

The effect of empowering leadership and openness to experience on creativity, and the mediating role of engagement

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Abstract

Many leadership styles have been studied as possible antecedents of engagement and creativity, with varying results. The present study focuses on empowering leadership as a relevant relatively novel form of leadership. In this study, the benefits of empowering leadership were investigated in relation to the important organizational assets engagement and creativity, as both engagement and creativity have been shown to be key drivers of organizational success and competitive advantage. Moreover, openness to experience was included since personality traits have also been studied in relation to both creativity and engagement with successful results. Consequently, the purpose of this study was to examine the effect of both empowering leadership and openness to experience on creativity and to investigate the mediating role of engagement. A sample of 70 employees from different organizations was surveyed to gather data. Results of regression analysis showed that higher levels of empowering leadership resulted in lower levels of engagement amongst employees. As for openness to experience, results showed that higher levels of openness to experience were associated with higher levels of creativity. Looking at the relation between openness to experience and creativity, mediation analysis showed that engagement did not mediate the effect of openness to experience on creativity. The findings have important implications for organizations as both openness to experience and empowering leadership have been shown to influence important work outcomes.

Keywords: empowering leadership, openness to experience, engagement, creativity, employees

INTRODUCTION

Leadership has often been studied in work and organizational psychology. One of the more recent forms of leadership that tends to be associated with positive employee and organizational outcomes is empowering leadership (Avolio, Walumba & Weber, 2009).

Empowering leadership is defined as a process where power is shared and where autonomy and responsibilities are allocated to followers, teams or collectives (Chow, 2018). This process takes place through specific behaviours of leaders through which internal motivation and work success of employees are enhanced (Cheong, Yammarino, Dionne, Spain & Tsai, 2019). According to Arnold, Rhoades, and Drasgow (2000), empowered organizations replace traditional hierarchical management structures with semi-autonomous and self-managing work teams. Within these teams, duties such as directing and controlling that were first performed by managers are now performed by empowered teams.

To establish an empowered organization, workers should be granted more autonomy, self-direction and control over their work environment than in more traditionally structured organizations (Hope, Bunce & Rösli, 2011). Managers are required to model the appropriate behaviour of employees, contribute to social and emotional encouragement and create an open, trustful, reinforcing environment and vision (Cheong et al., 2019). Several key dimensions of empowering leadership have been identified. According to Ahearne, Mathieu, and Rapp (2005), these include enhancing the meaningfulness of work, fostering participation in decision making processes, expressing confidence in high performance, and provide autonomy away from bureaucratic constraints.

Empowering leadership is an independent and unique leadership construct, different from related leadership constructs such as participative leadership, transformational leadership and shared leadership (Sharma & Kirkman, 2015). By mainly focusing on task and relational leader support in combination with the provision of autonomy and by focusing on

how leaders are involved in the development of each followers' abilities, the aim of empowering leadership is different than that of a superficially similar concept like transformational leadership. Transformational leadership primarily focuses on inspiring and motivating followers, while empowering leadership is focused on increasing followers' sense of control and competence (Bass & Riggio, 2006; Manz & Sims Jr., 2001; Spreitzer, 1995). Further, empowering leadership can be distinguished from self-leadership, as empowering leadership focuses on how leadership behaviours enhance followers' perceptions of meaningfulness and confidence towards their work, participation and autonomy (Cheong et al., 2019). Empowering leadership is claimed to be beneficial, humane and virtuous, and therefore organizations have already implemented empowered teams to improve the overall flexibility and efficiency of their company (Arnold, Arad, Rhoades & Drasgow, 2000).

In the present study, the benefits of empowering leadership will be investigated in relation to important organizational assets such as engagement and creativity as both engagement and creativity have been shown to be key drivers of organizational success and competitive advantage. For example, engaged employees are more likely to be productive, innovative, and loyal to their organization, leading to higher levels of customer satisfaction and financial performance (Macey & Schneider, 2008; Saks, 2006). Further, in today's rapidly changing and competitive business environment, creativity is increasingly recognized as a critical asset for organizations seeking to innovate and adapt to changing market conditions (Amabile, 1998; Mumford & Gustafson, 1988). Below I will present a theoretical framework explaining the different relations examined in this study, followed by the method of the study and the findings of a survey among employees.

Leadership and engagement

Work engagement can be explained as a fulfilling, positive, work-related state of mind (Schaufeli & Bakker, 2004). Work engagement is considered important for organizations

because it has been linked to various positive outcomes for both employees and employers (De Sousa & van Dierendonck, 2014). Engaged employees have been shown to have higher job satisfaction, lower absenteeism and turnover, better work performance and improved well-being (Halbesleben & Buckley, 2004). Furthermore, engaged employees tend to be more committed to their organization, more productive, and more likely to display positive behaviours that support their organization's goals (Bakker & Demerouti, 2007).

Because of the promising results of work engagement on work outcomes, research is needed to investigate its antecedents and the further effects of work engagement (Cai, Cai, Sun & Ma, 2018). According to previous studies, leadership behaviours enhance work engagement, including empowering leadership as it provides an increased feeling of autonomy to employees (Avolio & Yammarino, 1991; Cai, Cai, Sun & Ma, 2018; Skakon, Nielsen & Larsen, 2010; Spreitzer, 1995). The sharing power of empowering leadership entails, enhances the motivation and involvement of employees in their duties. Therefore, it is expected that empowering leadership has a positive effect on work engagement and this relationship will be further investigated in this study.

Openness to experience and engagement

Personality is considered important in organizations as it can influence an individual's behavior, attitudes and perceptions, which can in turn have a significant impact on their performance and effectiveness in the workplace (Judge & Bono, 2001). Personality can also play a role in shaping an individual's leadership style, communication, and decision-making skills, as well as their ability to manage stress and navigate conflicts (Barrick, Mount & Judge, 2001). Additionally, personality can impact the way employees fit within a specific organizational culture and affect the relationships they have with their coworkers, supervisors, and subordinates (Anderson, Ones, Sinangil & Viswesvaran, 2001). Studies have shown that personality traits, such as emotional stability, extraversion, and openness to experience, can

be related to job satisfaction, motivation, and overall job performance (Judge & Bono, 2001). Furthermore, personality traits have been found to predict leadership styles and behaviours (Judge, Bono, & Locke, 2000). Therefore, understanding the influence of personality within organizations can help organizations make informed decisions about recruitment, selection, and training, as well as help employees better understand and manage their own behaviour and attitudes in the workplace.

As mentioned before, work engagement is a critical antecedent of several work outcomes such as employee productivity and performance (De Sousa & van Dierendonck, 2014). Even though engagement is defined as a state, recent literature has shown that employees may differ in their tendencies towards work engagement (Akhtar, Boustai, Tsivrikos & Chamorro-Premuzic, 2015). To investigate the differences among employees regarding their engagement, it has become increasingly popular to look at which personality traits are possessed by more or less engaged employees, and it has been argued that certain personality dimensions create a greater tendency towards engagement due to the behavioural characteristics of those dimensions (Akhtar, Boustai, Tsivrikos & Chamorro-Premuzic, 2015). Research has found that certain personality traits can indeed influence an individual's level of work engagement. For example, it was shown that people who score high on traits such as extraversion and openness to experience tend to have higher levels of work engagement, while individuals who score high on traits such as neuroticism tend to have lower levels of work engagement (Salanova, Schaufeli, Llorens, Peiró, & Grau, 2000).

One of the dimensions expected to be related to engagement is openness to experience. Openness to experience is a personality trait characterized by a general appreciation for art, emotion, adventure, unusual ideas, curiosity, and variety of experience (McRae, 1996). This trait has been found to be positively related to employee commitment and dedication at work (Rasmus & Rasmus, 2015). Individuals who score high on the openness trait are expected to

perceive demands as challenges through which they can learn and expand their resources and consequently promoting engagement (Komarraju & Karau, 2005). In line with this, Sanchez-Cordona et al. (2012) and Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) provided evidence that openness to experience is a predictive variable for engagement.

Openness to experience influences engagement through several mechanisms. First, individuals who score high on openness to experience tend to have a greater sense of autonomy and control over their work, which can enhance their engagement and motivation (Fleener et al., 2008). They are more likely to seek out novel and challenging tasks, which can increase their sense of competence and mastery (Ng et al., 2010). Second, individuals with high levels of openness to experience tend to be more curious and interested in learning new things. This can lead to a deeper and more meaningful engagement with their work, as they are constantly seeking to expand their knowledge and skills (Tavares & Kluemper, 2015). Third, individuals with high scores on openness to experience tend to be more creative and innovative (McCrae, 1987). This can enhance their engagement with their work, as they are more likely to see their work as a source of creative expression and experimentation (Amabile, 1996). The relevance of the relationship between openness to experience and engagement lies in the fact that engaged employees are critical for organizational success and performance. Engaged employees are more likely to be productive, committed, and innovative, which can lead to improved performance and competitive advantage (Saks, 2006). By understanding the relationship between openness to experience and engagement, organizations can develop strategies to attract and retain employees who are more likely to be engaged and committed to their work (Collins & Clark, 2003). Based on these results, a positive relationship between openness to experience and engagement is expected and further investigated in this study.

Engagement and creativity

According to the broaden and build theory by Fredrickson (2001), engaged employees experience positive emotions more often than others, which increases both their intellectual and psychological resources. These broadened resources encourage employees to explore new and unconventional ways of doing their job (Chaudhary & Panda, 2018). Further, engaged employees have been shown to have more energy that is required to pursue creative paths (Atwater & Carmeli, 2009). In line with this, Demerouti, Bakker, and Gevers (2015) showed a positive relationship between engagement and creative behaviours among employees in the Netherlands. As mentioned before, both empowering leadership and openness to experience are expected to increase engagement of employees. As engagement further influences creative behaviour, it is assumed that engagement positively mediates the relationship between empowering leadership and creativity, as well as openness to experience and creativity amongst employees.

Leadership and creativity

Innovation and creativity are important factors for success in the increasingly competitive and rapid changing business world (Chow, 2018). Leaders have a significant influence on creative behaviours of employees and there is already evidence that empowering leadership promotes creativity (Ahearne, Mathieu, & Rapp, 2005; Zhang & Bartol, 2010; Zhang & Zhou, 2014). This is due to the fact that empowering leaders provide more responsibility and autonomy to employees and hereby increases their sense of meaning, competence, self-determination, which consequently creates a sense of impact (Spreitzer, 1995). As a result, empowered employees are shown to be more willing to put extra effort in innovative behaviour towards solving problems, more likely to engage in creative activities and generate more useful and useful ideas compared to non-empowered employees (Zhang & Bartol, 2010; Zhang & Zhou, 2014). Further, creativity is sometimes seen as a risky effort. Empowering leaders create a supportive environment and boost the confidence of their employees which makes these

employees more likely to feel safe and free to engage in creative behaviours (Edmondson, 1999). Therefore, in this study it is expected that empowering leadership leads to more creativity.

Openness to experience and creativity

Empowering leadership has already been recognized and is expected to have an effect on creativity (Ahearne, Mathieu, & Rapp 2005; Zhang & Bartol, 2010; Zhang & Zhou, 2014). However, a review by Hughes, Lee, Tian, Newman, and Legood (2018) on leadership and creativity showed that the relationship between leadership and creativity hugely varies, and that among the moderators involved in this relationship are attributes of the followers, in this case employees. The mechanisms underlying this effect are still not clear (Humborstad, Nerstad, & Dysvik, 2014). Therefore it is important to explore how and why empowering leadership leads to creative behaviour and what causes the variation in this relationship between empowering leadership and creativity. Among the personality factors of the Big Five, openness to experience is linked most frequently to creativity as openness reflects individuals' disposition to learn and therefore positively relates to creativity (Chow, 2018). Moreover, organizations can utilize openness to experience to foster a culture of innovation and creativity (Feist, 1998). By hiring and developing employees who are high in openness to experience, organizations can create a more innovative and adaptive workforce. This effect can be explained by highly open individuals being curious, broad-minded and intelligent, which may lead them to have a desire to learn new ways to do things, be more imaginative, and more creative compared to others (McCrae & Costa, 1991).

Further, a meta-analysis by Barrick and Mount (1991) showed that employees who score high on openness to experience adapt more easily, are more curious about and more willing to explore new situations, such as new ways of leadership (Barrick & Mount, 1991). Openness to experience may also moderate the relationship between empowering leadership

and creativity as they are more curious and persuadable to new ideas and unfamiliar experiences (Barrick & Mount, 1991). As a consequence, highly open individuals have a more accepting attitude towards perspectives and ideas (such as empowering leadership) compared to less open individuals, whose preference is more conservative, familiar and conventional (Chow, 2018). Therefore, openness to experience is expected to increase creativity and also to positively moderate the relationship between empowering leadership and creativity.

Based on the literature mentioned above, openness to experience is expected to positively relate to creativity. However, the mechanisms underlying this relationship have not been thoroughly addressed in previous literature. It is still unclear how openness enhances the creative performance of employees. A previous study done by Tan, Lau, Kung, and Kailsan (2016) showed that especially engagement in the creative process mediates the relationship between the personality trait and creative performance. Therefore, in this study it is expected that engagement mediates the relationship between openness to experience and creativity.

Purpose of the present study

This research will examine how empowering leadership and openness to experience can both increase creativity. Further, to understand the effect of empowering leadership and openness to experience on creativity, engagement is investigated as a mediator in these relationships.

Lastly, openness to experience is assumed to moderate the positive relationship between empowered leadership and creativity. Besides the variables tested, the present study will also control for other variables (i.e., age, level of education, job demands and job autonomy).

Based on the reasoning above, seven hypotheses are formulated (see Figure 1 for a model).

H₁: Empowering leadership is positively associated with creativity.

H₂: Openness to experience is positively associated with creativity.

H₃: Empowering leadership is positively associated with engagement.

H₄: Openness to experience is positively associated with engagement.

H₅: Engagement mediates the relationship between empowering leadership and creativity.

H₆: Engagement mediates the relationship between openness to experience and creativity.

H₇: Openness to experiences moderates the positive effect of empowering leadership on creativity.

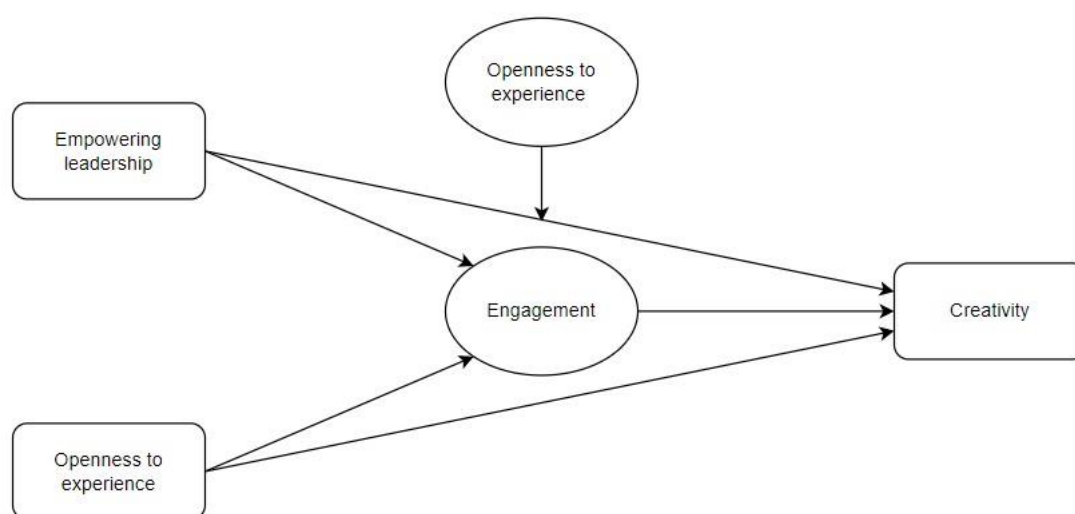


Figure 1 Model of the relationships between empowering leadership and creativity, openness to experience and creativity, and the engagement as a moderator.

METHOD

Participants and procedure

The design of this study is cross-sectional. Ethical approval was obtained before recruiting participants (FETC 22-1828). The study took place online using Qualtrics and employees were invited to participate using convenience sampling. The online study was distributed among the researcher's personal network through emails and social media

networks. Participants signed an informed consent before starting the study and were informed about the anonymity and confidentiality of the data collected. As for the inclusion criteria, participants had to be 18 years or older, had to be employed and fill out all questionnaires. In total 88 employees participated in the study. Due to the study design, no response rate could be computed. Of the 88 people who participated in the study, 18 were excluded due to not completing all scales of the questionnaire, resulting in a final total sample of 70 participants that were used for the analysis. Among the 70 remaining participants used for analysis, 22 were male and 48 were female. The participants were also asked about their year of birth, the mean age of the participants was 42 years ($SD = 15$).

Instruments

In this study, four main variables were measured: empowering leadership, engagement, creativity and openness to experience. Besides the variables tested, other variables were also controlled for. Scales were used to control for job demands and job autonomy.

Empowering leadership. First, the 24-item empowering leadership questionnaire (appendix 1) by Amundsen and Martinsen (2014) was used to measure empowering leadership with a Cronbach's alpha of $\alpha = .95$. A typical item is 'My leader encourages me to take initiative'. The empowering leadership questionnaire is evaluated using a 7-point Likert scale ranging from 1 (never) to 7 (always).

Openness to experience. Openness to experience was measured using ten items that address openness to experience from the Big Five Inventory (BFI) developed by John and Srivastava (1999) ($\alpha = .79$) (appendix 2). Examples of questions are; 'I see myself as someone who is original, comes up with new ideas' and 'is curious about many different things'. The Openness to experience questionnaire is evaluated by a 5-point Likert scale with 1 (strongly disagree) to 5 (strongly agree).

Creativity. Creativity was measured using the thirteen-item scale by Zhou and George (2001) (appendix 3). The scale consists of 13 items ($\alpha = .92$) which are assessed using a 5-point Likert scale ranging from 1 (not at all characteristic) to 5 (very characteristic). An example of an item is 'I am a source of creative ideas'.

Engagement. For engagement, the shortened version of the Utrecht Work Engagement scale was used (Schaufeli, Bakker, & Salanova, 2006) (appendix 4). The engagement scale consists of 9 items ($\alpha = .85$) and uses a Likert scale with levels from 0 to 6, with 0 (never) to 6 (always). An example of a question asked is 'When I get up in the morning, I am excited to go to work'.

Control variables. The demands experienced by the employees was measured with the *Handleiding Vragenlijst Beleving en Beoordeling van Arbeid* (VBBA) (Van Veldhoven, Meijman, Broersen, & Fortuin, 1997) (appendix 5). The scale consists of five questions on a Likert scale ranging from 1 (never) to 5 (always) ($\alpha = .77$). As an example, one of the items is 'do you have enough time to finish your work' (reversed). *Autonomy* was also measured with a scale from the *Handleiding Vragenlijst Beleving en Beoordeling van Arbeid* (VBBA) (Van Veldhoven et al., 1997) (appendix 5). The scale consists of four questions on a five point Likert scale ranging from 1 (never) to 5 (always) ($\alpha = .83$). An example of a question in the scale is 'Do you have the freedom to solve problems at work yourself?'.

Data analysis

The data collected in Qualtrics was first converted to a format readable by the *Statistical Package for Social Sciences (SPSS) version 27* (IBM Corp., 2020). Participants who were not 18 years or older, not employed and did not fill out all questionnaires were removed. In total 88 employees participated in the study were removed. After all the data was prepared, factor and reliability analysis were conducted on the different scales.

For the first and second hypothesis on how both empowering leadership and openness to experience are associated with creativity, a multiple regression was performed to analyse the relationship between empowering leadership and creativity and to measure the relationship of openness to experience and creativity.

To examine the moderation effect of openness to experience another regression analysis was performed in which the interaction effect of empowering leadership and openness to experience on creativity was included. The interaction was computed by multiplying Z-transformed versions of the two constituent variables (Aiken & West, 1991). Lastly, the mediator effect of engagement between empowering leadership and creativity and openness to experience and creativity was measured using Hayes' PROCESS macro model 4 (Hayes, 2013).

RESULTS

Creativity. Hypothesis 1 stated that empowering leadership is positively associated with creativity, and hypothesis 2 stated that openness to experience is also positively associated with creativity. To test these hypotheses, five models were tested. Comparison of these models using the R^2 change statistic showed that while Model 5 did not improve upon model 4, Model 4 improved significantly upon Model 3 in terms of R^2 . Thus, Model 4 was selected as the best model. As for H₁, the findings in Table 1 (Model 4) show that empowering leadership is not significantly associated with creativity ($\beta = -.20, p > 0.5$). However, consistent with H₂ the findings in the table show that openness to experience is positively associated with creativity ($\beta = .55, p < 0.01$).

Engagement. Hypothesis 3 stated that empowering leadership is positively associated with engagement; Hypothesis 4 stated that openness to experience is positively associated with engagement. Three models were tested to test these hypotheses. Comparison of these models using the R^2 change statistic showed that Model 3 improved significantly upon Model

2 in terms of R^2 . Therefore, Model 3 was selected as the best model, the results are shown in Table 2. Against expectations of H₃, empowering leadership is negatively, rather than positively associated with engagement ($\beta = -.36$, $p < 0.05$). Hypothesis 4 is rejected as openness to experience is not significantly positively associated with engagement ($\beta = .24$, $p > 0.05$)

Table 1

Predictors of creativity (standardized effects)

	Model 1	Model 2	Model 3	Model 4	Model 5
Gender	-.17	-.22	-.21	-.15	-.15
Year of birth	.15	.33*	.35**	.27*	.28*
Education	.16	.10	.15	.18	.17
Contract hours	.03	-.12	-.10	-.14	-.14
Job demands		.44**	.35*	.09	.10
Autonomy		.30*	.24	.14	.15
Engagement			.27*	.08	.08
Empowering leadership				-.20	-.20
Openness to Experience				.55**	.56**
Interaction (Empowering leadership and Creativity)					-.05
R^2	.08	.37	.43	.64	.64
R^2 change	.08	.30**	.06*	.21**	.00

Table 2*Predictors of engagement (standardized effects)*

	Model 1	Model 2	Model 3
Gender	.01	-.00	.00
Year of birth	-.21	-.08	-.20
Contract hours	.06	-.05	-.09
Job demands		.29*	.13
Autonomy		.27	.11
Empowering leadership			-.36**
Openness to experience			.24
R²	.06	.23	.38
R² change	.06	.17**	.15**

Posthoc mediation analysis. Hypothesis 5 stated that engagement is a mediator in the relationship between empowering leadership and creativity and hypothesis 6 stated that engagement mediates the relationship between openness to experience and creativity. As for H₅, according to Table 1 (Model 4) there is no significant effect of engagement on creativity ($\beta = .08, p > 0.05$). However, there is a significant effect of empowering leadership on engagement when looking at Table 2 (Model 3) ($\beta = -.36, p < 0.01$). Because part of the mediation was confirmed, a mediation analysis was conducted. However, this mediation analysis did not show a significant mediation effect of engagement on the relationship between empowering leadership and creativity ($ab = 0.08, SE = 0.06, 95\% CI [-.03, .20]$). Therefore, hypothesis 5 is rejected.

As for hypothesis 6, Table 1 (Model 4) shows there is no significant effect of engagement on creativity ($\beta = .08$, $p > 0.05$). Further, according to Table 2 (Model 3), there also is no significant effect of openness to experience on engagement ($\beta = .24$, $p > 0.05$). Therefore, there is no reason to assume a mediation effect of engagement.

DISCUSSION

This study aimed to examine how empowering leadership and openness to experience can both increase creativity. Further, to understand the effects of these constructs on creativity, openness to experience was investigated as a moderator and engagement as a mediator.

First, openness to experience was shown to have a significant positive effect on creativity. The positive relationship between openness to experience and creativity can be explained by the idea that individuals who are more open to experience are more likely to be receptive to new ideas and approaches, which can lead to increased creativity (Kaufman & Baer, 2012). Previous studies showed similar results. First, a study by Arden and Linley (2007) that investigated the relationship between personality traits including openness to experience and creative potential showed that openness to experience was positively correlated with creativity. This study found that individuals who were open to new experiences tended to be more original in their thinking and were more likely to generate novel ideas. A study by Oke (2010) also investigated the role of personality traits, including openness to experience, in enhancing creativity in the workplace. The study similarly found that employees who were open to new experiences tended to be more innovative in their problem-solving. These employees were also more likely to generate novel ideas and to see opportunities in new situations. As mentioned before, this study also found that individuals with higher scores on openness to experience have higher scores on creativity. However, it should be kept in mind that openness to experience and creativity have empirical and content-

related similarities and that some of the items of the scales measuring the constructs overlap. This suggests that besides causality, the conceptual similarity of the constructs can also explain that higher scores on openness to experience are associated with higher scores on creativity. However, the results of the current study are consistent with earlier research that links openness to experience with creativity. This suggests that organizations can foster creativity in their workplaces by promoting openness to experience.

Interestingly, this study did not find the expected positive significant effect of empowering leadership on engagement. Rather, we found that empowering leadership has a negative effect on engagement. This is not in line with previous studies on empowering leadership that show the positive impact of the empowering leadership style on employee engagement. Empowering leadership is defined as a leadership style that provides employees with autonomy, support, and resources to perform their job duties effectively. It encourages employees to take ownership of their work, make decisions, and express their ideas and opinions. A study by Scott and Bruce (1994) found that the characteristics of empowering leadership were positively associated with employee engagement, job satisfaction, and commitment to the organization. This study's results indicated that employees who worked in an empowering leadership environment were more likely to feel empowered, motivated, and consequently engaged in their work. A more recent study by Kark and Van Dijk (2007) also found that empowering leadership was positively associated with employee engagement and work outcomes. The results of that study indicated that empowering leadership increases employee engagement by providing them with a sense of control and autonomy, which in turn leads to better work performance and job satisfaction (Kark & Van Dijk, 2007). However, the present study did not find this positive effect but rather a significant negative effect of empowering leadership on engagement; that is, higher levels of empowering leadership were associated with lower levels of engagement. This negative effect might be explained by

assuming that when leaders delegate authority and encourage employees to take initiative, it can be unclear what specific tasks and responsibilities each employee is responsible for. This implies that laissez-faire leaders can have similar characteristics in their leadership style as empowering leadership as laissez-faire leaders are characterized by giving employees a sense of autonomy but also a lack of guidance and support. Laissez-faire leadership is generally viewed as ineffective as this style has been shown to lead to confusion, stress, and a sense of being overwhelmed, which can in turn reduce employee engagement and motivation (Zhang & Bartol, 2010; Goleman, 2000). In line with this, a study done by Van den Bossche et al. (2011) found that empowering leadership can lead to a lack of structure and direction for employees which can in turn negatively affect their engagement and motivation (Van den Bossche et al., 2011). So, the negative effect found in this study together with previous research implies reasons for future research to further investigate how and why empowering leadership might negatively influence engagement.

Contrary to our expectations, this study did not show the expected positive effect of empowering leadership on creativity; indeed, the (insignificant) indirect effect found was negative instead of positive. Although this study found that empowering leadership is not significantly associated with creativity (H_1), other studies found that empowering leadership can have a positive impact on creativity (Avolio, Walumbwa, & Weber, 2009; Gellatly, Ironside, & Rigg, 2006). However, there might also be explanations why empowering leadership may have a negative instead of positive effect on creativity. Some studies suggest that overly empowering leaders may unintentionally discourage creative thinking and innovation by creating a climate of conformity and reducing the psychological safety needed for experimentation and risk-taking. In line with this, Zhang and Bartol (2010) found that when leaders were perceived as being too empowering, creativity was actually hindered. The authors suggested that this may be because overly empowering leaders may create a "culture

of consensus" in which employees feel pressure to conform to the ideas and opinions of others rather than generating new and different ideas themselves (Zhang & Bartol, 2010). The insignificant effect of empowering leadership on creativity found in this study could also be due to a number of factors. One potential explanation is that empowering leadership may not have a direct impact on creativity, but rather it may influence other variables that then impact creativity. One explanation for the insignificant effect of empowering leadership on creativity found in this study could be that creativity is a complex and multi-faceted construct that is influenced by a range of factors, including individual differences (Feist, 1998) and organizational factors (Amabile, 1996). As such, it may be the case that empowering leadership is only one of many factors that impact creativity, and that its effect is not easily detected or differentiated from the effects of other variables. Finally, it is also possible that the results of this study are simply due to measurement, method or sample limitations. For example, the measure of empowering leadership used in this study may not have been adequately capturing the construct. Further, openness to experience and creativity are strongly interrelated both content wise and empirically. Because of this, potential effects of other variables on creativity have a smaller chance of being significant, especially with a smaller sample size. To conclude, the findings of this study on empowering leadership and creativity imply that there is still research needed to find out what the exact impact of empowering leadership is on creativity and that this might not be as positive as expected.

Lastly, in this study the positive effect of openness to experience on engagement of employees was not shown. Previous research has found that individuals who score high in openness to experience tend to be more engaged in their work, as they are more likely to be interested in new experiences and challenges (Judge & Bono, 2001). This can lead to increased job satisfaction, motivation, and commitment to their work (Judge & Bono, 2001). Furthermore, individuals who are open to experience are often more curious and tend to take a

more active approach to their work, which can lead to increased engagement (Kaufman & Baer, 2012). Additionally, Judge and Bono (2001) found that openness to experience was positively related to engagement, even after controlling for other individual differences, such as neuroticism, extraversion, and agreeableness (Judge & Bono, 2001). Another study found that openness to experience was positively related to intrinsic motivation, which is a key component of engagement (DeChurch & Riggio, 2009). Based on these previous results, a significant positive effect of openness to experience on engagement was expected to be found in this study. However, this positive effect of openness to experience on engagement was not found. There is evidence that suggests that the relationship between openness to experience and engagement is complex and may be influenced by other variables such as situational factors or organizational culture. For example, employees may be more engaged when they have a clear sense of purpose, are given autonomy, receive feedback and recognition, and have positive relationships with their colleagues and supervisors (Bakker & Demerouti, 2017). Further a study done by Li et al. (2016) suggest that the relationship between openness to experience and engagement may be moderated by factors such as leadership style and organizational culture, highlighting the importance of considering contextual factors when examining the effects of personality traits on work-related outcomes (Li et al., 2016). The outcomes of this study also imply that the relationship between openness to experience and engagement may not be as direct as suggested by previous studies and more research can be done to find evidence for the implications of openness to experience on engagement in organizations.

Strengths and limitations

One strength of the present study is that participants were informed about the anonymity and confidentiality of the data collected, which promotes honest and accurate responses and protects participants' privacy. Further, the study had a good representation of

both male and female participants, as well as a range of ages, which adds to the generalizability of the results. The constructs in the study were measured with reliable instruments, which contributes to the validity of the results. Lastly, the outcomes of the main variables measured were controlled for with other variables which also contributes to the reliability of the outcomes of the effects of the main variables measured.

Besides these strengths, there are also some limitations to consider when interpreting the results of this study. First, the study used convenience sampling. Convenience sampling relies on individuals that are easily accessible and willing to participate in the study. This can result in self-selection bias, as individuals who are more motivated or interested in the topic may be more likely to participate. Further, participants in convenience samples studies may not accurately report their experiences or beliefs, due to social desirability bias or other factors. Additionally, the study relied on a small sample ($n=70$) which – e.g., due to possible influential cases – limits the generalizability of the results to other populations and settings and means that the power of the statistical tests performed here is low. Lastly, the study was cross-sectional, which means that it only captures a snapshot of the participants' characteristics and experiences. This makes it difficult to establish cause-and-effect relationships and to understand changes over time.

Practical and theoretical implications

Overall, the results of the study suggest the potential of empowering leadership as an influencer of employee engagement and the potential of openness to experience on creativity. First, against expectations the results suggest that empowering leadership is not an effective way to increase employee engagement. This might be due to empowering leaders delegating authority which can lead to unclarity about responsibilities and consequently to confusion, stress, and a sense of being overwhelmed, which can in turn reduce employee engagement and motivation. Further, the findings suggest that openness to experience plays an important

role in fostering creativity in employees. Individuals who are open to new experiences tend to have a greater capacity for imaginative thinking, which leads to more creative outcomes. Openness to experience has the potential to foster creativity and innovation in employees, which can result in improved organizational performance and competitiveness in the marketplace. As for future research, it would be interesting to further investigate the relationship between empowering leadership and creativity. Especially because of the importance of creativity for organizations as creative employees are better equipped to tackle complex problems and make informed decisions, which can lead to better outcomes for the organization. Further, the results did not show that empowering leadership or openness to experience enhances engagement. Because of the important implications of engagement for the effectiveness and competitive advantage for organizations, the effect of empowering leadership and openness to experience on engagement could also be further investigated. Overall, investigating the relationship between empowering leadership and creativity and engagement more in detail can be critical for improving organizational performance, employee satisfaction, and overall well-being.

Conclusion

To conclude, the results of this study suggest that empowering leadership does not have a direct effect on creativity and it has a negative effect on engagement. Further, openness to experience has a positive effect on creativity. These findings contribute to the existing literature on the effects of empowering leadership and openness to experience on creativity and engagement and suggest that organizations can promote openness to experience in their leaders and employees to foster and increase creativity in the workplace. However, it also implies that organizations should consider the negative impact that empowering leadership can have on employee engagement.

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Appendix

Appendix 1 Empowering leadership questionnaire

(1 = *never* to 7 = *always*)

1. My leader conveys that I shall take responsibility
2. My leader gives me power
3. My leader gives me authority over issues within my department
4. My leader encourages me to start tasks on my own initiative
5. My leader expresses positive attitudes related to me starting with my own defined tasks
6. My leader encourages me to take initiative
7. My leader is concerned that I reach my goals
8. My leader makes me work towards goal attainment
9. My leader is concerned that I work in a goal-directed manner
10. My leader listens to me
11. My leader recognizes my strong and weak sides
12. My leader invites me to use my strong sides when needed
13. My leader is enthusiastic about what we can achieve
14. My leader conveys a bright view of the future
15. My leader shows that he/she is optimistic about the future
16. My leader coordinates his/her goals with my goals
17. My leader talks with me about his/her own and my goals
18. My leader discusses shared affairs with me
19. My leader lets me see how he/she organizes his/her work
20. My leader's planning of his/her work is visible to me
21. I gain insights into how my leader arranges his/her work days
22. My leader shows me how I can improve my way of working
23. My leader guides me in how I can do my work in the best way
24. My leader tells me about his/her own way of organizing his/her work

Appendix 2 Big Five Inventory (BFI) items openness to experience, John & Srivastava, 1999

(1 = disagree strongly to 5 = agree strongly)

I see myself as someone who....

1. Is original, comes up with new ideas
2. Is curious about many different things
3. Is ingenious, a deep thinker
4. Has an active imagination
5. Is inventive
6. Values artistic, aesthetic experiences
7. Prefers work that is routine
8. Likes to reflect, play with ideas
9. Has few artistic interests
10. Is sophisticated in art, music or literature

Appendix 3 Creativity (Zhou & George, 2001)

Ranging from 1, "not at all characteristic," to 5, "very characteristic"

1. Suggests new ways to achieve goals or objectives.
2. Comes up with new and practical ideas to improve performance.
3. Searches out new technologies, processes, techniques, and/or product ideas.
4. Suggests new ways to increase quality.
5. Is a good source of creative ideas.
6. Is not afraid to take risks.
7. Promotes and champions ideas to others.
8. Exhibits creativity on the job when given the opportunity to.
9. Develops adequate plans and schedules for the implementation of new ideas.
10. Often has new and innovative ideas.
11. Comes up with creative solutions to problems.
12. Often has a fresh approach to problems.
13. Suggests new ways of performing

Appendix 4 Utrecht Work Engagement scale (Schaufeli, Bakker and Salanova, 2006)

The following 9 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job.

If you have never had this feeling, cross the “0” (zero) in the space after the statement. If you have had this feeling, indicate how often you felt it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

Never 0	Almost Never 1	Rarely 2	Sometimes 3	Often 4	Very Often 5	Always 6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. At my work, I feel bursting with energy. (VI1)
2. At my job, I feel strong and vigorous. (VI2)
3. I am enthusiastic about my job. (DE2)
4. My job inspires me. (DE3)
5. When I get up in the morning, I feel like going to work. (VI3)
6. I feel happy when I am working intensely. (AB3)
7. I am proud of the work that I do. (DE4)
8. I am immersed in my work. (AB4)
9. I get carried away when I am working. (AB5)

Source: Schaufeli and Bakker (2003).

Note: VI = Vigor scale; DE = Dedication scale; AB = Absorption scale.

Appendix 5 Background variables

1	Wat is uw geslacht?	<input type="checkbox"/> man <input type="checkbox"/> vrouw <input type="checkbox"/> anders/wil niet zeggen
2	Wat is uw geboortejaar?	19..... (svp jaartal invullen)
5	Wat is de hoogste opleiding die u heeft afgerond? (Als uw opleiding er niet bij staat, kruis dan de opleiding aan die het meest op de door u gevolgde opleiding lijkt)	<input type="checkbox"/> lagere school <input type="checkbox"/> MAVO, LBO, VMBO <input type="checkbox"/> HAVO, MBO <input type="checkbox"/> VWO <input type="checkbox"/> HBO <input type="checkbox"/> WO
6	Hoeveel jaar bent u werkzaam bij uw huidige werkgever? (svp aantal jaar invullen)
8	Wat is de omvang van uw aanstelling in uren per week volgens uw contract? (svp aantal uren invullen)

Kwantitatieve taakeisen

Bron: Van Veldhoven, M., Meijman, T.F., Broersen, J.P.J., & Fortuin, R.J. (1997).

Handleiding Vragenlijst Beleving en Beoordeling van Arbeid (VBBA). Amsterdam: Stichting Kwaliteitsbevordering Bedrijfsgezondheidszorg.

1.	Moet u heel snel werken?	①	②	③	④	⑤
2.	Moet u erg veel werk doen?	①	②	③	④	⑤
3.	Werkt u hard om dingen af te krijgen?	①	②	③	④	⑤
4.	Moet u onder hoge tijdsdruk werken?	①	②	③	④	⑤
5.	heeft u voldoende tijd om uw werk af te krijgen?	①	②	③	④	⑤

1 = nooit, 5 = altijd.

Regelmogelijkheden/autonomie/job control

Bron: Van Veldhoven, M., Meijman, T.F., Broersen, J.P.J., & Fortuin, R.J. (1997).

Handleiding Vragenlijst Beleving en Beoordeling van Arbeid (VBBA). Amsterdam: Stichting Kwaliteitsbevordering Bedrijfsgezondheidszorg.

1.	Besluit u zelf hoe u uw werk uitvoert?	①	②	③	④	⑤
2.	Beslist u zelf de volgorde van uw werkzaamheden?	①	②	③	④	⑤
3.	Bepaalt u zelf op welk moment u een taak uitvoert?	①	②	③	④	⑤
5.	Heeft u de vrijheid om problemen op het werk zelf op te lossen?	①	②	③	④	⑤

1 = nooit, 5 = altijd.