

Emotion Experienced at Work of Remote Workers During the Pandemic

Master Thesis

Master in Work, Organizational, and Personnel Psychology

2022-2024

Mahrunnisa

Facultat de Psicologia

Universitat de València

Home Tutors:

Yolanda Estreder and Vicente Martinez-Tur

Facultat de Psicologia

Universitat de València

Host Tutors:

Nuno Rebelo dos Santos and João Nuno Ribeiro Viseu

Faculdade de Psicologia e de Ciências da Educação

Universidade de Coimbra

Abstract

As the government regulated the lockdown to suppress the increase in COVID-19 cases in Spain in 2020, organizations were obligated to shift to work from home to minimize the infection risk. The pandemic-driven shift in work patterns during the outbreak had a strong influence on the organizing of work and affected people's quality of life, health, and well-being. It is generally assumed that emotion experienced at work has both positive and negative consequences for individuals and organizations. The present study analyzed the emotions experienced at work by workers that were confined due to the COVID-19 pandemic during five consecutive workdays (from Monday to Friday). Seventy remote workers participated in this research, in order to test whether daily changes in negative job affect over time relate to changes in daily work engagement and cynicism. The hypotheses was tested through hierarchical linear models using growth modelling. The result confirms that daily shifts in job-related negative emotions can predict changes in daily work engagement and daily cynicism..

Contents

Abstract.....	2
Introduction	4
Theoretical Background.....	7
Job Negative Affect.....	7
Work Engagement	8
Cynicism As a Workplace Attitude	10
Methodology	13
Sample and Procedure	13
Measures	14
Analysis.....	15
<i>Preliminary Result</i>	15
<i>Testing the Relationship between Changes in Daily Job Negative Affect and Changes in Daily Engagement (vigor and dedication) and Daily Cynicism at Work</i>	18
Discussion	20
Theoretical Implication	20
Practical Implication	22
Limitations and Future Research.....	23
Conclusion	24
References	25
Appendix.....	30
Negative Job Affect, Engagement, and Cynicism Scale.....	30

Introduction

The Coronavirus pandemic was declared by World Health Organization (WHO) as a public health emergency of international concern on 30 January 2020 due to its impact worldwide (World Health Organization, 2020). The worldwide-scale disruption triggered by the virus outbreak influenced individuals' personal lives at social and economic levels, resulting in the largest global recession since the Great Depression. Many countries in Europe initiated lockdowns, including Spain (Working Group for the Surveillance and Control of COVID-19 in Spain, 2020), in response to the health crisis, authorities obligated organizations to limit their business activity, especially those requiring close contact with people (e.g., customer service) and/or travelling (e.g., airline companies). This action was taken at different levels considering the business sector. However, the main goal of this strategy was to minimize the infection risk (Pellerin & Raufaste, 2020). It became a major challenge for organizations to adapt quickly to the unprecedented critical situation generated by COVID-19 since the following lockdown consequences mainly affected not only business performance (e.g., revenue decrease) but also the way the tasks were performed and where individuals worked (e.g., Kumar et al., 2021; Shkoler et al., 2021; Wang et al., 2021; Yu & Liu, 2022).

The organizational changes that emerged since the outbreak had an adverse impact on individual workers' health and well-being due to work-from-home enforcement (Cooper, 2020; Pellerin & Raufaste, 2020; Yu & Liu, 2022). In relation to the economic impact in Spain due to Covid-19, the gross domestic product (GDP) downturn significantly reached 11.41% due to the changes caused by business turnover, making Spain the European country with the largest drop in GDP. Consequently, the Spanish employment market was strongly affected by 11.9% in the rate of unemployment in 2020 (Pinilla et al., 2021). It indicated the major financial concerns and job insecurity during the crisis (Cooper, 2020). In parallel, at the social level, the Covid-19 lockdown regulation adversely impacted social interaction where social distancing forced social connection to be online, which was qualitatively different from in-person contact and did not easily

provide the same opportunities for social bonding (Long et al., 2022). One in ten adults experienced the negative impacts of working from home. Psychologically, having to work in lockdown confinement led to isolation and emotional distress, including feelings of fear, anxiety, and depression due to uncertainty (Cooper, 2020; Alvarez-Torres & Schiuma, 2022).

What COVID-19 did to many, from a psychological perspective, was to create a condition associated with a lack of mental well-being: uncertainty over the situation. The uncertainty in terms of health, whether they would have a job at the end of the pandemic, whether they will be able to cope financially, will their skills be needed in the post-COVID-19 era, what will the workplace be like post COVID-19. The pandemic-driven shift in work patterns during the lockdown had a strong influence on the organization of work (Yu & Liu, 2022). Based on a large-scale national survey conducted by the UK government's Office of National Statistics, the following consequences of lockdown were identified, 48% of respondents reported that their well-being was adversely affected, 75% worried about their jobs in the future, 63% were anxious, 30% felt lonely, and 31% felt this period worsened their mental health (Cooper, 2020). The lockdown process not only affected people's perception of well-being and concerns (Alvarez-Torres & Schiuma, 2022) but also affected the well-being of the population itself as a consequence of this complex context (Pellerin & Refasten, 2020).

Moreover, having to adapt to lockdown regulations by working remotely from home, blurring the boundaries between work and home/family as some employees may work outside official working hours lead to work intensification, which produced adverse outcomes in the long term in terms of the employee's well-being (Yu & Liu, 2022). According to the UK government's Office of National Statistics survey, more than half of the respondents reported feeling anxious and concerned about their job security. These issues are associated with uncertainty over the situation caused by the lockdown regulations (Cooper, 2020). These two conditions are perceived as a threat to an individual's psychological resources. Seeing through the lens of the conservation of resources (COR) theory, individuals have a tendency to preserve and protect what they value

to achieve their goals. When an individual finds a threat to something they value, negative emotions may occur as an instant reaction. The prolonged failure to manage negative emotions may affect an employee's workplace attitude and work engagement (Wang & Shi, 2020).

The present study aimed to discover how changes in negative emotions experienced at work were related to changes in work engagement and workplace attitude, namely cynicism, over time. As a complement to the previous research by Martínez-Tur et al. (2022), this study went over the causal relationships since the variable of time would help to comprehend the mechanism of psychological changes (Roe, 2008). Additionally, the within-person design in this study would allow a deeper understanding of the changes of emotions at work at the individual level by controlling the individual variation, which was recommended as a future study by the previous cross-sectional between-person study in a similar Covid-19 pandemic setting (Lee, 2020; Wang & Shi, 2020; Yu & Liu, 2022). It is important to consider that different individuals who encounter an event within a shared context (the pandemic-driven organizational changes) may exhibit diverse emotional responses and reactions (Lee, 2021), hence the within-person design.

Furthermore, this study will contribute to the existing knowledge by rendering insights into whether daily negative emotional changes in remote working settings can predict the changes in individual work engagement and cynicism during critical times. By understanding the emotional dynamics during lockdowns and crisis events, it can help organizations develop proactive measures to mitigate the negative emotion at work in order to support their employees' emotional well-being, enhance resilience, and maintain productivity in times of uncertainty. This knowledge can indeed prepare societies for potential future lockdowns or crisis situations by implementing strategies that address the emotional needs of individuals in challenging circumstances.

Theoretical Background

Daily Job Negative Affect

Watson et al. (1998) defined negative affect as the subjective experience of a group of negative emotional states. According to the Affective Events Theory (AET), cumulative affective experiences in the work environment, along with other factors, contribute to the formation of workers' job-related attitudes (Kafetsios & Zampetakis, 2008). In the pandemic context, AET considers that organizational changes influence the emotional reaction of employees; it may generate a significant psychological impact and creates an emotional experience for individuals (Lee, 2021). The accumulation of the affective experience means that time is essential in shaping a subjective feeling state, both positive and negative.

The existing studies on the changes in negative emotions over time have provided valuable insights into the psychological processes underlying emotional fluctuations; it is shown that negative emotions tend to follow a dynamic pattern, with both short-term and long-term variations. For instance, Smith et al. (2021) found that individuals experienced increased negative emotions in the immediate aftermath of a stressful event but exhibited a gradual decline in negative emotions over time as they adapted and coped with the stressor. Furthermore, a study by Lee (2021) demonstrated that various factors, such as life events and social support, influenced negative emotions. These findings suggested that negative emotions could fluctuate in response to changing circumstances, which means that the changes in negative emotions in response to the COVID-19 crisis may be time sensitive. Overall, these studies highlight the dynamic nature of negative emotions over time and the importance of understanding the underlying psychological processes to promote emotional well-being.

In the present study, we explored the negative emotions at work to observe the changes within a person and how it relates to individual work engagement and attitudes. It focused on the daily changes of a job's negative emotions during the confinement imposed by the COVID-19 pandemic, which forced individuals to work remotely. These negative emotions are composed of

sadness, boredom, tension, and anger. During a lockdown, when routines are disrupted and social interactions are limited, there's a higher probability of increased negative emotions due to uncertainty, isolation, and a blurring of work-life boundaries. Moreover, as it has been generally proven by Martínez-Tur et al. (2022) that emotions are the antecedents of work attitudes and engagement; thus, this study explored how possible changes in daily job-related negative emotions were associated with the daily changes in engagement and attitudes at work. The diary study as an experience sampling method was chosen to perform this research because it provides an explanation regarding the possible dynamics between these variables.

This measure was pivotal because negative affectivity can significantly fluctuate under stress, a common condition during the lockdown. These fluctuations provide key insights into the psychological resilience or vulnerability of employees as they navigate the stressors introduced by sudden shifts in work routines and ongoing uncertainties. Monitoring daily job negative affect helped us understand how stressors were perceived on a day-to-day basis and the immediate emotional responses to such stressors.

Daily Work Engagement

Changes in the way people work during the pandemic required psychological resource consumption. Failure to adapt quickly to the changes may cause a series of distress reactions that are likely to trigger negative emotions as an instant response and further influence the employee's level of work engagement. The negative emotions could reduce employees' enthusiasm, making them less energetic due to emotional exhaustion. A previous study found a significant effect of negative emotions on work engagement; the higher the level of negative emotions, the lower the engagement levels (Wang & Shi, 2020). The present study examined whether the daily experience of negative emotions is related to daily work engagement.

Work engagement is a multidimensional latent-trait with a positive nature, which results from the combination of three dimensions, vigour (i.e., high energy levels to achieve work goals and to overcome work-related adversities), dedication (i.e., individuals perceive their work as

meaningful and fulfilling), and absorption (i.e., workers focus for long periods on work-related tasks) (Chanana, N., & Sangeeta. (2020); Schaufeli & Bakker, 2010). It is generally assumed that an individual may experience different levels of energy and motivation to work throughout the week (Martínez-Tur et al., 2022). Some employees may feel less enthusiastic on Monday yet more vigorous close to the weekend when they can anticipate two days off from work in a five-day work cycle. Although daily work engagement was not inclusively explained in the study of Wang and Shi (2020), but conclusively illustrated having a negative correlation with negative emotions. On the other hand, negative emotions mediated the relationship between work-leisure conflict and work engagement (Wang & Shi, 2020).

Previous research provided support for the relationship between variables by highlighting several key findings. Firstly, individuals experiencing higher levels of negative emotions, such as sadness or anxiety, tend to exhibit decreased engagement in various domains of life, including work, relationships, and leisure activities (Wang & Shi, 2020). These negative emotions can drain individuals' motivation and energy, leading to reduced participation and investment in daily pursuits (Schaufeli et al., 2008; Weigelt et al., 2021). Additionally, prolonged exposure to negative emotions can contribute to a cycle of disengagement, as individuals may develop avoidance strategies to protect themselves from further emotional distress (Weigelt et al., 2021). These findings highlight the significant impact of negative emotions on engagement levels, emphasizing the need to manage and regulate negative emotions to foster sustained engagement over time. However, the existing research has not yet provided an understanding of the psychological mechanisms behind the connection between changes in negative emotions over time and variations in engagement.

Moreover, according to the conservation of resources (COR) theory, an individual's work engagement is directly influenced by their emotions. On days filled with negative emotions, individuals may use up their personal resources, leading to lower engagement. However, on days with fewer negative emotions, they conserve these resources, which can boost their engagement.

This relationship highlights the need to manage and understand emotional changes to maintain and improve engagement, aligning with COR theory's focus on preserving resources to enhance well-being and productivity (Wang & Shi, 2020).

The present study aimed to fill this knowledge gap to help us understand whether daily changes in negative emotion can predict the changes in an individual's work engagement. Work engagement, which includes vigor and dedication, is essential for employee performance and well-being. During a lockdown, when usual work settings change drastically, tracking daily shifts in engagement shows how effectively employees adjust to new work methods. This also helps organizations pinpoint what keeps or increases engagement in remote or modified work environments.

Daily Cynicism

As stated previously, a failure to manage negative emotions at work may affect an employee's workplace attitude in the long term (Cole, 2006). In this study, we examined cynicism as a workplace attitude and how it correlates with negative emotions. Cynicism, according to Beidan (2007, p.11), is defined as an attitude resulting from a critical appraisal of the motives, actions, and values of one's employing organization (Beidan, 2007); it has been drawing a tremendous amount of attention during the pandemic since it brought an abrupt pandemic-driven shift in work patterns hence a great deal of organizational changes (Yu & Liu, 2022). In the work-from-home context, employees may perceive it differently; some may feel positive since remote work offers more flexibility. On the other hand, remote work may lead to work intensification by causing unclear working boundaries between inside and outside office hours. The negative effect of long-term work intensification depends on how an organization adopts a remote work strategy (Yu & Liu, 2022). The way organizations manage this kind of crisis influences the employee's perspective in management and how an employee perceives the support received by the organization; these are the antecedents of employee cynicism (Beidan, 2007; Yu & Liu 2022).

According to Affective Events Theory (AET), organizational characteristics influence the emotional reactions of employees. During the COVID-19 outbreak, both employers and employees were forced to adapt to unexpected digital-changing moves, thus the traditional work dynamics have been transformed quickly (Alvarez-Torres & Schiuma, 2022); the organizational changes may overburden an employee as the additional yet considerably strong impact of the pandemic. In an organizational context, emotions define employees' feelings about incidents such as uncertainty of security or fundamental changes occurring in the organization. In the previous empirical study (Cole et al., 2006), both positive and negative emotions predict a unique variance in employee cynicism, where emotions act as a signal of whether the specific needs of the employee are being accommodated by the organization. In the pandemic, an employer is expected to adapt to emerging changes to ensure continuity and certainty to business. The daily changes in negative emotions, driven by lack of support, can lead to greater cynicism if overlooked. The better the employer overcomes the difficult situation, the more positive perspective gained from the employee; hence, the lower the cynicism. This explains how an employee perceives organizational support during the crisis has an essential role in shaping cynicism levels.

The present study explored daily fluctuations in the cumulative mood associated with the workday to test if daily negative emotions experienced by remote workers during the lockdown can explain daily changes in employee cynicism. Workplace cynicism, characterized by detachment, can worsen during crises, affecting company culture and employee morale. By understanding the mechanism behind cynicism, we can identify early signs of potential long-term disengagement, which helps in implementing timely interventions.

Research Model

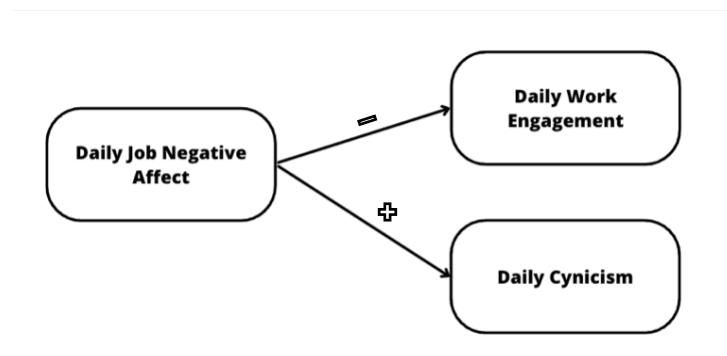
In the present study, we aimed to understand the psychological phenomenon of the daily working experience of remote workers during the lockdown. It has been empirically studied that the changes caused by the COVID-19 outbreak produced additional emotional experiences at work among remote workers (Alvarez-Torres & Schiuma, 2022; Yu & Liu, 2022). As previously mentioned, all the variables included in this study are assumed to be related to the employee emotional toll during the pandemic and, to a certain degree, could be predicted by the five-day work cycle. It also has been generally proven that emotions are the antecedents of engagement (Wang & Shi, 2020; Weigelt et al., 2021; Yu & Liu, 2022) and cynicism (Cole et al., 2006; Beidan, 2007; Yu & Liu, 2022). Based on these assumptions, we developed two hypothesis as follows:

Hypothesis 1. Changes within a person in daily job negative affect predict the changes in daily work engagement by controlling sex and age, which is generally assumed to have a negative relationship (see Figure 1).

Hypothesis 2. Changes within a person in daily job negative affect predict the changes in daily cynicism by controlling sex and age, which is generally assumed to have a positive relationship (see Figure 1).

Figure 1

Research Model



Research Objectives

The present study aimed to investigate whether daily changes in job negative affect over time will be related to changes in daily work engagement and cynicism. The aim is to see whether the daily changes in job negative affect could predict changes in daily work engagement and cynicism. To achieve our goals, we conducted a quantitative diary study using an online questionnaire where the confined employees answered daily to self-report measures for each of the variables studied.

Methodology

Sample and Procedure

In this study, the research team recruited a group of 86 eligible employees, all of whom were invited to participate. Researchers used social networks to recruit the study participants. Among them, 71 employees (82.55% of the total participant, $M=43.14$ years old, $SD=9.23$, 59.2% women) agreed to take part in the study voluntarily and completed the daily questionnaire for five consecutive workdays. To be eligible, the participants had to be over eighteen years old and actively working in a home-based remote work setting during lockdown confinement in Spain, with a regular weekly schedule from Monday to Friday without a weekend schedule.

To respect the lockdown regulation, the communication and data collection was performed remotely using an online questionnaire. Each participant was treated anonymously using an individual code and submitted by the end of the working hours on five consecutive days from Monday to Friday. Researchers provided the necessary information regarding the study, which included the questionnaire instruction. To maintain the engagement of the participants, the researcher sent a daily reminder via e-mail every day at 2.30 (pm) to fill out the online questionnaire by the end of the day.

In total, 355 observations were made using this sampling plan (71 employees x 5 days). Fifteen participants (17.45%) were not included in the analysis due to their refusal to participate

or their failure to consistently respond to the questionnaires despite reminders. They were employed in a number of different fields, including banking, insurance, teaching, public administration, computer programming, administrative support in the healthcare industry, and professional services as independent contractors. The design and procedures were examined and approved by the University's Ethical Committee for Research in Humans. Participants gave their informed consent for the procedures after being informed of the study's objectives by the researchers. Both confidentiality and anonymity were assured. The study was open-ended, so participants might leave at any time.

Measures

Given the unique circumstances during the lockdown, it was necessary to have ethical consideration of the difficult personal situation the participants were experiencing. It is generally assumed that the existing emotional burden at work during the pandemic was considerably concerning (Cooper, 2020); therefore, it was essential to use an instrument that complied with this situation. The questionnaire was a combination of valid short forms and single-item measures for each variable (Ohly et al., 2010), expected to be completed in less than five minutes a day (Reis & Gable, 2000). The use of single-item measures supported by the validity of single item measures in organizational psychology by Matthews et al. (2022),

To measure the daily job negative affect, the researchers used a validated character-based pictorial scale for self-reporting moods by Desmet et al. (2016) on a 7-point Likert-type scale ranging from *1 = not at all* to *7 = very*. It is recommended for a diary study to use situational friendly measures for the participants and easily adaptable to the research question (Martínez-Tur et al., 2022). The four items used to measure the daily job negative affect in the study include *tenso/tensed*, *enfadado/angry*, *triste/sad*, and *aburrido/bored* (see Appendix), with moderate Cronbach's alpha coefficients ranging from .51 to .73 for five consecutive days. As for work engagement (vigor and dedication) and cynicism measurement, the researchers adapted a scale from Schaufeli et al. (2002) on a 7-point Likert-type scale ranging from *1 = strongly disagree* to *7*

= *strongly agree* (see Appendix). The individual's vigor, dedication, and cynicism each used single-item; this measurement is justified for exceptional COVID-19 circumstances based on the construct measurement guidelines proposed by Diamantopoulos et al. (2012) due to the met-criteria challenges for data collection during the Covid-19 lockdown. All the variables are centered in this research to simplify the interpretation of coefficients.

Analysis

In the present study, the collected data were computed and analyzed using IBM SPSS Statistics, version 28. Since the research is mainly designed to investigate whether a change in daily job negative affect can predict a change in daily work engagement and cynicism during the week, we assessed our data using hierarchical linear models (Heck et al., 2013), in particular through growth modelling (Duncan et al., 2013). We tested the nested models, considering the data structure: Level 1 (5-day measurement) and Level 2 (individuals). In this study, we treated age and gender as control variables. Furthermore, we used Pearson's correlation coefficient for each day, from Monday to Friday, to analyze whether there was a correlation between the studied variables.

Preliminary Result

Table 1 provides an overview of the descriptive results and correlations among the variables of the participants' daily scores. There is a consistent negative relationship between negative emotions and both forms of engagement (vigor and dedication) throughout the week. This indicates that on days when employees experience more negative emotions, their levels of engagement (vigor and dedication), tend to be lower. The relationship between daily negative emotions and daily cynicism varies, but there is generally a positive correlation, especially pronounced on Thursday and Friday. This suggests that increased negative emotions are associated with higher levels of cynicism towards the end of the workweek. Additionally, the data shows mostly negative correlations between daily engagement and daily cynicism, implying that

higher engagement is often linked with lower cynicism. This trend is more consistent for vigor than for dedication.

Table 1

Descriptive Statistics and Correlation between Study Variables

Variable	Mean	SD	Total Sample		
			1	2	3
Monday					
1. Negative Emotions	2.28	.93			
2. Engagement - Vigor	4.68	1.61	-.46**		
3. Engagement - Dedication	4.70	1.41	-.62**	.59**	
4. Cynicism	1.77	1.32	.24*	-.26*	-.11
Tuesday					
1. Negative Emotions	2.23	.92			
2. Engagement - Vigor	4.70	1.38	-.57**		
3. Engagement - Dedication	4.66	1.32	-.60**	.70**	
4. Cynicism	1.80	1.28	.18	-.07	-.09
Wednesday					
1. Negative Emotions	2.17	1.08			
2. Engagement - Vigor	5.00	1.30	-.67**		
3. Engagement - Dedication	4.76	1.38	-.66**	.78**	
4. Cynicism	1.90	1.35	.34**	-.28*	-.27*
Thursday					
1. Negative Emotions	1.95	.78			
2. Engagement - Vigor	5.06	1.21	-.39**		
3. Engagement - Dedication	4.85	1.91	-.45**	.76**	
4. Cynicism	1.68	1.09	.44**	-.47**	-.50**
Friday					
1. Negative Emotions	2.00	.83			
2. Engagement - Vigor	5.01	1.27	-.29*		
3. Engagement - Dedication	4.86	1.16	-.33**	.69**	
4. Cynicism	1.66	1.12	.63**	-.14	-.22

Note. D = Daily, DE = Daily Engagement; means, standard deviations, and correlation between daily variables were computed by aggregating participants' daily scores; * $p < .05$; ** $p < .01$.

Regarding the connection between daily job negative affect that is generated through daily vigor and dedication (two dimensions of engagement), along with the daily cynicism, it was assumed that there would be changes in individual scores over time. As a result, it was imperative to establish the score variation in these factors within individuals. Table 2 illustrates that all variables showed significant differences within individuals over time. This suggests that there is more variability in how negative emotions related to the job are experienced by the same person across different times than there are differences between how different people generally experience them. Similar to daily negative emotions, the work engagement (daily vigor and dedication) shows a higher variability within individuals than between them. Different from negative emotions and work engagement, Cynicism exhibits high variability both within and between individuals. This indicates that cynicism can fluctuate significantly within the same person, and there's also a strong diversity in cynicism levels across different individuals. In conclusion, these results justified the existence of the relationship between the changes in daily job negative affect and the changes in daily engagement (vigor and dedication) and daily cynicism.

Table 2

Variance Components

Variable	within-Person Variance (s^2)	between-Person Variance (s^2_{t00})
Job Negative Affect	** .54	** .31
Engagement - Vigor	**1.20	** .65
Engagement - Dedication	**1.09	** .59
Cynicism	** .87	** .67

Note. ** $p < .01$

Testing the Relationship between Changes in Daily Job Negative Affect and Changes in Daily Engagement (vigor and dedication)

The results from the growth modelling analysis provided support for hypothesis 1. We observed a negative and significant relationship between daily fluctuations in daily job negative affect and daily vigor ($\gamma = -.80, p < .01$) and daily dedication ($\gamma = -.79, p < .01$) while controlling for sex and age. It indicates a significant negative effect of daily job negative affect on daily vigor, consistent with Hypothesis 1. As daily negative affect increases, daily vigor decreases. Similarly, there is a significant negative effect of daily job negative affect on daily dedication. This supports Hypothesis 1, showing that increases in daily negative affect lead to decreases in daily dedication.

Testing the Relationship between Changes in Daily Job Negative Affect and Daily Cynicism at Work

We observed a positive and significant relationship between daily fluctuations in daily job negative affect and daily cynicism ($\gamma = .45, p < .01$) by controlling sex and age (refer to Table 3). The results show a significant positive effect of daily job negative affect on daily cynicism, which aligns with Hypothesis 2. As daily negative affect increases, daily cynicism also increases.

Additional Observations

Within-Person Variance is high for all three measures (Daily Vigor, Daily Dedication, Daily Cynicism), suggesting substantial day-to-day variability within individuals in how these variables are experienced. Neither sex nor age shows a significant influence on daily vigor and daily dedication, with small and non-significant estimates. Similarly, their influence on daily cynicism is also non-significant, suggesting that the effects of daily job negative affect on daily cynicism are robust across different ages and genders.

These results support both hypotheses, demonstrating the significant predictor of daily job negative affect to both aspects of daily work engagement (negatively associating with vigor and dedication) and positively associating with daily cynicism, while showing that these relationships are consistent across different demographic variables.

Table 3*Modelling Change over Time*

Parameter	Daily Vigor		Daily Dedication		Daily Cynicism	
	Estimate	SE	Estimate	SE	Estimate	SE
Linear Growth Model: Change as predictor of change						
Within-person variance	** .85	.07	** .76	.06	** .76	.06
Intercept	** 4.07	.56	** 3.96	.52	** 2.68	.53
Sex	.05	.23	.16	.22	-.15	.22
Age	.02	.01	.02	.01	-.02	.01
Time	.03	.04	-.02	.03	.00	.03
Daily Job Negative Affect	** -.80	.08	** -.79	.07	** .45	.07

Note. SE = standard error; ** $p < .01$.

Discussion

Our findings support the notion that daily changes in job negative affect can predict changes in daily engagement (vigor and dedication) and daily cynicism. A negative association was found between daily changes in negative emotions and daily changes in vigor and dedication. On the other hand, daily job negative affect was positively associated with daily employee cynicism. The result proposed that negative emotions experienced during the pandemic among remote workers throughout the week may affect the fluctuation of engagement at work and influence an individual's perception of work-related factors, leading to a more cynical attitude. It revealed that daily changes in negative emotions were significant predictors of daily changes in work engagement (vigor and dedication) and cynicism.

Theoretical Implication

The Importance of Time

The findings of this study emphasize the importance of incorporating temporal dynamics into organizational psychology theories, particularly those related to emotional regulation and

work engagement. By highlighting significant daily fluctuations in job negative affect and their impacts on employee engagement and cynicism, the results support and extend theories like Affective Events Theory (AET) and Conservation of Resources (COR) Theory. These theories could benefit from integrating concepts that address the day-to-day variability of emotional responses and resource states, acknowledging that workplace emotions and behaviors are not static but fluid, suggesting that future research should focus on understanding not only the influences on employee attitudes and behaviors but also the timing and dynamics of these influences. Since time plays an essential role in everyday life, including organizational behaviour (Bartunek & Woodman 2015), therefore, we find it important to have a deeper understanding of how this study's variables change over time to complement the existing causality findings (e.g., Kumar et al., 2021; Shkoler et al., 2021; Wang et al., 2021).

Predicting Daily Changes in Employee Engagement and Cynicism During Crisis Through Negative Emotions

Our study concentrated on investigating whether the daily changes in negative job affect can predict changes in daily engagement (vigor and dedication) and daily cynicism. While the existing research mainly focused on causal relationships (Martínez-Tur et al., 2022; Roe, 2008), our study considered the importance of the variable time, a variable that has been relatively oversight (Roe, 2008). The result confirmed a changing pattern in the variability of the negative job affect over time, which contributed to the current research that mainly focuses on developing constructs and examining their relationships. The findings helped to understand the indication of the time-based effect, that the prolonged duration of the pandemic was associated with lower engagement and higher levels of daily cynicism among employees. The researchers suggested that the unique stressors and uncertainties brought about by the pandemic, such as remote work arrangements, job insecurity, and information overload, contributed to increased cynicism among employees.

Furthermore, by assessing the variables' daily variations, it provided insight into work engagement and cynicism mechanisms that have yet to be examined in a daily job experience setting. Our investigation is designed to study facets such as the duration of emotional experiences to have a better picture of employees' behaviour by developing a time-based theory of daily variation of employees' negative emotions that is substantial in the COVID-19 unprecedented crisis.

Practical Implication

Despite the COVID-19 situation, establishing a well-being culture in the workplace has never been an easy job, yet crucial to achieving higher productivity that is likely to result in better business performance. With the 'new normal' so different, it is necessary for organizations to find a new formula to promote employees' well-being to maintain or even increase productivity during crises periods. It is essential for organizations to know how to provide the right environment on the personal, unit, and organizational levels, including involving leaders to be on board (Cooper, 2020). However, in pursuance of obtaining the right ingredients, one must gain profound knowledge about the antecedents.

The result of the present study is expected to help organizations to understand the detrimental effects of the negative job affect on work engagement and cynicism. The practical implication of the present study's result provides insights. Furthermore, comprehending the emotional toll on the dynamics of work engagement and cynicism would render an opportunity for organizations to discover the potential moderators and/or mediators between negative job affect, work engagement and cynicism. In conclusion, the present study is designed to provide indirect practical implications for organizations in developing an effective strategy to mitigate the negative impact of job negative affect on work engagement and cynicism. This finding highlights the importance of managing daily negative emotions and fostering daily vigor and dedication to promote well-being and performance in the workplace. As well, our findings provided the significance of understanding and addressing employee cynicism during the COVID-19 pandemic

and emphasizes the importance of providing organizational support to alleviate the negative effects of cynicism on employee well-being and organizational functioning.

Limitations and Future Research

This research has several limitations which could provide directions for future studies. Firstly, our focus was on confined employees with a Monday-to-Friday work schedule, whereas other employees, such as police officers, on-site engineers, and medical staff, may have different schedules and experiences. It is reasonable to assume that these employees also experience variability in negative emotions based on the proximity of their days off, which can influence their daily engagement and cynicism during a crisis. Exploring these unique situations, where weekend activities may not be shared due to household confinement, could enhance our understanding of negative job affect and its impact on workplace experiences.

Secondly, we employed quantitative diary studies to examine changes in employee scores and their association with daily work experiences. However, conducting qualitative diary studies with self-recorded information, in conjunction with quantitative approaches, could provide richer, complementary insights into employees' workplace experiences. Adopting a mixed-method approach would offer a more comprehensive understanding. Thirdly, some constructs like daily vigor, dedication and cynicism were measured using single-item scales. Although valid under the circumstances of strict COVID-19 confinement and diary studies, utilizing multiple-item measures based on specific facets could provide further insights into the dynamics of job negative affect, vigor, dedication, and cynicism at work.

Lastly, it is important to investigate more on the reciprocal relationship between these variables, whether positive work engagement can act as a buffer against negative emotions, allowing individuals to maintain a sense of enthusiasm and dedication despite challenging circumstances. As well as cynicism, the employee's perception of the organizational support

during the crisis may decrease the negative emotions when facing the challenges of working in confinement.

Conclusion

Employees faced considerable physical and psychological challenges while working remotely in isolation during the pandemic. A key mechanism through which negative emotional experiences throughout the week change employees' vigor and dedication at work. To increase engagement and moderate cynicism during the crisis among employees remotely, it is crucial to comprehend the detrimental effects of job negative affect on work engagement and cynicism. While previous studies on remote working exist, they may lack contextual relevance and daily job experience. This study aims to bridge that gap by investigating the daily changes in job negative affect in accordance with daily changes in work engagement (vigor and dedication) and daily cynicism over time during a crisis situation. Additionally, the study highlights the importance of daily fluctuation of negative emotions as a valuable characteristic for employees, enabling them to confront challenging circumstances.

The practical implications of this study highlight the importance of managing daily negative emotions and nurturing a positive work environment to promote employee engagement and reduce cynicism. Moving forward, future research could explore additional factors that may moderate or mediate the relationship between job negative affect, work engagement, and cynicism. Therefore, we contend that the findings of this study contribute significantly to the existing literature on job negative affect, work engagement, and cynicism during a critical event.

References

- Alvarez-Torres, F. J., & Schiuma, G. (2022). Measuring the impact of remote working adaptation on employees' well-being during COVID-19: Insights for Innovation Management Environments. *European Journal of Innovation Management*. Advance online publication. <https://www.emerald.com/insight/content/doi/10.1108/EJIM-05-2022-0244/full/html>
- Bartunek, J. M., & Woodman, R. W. (2015). Beyond Lewin: Toward a temporal approximation of organization development and change. *Annual Review of Organizational Psychology and Organizational Behavior*, 2(1), 157-182. <https://doi.org/10.1146/annurev-orgpsych-032414-111353>
- Chanana, N., & Sangeeta. (2020). Employee engagement practices during COVID-19 lockdown. *Journal of Public Affairs*, <https://doi.org/10.1002/pa.2508>
- Cole, M. S., Bruch, H., & Vogel, B. (2006). Emotion as a mediator of the relations between perceived supervisor support and psychological hardiness on employee cynicism. *Journal of Organizational Behavior*, 27(4), 463–484. <https://doi.org/10.1002/job.381>
- Cooper, C. L. (2020). *Psychological insights for understanding COVID-19 and work*. Routledge. Retrieved February 16, 2023, from <https://learning.oreilly.com/library/view/psychological-insights-for/9781000337297/xhtml/Ch101.xhtml#Ch101>
- Duncan, T. E., Duncan, S. C., & Strycker, L. A. (2013). *An introduction to latent variable growth curve modelling: Concepts, issues, and application*. Routledge.
- García-Garro, P. A., Aibar-Almazán, A., Rivas-Campo, Y., Vega-Ávila, G. C., Afanador-Restrepo, D. F., & Hita-Contreras, F. (2022). Influence of the COVID-19 pandemic on quality of life, mental health, and level of physical activity in Colombian University Workers: A longitudinal study. *Journal of Clinical Medicine*, 11(14), 4104. <https://doi.org/10.3390/jcm11144104>

- Heck, R. H., Tabata, L., & Thomas, S. L. (2013). *Multilevel and longitudinal modelling with IBM SPSS*. Routledge.
- Hülshager, U. R., & Schewe, A. F. (2011). On the costs and benefits of emotional labor: A meta-analysis of three decades of research. *Journal of Occupational Health Psychology, 16*(3), 361–389. <https://doi.org/10.1037/a0022876>
- Kafetsios, K., & Zampetakis, L. A. (2008). Emotional intelligence and job satisfaction: Testing the mediatory role of positive and negative affect at work. *Personality and Individual Differences, 44*(3), 712–722. <https://doi.org/10.1016/j.paid.2007.10.004>
- Kumar, P., Kumar, N., Aggarwal, P., & Yeap, J. A. L. (2021). Working in lockdown: The relationship between COVID-19 induced work stressors, job performance, distress, and life satisfaction. *Current Psychology, 40*(12), 6308-6323. <https://doi.org/10.1007/s12144-021-01567-0>
- Lee, H. (2021). *Changes in workplace practices during the covid-19 pandemic: The roles of emotion, Psychological Safety and organisation support*. Journal of Organizational Effectiveness: People and Performance. <https://doi.org/10.1108/JOEPP-06-2020-0104>
- Long, E., Patterson, S., Maxwell, K., Blake, C., Pérez, R. B., Lewis, R., McCann, M., Riddell, J., Skivington, K., Wilson-Lowe, R., Mitchell, K. R. (2022). Covid-19 pandemic and its impact on social relationships and health. *Journal of Epidemiology & Community Health. https://doi.org/10.1136/jech-2021-216690*
- Martínez-Tur, V., Estreder, Y., Tomás, I., Moreno, F., Mañas-Rodríguez, M. A., & Díaz-Fúnez, P. A. (2022). Not every day is Monday for employees confined due to covid-19: Anticipatory happiness matters. *Revista De Psicología Del Trabajo y De Las Organizaciones, 38*(3), 201–211. <https://doi.org/10.5093/jwop2022a12>
- Matthews, R. A., Pineault, L., & Hong, Y.-H. (2022). *Normalizing the use of single-item measures: Validation of the single-item compendium for organizational psychology-*

journal of business and psychology. SpringerLink.

<https://link.springer.com/article/10.1007/s10869-022-09813-3>

- McFadden, P., Ross, J., Moriarty, J., Mallett, J., Schroder, H., Ravalier, J., Manthorpe, J., Currie, D., Harron, J., & Gillen, P. (2021, January 19). The role of coping in the wellbeing and work-related quality of life of UK Health and social care workers during COVID-19. *International Journal of Environmental Research and Public Health*, 18(2), 815. <https://doi.org/10.3390/ijerph18020815>
- Ohly, S., Sonnentag, S., Niessen, C., & Zapf, D. (2010). Diary studies in organizational research: An introduction and some practical recommendations. *Journal of Personnel Psychology*, 9(2), 79-93. <https://doi.org/10.1027/1866-5888/a000009>
- Pellerin, N., & Raufaste, E. (2020). Psychological Resources protect well-being during the COVID-19 pandemic: A longitudinal study during the French Lockdown. *Frontiers in Psychology*, 11, 590276. <https://doi.org/10.3389/fpsyg.2020.590276>
- Pinilla, J., Barber, P., Vallejo-Torres, L., Rodríguez-Mireles, S., López-Valcárcel, B. G., & Serra-Majem, L. (2021). *The economic impact of the SARS-COV-2 (COVID-19) pandemic in Spain*. MDPI. <https://doi.org/10.3390/ijerph18094708>
- Reis, H. T., & Gable, S. L. (2000). Event-sampling and other methods for studying everyday experience. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 190-222). Cambridge University Press.
- Roe, R. A. (2008). Time in applied psychology: The study of “what happens” rather than “what is”. *European Psychologist*, 13(1), 37-52. <https://doi.org/10.1027/1016-9040.13.1.37>
- Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). *The measurement of engagement and Burnout: A two sample confirmatory factor analytic approach - journal of happiness studies*. SpringerLink.
- <https://link.springer.com/article/10.1023/A:1015630930326>

- Shkoler, O., Rabenu, E., Iqbal, M. Z., Ferrari, F., Hatipoglu, B., Roazzi, A., Kimura, T., Tabak, F., Moasa, H., Vasiliu, C., Tziner, A., & Lebron, M. J. (2021). Heavy-work investment: Its dimensionality, invariance across 9 countries and levels before and during the COVID-19's pandemic. *Journal of Work and Organizational Psychology*, 37(2), 67-83. <https://doi.org/10.5093/jwop2021a8>
- Smith, K. E., Mason, T. B., Reilly, E. E., Hazzard, V. M., Borg, S. L., Dvorak, R., Crosby, R. D., & Wonderlich, S. A. (2021). *Examining prospective mediational relationships between momentary rumination, negative affect, and binge eating using ecological momentary assessment*. *Journal of Affective Disorders Reports*. <https://www.sciencedirect.com/science/article/pii/S2666915321000652>
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063-1070. <https://doi.org/10.1037/0022-3514.54.6.1063>
- Wang, F., & Shi, W. (2020). The effect of work-leisure conflict on front-line employees' work engagement: A cross-level study from the emotional perspective. *Asia Pacific Journal of Management*, 39(1), 225–247. <https://doi.org/10.1007/s10490-020-09722-0>
- Weigelt, O., Schmitt, A., Syrek, C. J., & Ohly, S. (2021). *Exploring the engaged worker over time-a week-level study of how positive and negative work events affect work engagement*. MDPI. <https://doi.org/10.3390/ijerph18136699>
- Working group for the surveillance and control of COVID-19 in Spain (2020); The first wave of the COVID-19 pandemic in Spain: characterisation of cases and risk factors for severe outcomes, 25(50):2001431. <https://doi.org/10.2807/1560-7917.ES.2020.25.50.2001431>
- World Health Organization (2020). Virtual Press Conference on COVID-19. Available online at: https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergencies-coronavirus-press-conference-full-and-final-11mar2020.pdf?sfvrsn=cb432bb3_2

Yu, X., & Liu, Y. (2022). How do remote workers perform during COVID-19 lockdowns?

Examining professional isolation, cynicism and psychological hardiness. *Information Technology & People*. Advance online publication.

<https://www.emerald.com/insight/content/doi/10.1108/ITP-04-2021-0259/full/html>

Appendix

Negative Job Affect, Engagement, and Cynicism Scale

1. Negative Job Affect

Spanish

¿Cómo se ha sentido usted HOY en el trabajo?

Tenso /a ; Enfadado /a ; Triste ; Aburrido /a.

English

How did you feel TODAY at work? Tense; Angry; Sad; Bored.

Nada		Algo			Muchísimo	
1	2	3	4	5	6	7

2. Engagement

Spanish

Vigor: Hoy me siento lleno de energía.

Dedication: Hoy me he notado entusiasmado con mi trabajo.

Cynicism: Hoy he sentido que mi trabajo no tenía sentido.

English

Vigour: Today I feel full of energy.

Dedication: Today I felt enthusiastic about my work.

Cynicism: Today I felt that my job was meaningless.

1-Por favor, muestre su grado de acuerdo con las siguientes afirmaciones, usando esta escala

Totalmente en desacuerdo	Bastante en desacuerdo	Algo en desacuerdo	Ni de acuerdo ni en desacuerdo	Algo de acuerdo	Bastante de acuerdo	Totalmente de acuerdo
1	2	3	4	5	6	7

Feedback Integration

Using the given feedback from the tutors, I changed my theoretical background, simplified the hypothesis, and improve the research model and the statistical analysis. Here are some changes I integrated using the suggestion from all the tutors:

1. For the introduction part, I added the economic and social implications due to the pandemic-driven challenges in Spain as per suggestion.
2. I elaborated on the mechanism of each variable in the theoretical background part, linking them to the time as the study variable and the COVID-19 crisis as the highlighted life events.
3. The hypothesis is more focused on the relationship between changes in daily negative emotions with changes in engagement and cynicism among remote workers in 5 consecutive days. Previously, I developed 4 hypotheses to investigate the relationship between time with each study variable.
4. Added more details regarding the sample and procedures, particularly the participant's characteristics and recruitment process.
5. Added the item scale to the paper to complement the measurement part.
6. Built the growth model to improve the model, including checking the random intercept, slope, and whether the relationship with time is quadratic.
7. Corrected the cover, table, and figure based on the APA 7 standard.
8. Corrected the typos
9. Updated the abstract
10. Corrected the terms of "daily" for all variables
11. Removed constructs which are not measured in the study
12. Corrected the table contents
13. Elaborated the justification on why the study chose the variables
14. Elaborated the connection between variables

15. Redeveloped the hypotheses
16. Separated the result section based on the hypotheses
17. Extended the theoretical implications
18. Rephrased the conclusion part