Diversity & Inclusion in the Workplace: Shedding Light into the Relationship between Extraversion Dissimilarity and Emotional Exhaustion

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Abstract

In the present study, we investigated whether extraversion dissimilarity would indirectly lead to increased emotional exhaustion through lower co-worker support. In addition, we examined if workplace friendships could protect employees against perceiving less social support when facing extraversion dissimilarity. Furthermore, we tested if extraverted individuals are more affected by extraversion dissimilarity, therefore perceiving less support from their colleagues. The data from 267 employees revealed that both extraversion dissimilarity and co-worker support were significantly related to emotional exhaustion. Specifically, extraversion dissimilarity was positively related to emotional exhaustion, while co-worker support was negatively related to it. However, a mediation effect of co-worker support was not found. Contrary to expectations, neither workplace friendships nor extraversion trait turned out as moderators between extraversion dissimilarity and co-worker support. Nevertheless, we did find that higher levels of support were reported when workplace friendships were more prevalent, and that introversion was significantly associated with emotional exhaustion, indicating that introverted individuals tend to experience higher levels of emotional exhaustion overall. This research both replicates and expands upon previous work, substantiating the importance of considering personality dissimilarity as relevant as other surface-level differences.

Introduction

Diversity is one of the most researched topics in management and organizational psychology literature (Cunningham & Sagas, 2004; Cunningham 2007), which is not surprising given that organizations have increasingly diversified their workforce and will continue doing so in the upcoming years (Van Knippenberg & Schippers, 2007).

Work group diversity has been defined as a characteristic that reflects the degree of objective or subjective dissimilarity between group members on any attribute (Van Knippenberg & Schippers, 2007). In diverse teams, it is likely that employees perceive that they are dissimilar to most others on any attribute. Dissimilarities in the workplace are classified in two levels or broad categories (Guillaume, 2012; Jackson & Joshi, 2011). Surface-level dissimilarity refers to demographic differences among employees (e.g., gender, age, or ethnicity), and deep-level dissimilarity refers to differences in less visible characteristics, such as educational background, political views, personal values, or personality. However, surface-level dissimilarity has generally received more attention than deep-level dissimilarity, reason

why there are still blind spots in our understanding of the topic. Although both levels are important, recent studies indicate that deep-level dissimilarity tends to have a bigger impact on organizational outcomes (David et al., 2019). In fact, deep-level dissimilarity has been linked to negative work-related outcomes, such as turnover intention (Cunningham et al., 2004; Cunningham, 2007; David et al., 2019; Liao et al., 2008), lower job satisfaction (Cunningham et al., 2004; Cunningham, 2007; Liao et al., 2008; Sahin et al., 2019), and workplace stress (David et al., 2019; Sahin et al., 2019).

Given that employees most often report feeling dissimilar in terms of personality (Sahin, 2023), the current study has chosen to focus on personality dissimilarity. Personality consists of multiple dimensions; Particularly, extraversion dissimilarity, referring to perceived differences in terms of extraversion-introversion, has received some scholarly attention on how it relates to positive and negative outcomes. On the one hand, extraversion dissimilarity can lead to better task and team performance as well as to increased job satisfaction and enhanced organizational citizenship behavior (Sung et al., 2014; Liao et al., 2004; Neuman et al., 1999). On the other hand, Perry et al., 2010 found that extraversion dissimilarity is associated with higher emotional exhaustion, but this effect was observed only for extraverted employees. Similarly, extraverts have appeared to be more susceptible to exhaustion when working with introverts (Cropanzano et al., 2003; Lee & Ashforth, 1996 as cited in David et al., 2019).

Therefore, the main aim of this study was to investigate one specific deep-level characteristic: extraversion. Specifically, this study focuses on the relationship between extraversion dissimilarity and emotional exhaustion to gain a deeper understanding of when and why this relationship exists. In the next sections, the theoretical framework and study hypotheses are further developed.

This study takes a relational approach by focusing on how within-group differences affect individual-level outcomes, thus taking an individual-within-the-group perspective (Riordan, 2000; Tsui & Gutek, 1999 as cited in Guillaume et al., 2012). Furthermore, the present study answers the call of moving from surface-level characteristics to deep-level traits. More specifically, it attempts to shed light on why extraversion dissimilarity can lead to emotional exhaustion. It is both a replication and expansion of Perry et al., 2010 work, as the same question is studied in a broader sample, including employees from different job types and not only customer service, and social support is incorporated as a possible mediator. In addition, the role of workplace friendships as a protective factor, which can mitigate the negative effects of extraversion dissimilarity, is suggested for the first time, to our knowledge.

Extraversion Dissimilarity and Emotional Exhaustion

Extraversion dissimilarity can be defined as the individual's perceived differences to workgroup members in terms of the personality trait extraversion (Liao et al., 2008), which is derived from the Big Five Model classification. The Big Five is considered the most widely accepted, validated, and used personality framework across cultures and occupations (David et al., 2019; Liao et al., 2004; Sung et al., 2014). Extraverts´ individuals have the tendency to be "sociable, gregarious, assertive, talkative, and active" (Barrick & Mount 1991, p.3 as cited in Perry et al., 2010). They gain energy through social interactions and are likely to be satisfied with coworkers even if they are dissimilar (Flynn et al., 2001). Introverts, on the other hand, are described as inward-turned and thought oriented, enjoying deep personal connections, and gaining energy from spending time alone (Myers & Briggs, 1998 as cited in Davidson et al., 2015).

It has been suggested that colleagues' personalities can be perceived by interactions and observations of verbal and non-verbal behavior (Harrison et al., 1998 as cited in Liang et al., 2015). As noted, research shows that extraversion dissimilarity can lead to emotional exhaustion, especially among extraverts who are dissimilar (Perry et al., 2010).

Emotional exhaustion, the most central and supported burnout dimension, refers to lack of energy and inability to apply all capacities while working (Maslach et al., 2001). The emotional exhaustion facet, in conjunction with depersonalization and personal accomplishment, form the burnout concept, which is defined as a prolonged response to chronic workplace stress (Maslach et al., 2001).

Several psychological theories can be used to explain why extraversion dissimilarity relates to emotional exhaustion. First, the Job Demands Resources (JD-R) Model suggests that when job demands are high and job resources are low, employees may experience strain and exhaustion that can eventually lead to burnout (Bakker & Demerouti, 2007). In this case, extraversion dissimilarity could be considered a job demand. Second, the Person-Environment (PE) paradigm distinguishes between complementary and supplementary fit (Muchinsky & Monahan, 1987 as cited in Liao et al., 2004). The complementary fit implies that an individual complements the environment, therefore fitting better when they have different characteristics than the work group. In contrast, the supplemental fit suggests that an individual will fit better in a group if they possess similar characteristics. In a similar vein, the similarity-attraction model (Byrne 1971) asserts that individuals who are similar are more likely to feel attracted and have positive feelings towards each other. This can be attributed to the fact that similarities

in psychological characteristics can foster easier interpersonal interactions, facilitate communication, and provide validation of one´s own attitudes, values, and beliefs (Guillaume et al., 2012). In the workplace context, this theory posits that employees who perceive themselves to be different in terms of personality, attitudes, values, or beliefs are less likely to experience work positively (Cunningham et al., 2007).

Building upon the research findings and theoretical frameworks mentioned above, it is suggested that dissimilarity in extraversion between individuals can lead to increased emotional exhaustion.

Hypothesis 1: Extraversion dissimilarity is positively related to emotional exhaustion, meaning that higher extraversion dissimilarity results in increased emotional exhaustion.

The JD-R model further suggests that job resources can mitigate the negative consequences of job demands. Co-worker support is considered a valuable job resource that can buffer the impact of high job demands. Nevertheless, differences in personality traits such as extraversion can lead to lower support from colleagues, ultimately contributing to emotional exhaustion. Expanding on this line of reasoning, the present study suggests that social support may serve as a mediator between extraversion dissimilarity and emotional exhaustion. The subsequent section will dive deeper into this indirect relationship.

Co-worker Support

To shed light on the process underlying the relationship between extraversion dissimilarity and emotional exhaustion, the present study will examine if it can be explained by lack of social support. Social support in the work context is defined as the extent to which employees receive help from supervisors and colleagues (Karasek & Theorell, 1990 as cited in Grant & Parker, 2009), which can be both emotional and instrumental (House, 1983). Social support is a psychosocial factor linked with decreased burnout (Van der Heijden et al., 2019) and increased psychological well-being (Clausen et al., 2019). In a similar vein, it has been categorized several times as a buffer against burnout, protecting employees from pathological effects of stressful work experiences (Grant & Parker, 2009; Van der Heijden et al., 2019).

Building upon the JD-R model, social support can be considered a job resource that may reduce job demands and their associated exhaustion (Schaufeli & Bakker, 2004). Applying the similarity-attraction paradigm and the supplementary fit model, both of which suggest a better

fit when employees are similar, it can be inferred that differences in personality can make social interactions more difficult and less satisfying, leading to lower mutual support (Guillaume et al., 2012; Liao et al., 2008; Perry et al., 2010). Consequently, it is hypothesized that working with others who differ in personality can become stressful and lead to exhaustion due to the lack of support they provide (David et al., 2019).

Hypothesis 2a: Extraversion dissimilarity is negatively related to perceived co-worker support.

Hypothesis 2b: Perceived co-worker support is negatively related to emotional exhaustion.

Hypothesis 2c: The relationship between extraversion dissimilarity and emotional exhaustion is explained by perceived co-worker support.

Extraversion Trait

Moreover, to replicate Perry et al., 2010 results, it will be tested if these associations are stronger in extraverts (vs. introverts) who are dissimilar. Thus, the trait extraversion-introversion will be used in this study as a moderator. Extraverts need more social support to avoid emotional exhaustion (Eastburg, Williamson, & Ridley, 1994; Swickert et al., 2002, as cited in Perry et al., 2010), reason why they require a work environment with more extraverts who can satisfy these needs. However, introverts may generally need less interaction, regardless of whether they are working with a majority of extraverts or introverts (Perry et al., 2010). Hence, it is hypothesized that extraverted individuals will perceive less co-worker support when experiencing higher dissimilarity in this personality trait.

Hypothesis 3: The negative relationship between extraversion dissimilarity and co-worker support is stronger among extraverts than among introverts who are dissimilar.

The role of Workplace Friendships

"Friendship marks a life even more deeply than love. Love risks degenerating into obsession, friendship is never anything but sharing." Elie Wiesel

Friendship is one of the most valued interpersonal relationships to individuals (Zarankin & Kunkel, 2019). When asking people what makes them happy, friendships are always on the top (Rawlins, 1992; Dickie, 2009 as cited in Zarankin & Kunkel, 2019), which is probably associated to the psychological human need of relatedness. In fact, Maslow's theory (1943)

states that friendship is a basic human requirement to meet love and belonging needs (Ozbek, 2018).

Workplace friendships are starting to be recognized as vital to organizations (Krackhardt & Stern, 1988 as cited in Nielsen et al., 2000) and refer to informal and voluntary relationships between individuals in the work setting, who are interested in each other as a whole, beyond just being colleagues (Zarankin & Kunkel, 2019). They involve mutual commitment, trust, common interests or values, openness, and inclusiveness (Berman et al., 2002). Workplace friendships transcend traditional friendship notions, as they usually develop between people of unequal age, status, or gender (Berman et al., 2002), reason why the present study emphasizes that friendships can arise between dissimilar people. Hence, it is predicted that workplace friendships can buffer the negative relationship between extraversion dissimilarity and co-worker support. Workplace friendship has several advantages, including increases in organizational commitment, performance, employee satisfaction and affective well-being as well as decreases in stress, burnout, and turnover intentions (Badri et al., 2022; Chang et al., 2016; Nielsen et al., 2000; Ozbek 2018; Zarankin & Kunkel, 2019). The support and resources that workplace friendships provide appear to be one of its most important benefits for employees (Berman et al., 2002; Ozbek 2018; Zarankin & Kunkel, 2019). Therefore, it is suggested that when employees report higher workplace friendship prevalence, extraversion dissimilarity will not negatively relate to co-worker support.

Hypothesis 4: Workplace friendship moderates the relationships between extraversion dissimilarity and co-worker support, such that the negative relationship between extraversion dissimilarity and co-worker support is weaker when workplace friendships are more prevalent.

The present study will contribute to the theoretical understanding by enhancing our knowledge on how extraversion dissimilarity relates to work outcomes. This knowledge has the potential to benefit organizations. Furthermore, the results of this study may give recommendations to organizations on how to tackle extraversion dissimilarity issues. Firstly, it could help organisations to improve employee selection and teams' formation procedures, as well as to diagnose the causes of workgroup problems and monitor employee's well-being. At the same time, if workplace friendship turns out to be a buffering factor, an organisation culture which fosters workplace friendships could serve as a way to reduce negative consequences of extraversion dissimilarity.

Methods

Participants and procedure

This study was carried out in accordance with the recommendations given by the Faculty Ethics Review Board (FERB) at Utrecht University. To estimate the number of participants needed to reach at least an 80 % chance to find results if they exist, a power analysis for multiple regression was conducted using the following information: alpha of 0.05; power of .80 and effect size of $f^2 = .031$. Combining these values into a formula, a sample size of 357 participants was obtained.

The survey was opened and started by 361 participants. However, 92 respondents were left out because they did not finish the survey and another 2 were excluded because they did not meet the criteria (being over 18 years old and working at least 8 hours per week). The mean age of the remaining 267 respondents was 29.27 years (SD = 10.63 years; range 19 to 76 years), of which 60.7 % were women, 37.8 % man and 1.1 % non-binary (0.4 % preferred not to share their gender). Participation in this study was entirely voluntary, and no compensation was given.

Different recruitment strategies were used to collect the data. Firstly, the questionnaires were shared on social media platforms, such as Instagram, Facebook, or LinkedIn, as well as on WhatsApp groups of either family or friends. In addition to our own network, data was also collected in different organizations.

The questionnaire packet started with an information letter that included the purpose of the study, their rights as research participants, contact information and an informed consent form. All participants gave informed consent to take part in our online study. Afterwards, they filled in a demographic form with general questions about their age, gender and weekly worked hours. These questions were followed by measures of extraversion-introversion trait, extraversion dissimilarity, perceived co-worker support, workplace friendship and emotional exhaustion. The packet ended with a de-briefing form summarizing again the main goal of the study and thanking them for their participation.

Measures

Extraversion-introversion trait

To assess participants' extraversion trait, the ten-item Extraversion scale of the HEXACO–60 (Ashton & Lee, 2009) questionnaire was used, which is a short measure of the main personality dimensions, where participants answered to what extent they agreed or

disagreed with each statement. The response options ranged from 1 (strongly disagree) to 5 (strongly agree), with higher scores indicating more extraversion. Example items of the Extraversion scale are "I prefer jobs that involve active social interaction to those that involve working alone" and "In social situations, I'm usually the one who makes the first move". In the current study, the Cronbach alpha coefficient was .76.

Extraversion dissimilarity

Extraversion dissimilarity was measured using two items based on earlier measures of dissimilarity, as used in Hobman et al. (2006) and Sahin et al. (2019). Prior to the questions, a brief description of what is meant by extraversion and introversion in terms of sociability was detailed: "In the workplace, employees can have different personalities that can impact their behaviour. One of the most studied personality traits is extraversion, which refers to how outgoing and social someone is. Extraverted employees tend to be talkative, energetic and enjoy time spent in large groups more than time spent alone. Introverted employees tend to be more reserved, introspective, and enjoy time spent alone or in small groups more than time spent in large groups."

Afterwards, participants were asked whether they perceived themselves different from most of their colleagues in terms of extraversion: "I think I am different from most colleagues at work in terms of extraversion". To assess to what degree they thought of themselves as being different on this personality trait, they were also asked to indicate the level of perceived dissimilarity: "To get a better understanding of what you mean, please indicate to what degree you think you are different from most colleagues at work on this trait". In the first question, the answer options provided were "yes" and "no", while in the second question they could choose a number ranging from 1 (not different at all) to 7 (very different).

Perceived co-worker support

The extent to which participants perceived social support from their colleagues was measured with the Perceived Co-worker Support Scale (Ladd & Henry, 2000). In order to reduce the surveys´ length, 4 items with the highest factor loadings were selected from the original scale. The response options ranged from 1 (completely disagree) to 7 (completely agree), with higher scores indicating more perceived co-worker support. Sample items are "My co-workers are supportive of my goals and values" and "My co-workers care about my well-being". In the present study, the Cronbach's alpha coefficient obtained was .84.

Workplace friendship

The extent to which participants felt they have developed friendships at work was measured with the Workplace Friendship Scale (Nielsen et al., 2000), which contains two dimensions (Friendship Prevalence and Friendship Opportunity) and has been found to have good convergent, discriminant, and nomological validity. However, only the Friendship Prevalence Dimension was used, as we were interested in how high the workplace friendship prevalence was among participants, and not if their organization provides opportunities to develop them, which is evaluated by the other dimension (Friendship Opportunity Dimension). The Friendship Prevalence Dimension includes 6 items rated in a 5-point Likert scale ranging from 1 (completely disagree) to 5 (completely agree), with a higher score indicating more workplace friendships. Examples of items are "I have formed strong friendships at work" and "Being able to see my coworkers is one reason why I look forward to my job" ($\alpha = 0.82$).

Emotional Exhaustion

To assess the extent to which participants were experiencing emotional exhaustion, the BAT12 (Hadžibajramović et al., 2022) was chosen. This shortened version of the original Burnout Assessment Tool (BAT23) has sound psychometric properties and includes 12 items, of which only the 3 items measuring exhaustion were used in the current study. The response options ranged from 1 (Never) to 5 (Always), with a higher score indicating more exhaustion. A typical item of the exhaustion BAT12 sub-scale is: "At work, I feel mentally exhausted". In the current study, a Cronbach alpha coefficient of .77 was obtained for this scale, indicating good internal consistency.

Results

Analyses were conducted using IBM SPSS Statistics software 29.0.0.0 and PROCESS v4.3 for SPSS (Hayes, 2017) as an additional tool. Descriptive statistics and intercorrelations of the study variables are presented in **Table 1**.

TABLE 1 | Descriptive Statistics and Intercorrelations

	M	*SD*	**1**	**2**	**3**	**4**	**5**
1.Extraversion Dissimilarity	3.58	1.35	-				
2.Emotional Exhaustion	2.60	.79	0.19**	-			

3.Co-worker Support	5.53	.91	- 0.01	- 0.24**	-	
4.Extraversion Trait	4,95	.78	- 0.03	- 0.22**	0.19**	-
5.Workplace Friendships	4.17	1.27	0.09	0.03	0.41**	0.22**	-

Extraversion Dissimilarity was coded from 1 until 7, meaning that higher scores reflect higher dissimilarity. ** $p < 0.01$

Preliminary Analyses

To determine which item would be used as the indicator of extraversion dissimilarity, a simple linear regression analysis was conducted, with emotional exhaustion as the dependent variable. Both items were significant predictors independently (Item 1: $F_{(1, 265)} = 7.531$, $p = .006$, R^{-2} (R^2 adjusted) = .024; Item 2: $F_{(1, 265)} = 10.766$, $p = .001$, $R^{-2} = .035$). However, in the model where both were included, the effect of the first item ($b = -.131$, $t_{(266)} = -1.116$, $p = .265$) was explained through the second item ($b = .09$, $t_{(266)} = 2.096$, $p = .037$). Moreover, the absolute value of β was higher in the second item than in the first one (.152 > .081), also indicating that item 2 is more important when predicting emotional exhaustion than item 1. Therefore, item 2 ("to what degree you think you are different from most colleagues at work on this personality trait") was chosen as our independent variable.

The assumption of normality was checked in the outcome variables (emotional exhaustion and co-worker support), and both histograms and Q-Q plots showed that scores on these variables were reasonably normally distributed. Therefore, linear regression analyses were conducted. Lastly, the homoscedasticity assumption was met for all the variables in the model.

After testing the assumptions, an Exploratory Factor Analysis (EFA) was conducted in order to test whether the measures were distinguishable. We entered all our Likert-scale measures into the EFA using principal axis factoring with Oblimin rotation. Six factors showed Total Initial Eigenvalues greater than 1, explaining 64.42 % of the variance altogether. Almost all items loaded on the respective factors of their scales, with minimal cross-loading of items from the measures of workplace friendships and perceived co-worker support. Specifically, the item "I can confide in people at work" from the workplace friendships scale loaded on its own

scale and on the perceived co-worker support scale. Lastly, strong correlations between factors were not found, indicating that each scale was measuring different variables of interest.

Confirmatory Analyses

All our hypotheses were tested through a moderated mediation analysis using PROCESS (Hayes, 2013). Model 9 was chosen when running the analyses, with emotional exhaustion as the dependent variable, extraversion dissimilarity as the independent variable, co-worker support as the mediator, and extraversion trait and workplace friendship both as moderators on the relationship between extraversion dissimilarity (independent variable) and co-worker support (mediator). A conceptual overview of the model can be found in **Figure 1.**
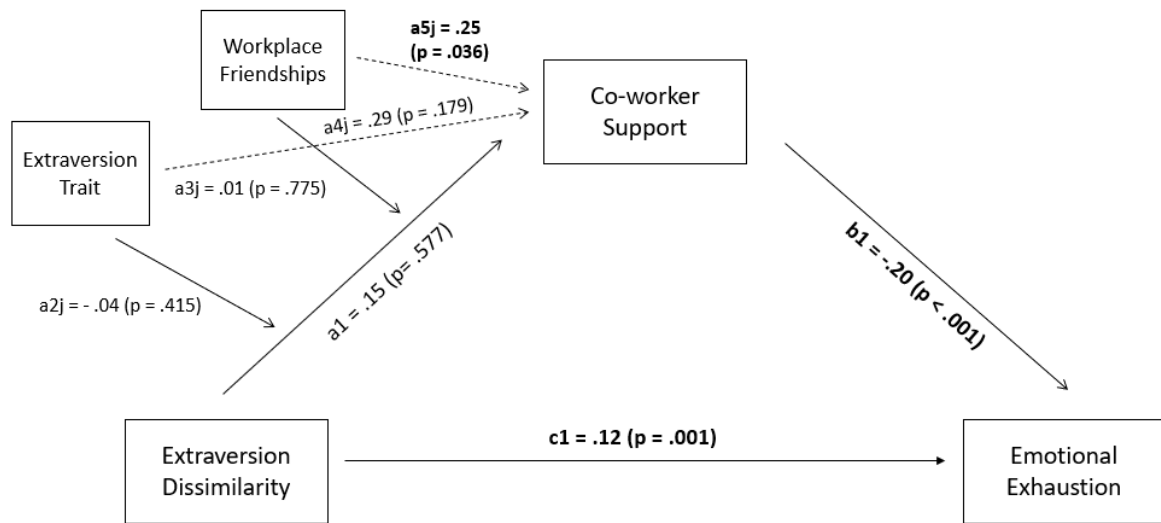
We obtained a positive relationship between extraversion dissimilarity and emotional exhaustion, $c1 = .12$, t $(266) = 3.33$ $p = .001$, suggesting that participants perceiving higher levels of extraversion dissimilarity tend to also experience a higher degree of emotional exhaustion. Therefore, we can conclude that Hypothesis 1 was supported.

We tested all Hypotheses 2 by examining the indirect relationship of our model. Hypothesis 2a was not supported, as extraversion dissimilarity was not significantly related to co-worker support ($a1 = .15$, t $(266) = .56$, $p = .577$). The results also indicated that co-worker support did not mediate the relationship between extraversion dissimilarity and emotional exhaustion, as shown by the non-significant indirect relationship, $a1b1 = 1.27$, $p = 0.261$. Therefore, Hypothesis 2c was not supported neither, implying that co-worker support did not explain why extraversion dissimilarity is positively related to emotional exhaustion. Conversely, a significant negative relationship was found between co-worker support and emotional exhaustion ($b1 = -.20$, t $(266) = -3.99$, $p < .001$), indicating that respondents who perceived lower levels of co-worker support tend to experience higher levels of emotional exhaustion, and supporting Hypothesis 2b. Accordingly, two parts of Hypotheses 2 were not supported, but one was supported by our results.

Contrary to Hypothesis 3, the results of the current study showed that the relationship between extraversion dissimilarity and co-worker support was not moderated by extraversion trait ($a2j = -.04$, t $(266) = -.82$, $p = .415$). Similarly, we did not find a significant relationship between extraversion trait and co-worker support ($a4j = .29$, t $(266) = 1.35$, $p = .179$), suggesting that experiencing higher or lower co-worker support does not relate to how extravert an individual is. Hence, the analyses did not support Hypothesis 3.
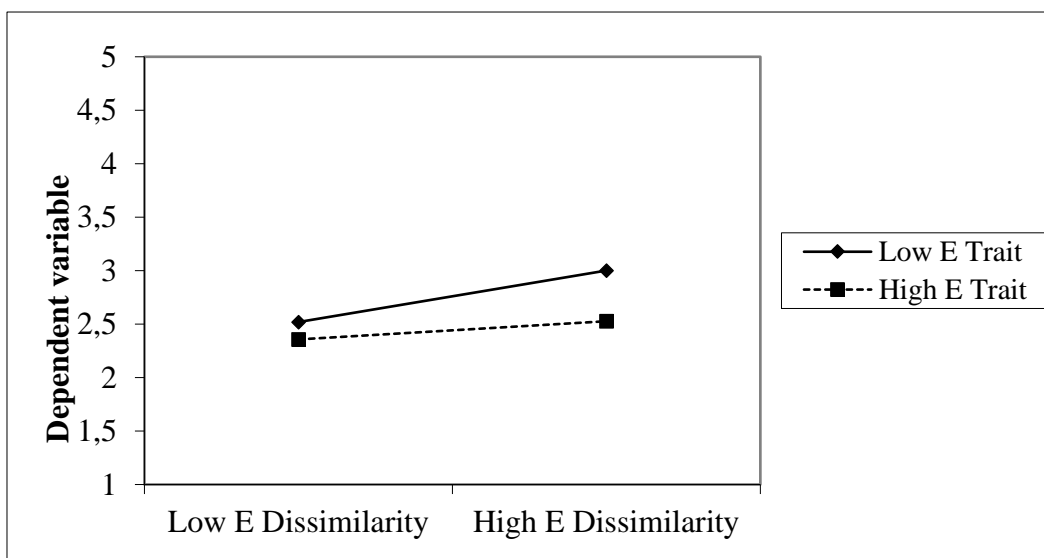
Figure 1

Conceptual Overview of the Structural Equation Model with Coefficients and p Values.

Furthermore, the results showed that workplace friendships did not moderate the relationship between extraversion dissimilarity and co-worker support ($a3j = .01$, t (266) = .29, $p = .775$). These results did not support Hypothesis 4.

However, a significant positive relationship was found between workplace friendships and co-worker support ($a5j = .25$, t (266) = 2.11, $p = .036$), suggesting that participants with more workplace friendships also perceive more co-worker support.
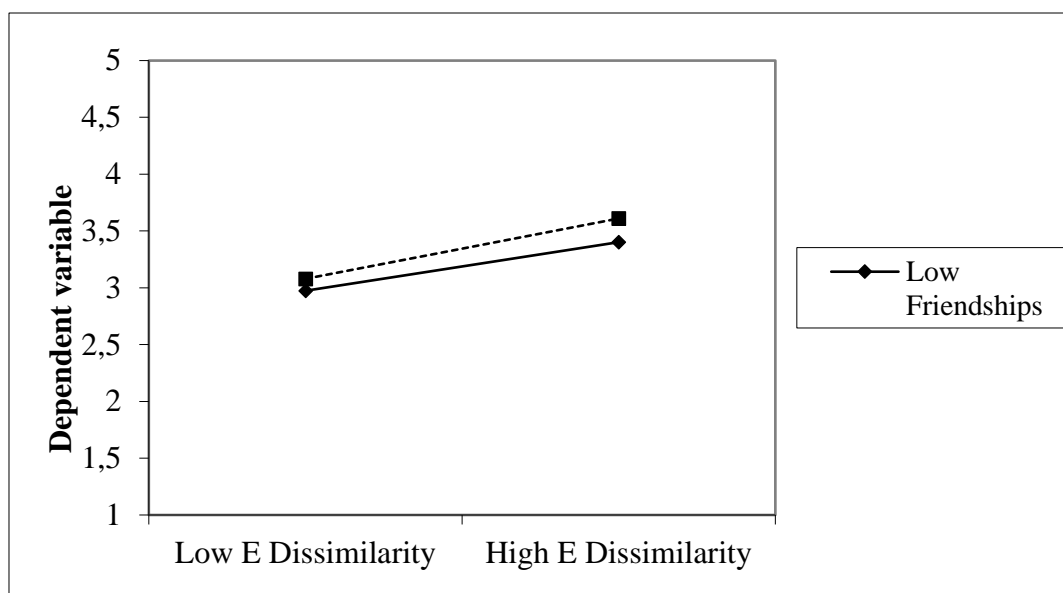

FIGURE 2 | The moderation effect by extraversion trait on the relationship between extraversion dissimilarity and emotional exhaustion

Exploratory Analyses

Our results raised some questions that were further explored. We expected an indirect relationship between extraversion dissimilarity and emotional exhaustion through co-worker support, which would be moderated by both extraversion trait and workplace friendships. However, the indirect relationship was not found, making the moderation also unlikely. Therefore, it could be the case that extraversion trait and workplace friendships acted as moderators on the significant direct relationship found between extraversion dissimilarity and emotional exhaustion. Consequently, we further tested the possible moderations on the direct relationship.

A supplementary moderation analysis was conducted using PROCESS Model 1 (Hayes, 2013), with emotional exhaustion as the dependent variable, extraversion dissimilarity as the independent variable and extraversion trait as the moderator. The results of this analysis showed that extraversion trait did not moderate the relationship between extraversion dissimilarity and emotional exhaustion (see **Figure 2**; $b = -.07$, t (266) = -1.62, $p = .107$), as it was found in the original model. However, in this alternative model a significant negative relationship between extraversion trait and emotional exhaustion was obtained ($b = -.21$, t (266) = -3.38, $p < .001$), indicating that introversion is associated with higher emotional exhaustion. Or, in other words, that introverted individuals tend to experience higher levels of emotional exhaustion.

To investigate the possible moderation effect of workplace friendships in the relationship between extraversion dissimilarity and emotional exhaustion, PROCESS Model 1 (Hayes, 2013) was used with mean centering and workplace friendship as the moderator. Results showed that in this case workplace friendships did not act as a moderator neither (see **Figure 3**; $b = .02$, t (266) = .54, $p = .589$). Likewise, we did not find a significant relationship between workplace friendships and emotional exhaustion ($b = .01$, t (266) = .21, $p = .832$).

FIGURE 3 | The moderation effect by workplace friendships on the relationship between extraversion dissimilarity and emotional exhaustion

Discussion

The main aim of this study was to replicate and build upon previous research that found a relationship between extraversion dissimilarity and emotional exhaustion in the workplace.

The present study examined the indirect impact of extraversion dissimilarity on emotional exhaustion through co-worker support. We expected that employees who differed from others in terms of extraversion would experience higher emotional exhaustion through the mediating role of co-worker support. Additionally, it was proposed that workplace friendships would act as a protective factor, attenuating the negative hypothesized relationship between extraversion dissimilarity and co-worker support. Lastly, it was also suggested that extraversion trait would act as a moderator, in that the negative relationship between extraversion dissimilarity and co-worker support would be stronger for extraverted individuals. The results of this study offer some support for the hypothesized relationships.

First, the results showed that extraversion dissimilarity relates positively to emotional exhaustion, replicating previous research (Perry et al., 2010) in a more diverse sample in terms of job typology, and supporting Hypothesis 1. Second, co-worker support was found to be negatively related to emotional exhaustion, partially supporting Hypothesis 2. This result aligns with the withdrawal process of the JD-R Model, which suggests that low job resources, in this case co-worker support, can lead to disengagement and exhaustion. This finding is also in line with earlier research suggesting that social support in the workplace increase the odds of

employees experiencing more positive emotions (Colbert et al., 2016) and less stress (Davis & Landa, 1999 as cited in Ferres et al., 2004). Likewise, perceived co-worker support has been linked to increased psychological well-being (Chiaburu & Harrison, 2008) and it has been found to be especially effective when employees are emotionally exhausted (Albar-Marin & Garcia-Ramirez., 2005). From the social exchange perspective, individuals experience psychological well-being when they can get social support from their social exchanges. Our findings paired with previous research and theory indicate that co-worker support is a key resource for employees to deal with stress and buffer emotional exhaustion, thereby promoting their psychological well-being.

However, the hypothesized mediating mechanism of co-worker support was not found, meaning that although both predictors (extraversion dissimilarity and perceived co-worker support) are separately related to emotional exhaustion, co-worker support does not explain why the relationship between extraversion dissimilarity and emotional exhaustion occurs. Thus, Hypothesis 2 was not fully supported by our findings. This result is not in line with our prediction but could be understood in the light of the same theories we used to build our hypotheses. The JD-R Model was the main framework used to hypothesize the mediating role of co-worker support, where social support is a job resource that buffers against extraversion dissimilarity, considered a job demand. However, it could also be the case that both variables have an impact on emotional exhaustion independently, without being related to each other. Therefore, these specific job demand (extraversion dissimilarity) and job resource (co-worker support) are not related to each other and have independent effects on emotional exhaustion. Importantly, previous research has found a positive association between extraversion dissimilarity and team helping behavior (Liang et al., 2015; Williams and O'Reilly, 1998), which is tightly related to co-worker support. In fact, perceived co-worker support has been defined as the provision of desirable resources to colleagues, such as task-directed help (Kim et al., 2018). Therefore, extraversion dissimilarity can provide a dynamic in which support is provided, but support can also be provided in the absence of it, explaining why we did not find a relationship between these two variables in our study.

Third, we could not replicate the finding of Perry et al. (2010) which indicated that extraverted individuals were more prone to emotional exhaustion when dissimilarity in this personality trait was higher. Importantly, in the study conducted by Perry et al. (2010) the sample consisted of call center employees with relatively low levels of extraversion (M = 2.23 on a 5-point scale), suggesting that introverts may deliberately choose jobs involving fewer face

to face interactions and teamwork, as they can be overload by extensive contact with others (Alarcon et al., 2009). However, extraverts need higher frequency and intensity of personal interactions (Bakker et al., 2006), generally lacking in call center settings. Consequently, their emotional exhaustion could be influenced as well by other job-related factors, such as the nature of the job. Indeed, previous research conducted in hospitality settings (Rathi & Lee, 2016), where employees constantly engage with customers and colleagues, has shown that extraverts experience less emotional exhaustion than introverts. Therefore, extraverted employees facing extraversion dissimilarity might need more personal interactions and teamwork, and that could explain why they experienced more emotional exhaustion than their introvert counterparts in the call center study (Perry et al., 2010). As our sample was formed by diverse job types, we did not find this effect. It is noteworthy that we did not explicitly asked participants what their occupation was, but we can assume this since data was collected from various sources and not in a specific job sector. Altogether, these findings suggest that matching the characteristics of the job with the extraversion tendencies of employees plays a key role in preventing them from stress and emotional exhaustion. Overall, the results of the present work confirm that the moderation effect of extraversion trait on the relationship between extraversion dissimilarity and emotional exhaustion is no longer significant when considering a more diverse range of occupations.

What we indeed found is that introverted individuals tend to experience more emotional exhaustion in general, independently of the degree of dissimilarity. This finding is consistent with past studies pointing out that extraverts' characteristics such as cheerfulness, assertiveness, and tendency to show positive emotions, among others, make them less influenced by stressful work environments and more hopeful about their work performance, leading to lower levels of emotional exhaustion (Swider & Zimmerman, 2010). Extraverts' tendency to reappraise problems positively also protects them from emotional exhaustion at work (Bakker et al., 2006). In a similar vein, extraverts have been found to handle stressful situations better and to perceive their work more positively (e.g., Alarcon et al., 2009).

Our finding that higher prevalence of workplace friendships positively relates to higher co-worker support is not surprising, as functional friendships provide a strong sense of personal support (Sias & Bartoo, 2007). Moreover, the absence of workplace friendships acting as a moderator between extraversion dissimilarity and emotional exhaustion suggests that it is not the presence of friendships per se, but rather the support provided by colleagues that serves as a protective factor, as shown by the significant negative relationship between co-worker support

and emotional exhaustion. Consistent with our findings, prior research has revealed that people who feel supported by their peers stay healthier and have a more positive outlook in front of adversities (Taylor et al., 2000 as cited in Sias & Bartoo, 2007), indicating again that it is the support and not the friendship in itself what matters the most.

Practical implications

Emotional exhaustion negatively influences both employees´ health and organizational outcomes, as it can lead to reduced commitment, job satisfaction, job performance and increased turnover intention (Rathi & Lee, 2016). Therefore, it is key for organizations to detect signs of emotional exhaustion and tackle them well in advance to prevent all these negative consequences.

The results of this study highlight the importance of giving special attention to introverted employees due to their propensity for experiencing higher emotional exhaustion. For instance, to promote equitable participation during meetings and ensure that the lowest voices are heard, one approach is employing techniques such as the Talking Stick. This technique consists in utilizing an object to signify the right to speak in a group, so the person holding it is not interrupted until they have finished (Anggraini & Fitrawati, 2016; Haliburton et al., 2023). By fostering collaborative environments using such methods, not only it is ensured that every team member has an equal opportunity to express their thoughts and be heard, but it also provides benefits in terms of creativity and innovation (Men et al., 2019).

Besides extraversion, perceived co-worker support has been found to impact emotional exhaustion. Therefore, organizations could benefit by incorporating inquiries about employees´ perceptions of co-worker support in their (bi)-annual engagement survey, to enable the implementation of targeted initiatives aimed at enhancing social support between colleagues. Co-worker support can be facilitated in different ways. Particularly, receiving support from colleagues in terms of guidance (e.g., knowledge, advice, and expertise) or through reassurance of value (e.g., appreciation of abilities and worth) have been linked with lower emotional exhaustion (Akroyd et al., 2002 as cited in Poulsen et al., 2016). As an example, co-worker support can be increased by implementing communication workshops for employees (Butow et al., 2008 as cited in Poulsen et al., 2016). At the same time, co-worker trust is key to build positive relationships and attitudes at work. In fact, co-worker trust incorporates elements of co-worker support, as it assumes that colleagues will help each other and act in reliable ways (Ferres et al., 2004). Moreover, promoting a culture which focuses on the team level instead of

the individual level, also provides opportunities for higher social support. A way in which this culture can be fostered is by organizing team events with recreational social activities that open a window for respect, encouragement, and communication to flourish (Poulsen et al., 2016). Similarly, by increasing access to information and resources, the work culture is perceived as more supportive and empowering (Kanter, 2003 as cited in Ferres et al., 2004). Lastly, social support can be enhanced by leaders adopting socio-emotive roles that promote participation, show concern for employees' feelings, and reduce conflict (Daft, 2002 as cited in Ferres et al., 2004).

Both the personality trait extraversion and colleagues' support have been found important when it comes to emotional exhaustion, reason why organizations could benefit by recognizing them as potential risk factors. However, emotional exhaustion is likely influenced by additional factors and won´t be fully prevented by just addressing co-worker support and placing emphasis on introverts, as shown by the relatively small explained variance of the model (R squared = 0.09). Thus, a comprehensive approach including a wider range of variables is necessary to counteract emotional exhaustion.

Moreover, as we did not find any moderator, balancing the number of extraverts and introverts in work teams appears to be the best approach to take when it comes to team formation. Extraversion dissimilarity is related to higher emotional exhaustion, regardless of the individuals' extraversion degree. Hence, achieving a good balance would be ideal, so extraverts have colleagues they can relate to without overwhelming their introverted team members, who prefer fewer social exchanges. In fact, some research has proposed that work group formation could be based on employees' personality traits (Liao et al., 2004; Morgeson et al., 2005). Furthermore, climate for inclusion has been identified as a moderator between dissimilarity and inclusion, meaning that dissimilar employees do not experience less inclusion if the climate for inclusion is positive (Sahin et al., 2019). Thus, fostering a positive climate for inclusion could be another strategy to counteract the negative consequences of dissimilarity, without a need of balancing the number of extraverted and introverted employees.

Strengths, limitations, and future research

Regarding strengths, our sample incorporated a wider range of occupations, thereby enhancing the results generalizability by going beyond the call center context of Perry et al. 2010 study. As already mentioned, we did not explicitly asked employees to disclose their occupation, but it is reasonable to assume that our sample includes a wider range of job types.

Moreover, we asked participants about their perception of extraversion dissimilarity in relation to their peers, therefore improving the study conducted by Perry et al. 2010, where only objective dissimilarity was recorded.

This study also presents some limitations that could be addressed in future research. Firstly, not measuring participants' occupations prevented us from being able to test if the extraversion trait moderation took place only in call-center employees. Maybe if we had filtered them out, we would have been able to replicate the moderation found by Perry et al. 2010. Secondly, given that our survey relied on self-report measures, our data could exhibit common-method bias, a systematic error that occurs when responses are potentially influenced by measurement instruments or data collection procedures. Additionally, extraversion dissimilarity was measured with only one item, implying a disadvantage, because single items are less reliable and valid than scales formed by multiple items (Diamantopoulos et al., 2012). However, previous studies did successfully utilize similar methods (e.g., Sahin et al., 2019), indicating that the results of the current study are likely reliable. Another limitation is the cross-sectional nature of our study design, which does not allow to infer causality. Nevertheless, personality is quite a stable trait, reason why the odds of it being caused by other variables is low.

Our findings reveal potential paths for future research. First, perceived co-worker support did not act as a mediator, indicating that there is still a gap to fill in the relationship between extraversion dissimilarity and emotional exhaustion. Past research has found that feelings of inclusion mediate the relationship between deep-level dissimilarity and work-related stress (Sahin et al., 2019), suggesting that it could also be the case for extraversion dissimilarity and emotional exhaustion. Therefore, future research could utilize feelings of inclusion as a mediator to shed light on the mechanism behind this link. Furthermore, considering that employees often express feeling dissimilar regarding personality (Sahin, 2023), future studies could further investigate how extraversion dissimilarity relates to other work-related outcomes. Lastly, considering that our results are contrary to those reported by Perry et al. (2010) regarding the role of extraversion trait as a moderator between extraversion dissimilarity and emotional exhaustion, it would be valuable for other scholars to corroborate our results. Specifically, validating our findings that both extraverts and introverts facing extraversion dissimilarity in the workplace are prone to higher levels of emotional exhaustion would contribute significantly to the existing body of knowledge.

Conclusion

In conclusion, this research provides further evidence supporting the positive relationship between extraversion dissimilarity and emotional exhaustion, as established in previous studies. Our findings also suggest that co-worker support is a key resource in preventing emotional exhaustion. We furthermore show that introverted employees are more prone to emotional exhaustion, indicating that stronger introversion could be considered a potential individual risk factor for developing emotional exhaustion in the workplace. Future research is warranted to examine other variables that may elucidate the mechanisms underlying why extraversion dissimilarity relates to higher emotional exhaustion, therefore providing more avenues on prevention strategies.

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