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*Kerem TOKER, Ali GÖRENER*

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# **Do Employees' Emotions Contaminate Organisations? The Relationship between Emotional Contagion and Organisational Identification**

Kerem TOKER<sup>1</sup>, Ali GÖRENER<sup>2</sup>

## **Abstract**

This article presents empirical research that aimed to determine the direction and strength of the relationships between emotional contagion and organisational identification. Our study examined the effect of aviation sector employees' emotional contagion levels on organisational identification and the moderating role of career characteristics, such as age differences and seniority, in this effect. Data collected from 296 aviation employees were analyzed using SPSS 25 and SPSS Process Macro programs for determining moderating effects. The findings revealed that emotional contagion has a positive and significant effect on organisational identification. It has been determined that individuals' age and seniority differences have a moderating role in the effect of emotional contagion on organisational identification. The fact that the scope of the research is a single sector and organisation hinders the findings' generalizability. Additionally, the cross-sectional design limits the ability to explain the cause-and-effect relationships between psychological factors. The results proved that positive emotions affect individuals faster than negative emotions and are more effective on OI. Hence, the establishment of an organisational climate dominated by feelings of love and happiness and devoid of feelings of fear and anger is recommended for managers seeking to foster OI. By revealing the implicit relationships among the concepts with empirical evidence, we aim to fill a significant gap, particularly with respect to organisational psychology, and to represent new insights to scholars and practitioners.

*Keywords:* emotional contagion, organisational identification, age, seniority, organisational psychology

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<sup>1</sup> Bezmîâlem Vakıf University, Istanbul, TURKEY. E-mail: ktoker@bezmialem.edu.tr

<sup>2</sup> Istanbul Commerce University, Istanbul, TURKEY. E-mail: agorener@ticaret.edu.tr

## Introduction

Researchers continue to investigate how individuals perceive and classify themselves as members of organisations or more comprehensive communities (Ravasi & van Rekom, 2003). Individuals who identify strongly with their organisations may exhibit greater job satisfaction, lower absenteeism, lower staff turnover, and more cooperative behaviour (Bartels *et al.*, 2010). According to Pratt (1998), organisational identification (OI) occurs when an individual references or defines themselves in relation to their beliefs about the organisation to which they belong. Riketta (2005) stated that OI is based on the desire to sustain an attractive and emotionally satisfying relationship with a specific phenomenon. In this context, the individual's emotional mood is linked to their OI level.

This paper focuses on the following question: if employees' identification with their organisations is crucial to the strength of the organisations' performance and the specific emotional dynamics at the basis of this identification, can the nature of these emotional dynamics be explained? At this point, it is necessary to examine the concept of empathy, which motivates individuals to meet the needs of others in their social group and helps individuals in the social environment to forge long-term affectionate bonds with their communities (Rankin *et al.*, 2005). According to Moreno-Manso *et al.* (2018), empathy is the ability to determine what others feel or think and to respond to their feelings and thoughts with appropriate emotions. In this context, empathy is one of the most critical emotional processes in human social interaction (Nakahashi & Ohtsuki, 2015; Harari *et al.*, 2010), so much so that it may be considered a kind of social glue that connects and unites people (Kardos *et al.*, 2017). Emotional contagion (EC) is an advanced form of emotional empathy (Panksepp & Lahvis, 2011) that entails the automatic mimicry of others' emotional states and emotional responses to them (Nakahashi & Ohtsuki, 2015). EC is a mechanism that explains organisational behaviour patterns through both conscious and unconscious emotional and social influence (Barsade *et al.*, 2018). From this perspective, for administrators, EC may potentially represent a benefit that positively impacts OI.

This research aims to determine the relationship between OI and EC to determine the personal differences and career characteristics that affect the direction and strength of this relationship. Identification of the root cause that leads to OI will prompt researchers and practitioners to re-question the OI concept from a different perspective. By revealing the implicit relationships among the concepts with empirical evidence, we aim to fill a significant gap, particularly with respect to organisational psychology, and to represent new insights to scholars and practitioners.

## Literature review

### *Emotional contagion*

EC refers to the tendency to automatically imitate and synchronise with others' facial expressions, voices, postures, and movements, and this tendency is converted into behaviour through emotional blending with others (Tee, 2015). EC is a psychological process whereby empathy and perceived behavioural change in one individual automatically activate the same process in another individual. Therefore, it is a reflective behavioural process that occurs among individuals in the context of a motivationally remarkable experience (Panksepp & Lahvis, 2011). Barsade *et al.* (2018) stated that EC could occur within couples, small groups, organisations, and larger social collectives and could be encouraged by one or more people. The realisation of EC within organisations has considerable implications for administrators. According to Vijayalakshmi and Bhattacharyya (2012), an appreciation of EC is expected to provide more vital emotional awareness and management in organisations.

### *Organisational identification*

OI constitutes harmony between individual and collective identities, a sense of unity between person and organisation, and a form of social identity. The individual defines the self based on organisational membership (Brown, 2017; Mael & Ashforth, 1992). In OI, the individual's identity and the perceived identity of the organisation to which they belong tend to be intertwined (Zagenczyk *et al.*, 2011). According to Brown (2017), identification expresses the extent to which an organisation defines the individual's self-image and outlook on the world; simultaneously, it includes evaluating the meaning of organisational membership in which values and emotions are shaped. In this context, OI refers to individuals' sense of union with or belonging to an organisation (De Roeck & Delobbe, 2012). At the same time, this situation represents a profound psychological bond between the individual and the organisation (Ng, 2015; Vijayakumar & Padma, 2014; Mozes *et al.*, 2011). Individuals with strong OI are more likely to adopt organisational goals as their personal goals (Loi *et al.*, 2014). According to Hall (1970), OI offers a powerful source of satisfaction for the individual.

### *The relationship between emotional contagion and organisational identification*

An individual's OI process includes common prototype characteristics, virtues, beliefs, goals, abilities, and flaws (Besharov, 2014). Individuals bring their feelings, thoughts, and perceptions to the workplace, and these emotional states will likely impact the organisation (Vijayalakshmi & Bhattacharyya, 2012). Group-level EC processes are also evident in the sharing and transferring of emotions among

multiple individuals (Tee, 2015). Therefore, an individual's actions may affect the beliefs and behaviours of individuals and groups within the organisation (Nica & Molnar, 2014). Elucidation of this effect's possible connections with the OI process can offer a clearer understanding of EC's organisational consequences. Indeed, many previous studies have focused on personal and organisational factors that predict OI (see Zhu *et al.*, Van Knippenberg and Sleebos, 2006; Feather and Rauter, 2004; Hall *et al.*, 1970). However, no studies hitherto have examined the relationship between OI and a psychological factor such as EC, which is directed towards the person's self. However, imagining oneself in someone else's place, which is the basis of the EC concept, also takes place in the OI process. Therefore, it is predicted that individuals who have high emotional empathy from birth will more easily identify with their organisations. This leads to the following research hypothesis:

*H<sub>1</sub>: Emotional contagion positively impacts organisational identification.*

The role of age in the relationship between emotional contagion and organisational identification. According to Doherty (1997), individual differences, such as genetics, gender, early experience, and personality traits, contribute to EC sensitivity. Temperament factors, such as tendencies to approach or withdraw, distraction and attention span, response threshold, and intensity, all affect sensitivity. Individuals' ages may be an essential feature that determines their emotional maturity in business life. The meanings ascribed to the emotional interactions associated with social relationships between younger workers and older workers may differ. This difference may cause different aspects and strengths in EC's effect on OI. This leads to the second research hypothesis:

*H<sub>2</sub>: The impact of emotional contagion on organisational identification is moderated by age.*

#### *The role of age in the relationship between emotional contagion and organisational identification*

The OI process is not static: its strength may increase or decrease as a result of new experiences (Bartel, 2001). The EC tendency is a fundamental process in which emotions are distributed throughout the organisation and socialised (Nica & Molnar, 2014). Internal relations, education level, and workplace environment are essential sources of experience that can affect OI (Forster-Heinzer, 2020). Hence, individuals' experiences in an organisation can enhance their control over organisational relations. Different levels of experience will determine the direction and strength of the EC–OI relationship. This leads to the third research hypothesis:

*H<sub>3</sub>: The impact of emotional contagion on organisational identification is moderated by seniority.*

Figure 1 illustrates the conceptual framework of the research developed in line with the hypotheses.

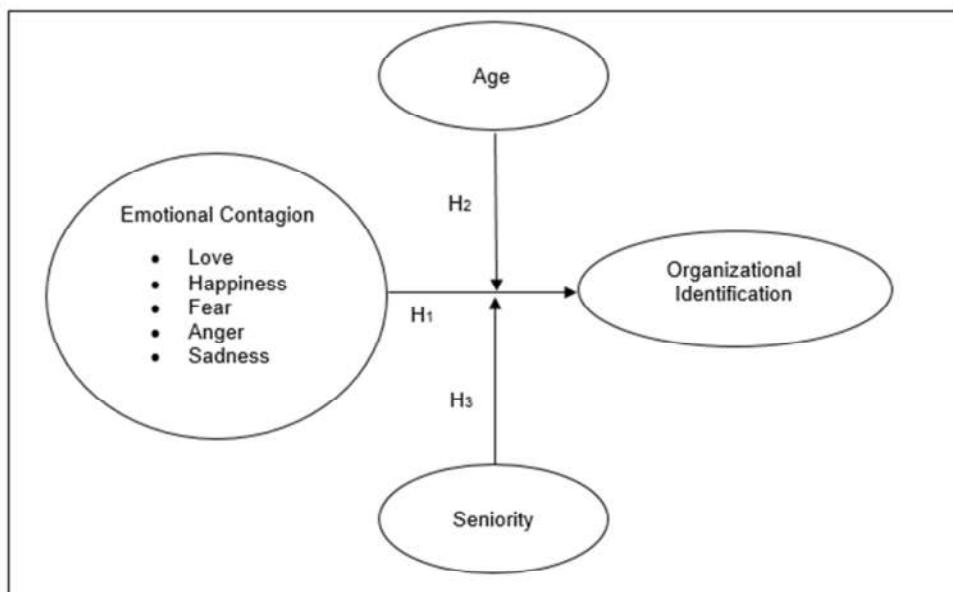


Figure 1. Conceptual framework

## Methodology

### Context and Procedure

This study investigated the relationships among EC, OI, age, and seniority in a leading airline company in Turkey, which has approximately 40,000 employees engaged in transporting people and cargo on a global scale. The questionnaire form was sent to 1,000 people working in the company using the convenience sampling method. The questionnaire form included a detailed explanation of the study's purpose in which the participants' confidentiality was assured, and verbal consent was obtained from the participants. The number of participants who provided feedback was 314. The number of questionnaires omitted from the data set due to incomplete or incorrect filling was 18. The return rate of the questionnaires is 29.6%. The data were analysed using SPSS 25 and SPSS Process Macro programs.

### Measures

Three different forms were used as data collection tools. The first of these was the Personal Information Form (PIF) that recorded the demographic characteristics

of the participants, including age, gender, education, and experience. The Organisational Identification Scale (OIS), which consists of six items and a single dimension—a 5-Likert type (1 - strongly disagree to 5 - strongly agree) developed by Mael and Ashforth (1992)—was used to measure the participants' OI levels. The Emotional Contagion Scale (ECS) developed by Doherty (1997)—a 5-Likert type scale (1 - strongly disagree to 5 - strongly agree) consisting of 15 items and five dimensions—was used to measure the EC level.

According to the exploratory factor analysis (EFA) results of the OIS, the Kaiser–Meyer Olkin (KMO) value (0.814) shows that the sample is perfectly suitable for factor analysis. However, the chi-square value ( $\chi^2 = 801.057$ ) obtained using Bartlett's test of sphericity was significant at  $p < 0.001$  level. The total variance explained by the scale was 58.39%, and Cronbach's alpha reliability coefficient was 84.8.

The items measuring the *sadness* dimension of the KFA results of the ECS were not collected under a significant single factor. Items belonging to the *fear* and *anger* factors were collected under a single factor renamed *fear and anger*. The scale's KMO sample sufficiency coefficient was 0.720, which is well suited for sample factor analysis. The chi-square value ( $\chi^2 = 1649.298$ ) obtained due to Bartlett's Test of Sphericity is significant at  $p < 0.001$  level. As a result of EFA, the total variance explained by the scale descending to three dimensions was found to be 65.75% and the Cronbach's alpha coefficient was 83.0, with high reliability. When the variances explained by the scale dimensions were examined, *fear and anger* was 25.80%, *happiness* was 20.52%, and *love* was 14.41%.

## Results

The mean scores, standard deviation values, and Pearson correlation coefficients of the variables are presented in *Table 1*.

*Table 1.* Mean, standard deviation, and pearson correlations of the variables

Variable	$\bar{x}$	Sd	1	2	3	4	5
Organisational Identification	3.578	0.864	1				
Emotional Contagion	4.150	0.541	0.365**	1			
Fear and Anger	3.637	0.776	0.178**	0.751**	1		
Happiness	4.473	0.696	0.275**	0.755**	0.337**	1	
Love	4.342	0.698	0.376**	0.736**	0.297**	0.381**	1

\*\* $p < 0.01$

Participants' OI mean was 3.548, and their EC mean was 4.150. In the EC dimensions, happiness showed the highest mean score ( $\bar{x} = 4.473$ ) while love showed the second-highest mean score ( $\bar{x} = 4.342$ ). Fear and anger's mean score was 3.637. According to the mean scores, the participants' EC levels were higher than their OI levels. Additionally, the means of positive emotions, such as happiness and love, were higher than the means for negative emotions, such as fear and anger.

Examination of the correlation coefficients reveals a moderate and positively statistically significant correlation ( $r = 0.365$ ;  $p < 0.01$ ) between OI and EC. The strongest relationship between OI and EC dimensions ( $r = 0.376$ ;  $p < 0.01$ ) is between OI and love. A significant correlation of 0.275 is observed between OI and happiness and 0.178 between OI and fear/anger ( $p < 0.01$ ). A higher correlation is observed between contagious positive emotions and OI than between contagious negative emotions and OI. *Table 2* presents the results of the linear regression analysis testing the effect of EC dimensions on OI.

*Table 2.* The effects of emotional contagion and its dimensions on organisational identification

Independent variable	Adjust. $R^2$	F	p (F)	Stan. $\beta$	t	p	Result
EC $\rightarrow$ OI	0.130	45.060	0.000	0.365	6.713	0.000	Accept
F&A $\rightarrow$ OI	0.028	9.611	0.002	0.178	3.100	0.002	Accept
Happiness $\rightarrow$ OI	0.072	23.962	0.000	0.275	4.895	0.000	Accept
Love $\rightarrow$ OI	0.138	48.310	0.000	0.376	6.951	0.000	Accept

*Dependent variable: Organisational Identification (OI)*

The  $H_1$  hypothesis predicted that workers' EC levels would have a positive effect on OI levels. Regression analysis tested and confirmed this hypothesis. EC accounts for 13% of the variation in OI (adjusted  $R^2 = 0.130$ ;  $p(F) < 0.000$ ), and the effect of EC on OI is 36.5% (Standardised  $\beta = 0.365$ ;  $p < 0.000$ ). When the effect of EC's dimensions on OI is examined, the highest explanation rate (adjusted  $R^2 = 0.138$ ;  $p(F) < 0.000$ ) and the highest effect (Standardised  $\beta = 0.376$ ;  $p < 0.000$ ) belong to love. The second highest explanation (adjusted  $R^2 = 0.072$ ;  $p(F) < 0.000$ ) and effect rate (Standardised  $\beta = 0.275$ ;  $p < 0.000$ ) belong to happiness. Finally, fear and anger accounts for 2.8% of the variation in OI (Adjusted  $R^2 = 0.028$ ;  $p(F) < 0.000$ ) and has an effect of 17.8% (Standardised  $\beta = 0.178$ ;  $p < 0.01$ ).

The study's  $H_2$  hypothesis predicts that age will play a moderating role in the effects determined above. The moderating effect analysis results that tested this hypothesis are presented in *Table 3*.



Table 3. Moderating effect of age

Variable	B	SE.	t
Constant	11.311*** [3.093; 3.298]	1.983	61.403
Emotional Contagion (X)	-1.751** [-2.672; -0.831]	0.467	-3.744
Age (W)	-0.313*** [-0,430; -0,831]	0.059	5,155
Interaction Term (X.W)	0,072*** [0.442; 0.099]	0.013	5.142

\*\*\* $p < 0,001$ ; \*\* $p < 0,01$ ;  $R = 0.455$ ;  $R^2 = 0.208$ ;  $R^2 \text{Chng} = 0,072$ ; S.E.: Standard Error; Values in parentheses are confidence intervals. Non-standardised beta coefficients (b) have been reported.

Table 3 shows that EC and age together account for 20.8% ( $R^2 = 0.208$ ) of the change in OI. The b-value of the interaction term effect is significant ( $b = -0.72$ , 95% SE [0.442; 0.099],  $t = 5.142$ ;  $p < 0.05$ ). This result demonstrates that age has a moderating effect. The b coefficients ( $p < 0.001$ ;  $p < 0.05$ ) indicating whether the effect of EC on OI is significant in cases where the age of the worker as a moderating variable is low (-6.918), medium (-1.418), and high (8.081) are significant. Accordingly, the  $H_2$  hypothesis was accepted. To illustrate how the moderating effect occurs, the slope analysis results are presented in Figure 2.

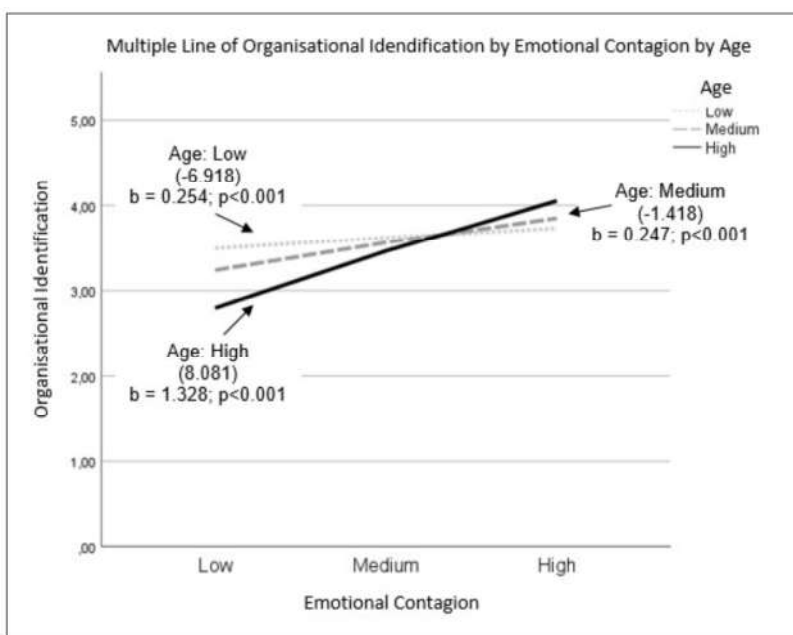


Figure 2. Slope analysis of the emotional contagion–organisational identity relationship moderated by age

Figure 2 demonstrates that when the model slopes of age groups are examined, the EC–OI relationship is stronger in older than in younger workers. In other words, older workers' EC increases create higher OI increases than younger workers' EC increases. The strength of the EC–OI relationship is more elevated in middle-aged workers than in younger workers and lower than in older workers.

The study's  $H_3$  hypothesis predicted that employee seniority would have a moderating role in EC's effect on OI. Table 5 presents the results of the moderating impact analysis that tested this hypothesis.

Table 4. Moderating effect of seniority

Variable	b	SE.	t
Constant	3.513*** [3.417; 3.609]	0.049	71.753
Emotional Contagion (X)	0.684*** [0.503; 0.867]	0.091	7.459
Seniority (W)	-0.010 [-0.022; -0.002]	0.006	-1.560
Interaction Term (X.W)	0,051*** [0.025; 0.077]	0.133	3.801

\*\*\* $p < 0,001$ ;  $R = 0.418$ ;  $R^2 = 0.175$ ;  $R^2 \text{Chng} = 0,040$ ; S.E.: Standard Error; Values in parentheses are confidence intervals. Non-standardised beta coefficients (b) have been reported.

The findings presented in Table 4 show that EC and seniority together explain 20.8% ( $R^2 = 0.208$ ) of the variation in OI. The b-value of the interaction term effect between the independent and moderator variables is significant. ( $b = -0.51$ , 95% SE [0.025; 0.077],  $t = 0.133$ ;  $p < 0.001$ ). The b coefficients ( $p < 0.001$ ;  $p < 0.05$ ) indicating whether the effect of EC on OI in cases where the employee seniority as a moderating variable is low (-8.223), medium (-1.223), and high (8.770) is significant. Therefore, the  $H_3$  hypothesis was accepted, and the results of the slope analysis are presented in Figure 3.

The slopes of the seniority models show that, similar to the age slopes, the EC–OI relationship of most senior employees is stronger when the relationships are positive compared to younger workers. In other words, the increase in EC among high-ranking employees causes a higher rise in OI than in low-senior employees. However, while emotional contagion in low-senior employees creates OI up to a medium level, the slope turns negative after this level, and as EC increases, OI decreases dramatically. Among mid-level employees, EC cannot establish a unique relationship with OI from low to medium level. Nonetheless, after mid-level EC, the line's slope is broken in a positive direction, and the EC–OI relationship gains a meaningful structure. Accordingly, as seniority increases, the EC–OI relationship positively gains in strength; as seniority decreases, EC works at a low-medium level with limited positive force, but as EC increases, this relationship becomes negative.

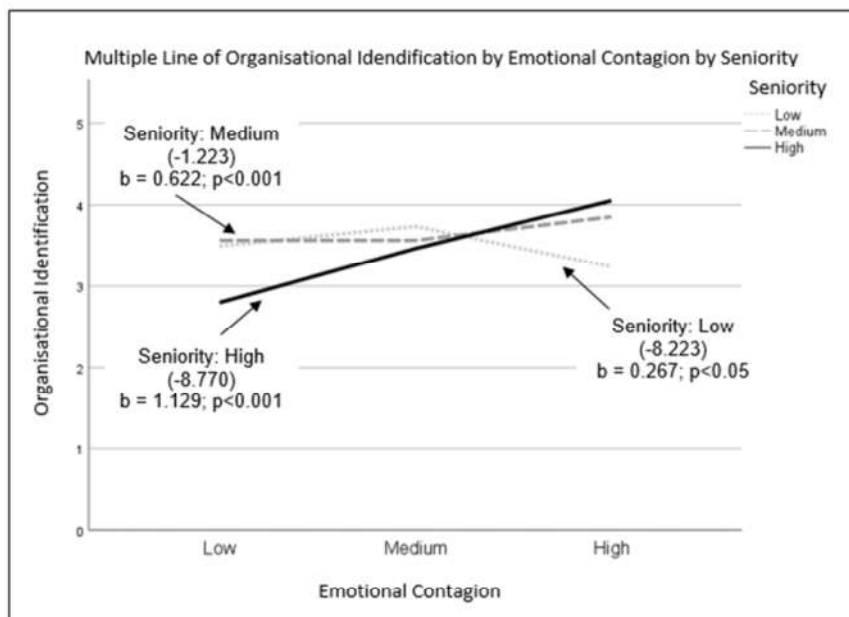


Figure 3. Slope analysis of the emotional contagion-organisational identity relationship moderated by seniority

## Discussion

The research findings present a unique set of contributions to the conceptualisation of OI. Therefore, it is crucial to explain the theoretical and practical implications for organisational psychology.

First, EC's positive effect on OI, as predicted in the first hypothesis, was determined. Nica and Molnar (2014) stated that an individual's tendency towards EC is related to business outcomes. The outcomes demonstrate that individuals with high EC, particularly regarding feelings of love, are better integrated into their organisations. However, as EC towards the sense of happiness increases, OI increases in parallel. Finally, feelings of fear and anger are contagious among employees, but the effect of this emotion on OI is relatively low compared to feelings of love and happiness. This finding is important for several reasons. It indicates that it is necessary to distinguish between positive and negative contagious emotions. Within the framework of this distinction, negative events appear to produce faster and stronger emotional, behavioural, and cognitive responses than neutral or positive events do (Barsade *et al.*, 2018). However, research findings show that negative emotions have lower contagious characteristics than positive emotions, as they score the lowest means. At the same time, negative emotions affect OI at a lower level than positive emotions do.

Positive emotions are more easily transmitted and affect OI at a higher level. While earlier studies defined OI as a psychological link between the individual and the organisation, the reasons for this connection are generally attributed to the organisational context (Ngo *et al.*, 2013; Humphrey, 2012). However, research results develop a unique insight into OI by attracting attention to the factors that create this psychological link.

The second hypothesis of the study predicted the moderating role of age in the EC – OI relationship. The findings revealed that the effect of EC on OI in younger workers was lower than in middle-aged and older workers. The most substantial effect was observed in older workers, proving that age is a critical parameter to be taken into account, particularly in studies of organisational behavior. Young workers' EC tendencies cause negligible levels of OI, while EC in older workers has a more substantial OI effect.

Finally, like age, seniority plays a moderating role in the EC–OC relationship. The findings showed that EC in senior employees had a higher effect on OI. The results are more striking for low-ranking employees. When EC is at the medium level, it has a positive effect on OI while it has a negative effect on OI after the intermediate level. A wholly different EC–OC relationship structure has been determined in middle-seniors. In this seniority group, EC has no positive or negative effect on OI up to the middle level. However, it has a positive effect after the intermediate level. In other words, after medium level, EC negatively impacts OI at low seniority and a positive effect at the medium level.

Our findings also have practical implications for administrators. First, recruitment of employees with high OI is a critical success factor: when employees identify strongly with their organisation, they exhibit greater job satisfaction, lower absenteeism rates, lower staff turnover, and more cooperative behaviour (Bartels *et al.*, 2010). To achieve these positive behavioural outcomes, administrators must create conditions in which employees may develop a strong psychological bond with their organisations (Vijayakumar & Padma, 2014). Simultaneously, EC processes are critical to understanding the emotional connections among the various levels of an organisation (Tee, 2015). Indeed, the findings determined that OI increased as the EC level increased, except for low-level employees.

Accordingly, the application of EC tests to candidates in recruitment by administrators and ensuring that individuals with high EC levels participate in the organisation can accelerate the OI process of the organisation members. However, the results proved that positive emotions affect individuals faster than negative emotions and are more effective on OI. Hence, the establishment of an organisational climate dominated by feelings of love and happiness and devoid of feelings of fear and anger is recommended for managers seeking to foster OI.

Another managerial implication is that younger workers are less willing to integrate into the organisation than middle-aged and older employees. In line with this result, managers should develop different managerial strategies for separate

age groups. Applying the same managerial techniques to different age groups will not provide the planned positive organisational outcomes.

Finally, since seniority is a parameter that determines the impact of EC on OI, managers wishing to maintain positive psychological connections with low-senior employees are advised to seek support from high-ranking employees. The increase in EC among low-senior employees negatively affects their OI. EC cannot be used as a meaningful managerial tool for OI robustness in this group of employees. However, since the increase in EC in middle-senior employees positively affects OI, managers should foster positive emotions in this group. However, EC has the greatest impact on OI among senior employees, just like older employees. Administrators should include this group with high OI tendencies in managerial activities and thereby benefit from high-ranking employees to absorbing other groups' OI.

## Conclusion

This study represents an original attempt to determine the reasons for the differences between individuals' OI levels by focusing on EC's effect on OI and the variables that moderate this effect. EC literature states that individual differences, such as genetics, gender, experience, and personality traits, contribute to EC predisposition (Doherty, 1997). In this study, when the moderating roles of age and seniority variables were evaluated together, individual differences in emotional processes were confirmed. A holistic approach to the organisation can impede our understanding of the relationships among variables in organisational psychology studies. Holistic analysis can cause false inferences and generalisations regarding organisational psychology. However, analysis of the organisation by dividing it into meaningful units on the age and seniority scale rather than a holistic perspective yields significantly clearer and more meaningful findings.

This research model design is based on the assumption that there are no precursors that determine EC. In this context, expanding the research model to include the variables that predict EC shifts the focus from OI to the moderator role of EC, thus enabling the conceptual framework to cause different insights.

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