

## From Entrepreneur to Employee: A Multilevel Study on Negative Affect and Work Engagement

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This study examined how entrepreneurs' work-related negative affect—specifically anxiety and depression—relates to employees' work engagement in small firms. Based on emotional contagion and social cognitive theories, the study investigated whether entrepreneurs' negative affect impacts employees, thereby reducing their work engagement. The sample included 97 entrepreneurs and 852 employees from businesses in the Netherlands, Poland, and Spain. Data were gathered through surveys in participants' native languages. Multilevel modelling revealed that entrepreneurs' anxiety and depression were negatively related to their own work engagement. Employees experiencing higher levels of anxiety and depression also showed lower work engagement. Emotional contagion was observed, as entrepreneurs' negative affect was positively linked to employees' corresponding emotional states. However, no direct relationship was found between entrepreneurs' negative affect and employee work engagement. Indirect effects were identified through employees' negative affect and entrepreneurs' work engagement. These findings suggest that entrepreneurs may influence employee work engagement via affective contagion and role modelling. The study extends previous single-level research by demonstrating the cross-level effect of entrepreneurs' emotional well-being on employee engagement, highlighting the psychological interdependence within small business settings.

*Key words:* work-related negative affect, work engagement, emotional contagion, multilevel study, entrepreneurs

### Introduction

In today's global market, increasing competition, economic uncertainty, and organizational flattening have led companies to demand

higher levels of employee engagement. Work engagement is a relatively stable, work-related psychological state characterized by vigor, dedication, and absorption (Schaufeli, 2013). Unlike transient emotions such as joy, satisfaction, or enthusiasm, work engagement represents

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a more enduring affective-cognitive state of mind that is not tied to any specific object, event, person, or behavior (Schaufeli et al., 2002). In other words, engagement is considered a persistent and pervasive experience in the workplace. It has also been recognized as a critical form of human capital that contributes to a company's competitiveness as it enhances employees' performance, efficiency, and loyalty to their employer (Amerine et al., 2017).

Since employees are embedded in social relationships within organizations, their behaviors and emotions may be influenced by their leaders. A substantial body of leadership research has demonstrated how specific leadership behaviors shape employees' attitudes and actions (Harms et al., 2017). Recently, growing attention has also been paid to the affective dimension of leadership, including how leaders' emotional states – such as anxiety or depression – can be transferred to their followers through emotional contagion.

However, most of this research has centered on traditional organizational hierarchies, typically examining relationships between team leaders and their subordinates. In contrast, entrepreneurs represent a distinct and underexplored type of leaders who face unique emotional and operational challenges that set them apart from conventional managers (Brandstätter, 2011). While entrepreneurs often act as the primary leaders in their ventures – particularly in the early stages – organizational growth typically introduces additional layers of leadership. Consequently, entrepreneurs may not always serve as the direct supervisors of all employees. Nonetheless, their influence – especially at the emotional level – can remain significant, given the considerable pressures associated with launching and managing a business (Lerman et al., 2021). This is especially true in small to medium-sized enterprises where entrepreneurs tend to be more visible and involved

in daily operations. Therefore, a key question arises: Does the negative affect experienced by entrepreneurs at work influence employees' workplace affect, and if so, does it lead to lower engagement?

The subsequent sections present the theoretical concepts and prior findings that form the foundation of the study. A multilevel framework is gradually developed to examine how entrepreneurs may shape employees' affect and engagement.

### **Work-Related Negative Affect and Work Engagement**

People devote a substantial part of their lives to work, making the workplace not only a setting for professional tasks but also a significant source of emotional experiences. While work can evoke positive emotions, it can also be a source of negative affect. Warr's (1990) circumplex model of affect in the workplace classifies work-related affect along two dimensions: pleasure and arousal. Using these dimensions, Warr described both the nature and intensity of affective experiences in the workplace. He distinguished two key forms of negative work-related affect – anxiety and depression – based on their levels of pleasure and activation. Anxiety is characterized by high arousal, representing an intense, agitated form of negative affect, whereas depression is marked by low arousal, reflecting a subdued and disengaged emotional state (Warr et al., 2014). It is important to note that these constructs of work-related anxiety and depression do not correspond to clinical diagnoses as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (American Psychiatric Association, 2013). Instead, they reflect emotional states experienced in response to work-related circumstances, rather than persistent psychopathological conditions.

These two forms of negative affect share similarities but also lead to distinct workplace outcomes. Anxiety has been associated with counterproductive work behaviors, impaired decision-making, and reduced job performance (Chen et al., 2017; Muschalla, 2016). Workplace-related depressive feelings, on the other hand, often manifest as personal withdrawal, such as distancing from colleagues or disengaging from tasks through reduced effort or silence (Warr et al., 2014). This withdrawal can lower motivation, increase burnout, and contribute to absenteeism, ultimately affecting both individual productivity and overall organizational performance (Chowdhury et al., 2022; Moon et al., 2022).

The coexistence of anxiety and depression in the workplace adds complexity to employees' emotional experiences, as these states shape behavior, cognitive processes, and overall well-being in distinct ways. Researchers have increasingly highlighted the importance of distinguishing affective experiences based on their levels of arousal (Laguna et al., 2021; Warr et al., 2014). However, existing literature has yet to clearly differentiate how these two forms of negative work-related affect influence work outcomes such as work engagement. To address this gap, I have formulated parallel hypotheses for both anxiety and depression. Rather than expecting differences in the direction of these relationships, I anticipate that their strength will vary, with each type of negative affect exerting a distinct impact on work-related behaviors and outcomes.

Regardless of the level of affective activation, prior research has consistently demonstrated that negative affect tends to reduce work engagement (e.g., Bosman et al., 2005; Fukuzaki & Iwata, 2023; Ye & Chu, 2024). This perspective aligns with the affective shift model of work engagement, which posits that affect plays a regulatory role in engagement, particularly in the context of daily fluctuations

(Bledow et al., 2011). Research supporting this model has shown that changes in affect throughout the day can influence variations in work engagement, which, in turn, may contribute to productivity loss (Ferreira et al., 2019).

Importantly, negative affect in the workplace can undermine work engagement not only among employees but also among entrepreneurs. Studies focusing specifically on entrepreneurs have shown that their work-related affect predicts later levels of work engagement (Laguna et al., 2017) and persistence in entrepreneurial activity (Stephan, 2018). Given the adverse effects of negative affect on motivation, concentration, and overall work commitment, I propose the following hypotheses:

*Hypothesis 1.* An entrepreneur's work-related negative affect – (*H1a*) anxiety and (*H1b*) depression – is related to his/her work engagement.

*Hypothesis 2.* Employees' work-related negative affect – (*H2a*) anxiety and (*H2b*) depression – is related to his/her work engagement.

#### **Transmission of Work-Related Negative Affect and Engagement from Entrepreneurs to Employees**

Emotional contagion theory (Barsade, 2002) explains the dynamics of social influence on people's behavior and affective states, which spread from one person to another by face-to-face or electronic communication (Alshamsi et al., 2015). This emotional induction can occur automatically or more intentionally through conscious effort (Barsade, 2002). Previous research has revealed that when people work together they may share beliefs and affective experiences (Salanova, Llorens, & Schaufeli, 2011), as well as converge emotionally with other team members (Vijayalakshmi & Bhattacharyya, 2012). Many positive as well as negative affective states and reactions, such

as enthusiasm (Laguna et al., 2021), happiness (Fowler & Christakis, 2008), anger or exhaustion (Hakanen et al., 2014), are revealed to be contagious and spread among people. However, power dynamics significantly shape this process, as individuals with lower social status tend to adapt their emotional states to match those of more influential figures (Hakanen et al., 2014). In an organizational setting, this suggests that an entrepreneur's emotions exert a stronger influence on employees than vice versa. A systematic review by Skakon et al. (2010) further supports this, showing that leaders experiencing high stress or poor emotional well-being tend to transmit these states to their subordinates.

It is important to indicate that according to the emotional contagion theory, one's emotions can regulate not only others' affective states but also their attitudes and behaviors. Previous research revealed that a leader's mood can shape the emotional tone of the group, affect individual team members, and impact key team outcomes such as performance, potency, and goal commitment (Volmer, 2012). Evidence from multilevel study also shows that leaders' emotion regulation strategies directly impact subordinates' workplace emotions and attitudes (Kafetsios et al., 2012). Furthermore, negative emotional expressions from leaders can diminish employees' work engagement, ultimately leading to lower performance (Li et al., 2020). Given the contagious nature of emotions and their influence on job performance, it is likely that entrepreneurs' affective states also shape employees' negative affect and engagement levels:

*Hypothesis 3.* An entrepreneur's negative affect is related to the negative affect of his/her employees: (*H3a*) work-related anxiety is related to employees' work-related anxiety; and (*H3b*) work-related depression is related to employees' work-related depression.

*Hypothesis 4.* An entrepreneur's work-related negative affect – (*H4a*) anxiety and (*H4b*) depression – is related to the work engagement of his/her employees.

Social cognitive theory explains how individuals acquire new behaviors, attitudes, and beliefs through observation of others and the consequences of their actions (Bandura, 1977). This ability to learn vicariously influences both positive and negative behaviors within organizations. Research has consistently demonstrated a trickle-down effect, where leaders' attitudes and behaviors shape those of their subordinates. Studies have identified this effect in various areas, including creativity (Pan et al., 2015), innovative behavior (de Jong & den Hartog, 2007), job crafting (Xin et al., 2020), and psychological capital (Walumbwa et al., 2010).

Following the principles of social cognitive theory, a trickle-down effect of work engagement is also expected. When entrepreneurs demonstrate high levels of engagement, they create an environment that encourages employees to adopt a similar psychological stance toward their work (Schminke et al., 2005). Although research on this specific relationship remains limited, existing studies indicate that leader engagement positively influences employee engagement, ultimately contributing to subjective career success (Chen et al., 2021). Additionally, leader engagement has been shown to enhance employee engagement, with follower optimism serving as a key mediator (Lu et al., 2018). More recent findings highlight two specific pathways through which leaders' work engagement fosters engagement among employees: a) by engaging in surface acting and b) by enhancing employees' self-efficacy (Yun & Beehr, 2023). Drawing on social cognitive theory (Bandura, 1977) and these findings, it is likely that employees develop work engagement following engaged entrepreneurs.

*Hypothesis 5.* An entrepreneurs' work engagement is related to the work engagement of his/her employees.

Beyond the direct effects of entrepreneurs' negative affect on employee work engagement, these relationships may also unfold through indirect pathways. Work-related anxiety and depression experienced by entrepreneurs may elicit corresponding emotional responses in employees especially in small firms (Hakanen et al., 2014). As previously discussed, emotional contagion not only transmits affective states but can also influence employees' motivation, performance, and attitudes – thereby shaping key attitudinal outcomes such as work engagement (Kafetsios et al., 2012; Volmer, 2012; Li et al., 2020). Building on this rationale, I propose that employees' own work-related negative affect may mediate the relationship between their entrepreneur's negative affect and their level of work engagement.

*Hypothesis 6.* Employees' negative affect mediates the relationship between the entrepreneur's work-related negative affect and employees' work engagement: (*H6a*) employees' work-related anxiety mediates the relationship between the entrepreneur's work-related anxiety and employees' work engagement; and (*H6b*) employees' work-related depression mediates the relationship between the entrepreneur's work-related depression and employees' work engagement.

In addition to affective contagion, entrepreneurs may influence employee engagement through behavioral role modeling. Employees may observe and emulate the level of engagement demonstrated by the entrepreneur, particularly in small firms where entrepreneurial behavior sets the tone for organizational norms. Prior research has shown that entrepreneurs' affect is linked to their own engagement (Laguna et al., 2017), and that leaders' attitudes, including work engagement, can trickle down to employees (Lu et al., 2018).

This suggests that the relationship between entrepreneurs' negative affect and employees' work engagement may also be mediated by the entrepreneur's own work engagement:

*Hypothesis 7.* An entrepreneur's work engagement mediates the relationship between the entrepreneur's work-related negative affect – anxiety (*H7a*) and depression (*H7b*) – and employees' work engagement.

## Method

### Procedure

The sample was gathered from three European countries: the Netherlands, Poland, and Spain, chosen because of an established collaboration among scientists. There are some differences concerning language, way of living, and level of the country's productivity among these three countries (Schaufeli, 2018). To ensure direct contact between entrepreneurs and employees, only companies with 10 to 100 employees were included. In every company, the sample consisted of one entrepreneur and his or her employees. The following criteria for selecting entrepreneurs were applied together: they had to be 1) founders or successors of business from their parents, 2) owners, 3) managers of their companies that 4) had been on the market more than one year. The only criterion applied for the selection of employees was to have a work agreement with the company participating in this study. Formal and informal networks of enterprises were used to recruit participants.

Each participant completed the same set of measures, either on paper (in Poland and Spain) or electronically (in the Netherlands), in their native languages. Participation was voluntary, anonymous, and unpaid. Paper surveys were returned in sealed envelopes to ensure confidentiality.

## Participants

Ninety-seven firms took part in the study. For each of them, one entrepreneur and on average eight employees completed the questionnaires (ranged from 5 to 13 employees per firm,  $M = 8.11$ ,  $SD = 1.70$ ). There were 26 firms from the Netherlands, 41 from Poland, and 30 from Spain. Thus, the total sample consisted of 97 entrepreneurs of whom 73 were male. The mean age of entrepreneurs was 47.63 ( $SD = 10.44$ , ranging from 27 to 74 years). Thirty participants (28.6%) set up the business on their own, 37 (35.2%) were one of the co-founders, and 15 (14.3 %) inherited the business from their parents. Most enterprises were run in the services sector (40%), followed by the industry sector (24.8%), and the construction sector (13.3%). The total sample of employees consisted of 852 participants, from which 490 were male, aged from 20 to 64 year ( $M = 43.53$ ,  $SD = 10.52$ ). Most of employees (71.1%) had a full-time work contract, 135 (15.8%) had a part-time work contact, and 24 (2.8%) worked on another type of job agreement.

## Measures

To measure negative work-related affect, the national versions of Warr's (1990) job-related affective well-being measure were used. Only the two negative affect subscales measuring anxiety and depression were analyzed. Participants answered how their job made them feel over the past few weeks. Responses were given on a 6-point scale (1 = never, 6 = all of the time). Three items indicated anxiety (e.g., *tense*) and another three measured depression (e.g., *depressed*). Cronbach's alpha for anxiety among entrepreneurs was .84 and for depression it was .73. Cronbach's alpha for anxiety among employees was .82, and for depression it was .84.

Work engagement was measured using the national versions of the short Utrecht Work Engagement Scale (Schaufeli & Bakker, 2004). It consists of nine items (e.g., *My work inspires me*). Responses were given on a 6-point scale (0 = never; 5 = very often). Cronbach's alpha in a group of entrepreneurs was .91 and in a group of employees it was .92.

## Statistical Analyses

The dataset had a nested structure, with employees (Level 1) nested within organizations (Level 2) and these organizations were located in three different countries. Therefore, I employed a multilevel approach using the Mplus statistical package version 7.2 (Muthén & Muthén, 2012). However, since the number of countries fell below the recommended threshold for multilevel modeling, the country was included as a control variable at Level 2 rather than being modeled as a separate third level. The initial step of analyses involved checking the ICC for the dependent variables by estimating an unconditional model without any predictors. A value above 0.1 justifies the need for a multilevel analysis (Bliese, 1998). Subsequently, I conducted a multilevel model using the MLR estimator with two parallel cross-cluster mediations 2-1-1 and 2-2-1 (Preacher et al., 2010). Due to the high correlation between the two types of work-related affect, I tested two separate models, the first including work-related anxiety, and the second work-related depression. This approach has also been used in previous studies (e.g., see Laguna et al., 2021).

In tested models, all variables aggregated or measured at the organization-level were specified as between-organization variables (Level 2). These included entrepreneur's negative affect, work engagement, and control variables (i.e., size of the organization and country). All Level 2 variables, except country, were grand

mean-centered. Additionally, I employed the grand mean centering approach for all Level 1 variables (i.e., employees' negative affect, work engagement, contact with the entrepreneur and age), following the recommendations of Enders and Tofghi (2007).

### Results

Means, standard deviations, and correlations of individual- and organization-level variables are reported in Table 1.

The results of the unconditional model (ICC = 0.25 for employees' work engagement) indicated that over 25% of the variance in employee engagement could be attributed to differences between companies. To test the hypotheses, two separate multilevel path models with parallel mediations were examined for work-related anxiety and work-related depression. Both models demonstrated a good fit (Hox et al., 2017) to the data ( $\chi^2_{(19)} = 24.11, p = .191, CFI = .96, RMSEA = .02,$

$SRMR_{within} = .02, SRMR_{between} = .11$  for anxiety; and  $\chi^2_{(19)} = 30.08, p < .037, CFI = .90, RMSEA = .03, SRMR_{within} = .02, SRMR_{between} = .12$  for depression). The results of the direct relationships between variables for both models are presented in Figure 1.

Among the control variables, employees' age, contact with the entrepreneur, and country had significant effects on employees' work engagement. Specifically, older employees ( $\gamma = 0.14, p = .002$  for both anxiety and depression models) and those with more frequent contact with the entrepreneur ( $\gamma = 0.11, p = .004$  for both anxiety and depression models) exhibited higher work engagement. Additionally, employees from Spain reported lower work engagement compared to those from Poland and the Netherlands ( $\gamma = -0.25, p = .035$  for anxiety;  $\gamma = -0.36, p = .001$  for depression). Employees' sex was not related to their work engagement ( $\gamma = -0.01, p = .752$  for anxiety;  $\gamma = -0.01, p = .940$  for depression).

Table 1 Descriptive statistics and correlations between variables

		<i>M</i>	<i>SD</i>	Pearson <i>r</i> Correlation coefficients			
				1	2	3	4
Entrepreneurs		Between level variables					
	1. Country <sup>a</sup>	-	-	-			
	2. Size of company	43.15	18.47	.07	-		
	3. Work-related anxiety	2.70	0.94	.15	.06	-	
	4. Work-related depression	1.78	0.83	.15	-.08	.61***	-
	5. Work engagement	5.57	0.90	-.06	.21*	-.31***	-.35***
Employees		Within level variables					
	1. Age	37.50	10.72	-			
	2. Contact with entrepreneur <sup>b</sup>	4.86	1.63	-.07	-		
	3. Work-related anxiety	2.59	0.94	-.02	.06	-	
	4. Work-related depression	1.80	0.90	-.02	.12*	.54***	-
	5. Work engagement	3.89	1.49	.11*	.03	-.32***	-.33***

Note. <sup>a</sup>0 = Poland and The Netherlands, 1 = Spain; <sup>b</sup>1 = a few times a year or less, 2 = once a month, 3 = a few times a month, 4 = once a week, 5 = a few times a week, 6 = every day  
\*  $p < .05$ , \*\*\*  $p < .001$



the findings largely supported these expectations, not all hypothesized relationships reached statistical significance. This research provides empirical support for emotional contagion theory (Barsade, 2002) by demonstrating that both forms of negative affect can be transmitted from entrepreneurs to their employees. The novelty of this study lies in its focus on a specific sample to investigate negative affect contagion. Previous research has predominantly focused on how team leaders' emotions influence their followers (Kafetsios et al., 2012; Li et al., 2020; Volmer, 2012). However, there is a notable gap in the literature regarding the dynamics between entrepreneurs and employees in small businesses. Additionally, emotional contagion theory (Barsade, 2002) suggests that emotions can shape not only others' feelings, but also their attitudes and behaviors. Findings from this study reveal that entrepreneurs' work-related anxiety and depression can impair employees' work engagement, but only indirectly through the mediating role of employees' negative affect. This indicates that entrepreneurs' negative affect has a detrimental impact in two ways: first, by reducing their own work engagement, and second, by diminishing employees' work engagement, through its effect on employees' work-related affect. Importantly, in the relationship between negative affect and work engagement, the level of affect activation appeared to play a lesser role, as the effects of anxiety on work engagement mirrored those of depression.

The final set of hypotheses explored the effect of an entrepreneur's work engagement on employees' work engagement. Social cognitive theory suggests that people learn from one another by observing behaviors (Bandura, 1977). Prior studies have also shown that leader behaviors and attitudes can impact employees (Pan et al., 2015; Walumbwa et al., 2010; Xin et al., 2020). This study confirms

that an entrepreneur's work engagement fosters employees' work engagement and that an entrepreneur's negative work-related affect is linked to employees' work engagement through the mediating role of the entrepreneur's own work engagement. These findings suggest that entrepreneurs act as role models within their companies, with employees observing and adopting similar attitudes and approaches to work. While previous research has demonstrated that the trickle-down effect of work engagement typically occurs indirectly through various mediators (Lu et al., 2018; Yun & Beehr, 2023), the present study contributes to the literature by showing that this effect can also take place directly from entrepreneurs to their employees, without the involvement of mediating mechanisms.

A notable country-specific effect emerged in the analysis, indicating that employees in Spain exhibited lower levels of work engagement compared to their Dutch and Polish counterparts. These differences may stem from cultural variations in organizational structures and workplace norms across the three countries. For example, previous cross-cultural research suggests that factors such as power distance, work values and general cultural values, and economic and governance indicators influence employees' engagement levels differently across national contexts (Schaufeli, 2018). Future studies could further investigate the extent to which cultural and institutional factors moderate the relationship between entrepreneurs and their employees.

Additionally, the frequency of employees' contact with the entrepreneur was positively associated with their work engagement. This finding underscores the importance of the entrepreneur's involvement in daily organizational life in small firms. It aligns with theoretical perspectives suggesting that both emotional contagion and role modeling pro-

cesses are more likely to occur through regular interaction, thereby enhancing the entrepreneur's influence on employees' affective and motivational states (Bandura, 1977; Barsade, 2002).

This study presents several strengths. By employing a multilevel research design, I was able to uncover the mechanisms through which entrepreneurs influence employees' work engagement. The findings highlight that high levels of negative work-related affect in entrepreneurs can diminish employees' work engagement. Furthermore, this research contributes to both emotional contagion theory and social cognitive theory by demonstrating that work engagement contagion from entrepreneurs to employees occurs through both affective processes and role modeling mechanisms. By collecting data from three European countries with differing socioeconomic conditions (Schaufeli, 2018) the study enhances the generalizability of the findings. Additionally, I chose to measure work-related affect using Warr's (1990) scale instead of the widely used PANAS scale (Watson et al., 1988). Although PANAS is frequently employed in research, it primarily captures the valence dimension of affect (positive vs. negative) without considering the arousal dimension (Watson et al., 1988). Many studies recognize this limitation and recommend alternative measures (e.g., Laguna et al., 2021). By utilizing Warr's measure, which accounts for different levels of negative affect activation, I address this methodological shortcoming.

Nonetheless, some limitations should be acknowledged. First, participants self-reported their level of work engagement, which may not be entirely objective. While self-reports are less problematic for assessing affect – given that emotions are primarily accessed through introspection – they may be less reliable for evaluating work engagement. Future studies should incorporate more objec-

tive measures, such as having entrepreneurs assess their employees' work engagement. Second, the cross-sectional nature of our study prevents me from making definitive causal claims. Future research should employ longitudinal designs to explore the dynamic interplay of these variables over time. A longitudinal approach would be particularly useful for verifying the mediation effects implied in the proposed model, which could not be firmly established due to the study's cross-sectional design. Finally, while this study focused on work-related affect as a determinant of employee work engagement, numerous contextual and individual factors could also play a role. Future multilevel studies could explore additional factors such as safety climate or leadership style, which may influence work engagement within organizations.

Despite these limitations, this study addresses the need for more complex research in the field of entrepreneurship. It offers valuable insights into the role of work-related negative affect in small organizations, highlighting the crucial role of entrepreneurs in shaping employees' work engagement.

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