.	Conflict with a colleague from work.	(-)
20	Konflikt z przełożonym.	Conflict with a superior.	(-)
21	Wykonywanie zadania pod presją czasu.	Performing a task under time pressure.	(-)
22	Popelniony przeze mnie błąd w wykonaniu zadania.	Making a mistake in task execution.	(-)
23	Kolega lub koleżanka z innego działu wyraża niechęć do mojej prośby o pomoc.	A colleague from another department expressing reluctance to help me.	(-)
24	Upomnienie ze strony przełożonego.	Reprimand from a superior.	(-)

25	Konieczność pozostania w pracy w nadgodzinach.	The necessity of staying at work overtime.	(-)
26	Dzwoniący telefon służbowy np. ze strony przełożonego lub klientów po moich godzinach pracy.	A work phone call, for example from a supervisor or customers, after working hours.	(-)
27	Brak wsparcia ze strony współpracowników przy realizacji projektu.	Lack of support from colleagues in project implementation.	(-)
28	Praca w zespole lub projekcie z niekompetentnymi współpracownikami.	Working in a team or project with incompetent coworkers.	(-)
29	Brak możliwości wprowadzenia zmian w procesie lub procedurze.	Inability to make changes in the process or procedure.	(-)
30	Otrzymanie sprzecznych zadań od różnych przełożonych.	Receiving conflicting tasks from different superiors.	(-)

Appendix B2. The Positive and Negative Affect Scale (PANAS) in Study 1

Instruction (English version – U.S. Sample): This scale consists of a number of words that describe different feelings and emotions that might be felt at work. Read each item and then mark the appropriate answer in the box next to that word. Indicate to what extent you have felt this way during the past year in your work. Use the following scale.

Instruction (Polish version – Polish Sample): Poniżej znajduje się lista słów i wyrażen, które opisują różne uczucia i emocje w związku z pracą. Proszę przeczytać każde z nich I zaznaczyć odpowiedź w polu obok danego słowa. Proszę określić, w jakim stopniu czuł_a się Pan_Pani w ten sposób w ciągu ostatniego roku w odniesieniu do swojej pracy. Proszę posłużyć się poniższą skalą.

1 – very slightly or not at all / bardzo słabo

2 – a little / słabo

3 – moderately / umiarkowanie

4 – quite a bit / silnie

5 – extremely / bardzo silnie

No.	Polish Version	English Version	Type
1	Uważny_a.	Attentive.	(+)
2	Silny_a.	Strong.	(+)
3	Drażliwy_a.	Irritable.	(-)
4	Zainspirowany_a.	Inspired.	(+)
5	Obawiający_a się.	Scared.	(-)
6	Czujny_a.	Alert.	(+)
7	Zaniepokojony_a.	Upset.	(-)
8	Aktywny_a.	Active.	(+)
9	Winny_a.	Guilty.	(-)
10	Nerwowy_a.	Nervous.	(-)

11	Podekscytowany_a.	Excited.	(+)
12	Wrogi_a.	Hostile.	(-)
13	Dumny_a.	Proud.	(+)
14	Roztrzęsiony_a.	Jittery.	(-)
15	Zawstydzony_a.	Ashamed.	(-)
16	Przestraszony_a.	Afraid.	(-)
17	Entuzjastyczny_a.	Enthusiastic.	(+)
18	Zestresowany_a.	Distressed.	(-)
19	Zdecydowany_a.	Determined.	(+)
20	Zainteresowany_a.	Interested.	(+)

Appendix B3. The Positive and Negative Affect Scale (PANAS) in Study 2

Instruction: Below is a list of words and phrases that describe various feelings and emotions.

Please read each of them and indicate how you would feel in the place of an employee experiencing the event you have described. / Poniżej znajduje się lista słów i wyrażen, które opisują różne uczucia i emocje. Proszę, przeczytaj każde z nich i zaznacz, jakbyś się czuł_a na miejscu pracownika, który doświadcza opisanego przez Ciebie zdarzenia.

The scale and the set of items were identical to those used in Study 1; see Appendix B2.

Appendix B4. The Vignettes Used in Study 3*Neutral scenario:*

Suppose you have been working for the company Y for some time. One day, you discover your regular salary has been deposited into bank account.

Imagine this scenario as if it were happening to you in your own workplace.

Negative scenario:

Suppose you have been working for company Y for some time. One day, you find out that your much-deserved pay raise has not been deposited into your bank account, unlike other employees who applied for it and received it.

Imagine this scenario as if it were happening to you in your own workplace.

Positive scenario:

Suppose you have been working for company Y for some time. One day, you discover that you have received an unexpected increase in your regular salary in your bank account.

Imagine this scenario as if it were happening to you in your own workplace.

Appendix B5. The Ultra-short UWES-3 with Modified Instruction in Study 4

Instruction: How did you feel at work today? / Jak się dziś czułeś w pracy?

0 – strongly disagree / zdecydowanie nie zgadzam się

1 – disagree / nie zgadzam się

2 – somewhat disagree / raczej się nie zgadzam

3 – neither agree nor disagree / ani nie, ani tak

4 – somewhat agree / raczej zgadzam się

5 – agree / zgadzam się

6 – strongly agree / zdecydowanie zgadzam się

No.	Polish Items	English Items
1	Dziś moja praca była dla mnie natchnieniem.	Today, my work inspired me.
2	Dziś byłem pochłonięty_a moją pracą.	Today, I was immersed in my work.
3	Dziś w pracy czułem_am że rozpiera mnie energia.	Today, I felt bursting with energy.

Appendix B6. The List of Positive and Negative Events in Study 4

Instruction (positive events): From the list below, please select all the positive events that you experienced at work today. / Zaznacz z poniższej listy wszystkie zdarzenia pozytywne, które dziś doświadczyłeś_aś w pracy.

No.	Polish Items	English Items	Type
1	Brak skargi ze strony pasażera.	No complaints from passengers.	(+)
2	Były dziś dobre warunki pogodowe do jazdy.	Good weather conditions for driving today.	(+)
3	Dzieci pomachały do mnie.	Children waved at me.	(+)
4	Inny pracownik mi pomógł.	Another employee helped me.	(+)
5	Inny pracownik się do mnie uśmiechnął / pozdrowił mnie.	Another employee smiled at me / greeted me.	(+)
6	Jechałem_am dziś sprawnym pojazdem.	I drove a fully functional vehicle today.	(+)
7	Leciała dziś ciekawa audycja w radio.	An interesting program was on the radio today.	(+)
8	Miałem_am dziś ciekawe szkolenie.	I attended an interesting training session today.	(+)
9	Miałem_am wystarczającą przerwę, aby zjeść / napić się / odpocząć.	I had a sufficient break to eat / drink / rest.	(+)
10	Mogłem_am dziś posłuchać dobrej muzyki podczas jazdy.	I was able to listen to good music while driving today.	(+)
11	Nie miałem_am dziś problemów ze zwrotnicami.	I had no issues with the track switches today.	(+)
12	Otrzymałem_am dziś niespodziewaną podwyżkę / premię.	I received an unexpected pay raise / bonus today.	(+)
13	Otrzymałem_am dziś profesjonalne wsparcie ze strony centrali ruchu.	I received professional support from the traffic control center today.	(+)
14	Pasażer mnie pochwalił.	A passenger praised me.	(+)
15	Pasażer mnie skomplementował.	A passenger complimented me.	(+)
16	Pasażer się do mnie uśmiechnął.	A passenger smiled at me.	(+)
17	Pasażer się ze mną przywitał.	A passenger greeted me.	(+)
18	Pasażer wręczył mi upominek / cukierka.	A passenger gave me a small gift / a candy.	(+)

19	Pasażer życzył mi miłego dnia.	A passenger wished me a nice day.	(+)
20	Przełożony mnie pochwalił.	My supervisor praised me.	(+)
21	Punktualnie skończyłem_am zmianę.	I finished my shift on time.	(+)
22	Skończyłem_am zmianę bez przeszkód.	I finished my shift without any obstacles.	(+)
23	Zmiennik pojawił się na czas.	My relief driver arrived on time.	(+)
24	Spotkałem_am uprzejmego pasażera.	I encountered a polite passenger.	(+)
25	Spotkałem_am znajomego na trasie.	I met an acquaintance/friend on the route.	(+)
26	Sygnalizator zapalił się na czas.	The traffic light changed (to green) on time.	(+)
27	Usłyszałem_am zabawny żart.	I heard a funny joke.	(+)
28	Uwzględniono moją prośbę o zmianę grafiku.	My request for a schedule change was granted.	(+)
29	Inne (jakie?)	Other (please specify).	(+)

Instruction (negative events): From the list below, please select all the negative events that you experienced at work today. / Zaznacz z poniższej listy wszystkie zdarzenia negatywne, które dziś doświadczyłeś_aś w pracy.

No.	Polish Items	English Items	Type
1	Miałem_am bójkę w pojeździe.	There was a fight in my vehicle.	(-)
2	Był wypadek na mieście (nie z moim udziałem).	There was an accident in the city (not involving my vehicle).	(-)
3	Były dziś korki na mieście.	There were traffic jams in the city today.	(-)
4	Chciało mi się spać podczas jazdy pojazdem.	I felt sleepy while driving today.	(-)
5	Inny pracownik był dla mnie nieuprzejmy / nieżyczliwy.	Another employee was rude / unkind to me.	(-)
6	Dzieci w pojeździe zachowywały się głośno.	Children in the vehicle were behaving loudly.	(-)

7	Inny pojazd zablokował mi przejazd.	Another vehicle blocked my path.	(-)
8	Inny uczestnik ruchu wymusił pierwszeństwo / zjechał mi drogę.	Another road user cut me off / failed to yield the right of way.	(-)
9	Inny uczestnik ruchu złamał przepisy ruchu drogowego.	Another road user broke traffic regulations.	(-)
10	Jechałem_am dziś niesprawnym pojazdem.	I drove a malfunctioning vehicle today.	(-)
11	Inny pracownik zareagował w nerwowy / agresywny sposób.	Another employee reacted in a nervous / aggressive manner.	(-)
12	Mężczyźni wytykali mnie palcami / mówili "o, baba za kierownicą".	Men were pointing at me / making sexist comments (e.g., "look, a woman behind the wheel").	(-)
13	Miałem_am awarię pojazdu.	My vehicle broke down.	(-)
14	Miałem_am awarię zwrotnicy.	There was a track switch failure.	(-)
15	Miałem_am dziś kontrolę nadzoru ruchu.	I had an inspection by traffic supervision today.	(-)
16	Miałem_am kolizję z innym pojazdem.	I had a collision with another vehicle.	(-)
17	Miałem_am kontakt z agresywnym pasażerem.	I had contact with an aggressive passenger.	(-)
18	Miałem_am kontakt z osobą w kryzysie bezdomności / brzydko pachnącym pasażerem.	I had contact with a passenger experiencing homelessness / an odorous passenger.	(-)
19	Miałem_am kontakt z pijanym / pod wpływem narkotyków pasażerem	I had contact with an intoxicated passenger / a passenger under the influence of drugs.	(-)
20	Miałem_am opóźnienie podczas jazdy.	I experienced a delay while driving.	(-)
21	Musiałem_am pracować dziś z niekompetentnym pracownikiem.	I had to work with an incompetent employee today.	(-)
22	Nie miałem_am wystarczającej przerwy w pracy, aby zjeść / napić się / odpocząć.	I did not have a sufficient break to eat / drink / rest.	(-)
23	Otrzymałem_am reprimendę / karę od przełożonego.	I received a reprimand / penalty from my supervisor.	(-)
24	Pasażer głośno rozmawiał przez telefon.	A passenger was talking loudly on the phone.	(-)
25	Pasażer kaszlnął / kichnął na mnie.	A passenger coughed / sneezed on me.	(-)

26	Pasażer mi nie podziękował, gdy np. na niego poczekałem_am.	A passenger did not thank me (e.g., when I waited for them).	(-)
27	Pasażer mi zasnął w pojeździe.	A passenger fainted in the vehicle.	(-)
28	Pasażer mi zmarł w pojeździe.	A passenger fainted in the vehicle.	(-)
29	Pasażer pozostawił śmieci w pojeździe.	A passenger left trash in the vehicle.	(-)
30	Pasażer skierował w moją stronę wyzwiska / wulgaryzmy.	A passenger directed insults / profanities at me.	(-)
31	Pieszy / rowerzysta zachował się nieprzewidywalnie / nieostrożnie.	A pedestrian / cyclist behaved unpredictably / carelessly.	(-)
32	Podczas rozmowy przełożony nie docenił mojej pracy.	During a conversation, my supervisor did not appreciate my work.	(-)
33	Pojazd, którym jechałem_am wykoleił się.	The vehicle I was driving derailed.	(-)
34	Potrąciłem_am przechodnia / pieszego.	I hit a pedestrian.	(-)
35	Przytrzasnąłem_ęłam drzwiami pasażera.	I caught a passenger in the doors.	(-)
36	Sygnalizacja świetlna była niedopasowana do czasu przejazdu.	The traffic lights were out of sync with the schedule.	(-)
37	Wpadłem_am w poślizg.	My vehicle skidded.	(-)
38	Inne (jakie?)	Other (please specify).	(-)

Appendices C. Supplementary and Robustness Analyses

Appendix C1. Reversed Model Analyses in Study 1

One limitation of my study is that my data is cross-sectional. Therefore, the direction of paths might be seen as arbitrary, as one might claim that work engagement is associated with emotions, which in turn impact the perception of positive and negative work events. In the final step of my additional analyses, I examined the reversed causality model, in which I considered work engagement as a predictor, positive and negative work-related emotions as mediators, and the perceived frequency of positive and negative work events as dependent variables. I allowed both mediators to correlate. The model did not fit to data ($\chi^2 = 233.59$, $df = 1$, $p < .001$, RMSEA = .558, 90% CI [.499, .619], SRMR = .094, CFI = 0.834, TLI = 0.000). Moreover, I computed the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) to compare competing models. A lower value of the AIC and BIC indexes indicates a better model fit. My theoretical model was more parsimonious (AIC = 5157.49, BIC = 5226.76) than the reversed model with work engagement as predictor of the perceived frequency of positive and negative work events (AIC = 7344.69, BIC = 7423.19). Therefore, it seems more adequate to consider the perceived frequency of positive and negative work events as predictors of work engagement with the mediating role of positive and negative work-related emotions. The results for the reversed model (standardised path coefficients) are presented in Table C1.

Table C1*Reversed Model Analyses in Study 1*

Path	Regression step 1 (<i>N</i> = 748)	
	β	SE
Major paths		
WE → PEW	.28***	.05
WE → NEW	.14**	.05
PEm ↔ NEm	-.00	.02
Detailed paths		
WE → PEm	.79***	.02
PEm → PEW	.25***	.05
PEm → NEW	.03	.05
WE → NEm	-.23***	.04
NEm → PEW	.06 [†]	.03
NEm → NEW	.48***	.03
<i>R</i> ² (PEW)	24.0%	
<i>R</i> ² (NEW)	22.5%	

Note. PEW = Perceived frequency of positive events at work;
 NEW = Perceived frequency of negative events at work;
 PEm = Positive work-related emotions; NEm = Negative
 work-related emotions; WE = Work engagement.

[†] $p < .10$, ** $p < .01$, *** $p < .001$.

Appendix C2. Auxiliary Path Analyses in Study 1

As some paths assumed in my theoretical model tested in study 1 in step 1 (Table 5 in the main text) were nonsignificant, I tested an alternative model excluding these insignificant paths. The alternative model fitted to data very well ($\chi^2 = 0.015$, $df = 1$, $p = .902$, RMSEA < .001, 90% CI [.000, .042], SRMR = 0.001, CFI = 1.00, TLI = 1.00) and accounted for 65% of the work engagement variance. The results with standardised path coefficients are presented in Table C2, step 1.

Next, as some paths assumed in my moderation model tested in step 2 (Table 5 in the main text) were nonsignificant, I tested an alternative moderation model excluding these insignificant paths. The fit indices showed that the model fit the data very well ($\chi^2 = 1.748$, $df = 4$, $p = .782$, RMSEA = .000, 90% CI [.000, .036], SRMR = 0.01, CFI = 1.00, TLI = 1.00). In the alternative model, the main effects of PsyCap on positive and negative work-related emotions and work engagement were significant, and the interaction between PsyCap and the perceived frequency of negative events on negative work-related emotions remained significant. The results with standardised path coefficients are presented in Table C2, step 2.

Table C2*Auxiliary Path Analyses in Study 1*

Path	Regression step 1 (<i>N</i> = 748)		Regression step 2 (<i>N</i> = 748)	
	β	SE	β	SE
Major paths				
PEW → WE	.13***	.02	.66***	.03
NEW → WE	-	-	-	-
PEm ↔ NEm			.06*	.02
Detailed paths				
PEW → PEm	.55***	.04	.27***	.03
NEW → PEm	-.19***	.04	-	-
PEm → WE	.72***	.03	.66***	.03
PEW → NEm	-.32***	.04	-.12**	.04
NEW → NEm	.59***	.04	.47***	.03
NEm → WE	-.09***	.02	-	-
Main effects of PsyCap				
PsyCap → PEm			.47***	.03
PsyCap → NEm			-.37***	.03
PsyCap → WE			.15***	.03
Moderation by PsyCap				
PsyCap x PEW → PEm			-	-
PsyCap x PEW → NEm			-	-
PsyCap x NEW → PEm			-	-
PsyCap x NEW → NEm			-.10***	.03
PsyCap x PEW → WE			-	-
PsyCap x NEW → WE			-	-
<i>R</i> ² (WE)	65%		66%	

Note. PEW = Perceived frequency of positive events at work; NEW = Perceived frequency of negative events at work; PEm = Positive work-related emotions; NEm = Negative work-related emotions; WE = Work engagement.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix C3. Controlling for Agency and Communion in Study 2

Following Ohly and Schmitt's (2015) proposal that work events can be categorised along two dimensions of agency and communion, and as these two aspects might potentially confound my study, I conducted an additional (not preregistered) analysis of the appraisal of work events described by participants in this study regarding these two dimensions. After completing data collection, I asked a group of 15 competent judges⁹, blind to conditions and hypotheses, to assess each work event along the dimensions of agency and communion. Given the large number of events described by participants ($N = 572$), I provided each judge with a set of event¹⁰ descriptions to assess using a Likert-type scale separately for agency and communion. The agency scale ranged from $-10 = \textit{the person's passive participation in the event, where the person experiencing the event was not responsible for the situation and had no control over it}$ to $+10 = \textit{the person's active participation in the event, where the person experiencing the event was responsible for the situation and had control over it}$. For the communion dimension, the scale ranged from $-10 = \textit{a situation that is not related to building or destroying social relationships, so the event does not affect others and it cannot be said whether it is profitable/beneficial or costly/unpleasant for others}$ to $+10 = \textit{a situation related to building or destroying social relationships, so the event affects others and it can be said whether it is profitable/beneficial or costly/unpleasant for others}$. The evaluation provided by the competent judges was used to conduct additional analyses that were not included in the preregistration.

First, to assess the inter-rater reliability of the scores for agency and communion, I calculated an Intraclass Correlation Coefficient (ICC). The analysis was conducted using a two-way mixed-effects model and the consistency definition, which was suitable for a

⁹ The group of competent judges included psychologists working in academia in the field of social psychology

¹⁰ On average, each competent judge evaluated 76 events, with each event being assessed by a minimum of 2 judges

situation with multiple competent judges rating a subset of items, and assesses the degree to which ratings are consistent across raters. The dataset included ratings from 15 competent judges on 572 events, with each event being rated by at least two judges. The results showed good inter-rater reliability for the agency scores, with an ICC of .75 (95% CI [.70, .79]). This finding was statistically significant ($p < .001$), indicating a high degree of consistency among competent judges. In contrast, the reliability for the communion scores was poor, with an ICC of .36 (95% CI [.24, .45]). Although this result was statistically significant ($p < .001$), it reflects a substantially lower level of agreement compared to the agency ratings.

Then, I compared the appraisals of events on the dimensions of agency and communion, as assessed by the competent judges, across the two levels of experimental manipulation (positive event vs. negative event). The analysis showed that positive events ($M = 3.43$, $SD = 5.39$) were rated significantly higher in agency than negative events ($M = -3.54$, $SD = 5.35$), $t(569) = -15.45$, $p < .001$, Cohen's $d = -1.30$. In contrast, negative events ($M = 3.66$, $SD = 4.48$) and positive events ($M = 3.45$, $SD = 4.99$) did not differ significantly in communion ratings, $t(569) = 0.52$, $p = .601$, indicating no evidence for differences in communion appraisals between the two conditions.

Next, to ensure that the evaluation and emotions associated with the event are not affected by the agency and communion aspects of the event, I introduced communion and agency, along with their interactions with the experimental manipulation, into the model (Table C3). I retained PsyCap and its interaction with the experimental manipulation. The model was again saturated, hence it had the best possible fit, $\chi^2 = 0$, $df = 0$, $p < .001$, RMSEA = 0, 90% CI [0, 0], SRMR = .000, CFI = 1.00, TLI = 1.00. Including interactions with agency and communion explained an additional 0.2% of the variance in positive emotions and an additional 0.6% of the variance in negative emotions. None of the main effects of agency and communion, nor their interactions with the experimental manipulation,

were significant. The main effects of PsyCap on event appraisal, positive emotions, and negative emotions remained significant. The interaction effects between PsyCap and experimental manipulation on event evaluation, as well as positive and negative emotions, did not reach significance. Therefore, including agency and communion in the tested model did not change the results that I presented in the main text (Table 6, step 2), and the difference between conditions was not due to differences in agency and communion in the events described by participants.

Table C3*Results of the Path Analysis While Controlling for Agency and Communion in Study 2*

Path	Regression step 1 (<i>N</i> = 572)	
	β	SE
Direct effects		
Event → PEm	.37***	.09
Event → NEm	-.29**	.09
Detailed paths		
Event → EE	.91***	.02
EE → PEm	.18*	.09
EE → NEm	-.26**	.09
Covariances		
PEm ↔ NEm	-.25***	.03
Main effect of PsyCap		
PsyCap → EE	.06***	.02
PsyCap → PEm	.18***	.03
PsyCap → NEm	-.15***	.03
Moderation by PsyCap		
PsyCap x event → EE	.02	.02
PsyCap x event → PEm	.03	.03
PsyCap x event → NEm	.05	.03
Main effect of Agency		
Agency → EE	.03	.02
Agency → PEm	.06	.04
Agency → NEm	.02	.04
Moderation by Agency		
Agency x event → EE	-.01	.02
Agency x event → PEm	.02	.04
Agency x event → NEm	-.06	.04
Main effect of Com		
Com → EE	.01	.02
Com → PEm	-.02	.03
Com → NEm	-.03	.03
Moderation by Com		
Com x event → EE	.01	.02
Com x event → PEm	.00	.03
Com x event → NEm	-.06	.04
<i>R</i> ² (PEm)	38.4%	
<i>R</i> ² (NEm)	32.1%	

Note. Event = type of work event (experimental manipulation);

PEm = corresponding positive emotions;

NEm = corresponding negative emotions;

EE = event evaluation, Com = communion.

* $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix C4. Additional Preregistered Analyses in Study 3

In Study 3, I preregistered a series of auxiliary analyses conducted for exploratory purposes¹¹. In the first analysis, I investigated the moderating effects of the individual components of PsyCap, namely self-efficacy, hope, optimism, and resilience (Luthans, Youssef & Avolio, 2007). In a separate second analysis, I explored the relationship between participants' evaluations of the events and their PsyCap, incorporating this path into an auxiliary version of my model. Finally, in a third analysis, I conducted a robustness check, reanalysing the data from my main model but excluding participants who responded "very unlikely" to a question, "How likely is it that this work event would happen to you at your job?".

Moderation by the Individual Components of PsyCap

The rationale for conducting this additional analysis was to gain a more nuanced and granular understanding of PsyCap's effects by decomposing the composite score into its four individual components—self-efficacy, hope, optimism, and resilience—in order to identify which specific psychological resources are the main drivers of the observed relationships and to uncover any unique or masked effects that would not be apparent when using the total PsyCap score alone.

To analyse the data, the items for each PsyCap component were averaged to calculate separate scores for self-efficacy, hope, optimism, and resilience. I again used a path analysis with MPlus 8.7 (Muthén et al., 2017) with the maximum likelihood (ML) estimator. Instead of the total score on PsyCap, I included the four components of PsyCap and their interactions with both positive and negative events in the model that I tested in this study. The model was saturated, hence it had the best possible fit, $\chi^2 = 0$, $df = 0$, RMSEA = 0, 90% CI [0, 0],

¹¹ In the preregistration, in the description of additional exploratory analyses, I also included one that would indicate whether participants with low PsyCap will experience a lower level of work engagement in the face of a negative event and a positive event compared to people with high PsyCap. However, due to the total effect result that I reported earlier, I will not duplicate this information here.

SRMR = 0, CFI = 1.00, TLI = 1.00. The results (standardised path coefficients) are presented in Table C4. Adding the interactions with individual components to the model, rather than the overall PsyCap construct, explained an additional 2.4% of variance in work engagement. The main effects of optimism on positive event-related emotions and momentary work engagement were significant, and the only significant interaction was between self-efficacy and positive event on momentary work engagement.

Table C4

Results of the Path Analysis Testing the Moderating Effects of PsyCap Components in Study 3

Path	Regression (<i>N</i> = 494)	
	β	SE
Direct effects		
PEW → MWE	.02	.04
NEW → MWE	-.08	.06
Detailed paths		
PEW → PEm	.03	.03
NEW → PEm	-.73***	.03
PEm → MWE	.37***	.05
PEW → NEm	-.04	.04
NEW → NEm	.69***	.04
NEm → MWE	-.25***	.05
Covariances		
PEm ↔ NEm	-.14***	.02
Main effect of PsyCap components		
Self-efficacy → PEm	.02	.04
Self-efficacy → NEm	.04	.04
Self-efficacy → MWE	.02	.04
Hope → PEm	-.01	.04
Hope → NEm	-.04	.04
Hope → MWE	.07	.05
Optimism → PEm	.09*	.04
Optimism → NEm	-.05	.04
Optimism → MWE	.14**	.04
Resilience → PEm	.01	.04
Resilience → NEm	-.05	.04
Resilience → MWE	.02	.04
Moderation by PsyCap components		
Self-efficacy x PEW → PEm	.03	.04
Self-efficacy x PEW → NEm	.01	.05
Self-efficacy x NEW → PEm	.01	.04
Self-efficacy x NEW → NEm	.06	.04
Self-efficacy x PEW → MWE	.12*	.05
Self-efficacy x NEW → MWE	.01	.05
Hope x PEW → PEm	-.03	.05
Hope x PEW → NEm	.00	.05
Hope x NEW → PEm	-.02	.05
Hope x NEW → NEm	.05	.05
Hope x PEW → MWE	-.08	.05
Hope x NEW → MWE	-.07	.05
Optimism x PEW → PEm	.03	.05
Optimism x PEW → NEm	-.02	.05
Optimism x NEW → PEm	-.03	.05
Optimism x NEW → NEm	.00	.05
Optimism x PEW → MWE	-.01	.05
Optimism x NEW → MWE	.04	.05
Resilience x PEW → PEm	-.00	.04
Resilience x PEW → NEm	-.00	.04
Resilience x NEW → PEm	.02	.04
Resilience x NEW → NEm	-.02	.05
Resilience x PEW → MWE	.03	.04
Resilience x NEW → MWE	.01	.04
R^2 (MWE)	49.5%	

Note. PEW = Positive vs. neutral work event; NEW = Negative vs. neutral work event; PEm = Positive event-related emotions; NEm = Negative event-related emotions; MWE = Momentary work engagement.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Given that none of the mediation pathways are moderated by the individual PsyCap components, I did not proceed to test the potential indirect effects separately for low, medium, and high levels of these components in participants. Furthermore, none of the PsyCap components had a significant main effect on work-related emotions or engagement. Although exploratory analyses revealed a significant interaction between self-efficacy and positive events on momentary work engagement, this effect existed only on the direct path from events to engagement, hence does not contribute to my hypotheses concerning total and indirect effects.

The Relationship between PsyCap and Event Evaluation

The analysis aimed to investigate the relationship between event evaluation (positive, neutral, and negative events) and participants' PsyCap. Based on cognitive appraisal theory (Lazarus & Folkman, 1984) and the conservation of resources perspective (Hobfoll, 1989), individuals with higher levels of personal resources may be more likely to interpret situations in a constructive way, perceiving events as challenges rather than threats. Examining this relationship allowed me to control for an alternative explanation, in which PsyCap could be associated with outcomes through shaping event appraisal rather than only through its impact on emotions and work engagement.

To examine the above, I built a model with positive (vs. neutral) and negative (vs. neutral) work events as predictors, event evaluation as the dependent variable, and PsyCap as moderator. To test the above assumption, I estimated a regression model using path analysis in MPlus 8.7 (Muthén et al., 2017) with a maximum likelihood (ML) estimator. The model showed a perfect fit to the data ($\chi^2 = 0$, $df = 0$, RMSEA = 0, 90% CI [0, 0], SRMR = 0, CFI = 1.00, TLI = 1.00). The results (standardised path coefficients) are presented in Table C5. The results demonstrated that PsyCap was a statistically significant positive predictor of event evaluation, confirming that individuals with higher psychological resources tend to

appraise events more constructively overall. Furthermore, negative (vs. neutral) event exerted a large, significant negative effect on event evaluation, indicating that this event was strongly associated with a less favourable appraisal compared to positive (vs. neutral) events.

However, contrary to my assumptions, the moderating role of PsyCap was not supported.

Table C5

Results of the Path Analysis Testing the Relationship between PsyCap and Event Evaluation in Study 3

Path	Regression (<i>N</i> = 494)	
	β	SE
Direct effects		
PEW → EE	-.01	.03
NEW → EE	-.82***	.03
Main effect of PsyCap		
PsyCap → EE	.05*	.03
Moderation by PsyCap		
PsyCap x PEW → EE	-.02	.03
PsyCap x NEW → EE	-.04	.03
<i>R</i> ² (EE)	66.2%	

Note. PEW = Positive vs. neutral work event; NEW = Negative vs. neutral work event; EE = Event Evaluation.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Robustness Check

In this analysis, I rerun my primary model excluding participants who answered “very unlikely” in the question “How likely is it that this work event would happen to you at your job?” The decision to conduct this additional analysis was driven by the need to increase the ecological validity and generalisability of our findings. This supplementary analysis aimed to test whether the relationships observed in the original model are specific to individuals for whom these work events are a realistic possibility. By focusing on a sample that is more

likely to experience such situations, I can ensure our results are more relevant and reflective of genuine workplace dynamics.

After excluding participants who rated the event as “very unlikely”, the sample consisted of 322 participants (175 women, 144 men, 2 non-binary/third gender, 1 prefer not to say, $M_{\text{age}} = 38.44$ years; $SD = 10.60$; $M_{\text{seniority}} = 18.37$ years; $SD = 10.94$). Participants had an average of 15.38 years of education ($SD = 3.83$), with educational attainment ranging from 2 to 27 years. The division of the sample into experimental conditions was: neutral event condition ($n = 135$), negative event condition ($n = 102$), and positive event condition ($n = 85$).

The descriptive statistics, Cronbach’s α s, and the correlations between the variables are shown in Table C6. Positive event-related emotions had a very strong, negative and significant correlation with negative event-related emotions while showing a strong positive correlation with momentary work engagement. Negative event-related emotions were found to have a strong negative correlation with momentary work engagement. PsyCap showed no significant correlation with positive or negative work-related emotions; however, there was a weak and positive correlation between PsyCap and momentary work engagement. The pattern of correlations among the variables in this subsample mirrors the relationships found in the original sample ($N = 494$).

Table C6

Descriptive Statistics, Cronbach's Alphas, and Correlations for Study Variables in the Robustness Check in Study 3

Variable	<i>M</i>	<i>SD</i>	α	1	2	3	4
1. Event evaluation (manipulation check)	0.85	3.50		—			
2. Positive event-related emotions	2.74	0.91	.90	.86**	—		
3. Negative event-related emotions	2.28	0.85	.86	-.81**	-.75**	—	
4. Momentary work engagement	3.19	0.93	.96	.63**	.69**	-.59**	—
5. Psychological capital	4.39	0.69	.88	.07	.09	-.09	.25**

Note. $N = 494$

** $p < .01$.

Manipulation Check. To verify the effectiveness of the experimental manipulation in this sample, I conducted a one-way ANOVA with event evaluation as a DV and condition (positive, neutral, and negative event) as a between-subject factor. The analysis revealed a significant effect of condition, $F(2, 190) = 572, p < .001, \eta^2 = .73$, indicating that participants' responses differed depending on the event type. The Games-Howell post-hoc test showed that participants in the negative event condition rated the event significantly more negatively ($M = -3.53, SD = 1.34$) than those in the neutral condition ($M = 2.99, SD = 1.94$), $t(233) = 30.6, p < .001$, and those in the positive condition ($M = 2.71, SD = 2.15$), $t(135) = -23.25, p < .001$. However, participants' event evaluation in the positive scenario condition did not significantly differ from those in the neutral scenario condition, $t(165) = 1.00, p = .578$. These results demonstrated that only the negative event condition manipulation was successful.

Hypotheses Testing. To test my hypothesis in this sample with excluded observations, I used a path analysis with MPlus 8.7 (Muthén et al., 2017) with a maximum

likelihood (ML) estimator. I tested total, direct, and indirect effects by examining bootstrap confidence intervals using a bootstrap procedure with 10,000 samples. The path model estimated in the first step considered predictors (positive vs. neutral and negative vs. neutral work event, with the independent variables dummy-coded), mediators (positive and negative event-related emotions), and a dependent variable (momentary work engagement). I allowed both mediators to correlate with each other. Since the model was saturated, it had the best possible fit, perfectly reproducing all variances, covariances, and means ($\chi^2 = 0$, $df = 0$, RMSEA = 0, 90% CI [0, 0], SRMR = 0, CFI = 1.00, TLI = 1.00). The results (standardised path coefficients) are shown in Table C7 as step 1. Positive and negative event-related emotions, along with positive vs. neutral and negative vs. neutral work events, explained 39.6% of the variance in momentary work engagement.

Table C7*Results of the Path Analysis in the Robustness Check in Study 3*

Path	Regression step 1 (<i>N</i> = 322)		Regression step 2 (<i>N</i> = 322)	
	β	SE	β	SE
Direct effects				
PEW → MWE	-.02	.05	-.01	.05
NEW → MWE	.05	.08	-.01	.08
Detailed paths				
PEW → PEm	.04	.04	.05	.04
NEW → PEm	-.76***	.04	-.76***	.04
PEm → MWE	.50***	.07	.45***	.07
PEW → NEm	-.004	.04	-.01	.04
NEW → NEm	.74***	.04	.74***	.04
NEm → MWE	-.23**	.07	-.21**	.08
Covariances				
PEm ↔ NEm	-.11***	.02	-.10***	.02
Main effect of PsyCap				
PsyCap → PEm			.11**	.03
PsyCap → NEm			-.09*	.04
PsyCap → MWE			.18***	.04
Moderation by PsyCap				
PsyCap x PEW → PEm			.04	.04
PsyCap x PEW → NEm			.06	.04
PsyCap x NEW → PEm			-.04	.04
PsyCap x NEW → NEm			.02	.04
PsyCap x PEW → MWE			.05	.05
PsyCap x NEW → MWE			.006	.05
<i>R</i> ² (MWE)	39.6%		43.0%	

Note. PEW = Positive vs. neutral work event; NEW = Negative vs. neutral work event; PEm = Positive event-related emotions; NEm = Negative event-related emotions; MWE = Momentary work engagement.
[†]*p* < .10, **p* < .05, ***p* < .01, ****p* < .001.

Mediation by Positive and Negative Event-Related Emotions. To test for possible mediation effects as predicted in my hypotheses I used a bias-corrected bootstrapping procedure with 10,000 samples (Hayes, 2017). The significance of the total, direct, and indirect effects was tested in a saturated model to allow all path coefficients to be estimated (step 1 in Table C7). The total effect of the positive (vs. neutral) event on momentary work engagement was not significant, $\beta = .02$, $SE = .03$, 95% boot CI [-.03, .08], such that the occurrence of positive (vs. neutral) event did not substantially impact levels of momentary work engagement. The relative indirect effect via positive event-related emotions was not

significant, $\beta = .02$, $SE = .02$, 95% boot CI $[-.02, .07]$, nor was the relative indirect effect via negative event-related emotions, $\beta = .001$, $SE = .01$, 95% boot CI $[-.02, .02]$. The direct effect of the positive (vs. neutral) event on momentary work engagement, controlling for both mediators, was not significant, $\beta = -.02$, $SE = .05$, 95% boot CI $[-.12, .07]$.

In contrast, the total effect of the negative (vs. neutral) event on momentary work engagement was significant, $\beta = -.55$, $SE = .06$, 95% boot CI $[-.88, -.58]$, which implies that the negative (vs. neutral) event substantially decreased momentary work engagement. The indirect effect via positive event-related emotions was significant, $\beta = -.38$, $SE = .06$, 95% boot CI $[-.50, -.27]$; as well as the indirect effect via negative event-related emotions, $\beta = -.17$, $SE = .03$, 95% boot CI $[-.27, -.07]$. The direct impact of the negative (vs. neutral) event on momentary work engagement, controlling for both mediators, was not significant, $\beta = .05$, $SE = .08$, 95% boot CI $[-.10, .20]$.

Altogether, the pattern of results indicates that positive and negative event-related emotions mediated the relationship between the negative (vs. neutral) event and momentary work engagement. These findings provided partial support for the mediation hypotheses. Notably, the mediation pathways in this subgroup analysis were consistent with the findings observed in the full sample.

Moderation by Psychological Capital. In the second step, I added PsyCap as a moderator for the effects of both positive (vs. neutral) and negative (vs. neutral) events. I examined its impact on momentary work engagement as well as on positive and negative event-related emotions. This theoretical model was again saturated, resulting in the best possible fit, with $\chi^2 = 0$, $df = 0$, $RMSEA = 0$, 90% CI $[0, 0]$, $SRMR = 0$, $CFI = 1.00$, $TLI = 1.00$. The results (standardised path coefficients) can be found in Table C7 (step 2). Including interactions with PsyCap explained an additional of 3.4% of the variance in momentary work engagement. The main effects of PsyCap on positive and negative event-

related emotions, as well as on momentary work engagement, were significant. However, there were no significant interactions between PsyCap and either the negative or the positive event, so none of the moderation hypotheses were supported. This result differs from the moderation analysis that I conducted on the full sample, which revealed two marginally significant interactions.

Summary of the Additional Preregistered Analyses

My first supplementary analysis aimed to further explore the moderating role of PsyCap components rather than PsyCap as a single construct. The analysis using self-efficacy, hope, resilience, and optimism as separate moderators did not yield any significant interactions between PsyCap components and positive (vs. neutral) and negative (vs. neutral) events in predicting event-related emotions.

Furthermore, the next analysis of event appraisals showed that while higher personal resources (PsyCap) independently contribute to a more positive event appraisal style, they do moderate the relationship between the objective nature of an event (positive or negative) and how that event is assessed. In the context of this model, PsyCap acts as an independent factor influencing general appraisal tendencies, rather than a crucial moderator shaping the initial interpretation of specific positive or negative workplace occurrences.

Finally, I conducted a robustness check by excluding participants who rated the work events as "very unlikely." This subsample analysis confirmed my primary findings that positive and negative event-related emotions mediated the relationship between a negative (vs. neutral) event and momentary work engagement, replicating the pattern observed in the full sample. However, unlike the full sample analysis, this subsample revealed no significant interactions between PsyCap (as a single construct) and either positive (vs. neutral) or negative (vs. neutral) events. This means that none of the moderation hypotheses were supported, which stands in contrast to the two marginally significant interactions found in the

full sample. These findings underscore the weak and unstable nature of PsyCap's moderating role in this context.

In Table C8, I presented the summary of all my additional preregistered hypotheses tested in this third study.

Table C8*Summary of the Additional Preregistered Hypotheses Tested in Study 3*

Hypotheses	Study 3 (<i>N</i> = 494)
Additional preregistered analyses	
Interaction Self-efficacy x PEW → MWE	Supported
Interaction Self-efficacy x NEW → MWE	Not supported
Interaction Self-efficacy x PEW → PEm	Not supported
Interaction Self-efficacy x NEW → PEm	Not supported
Interaction Self-efficacy x PEW → NEm	Not supported
Interaction Self-efficacy x NEW → NEm	Not supported
Interaction Hope x PEW → MWE	Not supported
Interaction Hope x NEW → MWE	Not supported
Interaction Hope x PEW → PEm	Not supported
Interaction Hope x NEW → PEm	Not supported
Interaction Hope x PEW → NEm	Not supported
Interaction Hope x NEW → NEm	Not supported
Interaction Optimism x PEW → MWE	Not supported
Interaction Optimism x NEW → MWE	Not supported
Interaction Optimism x PEW → PEm	Not supported
Interaction Optimism x NEW → PEm	Not supported
Interaction Optimism x PEW → NEm	Not supported
Interaction Optimism x NEW → NEm	Not supported
Interaction Resilience x PEW → MWE	Not supported
Interaction Resilience x NEW → MWE	Not supported
Interaction Resilience x PEW → PEm	Not supported
Interaction Resilience x NEW → PEm	Not supported
Interaction Resilience x PEW → NEm	Not supported
Interaction Resilience x NEW → NEm	Not supported
Direct effect PsyCap → EE	Not supported
Indirect effect PEW → PEm → MWE (robustness check)	Not supported
Indirect effect PEW → NEm → MWE (robustness check)	Not supported
Indirect effect NEW → PEm → MWE (robustness check)	Supported
Indirect effect NEW → NEm → MWE (robustness check)	Supported
Interaction PsyCap x PEW → MWE (robustness check)	Not supported
Interaction PsyCap x NEW → MWE (robustness check)	Not supported
Interaction PsyCap x PEW → PEm (robustness check)	Not supported
Interaction PsyCap x NEW → PEm (robustness check)	Not supported
Interaction PsyCap x PEW → NEm (robustness check)	Not supported
Interaction PsyCap x NEW → NEm (robustness check)	Not supported