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## **How to stimulate vital employees: The relationship between task autonomy, work passion, and employee vitality**

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### **Abstract**

The current study examines the influence of task autonomy on levels of employee vitality at work. Vitality refers to a sense of aliveness and energy, indicative of mental and physical strength. This research also investigates the mediating role of harmonious work passion and the moderating role of obsessive work passion in the relationship between task autonomy and employee vitality. Enhanced knowledge about what factors will increase the vitality experienced by employees is crucial in strengthening overall levels of well-being. The theory of self-determination and the dualistic model of passion are used as theoretical bases in describing the proposed relationships in this study. It was hypothesised that task autonomy would positively influence employee vitality, harmonious work passion would positively mediate this relationship, and obsessive work passion would negatively moderate this relationship. The sample consisted of 145 part-time or full-time employees ( $N = 145$ ) who completed an online survey regarding their experiences and behaviours at work. Analyses were conducted at a significance level of  $p < .05$ . The results of this study showed that task autonomy did indeed positively influence employee vitality, but this relationship was fully mediated by harmonious work passion. Obsessive work passion was not found to significantly influence the relationship between task autonomy and employee vitality. As such, the moderated mediation model was found to be statistically significant only through the influence of harmonious work passion. These findings reveal the powerful influence that harmonious passion has when combined with high levels of task autonomy to promote feelings of vitality amongst employees. This has implications in the field of positive psychology, as enhancing levels of vitality in the workplace contributes highly to increased well-being and overall quality of life.

*Keywords:* employee vitality, task autonomy, harmonious work passion, obsessive work passion, self-determination theory

## Introduction

One of the core fields of both study and practice within organisational psychology is employee well-being. More specifically, what can individuals, teams, and organisations do to promote employee well-being? Although extensive literature attempts to answer this question, little is known as to what concrete actions organisations can take to improve the well-being of their workers (Carolan, Harris & Cavanagh, 2017). One critical determinant of well-being at work is the vitality felt by employees (Ryan & Frederick, 1997; Deci & Ryan, 2008). Employees considered vital possess a certain energy and ‘aliveness’ that enable them to do their work with more mental and physical strength (Tummers et al., 2016, p.358). As well as influencing general levels of well-being, employee vitality has been found to strongly predict job performance (Tummers et al., 2016) and moderately decrease levels of work anxiety (Ryan & Frederick, 1997).

Passion for work has often been found to positively influence employee vitality (Vallerand et al., 2003). Work passion can be defined as a strong inclination towards a specific activity at work in which one invests much time and energy (Burke, Astakhova & Hang, 2015). However, while there is research on how employers can directly influence behaviours such as job satisfaction and commitment, little research has investigated which organisational dynamics help stimulate an employee’s amount of passion for their work or whether this is even possible (Forest, Mageau, Sarrazin & Morin, 2010). The effects of work passion, thus, have been widely stated, but its antecedents have not. Research has identified two types of passion: harmonious and obsessive passion (Vallerand et al., 2003). These have been found to influence workers differently, and so must be studied separately (Forest et al., 2010).

Some authors argue autonomy at work plays an important role in the development of work passion, and also contributes significantly to employee vitality. However, these three constructs have seldom been studied simultaneously in the work context. With this in mind, this study wishes to investigate the effect of task autonomy on work passion and employee vitality. Given the potential to manipulate levels of task autonomy at work and given its prior links to both work passion and employee vitality, this construct offers an interesting line of research. The use of self-determination theory (SDT) will be used to explore these relationships. Therefore, the following research question was thus formulated:

*RQ: To what extent does task autonomy influence an employee’s levels of vitality?  
And to what extent does their work passion influence this relationship?*

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This study provides both academic and societal relevance. Firstly, due to the lack of research on the antecedents of employee vitality and work passion, this study aims to help close this research gap. Moreover, most literature on the antecedents of employee vitality has focused on the broader concept of job autonomy. When conducting the literature review, only two studies were identified linking task autonomy to employee vitality. By focusing on task autonomy specifically, more concrete conclusions can be made. Secondly, investigating vitality in the work context will further enrich knowledge within the field of organisational psychology. Thirdly, self-determination theory has primarily been applied to the study of vitality but has rarely been applied further in the work context to link autonomy with work passion and employee vitality. Lastly, investigating which factors enhance employee vitality has important implications for employees' physical and mental health across all fields of work.

### **Theoretical Framework**

The main aim of this research is to investigate factors that relate to employee vitality. Specifically, how task autonomy and work passion influence the latter. In addition, it is intended to determine what kind of work conditions can be used or designed to stimulate employee vitality. In other words, this study takes on a task-level perspective by investigating the effects of task autonomy on both levels of work passion and employee vitality. Several theories and models will be used to explain the relationships between the main variables and subsequently formulate hypotheses.

### **Employee Vitality: Definitions and Antecedents**

Employee vitality can be defined as the subjective feeling of being alive and 'having energy available to the self' at work (Tummers et al., 2016; Ryan & Frederick, 1997, p.530). A sense of vitality involves both the feeling of physical strength and the feeling of mental strength, such as increased resilience and perseverance (Van Scheppingen et al., 2015). When an employee feels vital, they will experience heightened energy, recover faster from work demands and be less vulnerable to negative stressors (Dubreuil et al., 2014). Vitality has also been identified as essential for healthy functioning and sustainable employability (Van Scheppingen et al., 2015). Feeling alive and energised at work has, most importantly, been identified as an indicator of well-being (Van Scheppingen et al., 2015).

Modern vitality theories lie in studying self-determination. SDT is a motivational autonomy, competence, and relatedness (Ryan & Deci, 2008). Individuals will experience a

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heightened sense of well-being if these needs are met. Deci & Ryan (2008, p.707) refer to an 'SDT model of vitality' when explaining the theoretical underpinnings of vitality and exploring how energy is maintained by the self. Although they do not discuss workplace vitality, their ideas are still applicable to this study. The authors argue that autonomous self-regulation, one of the basic needs put forth by the SDT, will deplete energies less than through external control. Additionally, focusing on extrinsic goals rather than intrinsic ones will also result in a depletion of energy, hence lower levels of vitality. In one study, they found that autonomy-supportive individuals experienced more positive changes in vitality than autonomy-unsupportive individuals (Ryan, 1982). These findings can also be applied in the workplace: an emphasis on autonomy will enhance the vitality of employees at work (Ryan & Deci, 2008; Philippe, Vallerand & Lavigne, 2009).

### **Task Autonomy & Employee Vitality**

Task autonomy is the degree to which freedom is given to employees to decide what they work on and how they work on it (Li, 2008). Specifically, it involves having the independence to make decisions about work tasks. This definition was chosen as it offers a more concrete way of investigating autonomy at work. Important to understand is that when an organisation facilitates autonomous decision-making, this triggers initiative-taking, thriving, creativity, and increased work engagement (Liu, Chen & Yao, 2011; Li, 2008). As suggested by the Job-Characteristics Model (Hackman & Oldham, 1980), autonomy plays a significant role in the experiencing of internal motivation to perform specific work tasks. On the one hand, task autonomy has been said to influence psychological well-being, of which vitality is a part of. On the other hand, task autonomy is said to trigger active engagement and feelings of energy, characteristic of vitality. Therefore, by increasing an individual's sense of control, task autonomy will increase levels of vitality. These findings can be described through two main mechanisms.

Firstly, the Job Demand-Control-Support Model (JDCS) suggests jobs that combine high levels of control, high levels of support, and high demands stimulate both active engagement and motivation at work (Karasek & Theorell, 1990). The JDCS Model predicts that task autonomy will increase overall well-being, arousal, and feelings of energy (Ariza-Montes, Arjona-Fuentes., Han & Law, 2018). It is thus expected, based on the JDCS Model, that task autonomy will lead to increased levels of employee vitality. Secondly, the self-determination theory (SDT) can also be used to explain this relationship between task autonomy and employee vitality. The SDT states that individuals have an innate tendency

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towards self-growth and development (Deci & Ryan, 2008). In order to accomplish the latter, individuals must satisfy the three basic psychological needs mentioned above. In line with this, task autonomy is said to maintain or enhance energy available to the self in the workplace, increasing vitality levels (Ryan & Deci, 2008). In the case of this study, through the facilitation of the basic need for autonomy, task autonomy is expected to increase levels of employee vitality. Research has provided empirical support for this conclusion (Ryan & Deci, 2008; Lopez-Walle et al., 2012; Tummers et al., 2016). Based on this literature and theory; the following hypothesis was developed:

*H1: The more employees experience task autonomy at work, the higher their levels of vitality*

### **Task Autonomy, Work Passion & Employee Vitality**

Passion, as aforementioned, can be defined as a strong devotion to a particular activity (Curran et al., 2015). Passion also involves the internalisation of the chosen activity into one's identity (Vallerand et al., 2003). Indeed, it is this internalisation that distinguishes true passion from other interesting yet non-passionate activities (Forest et al., 2010). In this study, work passion is investigated.

#### *The Dualistic Model of Passion*

As aforementioned, passion can be split into harmonious and obsessive passion. Vallerand et al. (2003) developed what is now referred to as the 'Dualistic Model of Passion', a motivational approach in which it was proposed that passion for an activity could be internalised in one of two ways – either in an autonomous manner, or in a controlled and pressured manner (Lavigne et al., 2012). Harmonious passion refers to the “autonomous internalisation of an activity into one's identity” (Burke et al., 2015, p. 458). An individual who is harmoniously passionate has control over their behaviour, and wilfully chooses to engage with their passion and invest time into it. Their passion, therefore, remains in harmony with the rest of their life (Mageau et al., 2009). Obsessive passion, although also the internalisation into one's identity, results in external pressure and a loss of control over when to engage in the activity (Liu et al., 2011). Furthermore, one's self-esteem at work becomes contingent upon engaging in this activity. Due to the uncontrollable nature of obsessive passion, it creates conflict with other aspects of an individual's life (Lavigne et al., 2012). For example, in the context of work passion, individuals seeking acceptance from colleagues or

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the organisation itself may become obsessively passionate about work tasks. This may lead to constantly working overtime, work-life imbalance, or conflict at home. Given their distinctiveness, it is clear that both types of passion will have differential effects on the vitality experienced by employees. Thus, both harmonious and obsessive passion will be investigated separately in this study.

Job autonomy has been linked to increasing levels of harmonious work passion (Forest et al., 2012; Fernet et al., 2014). Indeed, researchers found that employees' perceptions of autonomy could affect how individuals experience passion for their job. This falls in line with self-determination theory and suggests that task autonomy will facilitate the autonomous internalisation of work passion into one's identity (Fernet et al., 2014). Vallerand et al. (2003) further suggest need satisfaction is a determinant of work passion. Employees are able to willingly engage in their chosen activity and put in the effort associated with their passion (Liu et al., 2011). In other words, a work environment that directly supports and promotes autonomy on the job will influence whether an activity is internalised harmoniously. Employees who experience higher levels of task autonomy will feel an increased sense of control over their work, the need for autonomy will thus be satisfied, leading to the development of harmonious passion. In line with this reasoning, the following hypothesis was developed:

*H2: The more employees experience task autonomy at work, the higher their levels of harmonious work passion*

Whilst both types of passion are highly energising, there is considerable evidence that suggests harmonious and obsessive work passion have differential organisational effects (Curran et al., 2015). Harmonious work passion, on the one hand, has been shown to strongly influence the experience of positive affect, higher productivity, and increased overall well-being (Burke et al., 2015). On the other hand, obsessive work passion has been found to moderately decrease productivity, lower job satisfaction, and ultimately result in adverse health outcomes, such as burnout or workaholism (Burke et al., 2015; Lavigne et al., 2012). In terms of employee vitality, harmonious passion has been found to directly influence employee vitality by way of boosting feelings of energy and vigour on the job (Dubreuil et al., 2014; Forest et al., 2010). Whilst obsessive passion is said to decrease levels of employee vitality, findings are less robust (Bonneville-Roussy, Vallerand & Bouffard, 2013). For example, Carbonneau et al. (2008) found that harmonious passion increased worker

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satisfaction and decreased symptoms of burnout, but the same was not found for obsessive passion.

Simply being passionate about an activity increases levels of vitality (Philippe et al., 2009). An individual who is harmoniously passionate about a certain work activity will also feel control over both their engagement in and the activity itself. Harmonious passion will thus facilitate the satisfaction of the need for autonomy, as stated in the self-determination theory, and so will increase employee vitality (Forest et al., 2010). Based on this reasoning, the following hypothesis was developed:

*H3: The more employees experience harmonious work passion, the higher their levels of vitality at work*

### **Task Autonomy, Harmonious Work Passion, and Employee Vitality: A Mediating Relationship**

Strong direct effects have been found between task autonomy, work passion, and employee vitality (Curran et al., 2015). For instance, previous research has found harmonious passion to mediate the relationship between work autonomy and other organisational constructs, such as persistence, creativity, and in particular, vitality (Bonneville-Roussy et al., 2013; Lopez-Walle et al., 2012). To understand the relationship between task autonomy and employee vitality, a mediating relationship is proposed. Specifically, it is hypothesised that the experience of high task autonomy will satisfy an employee's need for autonomy and provide them with a sense of control over their work, facilitating in the development of harmonious passion.

Self-determination theory suggests that an autonomy-inducing context will enhance one's level of harmonious passion (Vallerand et al., 2003, Liu et al., 2011). Autonomous behaviours are further said to increase vitality (Van Scheppingen et al., 2015). Moreover, harmonious passion itself satisfies the need for autonomy, which is considered essential to optimal functioning and the experience of vitality (Forest et al., 2010). Deci & Ryan (2008) further argue that the satisfaction of this need will be primarily responsible for enhancing and maintaining vitality. Harmonious work passion has been described by researchers as a motivational mechanism that enhances levels of well-being at work, separate from simply experiencing work motivation (Houliort et al., 2014). Harmonious passion, thus, will facilitate the autonomous internalisation of the chosen work passion, which in turn enhances levels of employee vitality. In line with this reason, the following hypothesis was developed:

*H4: Harmonious work passion positively and partially mediates the relationship between task autonomy and employee vitality*

### **The Moderating Effect of Obsessive Work Passion**

As previously mentioned, obsessive passion is the controlled internalisation of the chosen activity into one's identity, causing individuals to feel compelled to engage in the activity (Houlihan et al., 2014). Obsessive work passion, therefore, occurs when individuals feel as though their ego and self-esteem are dependent on engaging in the specific work activity. Whilst the mediating mechanism behind harmonious passion has been substantiated in research, less conclusive findings have been reported for obsessive passion (Bonneville-Roussy et al., 2013; Slemp, Zhao, Hou & Vallerand, 2021). While a lack of autonomy at work is said to foster the controlled internalisation of a specific work activity, this does not necessarily facilitate the onset of an obsessive passion (Fernet et al., 2014). However, obsessive passion has still been found to influence the relationship between task autonomy and employee vitality (Forest et al., 2010). The direct relationship between task autonomy and employee vitality will be moderated by obsessive work passion, such that the relationship will be stronger for those employees scoring lower on obsessive work passion. When an employee's levels of obsessive passion are high about a specific work activity, the positive relationship between task autonomy and vitality will be less strong than when an employee's levels of obsessive passion are low. In other words, those who are obsessively passionate will experience a need to engage in their passion, whether they are given autonomy to do so or not. This will, therefore, not increase levels of vitality. In line with this reason, the following hypothesis was developed:

*H5: The positive relationship between task autonomy and employee vitality is negatively moderated by obsessive work passion so that for low levels of obsessive work passion, the relationship is stronger than for high levels of obsessive work passion*

The above hypotheses can be seen summarised below (Figure 1). The proposed model will also be tested as a whole. It is expected that harmonious work passion will partially mediate the relationship between task autonomy and employee vitality, whilst at the same time, obsessive work passion will moderate the relationship between task autonomy and

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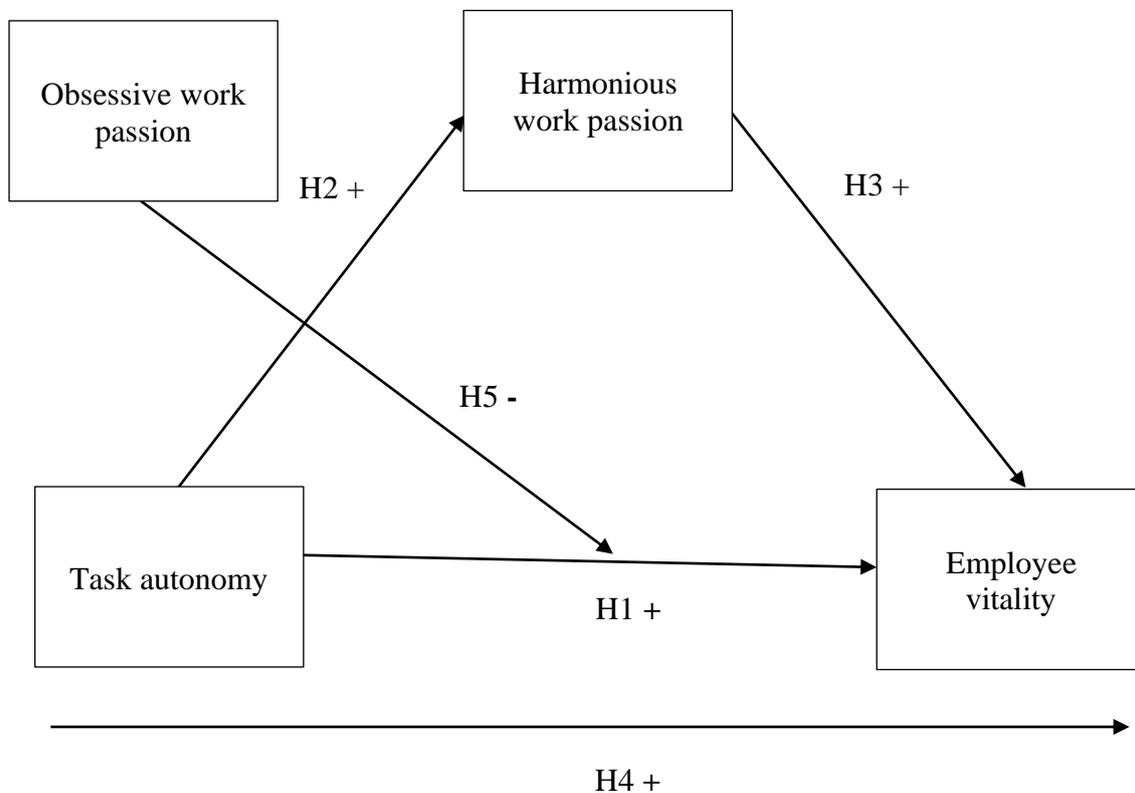
employee vitality. Bauer, Preacher, and Gil (2006) refer to this as a moderated mediation effect.

*H6: The positive relationship between task autonomy and employee vitality will be both mediated by harmonious work passion and moderated by obsessive work passion*

The literature review did not provide any reason to include possible control variables that might affect the relationships proposed in this model. Some scholars have begun questioning the control practices used in the social sciences over the years and doubt their statistical value in addition to the main research variables (Berneth & Aguinis, 2016). Hünermund and Louw (2020) further argue the estimated effect sizes of control variables in regression analyses provide little causal explanation themselves. Given these arguments, the focus of this study will be on the hypotheses mentioned above.

**Figure 1**

*Proposed moderated mediation model.*



## Methodology

The purpose of this cross-sectional study is to investigate the relationship between task autonomy, work passion, and employee vitality. Employees working either part-time or full-time were surveyed online about their behaviours at work.

### Participants

A power analysis with  $G^*$  power was performed prior to data collection to estimate an adequate sample size for this research (Faul, Erdfelder, Lang & Buchner, 2007). With a power of .95, a significance level of  $\alpha = .05$ , an effect size of  $f^2 = .15$ , and with three predictor variables, the estimated required sample size for this research was 119.

Participants were selected based on convenience sampling. This is a non-probability sampling technique whereby participants are recruited based on their willingness to participate in the study (Van Thiel, 2014). Participation was entirely voluntary and anonymous. The target population identified for this research was any individual in either part-time or full-time employment, as the intention of this research is to make generalisations about general working behaviour. The survey was shared through the researchers' personal circles, and the survey link was posted on social media with the intention of reaching a more diverse audience, both in terms of sector, contract type, and place of residence.

A total of 145 valid participated in this study ( $N=145$ ). The age of participants ranged between 21 and 59, with a mean of  $M = 26.3$  and a standard deviation of  $SD = 6.1$ . This indicates that although the age range is quite large, most participants were young adults. 38% of participants were male ( $n = 56$ ), 61% were female ( $n = 88$ ), and 1% were non-binary ( $n = 1$ ). The majority of participants were both highly educated and working full time. Interestingly, over 30% of all participants work over 40 hours a week, which exceeds the standard European contract hours (Europa, 2022).

### Data Collection

This study was first submitted to and approved by the Ethical Review Board of the Faculty of Social and Behavioural Sciences of Utrecht University (file number: 22-0654). Then, a pilot study was conducted to ensure the survey would be well received. The study was sent to a few close friends and family to gather feedback. Once feedback was implemented, data collection began and lasted from 15-03-2022 until 08-04-2022. The survey was made and distributed via the online tool Qualtrics.

### **Measurements**

#### ***Survey Design***

The reason for the use of survey design was the possibility of gathering large amounts of data in a relatively small time period. In addition, surveys are an appropriate research design for deductive research (Van Thiel, 2014). The benefits of using surveys are that they are simple and efficient, they are easily distributable, and they offer high external validity if a large sample size is achieved.

The first part of the survey consisted of a brief introduction to the study. The objective of the study was explained, specific instructions were given, and privacy concerns were addressed. All individual results of this study were anonymous. The second part of the survey was a section dedicated to demographic questions. These were included to explore the diverse backgrounds of participants and to investigate possible grouping variables. The final part of the survey consisted of items measuring each research variable.

#### ***Operationalisation of Variables***

Validates scales were used to measure our research variables. These scales were chosen as they were all originally in English, were suitable measures for our chosen research variables, and all scored high on reliability measures. In total, three scales were used: one measuring employee vitality, one measuring task autonomy, and one measuring passion (both harmonious and obsessive). All items of the survey were measured using a 5-point Likert scale, ranging from (1) strongly disagree, (2) disagree, (3) neither agree nor disagree, (4) agree, and (5) strongly agree. The entire survey can be found in Appendix A. Furthermore, all items for each variable can be found in Appendix B.

*Employee Vitality.* Atwater & Carmeli's (2009) scale was used to measure feelings of vitality at work. This scale was chosen as it is a more recent version of Ryan & Frederick's (1997) measure of vitality. Previous studies have often reported a high Cronbach's alpha for this scale ( $\alpha = 0.89$ ) (Carmeli & Spreitzer, 2009). This scale consists of 9 items (sample item: *I have high energy to complete my work*). The Cronbach's alpha of the current scale was high,  $\alpha = 0.92$ .

*Task Autonomy.* To measure task autonomy, 4-item were used from Breugh's (1999) work autonomy scale (sample item: *I am able to choose the way to go about my job*). As task autonomy is described as the autonomy given to employees in how they do their jobs and what they work on, only four items were deemed an appropriate measure of task autonomy. This scale was chosen as there was no alternate task autonomy scale identified in research,

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presumably given the minimal number of studies measuring task autonomy through a scale. However, Breugh's (1999) work autonomy scale has scored high on validity and reliability (Lin & Ping, 2016). This is reflected in this study, as the Cronbach's alpha of this 4-item was also high,  $\alpha = 0.88$ .

*Work Passion.* Both harmonious and obsessive passion were measured using Vallerand & Houlfort's (2003) passion scale. This 14-item scale measures both kinds of passion, but for the purpose of this a study, "this activity" was changed to "my job" for all items. Seven items were used to measure harmonious work passion (sample item: *my job allows me to live memorable experiences*), and seven items were used to measure obsessive work passion (sample item: *I have difficulties controlling my urge to do my activity*). This scale was chosen due to its high construct validity (Fernet et al., 2014), and high internal reliability (Forest et al., 2010). The Cronbach's alpha of the work passion scale was high for this research,  $\alpha = 0.83$ . Individually, harmonious work passion resulted in a Cronbach's alpha of  $\alpha = 0.8$ , and obsessive work passion resulted in a Cronbach's alpha of  $\alpha = 0.82$ .

### Statistical Analysis

SPSS (version 26) was used to conduct all the statistical analyses in this study. An alpha level of  $\alpha = 0.05$  was used as the significance level throughout all statistical analyses.

To investigate the effects of task autonomy on employee vitality, it is necessary to perform a linear regression analysis. This will provide insights as to what extent and in which direction task autonomy influence employee's levels of vitality (Field, 2009). In order to test our mediation model, Hayes' PROCESS model 4 will be used (Hayes, 2018). This will enable the direct and indirect effects of both task autonomy and harmonious work passion on employee vitality to be calculated. Next, Hayes' PROCESS model 1 will also be used to test the moderation model, to investigate whether low or high levels of obsessive work passion influence the relationship between task autonomy and employee vitality. Finally, Hayes' PROCESS model 5 will be used to test the overall model, the moderated mediation model (Hayes, 2018). All models will be tested using a significance level of  $p < .05$ .

Before conducting the regression analysis, all regression assumptions must be tested. To test for normality of our data, a Shapiro-Wilk test was conducted. The Shapiro-Wilk test rendered a significance level of .502. This value is not significant ( $p > 0.05$ ), leading us to conclude our sample distribution is not significantly different from a normal distribution. To test for homoscedasticity, a Breusch-Pagan test was conducted as well as an investigation into the residual scatterplot. The result of the homoscedasticity test was a significance level of

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.099, an insignificant result ( $<.05$ ). This leads us to conclude that our data is indeed homoscedastic; thus this assumption is met. To test for linearity, the means of our independent variables are compared (task autonomy, harmonious work passion, obsessive work passion) in relation to our dependent variable (employee vitality). All variables did not significantly deviate from linearity. Finally, to test for multicollinearity, our variables must not be highly autocorrelated. All variables produced a variance inflation factor (VIF) below 5, indicating little collinearity in our data. Thus, all the regression assumptions are met. All test results can be found in Appendix C.

### **Exploratory Factor Analysis**

Before testing the hypotheses formulated in this study, a principal component analysis (PCA) was run to evaluate whether or chosen scales, and their corresponding items, really measure the identified variables. To accomplish this, an exploratory factor analysis (EFA) was run for each variable (Field, 2009).

The results for each EFA can be found in Appendix D. Both employee vitality and task autonomy scales resulted in only one eigenvalue above 1 ( $\lambda = 5.46$  and  $\lambda = 2.96$ , respectively). The work passion scale, contrarily, resulted in three components with an eigenvalue above 1 ( $\lambda = 4.63$ ,  $\lambda = 2.69$ , and  $\lambda = 1.1$ , respectively), using Varimax rotation method with Kaiser normalization. However, as the third component only explained an additional 10% of the variance, it was excluded from further investigation.

## **Results**

### **Descriptives**

To begin, an investigation of the data was conducted. The descriptive statistics for the four main variables can be seen in table 1. These include the means, standard deviations, and correlations for each variable. The mean levels of harmonious work passion ( $M= 3.55$ ) and obsessive work passion ( $M= 3.39$ ) do not differ to a large extent. This seems to suggest that participants scored moderately for both types of work passion. The means for task autonomy and employee vitality lie around the theoretical means of both scales.

In terms of the correlation analysis, task autonomy is found to be significantly correlated with employee vitality ( $r = .43$ ,  $p < .01$ ). Obsessive work passion is found to be significantly correlated with both employee vitality ( $r = .27$ ,  $p < .01$ ) and harmonious work passion ( $r = .36$ ,  $p < .01$ ). This positive relationship does not align with previous research. These correlations also show obsessive work passion positively influences employee vitality, which

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further contradicts the research expectations. These observations will be discussed further in the next section. Moreover, both the variables age ( $r = .18, p < .05$ ) and education level ( $r = .24, p < .05$ ) are significantly correlated with obsessive work passion. This suggests that older and more highly educated participants score higher on obsessive work passion. Finally, education level was also significantly correlated with harmonious work passion ( $r = .17, p < .05$ ), albeit less strongly than with obsessive work passion.

**Table 1**

*Correlations, means, and standard deviations of the main variables including age, gender, and education level.*

	M	SD	TA	HWP	OWP	EV	Age	Gender	EL
Task autonomy (TA)	3.63	.85	1						
Harmonious work passion (HP)	3.55	.71	.54*	1					
Obsessive work passion (OP)	3.39	.67	.09	.36*	1				
Employee vitality (EV)	2.35	.75	.44*	.69*	.27*	1			
Age	26.3	6.06	.11	.09	.18*	.08	1		
Gender	1.62	.5	-.16	-.05	.15	-.09	.08	1	
Education level (EL)	4.37	.9	.11	.17*	.24*	.09	.09	.14	1

*Note.* \* $p < .05$

*Gender:* 1 = male, 2 = female

*Education level:* 1 = middle school graduate, 2 high school graduate, 3 = vocational degree, 4 = bachelor's degree, 5 = master's degree, 6 = PhD

### Regression analysis

In order to test hypotheses 1, 2, 3, and 4, Haye's (2018) PROCESS tool was used to perform the mediation analyses. Specifically, model 4 was used as it fit our proposed model. The direct effect of task autonomy on employee vitality was tested, as well as the indirect effect of harmonious work passion on the aforementioned relationship.

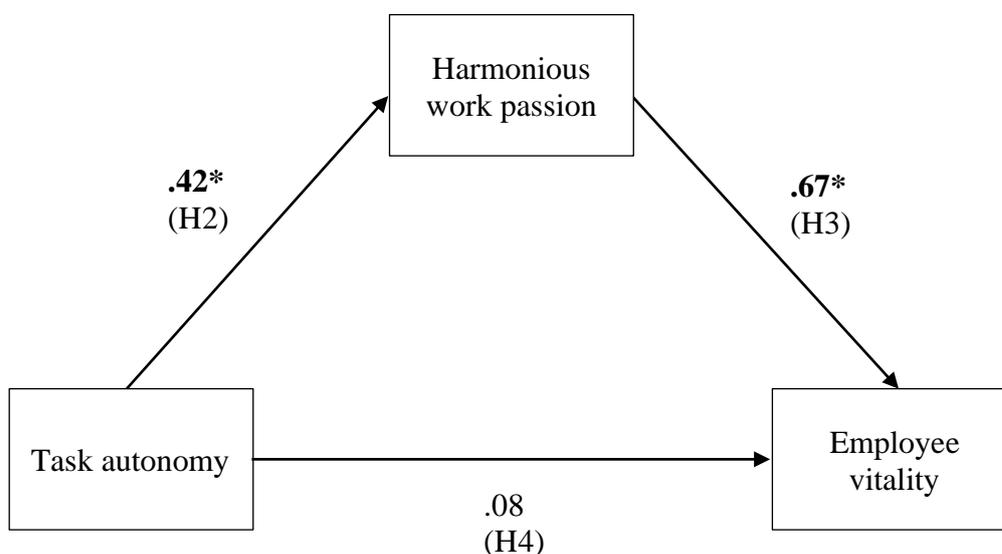
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Firstly, the direct relationship between task autonomy and employee vitality was found to be statistically significant ( $F(1, 143) = 57.27, p < .001$ ). This suggests that levels of task autonomy significantly predict levels of employee vitality ( $\beta = .36, p < .001$ ). This provides support for hypothesis 1.

Secondly, the indirect effects of harmonious work passion were investigated. A statistically significant relationship was found between task autonomy and harmonious work passion ( $F(1, 143) = 57.27, p < .001$ ). Therefore, task autonomy significantly predicts harmonious work passion ( $\beta = .42, p < .001$ ). Also, a statistically significant relationship is found between harmonious work passion and employee vitality ( $F(1, 143) = 126.61, p < .001$ ). This suggests harmonious work passion positively predicts employee vitality ( $\beta = .73, p < .001$ ). This gives support for hypotheses 2 and 3. However, after including harmonious work passion as a mediator, the direct and significant effect of task autonomy disappears ( $\beta = .08, p = .17$ ). These results reflect a full mediation effect of harmonious work passion ( $F(1, 143) = 33.73, p < .001$ ). This conclusion is further supported when the bootstrapping results are investigated. The indirect effects of task autonomy on employee vitality are statistically significant, given the 95% confidence interval ranged from [.0642, .4101]. Thus, as this did not include zero, the relationship between task autonomy and employee vitality was found to be fully mediated by harmonious work passion. This does not provide support for hypothesis 4. The above results are displayed in Figure 2.

**Figure 2**

*Results of the mediation analysis in standardised B coefficients.*



*Note.* \* $p < .05$

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Thirdly, the moderation model was tested. To test whether obsessive work passion moderates the relationship between task autonomy and employee vitality, Haye's PROCESS model 1 was used. The results of the moderation analysis can be found in table 2. What is observed is that overall, the model is statistically significant ( $F(3,141) = 15.43, p < .001$ ). With an  $R^2$  of .25, the model explains approximately 25% of the variance in employee vitality. However, the interaction effect is not statistically significant ( $\beta = -.07, p = .42$ ). Therefore, the positive effect of task autonomy on levels of employee vitality is not significantly negatively moderated by obsessive work passion. These results do not support hypothesis 5.

**Table 2**

*Results of the moderation analysis on employee vitality.*

	B	Std. Error	t	Sig.
(Constant)	1.18	.79	1.49	.14
Task autonomy	.51	.21	2.42	.02
Obsessive work passion	.48	.33	1.45	.15
TA*OWP	-.07	.09	-.81	.42

Finally, the complete moderated mediation model was tested. This was done by using Hayes (2018) PROCESS model 5. The results of the moderated mediation analysis can be found in table 3. Overall, the model is statistically significant ( $F(4,140) = 32.62, p < .001$ ). However, only harmonious work passion remains a statistically significant predictor of employee vitality, and the indirect effect of obsessive work passion was not statistically significant ( $\beta = .08, p = .29$ ). This provides partial support for hypothesis 6.

To summarise, the results of this study showed that higher levels of task autonomy increase employee vitality. However, this relationship is fully mediated by the experience of harmonious work passion. This contradicts hypothesis 4 of this research, which proposed only a partial mediation. Obsessive work passion was not found to negatively moderate the relationship between task autonomy and employee vitality, and the complete moderated mediation model was not found to be statistically significant.

**Table 3***Results of the moderated mediation analysis on employee vitality.*

	B	Std. Error	t	Sig.
(Constant)	1.26	.29	4.23	.000
Task autonomy	.08	.06	1.36	.18
Harmonious work passion	.68	.09	7.98	.000
Obsessive work passion	.03	.06	.39	.7
TA*OWP	.08	.08	1.07	.29

### Discussion

This study attempted to investigate whether an employee's levels of task autonomy at work would influence their levels of vitality. The aim of this research was also to shed light on the role of both harmonious and obsessive work passion in this relationship. In line with prior literature and both the theory of self-determination (Ryan & Deci, 1980) and the dualistic model of passion (Vallerand et al., 2003), specific hypotheses were formulated. It was proposed that task autonomy would positively predict employee vitality (H1), harmonious work passion would positively and partially mediate this relationship (H2, H3 & H4), obsessive work passion would negatively moderate this relationship (H5), and that the entire moderated mediation model would prove statistically significant (H6).

Despite previous research on the positive effects of task autonomy on feelings of vitality, this study found no significant effect between the two after accounting for harmonious work passion ( $p < .05$ ). These results did not support hypothesis 1. This indicates harmonious work passion fully mediates the relationship between task autonomy and employee vitality. This is also in contradiction with hypothesis 4, as only a partial mediation was expected. If the relationship between task autonomy and employee vitality is examined further, however, a few observations can be made. As stated above, task autonomy was found to statistically significantly correlate with employee vitality ( $r = .44, p < .05$ ). Therefore, it is not possible to conclude task autonomy plays no role in the relationship. Indeed, it appears harmonious work passion strengthens the already existing positive relationship between task autonomy and employee vitality. It may be that providing employees with more task autonomy has more potential to stimulate feelings of vitality when that employee is already passionate

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about their work. In other words, harmonious work passion may override any direct effect of task autonomy on employee vitality.

It was also found that high levels of task autonomy significantly influence an individual's level of harmonious work passion, thus supporting hypothesis 2. These findings are in line with previous research stating that autonomy at work serves as an important antecedent to harmonious work passion (Fernet et al., 2014; Philippe et al., 2009). Moreover, harmonious work passion was found to significantly predict increased levels of employee vitality, thus supporting hypothesis 3. These findings are also in line with previous research stating the positive effects of harmonious work passion (Burke et al., 2015; Curran et al., 2015). It appears that an environment facilitating autonomous work behaviours will give employee's the space to engage in their harmonious work passion in a non-constricted and autonomous way. It is even possible that in an autonomy-inducing environment, employees are capable of developing harmonious passion for a certain work activity they already found interesting, as they are given the freedom to explore their likes and dislikes without external control. This could satisfy the innate need for autonomy, thus stimulating feelings of energy, aliveness, and vitality at work. Referring back to the self-determination theory, this research suggests that harmonious work passion could also contribute to the satisfaction of the need for autonomy. However, this effect might be strengthened due to the autonomous internalisation of one's work passion into their identity, thus increasing feelings of vitality. It may be that task autonomy alone, if not in combination with harmonious work passion, is not enough to fully increase levels of employee vitality.

The inclusion of obsessive work passion in this study resulted in some interesting findings. The first observation is that not only did harmonious work passion significantly and positively correlate with employee vitality, but so did obsessive work passion. This is further supported by the positive effect of obsessive work passion on employee vitality as seen in the moderated mediation model. The findings of this study thus do not support previous research stating the negative effects of obsessive work passion on cognitive and organisational factors. What these findings may suggest is that the negative effects of obsessive work passion are overstated in research. Or, in line with some academic literature, that obsessive work passion does not significantly affect work outcomes in either direction (Vallerand, Houliort & Forest, 2014). One way to explain these findings is by examining the construct of vitality itself. Vitality involves the experience of energy and vigor, which does seem characteristic of both types of passion: both harmonious and obsessive. It is arguable that engaging in one's passion obsessively will still energise, thus resulting in higher levels of vitality. The negative effects

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of obsessive work passion in the context of vitality may thus arise from the continuous and long-term experience of obsessive passion, due to potential exhaustion and even burnout (Fernet et al., 2014).

Next, it was also found that obsessive work passion did not negatively moderate the relationship between task autonomy and employee vitality. In other words, the strength of this relationship did not significantly differ if obsessive work passion was high or if obsessive work passion was low. This did not support hypothesis 5. This suggests the positive relationship between task autonomy and employee vitality is not influenced by differing levels of obsessive work passion. In line with these findings, the moderated mediation model, although significant, did not provide more explanatory value than the mediation model. This makes sense, as our moderation model was not found to be significant.

All in all, these findings imply the relationship between task autonomy and employee vitality is complex. Vitality as a construct is, up until now, still being investigated in the workplace. However, it does provide researchers with a more concrete way to explore employee well-being. Harmonious work passion was found to strengthen the positive relationship between the two main variables, and obsessive work passion was not found to moderate this relationship. However, obsessive work passion did significantly correlate with employee vitality. The implications and limitations of this study and the areas for future research will be explored below.

### **Implications, Limitations, and Future Research**

The current research has various implications for both research and practice. To the best of our knowledge, this study is the first of its kind to study these three variables in the form of a moderated mediation model. Secondly, this study utilises a less commonly researched indicator of well-being, namely employee vitality. Employee vitality as a construct offers researchers the chance to measure a more specific aspect of well-being, namely the experience of mental and physical strength. Employee vitality is also indicative of increased work performance (Dubreuil et al., 2014), and thus has important organisational implications. In addition, task autonomy was used as a dependent variable in order to avoid the ambiguity associated with 'overall autonomy' at work. Thirdly, one important implication for research is provided by this seemingly positive influence of obsessive work passion on employee vitality. Fourthly, this study has successfully utilised the theory of self-determination to explain both the direct effect of task autonomy on employee vitality and the mediating effect of harmonious work passion. Finally, whilst the positive and direct effects of job autonomy

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on employee vitality have been increasingly stated in research, the findings of the current study do not provide overwhelming support for the direct and positive effects of task autonomy on employee vitality.

In terms of practical contributions, the main focus of this study was to investigate ways in which vitality could be stimulated amongst employees, with the aim of improving overall levels of well-being. One important conclusion to be made based on the current findings is that it is important for managers to not just provide autonomy to their workers, but also ensure they are working on something they find interesting and engaging. In turn, they are more likely to engage in their work passion harmoniously, which will increase their levels of vitality. Therefore, it is recommended that managers give their employees freedom to decide what tasks to work on and how to work on them if they are to stimulate vital employees. Attention should also be paid to how passionate employees are, and how they manifest this work passion. If harmonious, more autonomy will result in higher levels of vitality. If obsessive, more autonomy will not result in any change in the vitality experienced by employees.

In spite of these contributions, the limitations of this study must also be considered. Firstly, the use of convenience sampling does not ensure a representative sample of the target population is gathered. As a form of non-probability sampling, this method does not promote external validity (Sedgwick, 2013), and thus it is also reasonable to assume that our sample is not representative of our target population. Secondly, the exploratory factor analysis for the passion scale used in this study resulted in three main components. This seemed to suggest that the scale used to measure obsessive and harmonious work passion did not conclusively reflect these two constructs. More research should thus be done on the psychometric properties of the passion scale in the work context. Thirdly, control variables were not included in the analysis of this study. Although age, gender, and educational level were included in the correlational analysis, no regression tests were performed in addition to these variables. Fourthly, only one method was used in this study. Specifically, a cross-sectional survey design was implanted. The addition of interviews could be useful to investigate the main variables of this study more in depth, specifically passion, due to its personal and individual nature. Lastly, this study only captures employee vitality, task autonomy and work passion at one point in time. None of these variables are static in nature, and so their longitudinal effects should be investigated (Burke et al., 2015).

Future research should focus on applying the main variables in this study to the workplace. On the one hand, the influence of task autonomy needs further attention in

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organisational psychology. Specifically, what role does task autonomy play in both the stimulation of harmonious work passion and the increase of employee vitality. Using task autonomy as a moderating variable could provide some answers as to why it did not directly statistically significantly influence employee vitality in this study. It is possible that the more autonomy is given at work, the more harmoniously passionate individuals will feel energised on the job. Aside from what stimulates employee vitality, its theoretical underpinnings must also be explored. What internal mechanisms stimulate this feeling of aliveness and energy? Is it simply because of the satisfaction of the need for autonomy, or is there more to the story? Not only this, but vitality should be studied further in relation to work behaviour. In other words, how do vital employees compare to those who are simply satisfied or committed to their work? This study found non-statistically significant yet positive effects of obsessive work passion on employee vitality, seemingly suggesting a productive side to being obsessively passionate at work. Finally, more longitudinal research is necessary to fully understand the relationship between work passion and employee vitality. Philippe et al. (2009) found that harmoniously passionate individuals experienced higher levels of vitality over a one-year period versus those obsessively passionate or non-passionate individuals. Therefore, the potential sustainable and long-lasting effects of harmonious work passion should also be investigated.

### **Conclusion**

In sum, this research aimed to investigate the influence of task autonomy on levels of employee vitality at work. Moreover, the role of harmonious and obsessive work passion was also examined. The results of this study indicate that task autonomy positively influences employee vitality, with harmonious work passion serving as a powerful force in this relationship. Obsessive work passion, on the other hand, was not found to significantly influence the positive relationship between task autonomy and employee vitality. This study has further expanded academic knowledge on utilising the self-determination theory to explain the relationships between tasks autonomy, harmonious work passion, and employee vitality. In addition, this study has expanded the understanding of the two types of passion put forth by Vallerand et al. (2003) in the context of work. What these findings signify is that in order to develop employees full of aliveness and vitality, employers must ensure that enough autonomy is given in the workplace, in combination with the space to explore one's passion in a harmonious manner. In this way, the well-being of employees can be enhanced whilst at the same time boosting performance and productivity in the workplace.

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## Appendix A. Full Survey

*Thank you for your interest in this study!*

This short study is part of the thesis for the MSc Social, Health and Organizational Psychology. It aims to investigate what motivates people at work and how this can be improved.

### **Procedure**

You will be presented with statements that relate to you and how you experience your work. You will be asked to indicate to what extent these statements apply to you and/or your work situation. If you are currently not employed, you can apply these questions to your last job. There are no right or wrong answers, all you have to do is answer as truthfully as possible. The survey will take a maximum of 8 minutes to complete.

### **Voluntary Participation, Confidentiality, Data Protection & Data Sharing**

This study is in compliance with the ethical board of Utrecht University. Participation in this experiment is entirely voluntary, data collection is anonymous to ensure confidentiality, and no personal data is reported.

### **Further Information**

Should you have any questions about this study please contact:

Saskia Piercy (s.h.j.piercy@students.uu.nl)

End of Block: Information Sheet

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Start of Block: Consent Form

**Q33 By giving consent and clicking on the 'next' arrow I confirm that:**

I am aged 18 or over;

I have been informed about the purpose of the research, data collection, and storage;

I voluntarily agree to participate in this research;

I understand that the information will be treated confidentially;

I understand that I can stop my participation at any time without any consequences.

End of Block: Consent Form

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Start of Block: Demographics

## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

Q1 The first few questions concern some basic **background information**.

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Page Break

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Q1 How old are you (in years)?

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Q2 What is your gender?

- Male (1)
  - Female (2)
  - Non-binary (3)
  - Prefer not to say (4)
- 

Q3 What is the highest level of education you have obtained?

- Middle school graduate (1)
  - High school graduate (2)
  - Vocational degree (3)
  - Bachelor's degree (4)
  - Master's degree (5)
  - PhD (6)
  - Other, namely (7)
- 

Q4 What is your current occupation?

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## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

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Q5 How many hours do you work a week, on average?

- 1-10 hours (1)
  - 10-20 hours (2)
  - 20-30 hours (3)
  - 30-40 hours (4)
  - 40+ hours (5)
- 

Q20 What contract type do you have?

\_\_\_\_\_

End of Block: Demographics

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Start of Block: Behaviours at work

Q43 The next set of questions concerns some of your **behaviours** at work.

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## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

Q1 Please indicate to what extent you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I am able to set priorities at work (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I manage to plan my work so that I finish it on time (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I manage my time well (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I keep in mind the work results I need to achieve (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to carry out my work efficiently (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q2 Please indicate to what extent you agree or disagree with the following statements:

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	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I voluntarily carry out environmental-friendly actions and initiatives in my daily work activities (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I encourage my colleagues to adopt more environmentally-friendly conscious behavior (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I make suggestions to my colleagues about ways to protect the environment more effectively, even when it is not my direct responsibility (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I spontaneously give my time to help my colleagues take the environment into account in everything they do at work (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I volunteer for projects, endeavors or events that address environmental issues in my organization (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I stay informed of my company's environmentally-friendly initiatives (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

I actively participate in environmental events organized in and/or by my company (7)

I undertake environmentally-friendly actions that contribute positively to the image of my organization (8)

I encourage my colleagues to express their ideas and opinions on environmental issues (9)

In my work, I weigh the consequences of my actions before doing something that could affect the environment (10)

End of Block: Behaviours at work

---

Start of Block: Feelings at work

Q19 The next set of questions concerns how you **feel** at work.

Q1 Please indicate to what extent you agree or disagree with the following statements:

## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
My job allows me to live a variety of experiences (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
For me, my job is a passion that I still manage to control (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The urge to work is so strong that I cannot help myself from working (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a tough time controlling my need to work (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My job reflects the qualities I like about myself (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am emotionally dependent on my job (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have difficulty imagining my life without my job (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am completely taken by my job (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My mood depends on me being able to do my job (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

The new things that I discover with my job allow me to appreciate it even more (10)

My job is in harmony with the other activities in my life (11)

I cannot live without my job (12)

My job allows me to live memorable experiences (13)

I have difficulty imagining my life without my job (14)

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Q2 Please indicate to what extent you agree or disagree with the following statements:

## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I have discovered work that has a satisfying purpose (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a good sense of what makes my job meaningful (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I understand how my work contributes to my life's meaning (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I know my work makes a positive difference in the world (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have found a meaningful career (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work helps me make sense of the world around me (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work really makes no difference to the world (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My work helps me better understand myself (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The work I do serves a greater purpose (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

I view my  
work as  
contributing to  
my personal  
grow (10)

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## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

Q3 Please indicate to what extent you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I have high energy to complete my work (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am at work, I feel a sense of physical strength (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the working day I feel I am full of energy (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a lot of excitement when I am doing my work (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The work in this organisation gives me positive energy (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I am at work, I feel vital and alive (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel active and energetic at work (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the energy to successfully do my job (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I come to work in the morning, I have energy for the new day (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Q4 Please indicate to what extent you agree or disagree with the following statements:

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly agree (5)
I am able to choose the way to go about my job (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am allowed to decide how to go about getting my job done (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am free to choose the method(s) to use in carrying out my work (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am allowed to choose what I work on at my job (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

End of Block: Feelings at work

Start of Block: Socially Responsible Human Resource Management

Q66 The final set of questions concerns your organizations **Corporate Socially Responsible (CSR) commitment**.

**Corporate Social Responsibility (CSR)** helps a company be accountable and conscious of the impact they have on all aspects of society including economic, social, and environmental.

Page Break

## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

Q1 Please indicate to what extent your company engages in the following behaviours:

	Never (1)	Sometimes (2)	About half the time (3)	Most of the time (4)	Always (5)
My company uses trainings to promote CSR as an espoused organizational value (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My company considers employee social performance in promotions (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My company considers candidates general attitudes towards CSR in the selection procedure (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My company relates employee social performance to rewards and compensation (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My company considers employee social performance in performance appraisals (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My company provides CSR training to develop employees' skills in stakeholder engagement and communication (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Appendix B. Scale items**

*Table 1. Task Autonomy Scale (Breugh, 1999).*

Item
1. I am allowed to decide how to go about getting my job done
2. I am able to choose the way to go about my job
3. I am free to choose the method(s) to use in carrying out my work
4. I am allowed to choose what I work on at my job

*Table 2. Employee Vitality Scale (Atawater & Carmeli, 2009).*

Item
1. I feel active and energetic at work
2. I have the energy to successfully do my job
3. When I am at work, I feel vital and alive
4. I have high energy to complete my work
5. During the working day I feel I am full of energy
6. When I come to work in the morning, I have energy for the new day
7. I feel a lot of excitement when I am doing my work
8. The work in this organisation gives me positive energy
9. When I am at work, I feel a sense of physical strength

*Table 3. The Passion Scale (Vallerand, 2003).*

Item	Construct
1. I have almost an obsessive feeling for my job	Obsessive work passion
2. I cannot live without my job	Obsessive work passion
3. My job allows me to live a variety of experiences	Harmonious work passion
4. My job reflects the qualities I like about myself	Harmonious work passion
5. I am completely taken by my job	Harmonious work passion

## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

6. I am emotionally dependent on my job	Obsessive work passion
7. I have difficulty imagining my life without my job	Obsessive work passion
8. My mood depends on me being able to do my job	Obsessive work passion
9. The new things that I discover about my job allow me to appreciate it even more	Harmonious work passion
10. I have a tough time controlling my need to work	Obsessive work passion
11. My job is in harmony with the other activities in my life	Harmonious work passion
12. My job allows me to live memorable experiences	Harmonious work passion
13. For me, my job is a passion that I still manage to control	Harmonious work passion
14. The urge to work is so strong that I cannot help myself from working	Obsessive work passion

# TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

## Appendix C. Regression assumption tests.

Test	Desired Outcome	Actual Outcome
Shapiro-Wilk	> .05	.502
Breusch-Pagan	> .05	.099
Deviation from linearity	> .05	Task autonomy (p=.349) Harmonious work passion (p=.028) Obsessive work passion (p=.827)
Variance Inflation Factor (VIF)	< 5	Task autonomy (1.420) Harmonious work passion (1.610) Obsessive work passion (1.161)

**Appendix D. Exploratory Factor Analysis Results**

*Table 1. Principal Component Analysis for Employee Vitality*

	Loading on factor <i>employee vitality</i>
I have high energy to complete my work	.820
When I am at work, I feel a sense of physical strength	.646
During the working day I feel I am full of energy	.802
I feel a lot of excitement when I am doing my work	.785
The work in this organization gives me positive energy	.782
When I am at work, I feel vital and alive	.863
I feel active and energetic at work	.847
I have the energy to successfully do my job	.701
When I come to work in the morning, I have energy for the new day	.737
Eigen value	5.457
Variance explained	60.6%

*Table 2. Principal Component Analysis for Task Autonomy*

	Loading on factor <i>task autonomy</i>
I am able to choose the way to go about my job	.874
I am allowed to decide how to go about getting the job done	.917
I am free to choose the method(s) to use in carrying out my work	.860
I am allowed to choose what I work on at my job	.784
Eigen value	2.959
Variance explained	74%

## TASK AUTONOMY, WORK PASSION, AND EMPLOYEE VITALITY

*Table 3. Principal Component Analysis for Work Passion.*

	Loading on factor <i>harmonious work passion (HP)</i>	Loading on factor <i>obsessive work passion (OP)</i>
My job allows me to live a variety of experiences (HP)	.812	
For me, my job is a passion that I still manage to control (HP)	.745	
The urge to work is so strong that I cannot help myself from working (OP)	.194	.789
I have a tough time controlling my need to work (OP)		.844
My job reflects the qualities I like about myself (HP)	.762	.224
I am emotionally dependent on my job (OP)	.133	.700
I have difficulty imagining my life without my job (OP)		.818
I am completely taken by my job (OP)	.116	.623
My mood depends on me being able to do my job (OP)		.602
My job is in harmony with the other activities in my life (HP)	.613	
I cannot live without my job (OP)		.832
My job allows me to live memorable experiences (HP)	.774	
Eigen value	3.792	2.471
Variance explained	31.6%	20.6%

