

Universiteit Utrecht

Psychology Master: Work and Organisational Psychology

THESIS

Adapting to Change:

Relationships Between Personal Resources, Job Resources, Attitudes  
Towards Change, and Positive Outcomes in Times of Considerable  
Organisational Change

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## *Summary*

Many organisations are undergoing changes in order to deal with economic uncertainty and financial instability. To avert a negative impact on employee well-being and motivation, the underlying processes that lead to positive outcomes need to be understood. The Personal Resources Adaptation Model provides a framework for studying the relationships between personal resources, job resources, attitudes towards change and positive outcomes in times of organisational change. Employees of a financial institution (N=164) filled out a questionnaire. A number of personal and job resources were shown to be significant predictors of positive outcomes such as work engagement and adaptive performance. The results indicate the importance for changing organisations to optimise various job resources, personal resources, and attitudes towards change, to improve the well-being of both the employees and the organisation, as well as the success of the overall change process.

## *Samenvatting*

Veel organisaties ondergaan veranderingen om economische onzekerheid en financiële instabiliteit het hoofd te kunnen bieden. Om een negatieve impact op het welzijn en de motivatie van de werknemers af te kunnen wenden, moeten de onderliggende processen die leiden tot positieve uitkomsten begrepen worden. Het *Personal Resources Adaptation Model* biedt een raamwerk voor het bestuderen van de relaties tussen persoonlijke hulpbronnen, werkgerelateerde hulpbronnen, attitudes ten opzichte van veranderingen en positieve uitkomsten ten tijde van organisatorische verandering.

Werknemers van een financiële instelling (N=164) vulden een vragenlijst in. Een aantal persoonlijke en werkgerelateerde hulpbronnen bleken significante voorspellers te zijn van positieve uitkomsten, zoals bevlogenheid en adaptieve prestatie. De resultaten geven aan dat het voor veranderende organisaties van belang is om verschillende persoonlijke hulpbronnen, werkgerelateerde hulpbronnen en attitudes ten opzichte van verandering te optimaliseren, om zo het welzijn van zowel werknemers als organisatie te verbeteren en de kans op succes van het veranderproces te vergroten.

## ***Chapter 1: Introduction***

In the current times of economic uncertainty and financial instability, many organisations are undergoing considerable changes in structure, procedures and approaches, in order to become more efficient, cost-effective and competitive (Terry & Jimmieson, 2003). Apart from having an obvious effect on the organisations themselves, these changes also have an impact on the working environment and therefore they may affect the well-being, motivation and performance of employees within the organisations (Van den Heuvel, Demerouti, Bakker & Schaufeli, 2010). Organisational changes are likely to cause employees to experience uncertainty and stress (Terry & Jimmieson, 2003), which in turn may have a negative effect on employee well-being, job satisfaction and turnover intention (Bordia, Hobman, Jones, Gallois & Callan, 2004). Needless to say, it is in the best interest of a changing organisation to try and avert these negative consequences, and to keep their employees as motivated and healthy as possible.

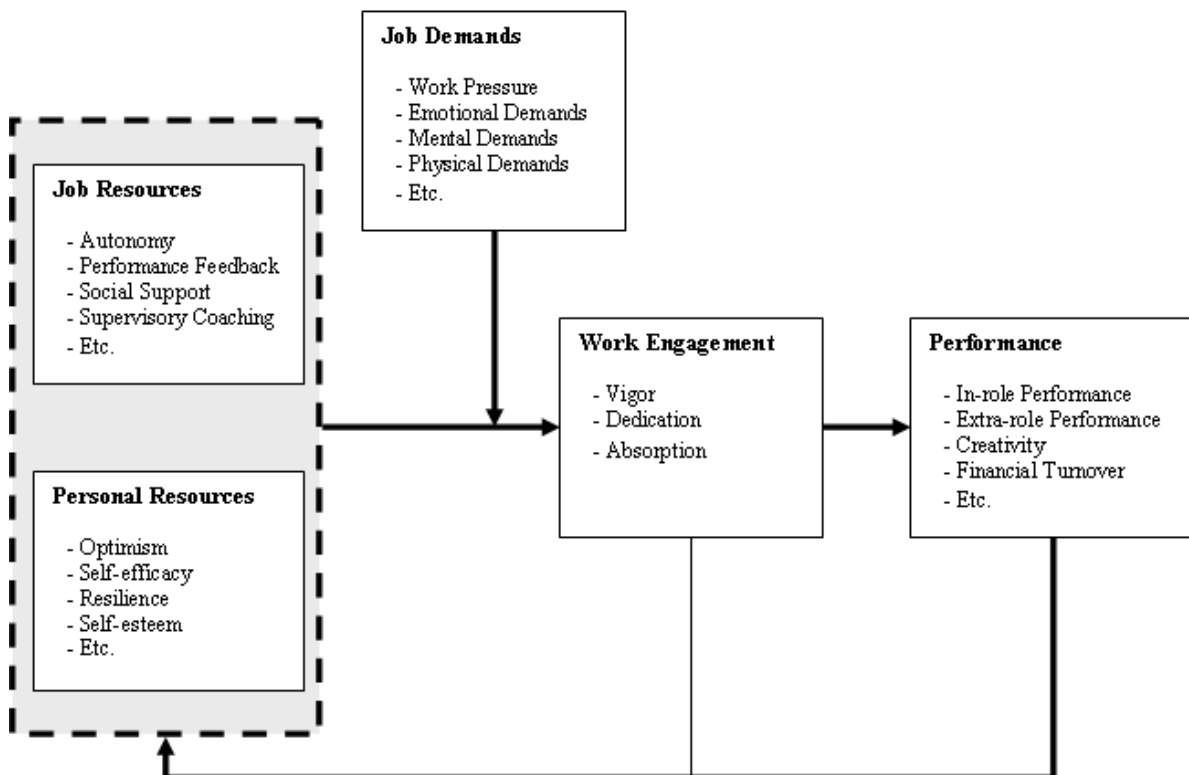
In order to gain insight in how work characteristics influence well-being and motivation, the underlying processes that lead to these results need to be understood. The Job Demands – Resources (JD-R) model of Work Engagement (Bakker & Demerouti, 2008) can be used as a framework for studying these processes. In a disquisition on the sustainability of work engagement during organisational change, Van den Heuvel et al. (2010) provide a framework that allows for testing the JD-R model of Work Engagement in changing work environments. Van den Heuvel et al. (2010) developed the *Personal Resources Adaptation Model* as a means to underpin the view that organisational outcomes such as performance, commitment and work engagement in a changing organisational environment are not just influenced by the various aspects of the work environment ('job demands', such as work pressure and 'job resources', such as support and autonomy), but also by certain individual characteristics, the so-called 'personal resources' (e.g. self-efficacy, hope). The model further indicates that the influence of these personal resources on organisational outcomes will be mediated by the attitudes employees will have towards the change (Van den Heuvel et al., 2010).

The focus of the current research will be on the *positive* aspects of the Personal Resources Adaptation Model: job resources, personal resources and positive organisational outcomes. The main research question will therefore be: 'In a changing organisational environment, how do positive aspects of personality and positive aspects of the work environment relate to the attitudes one may develop towards the organisational changes and

how does this all relate to positive outcomes, such as work engagement, adaptive performance and creative performance?’

### 1.1 The Job Demands – Resources Model of Work Engagement

The Job Demands – Resources model of Work Engagement (Bakker & Demerouti, 2008) as shown in Figure 1, provides a framework for studying the underlying processes through which various job resources and personal resources independently or combined predict work engagement, which in turn will have a positive impact on performance (Bakker & Demerouti, 2008).



**Figure 1.** *The Job Demands – Resources Model of Work Engagement (Bakker & Demerouti, 2008)*

According to this model, the positive impact of job resources and personal resources on work engagement will be stronger when job demands are high. *Job demands* refer to those physical, psychological, social, or organisational aspects of a job that require sustained physical and/or psychological costs (Demerouti, Bakker, Nachreiner & Schaufeli, 2001). As mentioned before, it is in times of considerable organisational change likely that employees experience high job demands, such as uncertainty and stress (Terry & Jimmieson, 2003). Available job resources and personal resources will therefore gain salience and motivational potential (Bakker & Demerouti, 2007, 2008).

*Job resources* are the physical, social, or organisational aspects of the job that may reduce job demands and the associated physiological and psychological costs. Job resources may also be functional in achieving work goals, and they may stimulate personal growth, learning, and development (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004a). Job resources include social support from supervisors, autonomy, and communication (Bakker & Demerouti, 2008; Terry & Jimmieson, 2003). A supportive relationship with a supervisor can provide instrumental assistance and emotional support, which can have a positive effect on dealing with the uncertainty of organisational change (Terry & Jimmieson, 2003). Karasek (1998) linked greater autonomy with more opportunities to cope with stressful situations. Communication is a key characteristic of organisational change that enhances levels of efficacy to deal with the change process, which in turn may improve well-being, client engagement and job satisfaction (Terry & Jimmieson, 2003). Xanthopoulou, Bakker, Demerouti and Schaufeli (2009) found that day-level job resources (e.g. autonomy, supervisory coaching and team climate) had a positive effect on work engagement through day-level personal resources (e.g. self-efficacy, organisational-based self-esteem and optimism).

Van den Heuvel et al. (2010) state that *personal resources* are lower order, cognitive-affective aspects of personality; developable systems of positive beliefs about one's 'self' (e.g. self-esteem, self-efficacy) and the world (e.g. optimism, faith) which motivate and facilitate goal-attainment, even in the face of adversity or challenge. Xanthopoulou, Bakker, Demerouti and Schaufeli (2007) found that personal resources such as self-efficacy, organisational-based self-esteem and optimism positively influenced the relationship between job resources and engagement and had a positive impact on the perception of available job resources.

Luthans, Youssef and Avolio (2007) defined a new personal resource: *psychological capital*, or *PsyCap*, which consists of a number of known state-like personal resources. For a

positive personal resource to be included in PsyCap, it must be based on theory, research, and valid measurement. It must be open to development and it must have a measurable impact on performance (Luthans, Youssef & Avolio, 2007). PsyCap currently consists of four constructs that have been found to best fit the inclusion criteria: self-efficacy, hope, optimism, and resiliency.

*Self-efficacy* is defined by Stajkovic and Luthans (1998) as the conviction of one's abilities to mobilise motivation, cognitive resources and courses of action needed to successfully execute a specific task within a given context. People that are self-efficacious set high goals for themselves, thrive on challenge, are highly self-motivated, invest the necessary effort to accomplish their goals and are perseverant when faced with obstacles (Luthans, Youssef & Avolio, 2007).

*Hope* consists of one's ability and motivation to successfully use goal-directed energy in planning pathways to meet these goals (Luthans & Youssef, 2007). Hope can be developed and nurtured through the setting of goals that are challenging enough to stimulate excitement and exploration, while still being achievable (Luthans, Youssef & Avolio, 2007).

*Optimism* can be seen as a work-related explanatory style that attributes positive events to personal, permanent and pervasive causes and interprets negative events as being external, temporary and situation specific (Luthans, Youssef & Avolio, 2007). Luthans, Youssef and Avolio (2007) state that PsyCap optimism helps employees deal with change and uncertainty in a turbulent organisational environment.

*Resiliency* is the positive psychological capacity to adapt to and deal with adversity, uncertainty and risk, but also positive change, progress and increased responsibility (Luthans, 2002; Luthans, Youssef & Avolio, 2007). These aspects could be regarded as threats by people who lack resilience, but as challenges and opportunities by those who have considerable resilience (Luthans & Youssef, 2007).

Luthans, Avolio, Avey and Norman (2007) indicate that the PsyCap composite (*self-efficacy, hope, optimism* and *resiliency* combined) is a better predictor of performance and satisfaction than the four separate components. In further research on the PsyCap composite, Luthans, Norman, Avolio and Avey (2008) found positive relationships between employees' PsyCap and their performance, satisfaction and commitment in a supportive organisational climate. PsyCap (as a composite) has also been found to be positively related to employees' level of financial performance (Avey, Nimnicht & Graber Pigeon, 2009).

Van den Heuvel et al. (2010) point out that the personal resource *meaning-making* may also have a positive impact on change-related attitudes and motivation, thus resulting in

enhanced work-engagement and performance. Van den Heuvel, Demerouti, Schreurs, Bakker and Schaufeli (2009) define meaning-making as the ability to integrate challenging or ambiguous situations into a framework of personal meaning, using conscious, value-based reflection. This form of meaning-making is relevant for work settings where employees have to deal with continuous change, ambiguity and uncertainty (Van den Heuvel et al., 2009). Van den Heuvel et al. (2010) argue that meaning-making is a cognitive/adaptive personal resource that can be developed over time. Van den Heuvel et al. (2010) state that deliberately reflecting on work-related events and being able to link this reflection to broader values and life goals can have a positive effect on employees in dealing with ongoing change. Meaning-making has been found to be a distinct personal resource that is positively related to in-role performance and willingness to change (Van den Heuvel et al., 2009).

### 1.2 Attitudes towards change

With their *Personal Resources Adaptation Model*, Van den Heuvel et al. (2010) developed a framework that allows for testing the JD-R model of work engagement in a changing work environment. Van den Heuvel et al. (2010) state that in a changing environment, the relationships between personal resources and organisational outcomes such as engagement and performance will be mediated by the attitudes a person has towards the change, such as the overall change appraisal and the willingness to change.

*Change appraisal* reflects an employee's subjective evaluation of the possible impact of the change on the employee's well-being (Terry, Callan & Sartori, 1996). The appraisal of the change process will depend on how stressful, disruptive, upsetting and/or difficult the process is perceived to be (Martin, Jones & Callan, 2005).

*Willingness to change* consists of a positive behavioural intention towards the implementation of change in the structure, culture, or work processes of an organisation, which can be helpful in understanding and predicting organisational behaviour (Metselaar, 1997). According to Metselaar (1997), the formation of willingness to change can be seen as a cognitive process, consisting of the appraisal of the possible change outcomes and whether the change goals are attainable. Van den Heuvel et al. (2010) draw attention to the possible positive relationship between change attitudes and personal resources. This is supported by the fact that willingness to change has been found to be facilitated by the personal resource meaning-making (Van den Heuvel et al., 2009). Wanberg and Banas (2000) found that the personal resources self-efficacy and resilience are positively related to change acceptance.

The attitudes towards organisational change may also be positively related to the available job resources. In their research on predictors and outcomes of openness to changes in a reorganizing workplace, Wanberg and Banas (2000) found that job resources such as social support and the communication (information received) about the changes are positively related to change acceptance and positive change appraisal.

### 1.3 Outcomes: Work Engagement and Performance

Van den Heuvel et al. (2010) propose that personal resources can boost positive outcomes, such as work engagement and adaptive performance. Work engagement captures how workers experience their work (Bakker, Albrecht & Leiter, 2011) and is defined as a positive, fulfilling, work-related state of mind, characterised by vigour, dedication, and absorption (Schaufeli, Salanova, González-Romá & Bakker, 2002). *Vigour* refers to the high levels of energy and mental resilience one can experience while working, along with the willingness to put effort into one's work and being persistent while dealing with difficulties. *Dedication* refers to a sense of significance, enthusiasm, inspiration, pride, and challenge. *Absorption* is characterised by being fully concentrated and happily engrossed in one's work. Job resources (Schaufeli & Bakker, 2004b; Demerouti et al., 2001) and personal resources (Xanthopoulou et al., 2007) are found to be important predictors of work engagement. Work engagement is positively related to performance (Bakker & Demerouti, 2008) and financial returns (Xanthopoulou et al., 2009).

In order for employees to operate effectively in changing environments, they need to be adaptable and versatile (Pulakos, Arad, Donovan & Plamondon, 2000). Many changes that occur at the organisational level require employees to adapt their behaviour (Griffin, Neal, & Parker, 2007). This process can be referred to as *adaptive performance* and is defined by Van den Heuvel et al. (2010) as work behaviours related to the new way of working, which is part of the organisational change. According to Griffin, Neal and Parker (2007), organisation member adaptivity reflects the degree to which individuals cope with, respond to, and/or support changes that affect their roles as members of the organisation.

Fundamental to organisational innovation and successful change is *creative performance* (George & Zhou, 2001). Choi (2004) defines *creativity* as the generation of novel or original ideas that are useful or relevant, and *creative performance* as the behavioural manifestation of creativity potential, such as presenting novel ideas or finding new ways of solving existing problems. Creative employees produce new, potentially useful ideas for the organisation, which allow them to contribute to innovation, effectiveness and survival of the

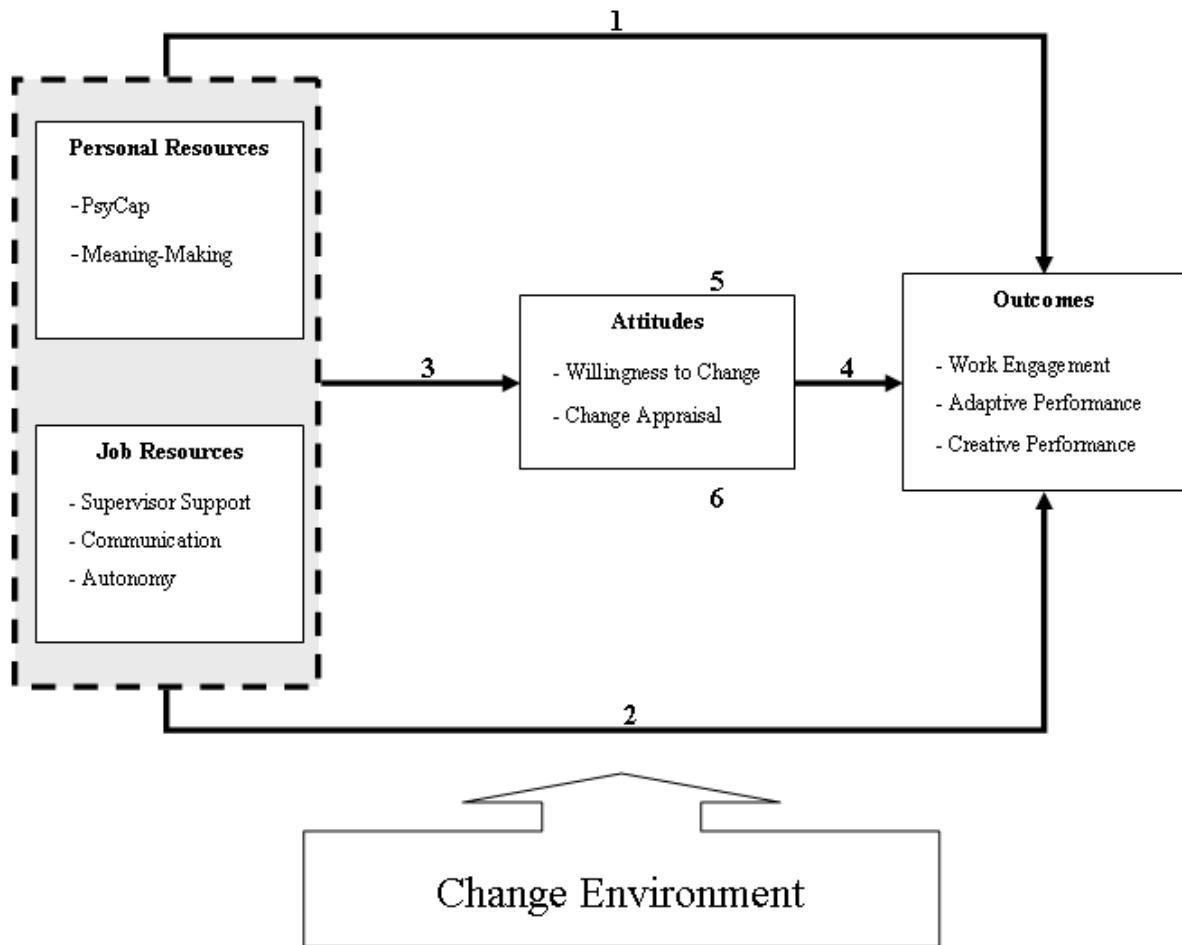


organisation (Shalley, Zhou & Oldham, 2004). Various individual and contextual variables have been found to influence employees' creative performance (Choi, 2004). Contextual variables (i.e. job resources) that influence creative performance include autonomy and the relationship with both co-workers and supervisors (Shalley, Zhou & Oldham, 2004; Choi, 2004; Zhou, 1998). Individual variables (i.e. personal resources) that influence creative performance include openness to experience (George & Zhou, 2001) and self-efficacy (Choi, 2004).

#### *1.4 The present study*

The central aim of the current research was to gain insight in the relationships between personal resources, job resources, attitudes towards change and positive outcomes, in times of considerable organisational change, based upon the Personal Resources Adaptation Model (Van den Heuvel et al., 2010).

These relationships are depicted in Figure 2, which combines aspects of the JD-R model of Work Engagement (Bakker & Demerouti, 2008) with the attitudinal aspect of the Personal Resources Adaptation Model (Van den Heuvel et al, 2010).



**Figure 2.** Research model, based upon the Job Demands – Resources Model of Work Engagement (Bakker & Demerouti, 2008) and the Personal Resources Adaptation Model (Van den Heuvel et al., 2010)

Based on this model the following hypotheses are formulated (number of hypothesis corresponds to number in Figure 2):

*Hypothesis 1:* Personal resources (PsyCap and meaning-making) are positively related to positive outcomes (work engagement, adaptive performance and creative performance) of employees in an organisation subject to considerable change.

*Hypothesis 2:* Job resources (relationship with superior, communication and autonomy) are

positively related to positive outcomes (work engagement, adaptive performance and creative performance) of employees in an organisation subject to considerable change.

*Hypothesis 3:* Personal resources (PsyCap and meaning-making) and job resources (supervisor support, communication and autonomy) are positively related to the willingness to change and negatively to the change appraisal of employees in an organisation subject to considerable change.

*Hypothesis 4:* For employees in an organisation subject to considerable change, the willingness to change will be positively related to positive outcomes (work engagement, adaptive performance and creative performance), and change appraisal will be negatively related to positive outcomes (work engagement, adaptive performance and creative performance).

*Hypothesis 5:* For employees in an organisation subject to considerable change, the relationship between personal resources (PsyCap and meaning-making) and positive outcomes (work engagement, adaptive performance and creative performance) is partially mediated by their attitudes towards change (willingness to change and change appraisal).

*Hypothesis 6:* For employees in an organisation subject to considerable change, the relationship between job resources (supervisor support, communication and autonomy) and positive outcomes (work engagement, adaptive performance and creative performance) is partially mediated by their attitudes towards change (willingness to change and change appraisal).

## ***Chapter 2: Method***

### ***2.1 Context & Procedure***

The current research was carried out at a financial institution which offers various banking, asset management, and insurance services. Starting in 2008, the organisation's insurance and investment management (Insurance/IM) operations are being developed into a new company, which is currently going through the process of divesting additional operational areas and reorganising its internal structure. Because of these developments, employees of the organisation (and employees of the new Insurance/IM company in particular) are subject to a climate of significant organisational change. The current research was conducted among employees of the new Insurance/IM company.

An invitation to participate in the research was sent to all internal insurance/IM employees working at global headquarters in Amsterdam (N = 484). This invitation briefly introduced the goal of the study, which was linked to the development of an internal employee engagement survey. The invitation contained a hyperlink to an online questionnaire. This questionnaire was created using NetQ, an online survey tool that can be used to produce and process online questionnaires ([www.netq-enquete.nl](http://www.netq-enquete.nl), 2011). The first page of this questionnaire contained instructions on filling out the questionnaire and a short message emphasising the anonymity and confidentiality of the answers. Participants were asked to fill out the questionnaire before the end of the month, which equalled a running time of three weeks.

### ***2.2 Participants***

Out of the 484 participants that were initially approached, 29.5 % responded (N=164). This sample included 108 male participants (65.9 %) and 56 female participants (34.1 %). The mean age was 40.5 (SD = 9.0). The mean organisational tenure was 11.1 years (SD = 9.9). The average time spend at work on a weekly basis, including overtime and work from home was 41.3 hours (SD = 6.9).

## 2.3 Measures

### Job Resources

*Social support from supervisor* and *autonomy* were assessed with shortened scales of the Questionnaire on the Experience and Evaluation of Work (QEEW; Van Veldhoven & Meijman, 1994). Social support from supervisor was assessed with three items ( $\alpha = .88$ ), such as ‘In your work, do you feel appreciated by your manager?’, and ‘Can you count on your manager when you come across difficulties in your work?’. Autonomy was assessed with three items ( $\alpha = .82$ ), such as ‘Do you have freedom in carrying out your work activities?’, and ‘Can you decide how your work is executed on your own?’. For both scales, the items were scored on a 5-point Likert scale ranging from 1 (*Never*) to 5 (*Always*).

*Communication* was assessed with a four item scale ( $\alpha = .94$ ) as used by Wanberg and Banas (2000). Example items are ‘The information I have received about the changes has been timely’, and ‘The information I have received about the changes has been useful’. The items were scored on a 7-point Likert scale ranging from 1 (*Strongly disagree*) to 7 (*Strongly agree*).

### Personal Resources

*Psychological Capital* (PsyCap) was assessed using the short version of the PsyCap Questionnaire (PCQ; Luthans, Youssef & Avolio, 2007). This short version of the PCQ ( $\alpha = .89$ ) consists of twelve core items, such as ‘I feel confident contributing to discussions about the organisation’s strategy’, and ‘I’m optimistic about what will happen to me in the future as it pertains to work’. The items were scored on a 6-point Likert scale ranging from 1 (*Strongly disagree*) to 6 (*Strongly agree*).

*Meaning-making* was assessed using the meaning-making scale developed by Van den Heuvel et al. (2009), which consists of seven items ( $\alpha = .77$ ). Example items are ‘I actively take the time to reflect on events that happen in my life’, and ‘I actively focus on activities and events that I personally find valuable’. The items were scored on a 6-point Likert scale ranging from 1 (*Strongly disagree*) to 6 (*Strongly agree*). The third item of this scale (‘I prefer not to think about the meaning of events that I encounter’), needed to be recoded for analysis, as the coding is reversed from the other items of the scale.

### Attitudes

*Willingness to change* was assessed using the willingness to change scale ( $\alpha = .91$ ) developed by Metselaar (1997). This scale consists of four items, such as 'I'm willing to put effort into achieving the goals of the change', and 'I'm willing to make time to implement the change'. The items were scored on a 5-point Likert scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*).

*Change appraisal* was measured using a change appraisal scale ( $\alpha = .83$ ) developed by Martin, Jones and Callan (2005). This scale starts with the question 'In general, the change process is:' followed by four items regarding the level of stress, disruption, difficulty, and extent of upset. These items were rated on a 6-point Likert scale ranging from 1 (*Not at all*) to 6 (*Extremely*).

### Outcomes

*Work engagement* was measured using a shortened version of the Utrecht Work Engagement Scale (UWES-9;  $\alpha = .92$ ) developed by Schaufeli, Bakker and Salanova (2006). The UWES-9 consists of nine items, such as 'At my work, I feel bursting with energy', and 'I am enthusiastic about my job'. The items were rated on a 7-point Likert scale ranging from 0 (*Never*) to 6 (*Always*).

*Adaptive performance* was assessed using the Organization Member Adaptivity scale ( $\alpha = .77$ ) developed by Griffin, Neal and Parker (2007). This scale consists of three items, such as 'I respond flexibly to the changes in the organisation', and 'I will learn new skills that will help me adjust to the changes in the organisation'. The items were rated on a 5-point Likert scale ranging from 1 (*Never*) to 5 (*Always*).

*Creative performance* was assessed with a creative behaviour scale ( $\alpha = .95$ ) developed by George and Zhou (2001). This scale consists of thirteen items such as 'In my job I suggest new ways to achieve goals or objectives', and 'In my job I come up with creative solutions to problems'. The items were rated on a 5-point Likert scale ranging from 1 (*Never*) to 5 (*Always*).

### Control Variables

In research on the measurement of work engagement with the UWES-9, Schaufeli, Bakker and Salanova (2006) found that engagement was weakly positively related with age. Gender differences were also observed, as men in a number of samples scored slightly higher on the engagement scale than did women. Even though Schaufeli, Bakker and Salanova (2006) argue

that the age and gender differences lack practical significance, the differences were significant statistically.

In research on the attitudes towards organisational change and the role of employee stress and commitment, Vakola and Nikolaou (2005) found significant effects for gender on the relationships between employee stress, commitment, and attitudes towards organisational change. Vakola and Nikolaou (2005) state that men tend to be more reluctant towards organisational change than women and that men experience significantly higher levels of occupational stress compared to women. In a study using the Job Demands-Resources Model to predict absence duration and frequency, Bakker, Demerouti, De Boer and Schaufeli (2003) found that age was negatively related to job resources, suggesting that older employees tend to report less job resources.

Because of the statistically significant influences of age and gender in the research mentioned above, it was decided to include both age and gender as control variables in all regression analyses of the current research.

## Chapter 3: Results

### 3.1 Descriptive statistics

Table 1 contains the mean scores, standard deviations, reliability coefficients (Cronbach's alpha) and correlations of all variables used in the current research. Reliability coefficients were more than respectable ( $\alpha > 0.70$ ) for all scales according to the classification of Cronbach's alpha by Nunnally and Bernstein (1994).

Table 1

*Means (M), standard deviations (SD), Cronbach's alpha ( $\alpha$ ) of, and correlations between the variables, N = 164*

|                         | M    | SD   | $\alpha$ | 1     | 2     | 3      | 4     | 5     | 6     | 7      | 8     | 9     |
|-------------------------|------|------|----------|-------|-------|--------|-------|-------|-------|--------|-------|-------|
| 1 Supervisor Support    | 4.14 | .79  | .88      |       |       |        |       |       |       |        |       |       |
| 2 Autonomy              | 3.93 | .66  | .82      | .56** |       |        |       |       |       |        |       |       |
| 3 Communication         | 3.62 | 1.38 | .94      | .30** | .26** |        |       |       |       |        |       |       |
| 4 PsyCap                | 4.33 | .72  | .89      | .37** | .51** | .36**  |       |       |       |        |       |       |
| 5 Meaning-Making        | 4.53 | .68  | .77      | .03   | .08   | .16*   | .45** |       |       |        |       |       |
| 6 Willingness to Change | 3.85 | .71  | .91      | .19*  | .31** | .28**  | .59** | .46** |       |        |       |       |
| 7 Change Appraisal      | 3.47 | .99  | .83      | -.01  | -.12  | -.29** | -.19* | -.14  | -.11  |        |       |       |
| 8 Work Engagement       | 4.03 | .89  | .92      | .50** | .38** | .43**  | .55** | .35** | .40** | -.14   |       |       |
| 9 Adaptive Performance  | 3.97 | .59  | .77      | .07   | .21** | .31**  | .56** | .36** | .54** | -.30** | .30** |       |
| 10 Creative Performance | 3.62 | .61  | .95      | .12   | .26** | .14    | .56** | .39** | .58** | -.17*  | .29** | .50** |

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

As can be seen in Table 1, a number of significant correlations existed between job resources, attitudes towards change and positive outcomes. Both personal resources are significantly correlated to willingness to change and all positive outcomes. All job resources are



significantly correlated to willingness to change and work engagement. PsyCap and work engagement show relatively high correlations compared to the other variables.

### 3.2 Relationships between personal resources and positive outcomes

The first hypothesis stated that personal resources (PsyCap and meaning-making) will be positively related to work engagement, adaptive performance and creative performance of employees in an organisation undergoing considerable change.

When PsyCap and meaning-making are entered together as predictors of work engagement, the contribution of meaning-making is not significant, as can be seen in Table 2. When PsyCap and meaning-making are entered together as predictors of adaptive performance, the contribution of meaning-making is not significant (Table 2). When PsyCap and meaning-making are entered together as predictors of creative performance, both PsyCap and meaning-making are significant predictors (Table 2).

The first hypothesis is partially supported by these results.

Table 2

*Standardised coefficients (Beta) for PsyCap and Meaning-Making as predictors of Work Engagement, Adaptive Performance, and Creative Performance, controlling for age and gender (Beta for first step of analysis shown in parentheses)*

|                | Work Engagement |                          | Adaptive Performance |                          | Creative Performance |                          |
|----------------|-----------------|--------------------------|----------------------|--------------------------|----------------------|--------------------------|
|                | Beta            |                          | Beta                 |                          | Beta                 |                          |
| 1. Age         | (.02) .02       |                          | (.11) .12            |                          | (-.15) -.16          |                          |
| Gender         | (-.03) -.02     | R <sup>2</sup> = .00     | (.14) .15            | R <sup>2</sup> = .03     | (-.15) -.16          | R <sup>2</sup> = .04     |
| 2. PsyCap      | .49***          |                          | .53***               |                          | .45***               |                          |
| Meaning-making | .13             | ΔR <sup>2</sup> = .31*** | .09                  | ΔR <sup>2</sup> = .33*** | .22***               | ΔR <sup>2</sup> = .34*** |

Note: R<sup>2</sup> = Step 1, ΔR<sup>2</sup> = Step 2

\* p < .05 \*\* p < .01 \*\*\* p < .001

### 3.3 Relationships between job resources and positive outcomes

The second hypothesis stated that job resources (supervisor support, autonomy, and communication) will be positively related to work engagement, adaptive performance and creative performance of employees in an organisation undergoing considerable change.

The results are presented in Table 3. It is shown that both supervisor support and communication contribute significantly to the explanation of engagement. Communication and autonomy are both significantly related to adaptive performance, whereas only autonomy contributes significantly to the explanation of creative performance. Based on these results, it can be concluded that the second hypothesis is partially supported.

Table 3

*Standardised coefficients (Beta) for Supervisor Support, Autonomy and Communication as predictors of Work Engagement, Adaptive Performance, and Creative Performance, controlling for age and gender (Beta for first step of analysis shown in parentheses)*

|                       | Work Engagement |                          | Adaptive Performance |                          | Creative Performance |                         |
|-----------------------|-----------------|--------------------------|----------------------|--------------------------|----------------------|-------------------------|
|                       | Beta            |                          | Beta                 |                          | Beta                 |                         |
| 1. Age                | (.02)           | .03                      | (.11)                | .12                      | (-.15)               | -.13                    |
| Gender                | (-.03)          | .02                      | (.14)                | .13                      | (-.15)               | -.15                    |
|                       |                 | R <sup>2</sup> = .00     |                      | R <sup>2</sup> = .03     |                      | R <sup>2</sup> = .04    |
| 2. Supervisor Support | .36***          |                          | -.12                 |                          | -.08                 |                         |
| Autonomy              | .10             |                          | .22*                 |                          | .27**                |                         |
| Communication         | .30***          | ΔR <sup>2</sup> = .34*** | .29***               | ΔR <sup>2</sup> = .13*** | .10                  | ΔR <sup>2</sup> = .07** |

Note: R<sup>2</sup> = Step 1, ΔR<sup>2</sup> = Step 2

\*p < .05 \*\*p < .01 \*\*\*p < .001

### 3.4 Relationships between personal resources, job resources and attitudes towards change

The third hypothesis stated that personal resources (PsyCap and meaning-making), and job resources (supervisor support, autonomy, and communication) will be positively related to willingness to change and negatively to change appraisal.

Table 4 shows that both PsyCap and meaning-making are significant predictors of willingness to change, but only PsyCap is significantly related to change appraisal.

Table 4

*Standardised coefficients (Beta) for PsyCap, and Meaning-making as predictors of Willingness to Change, and Change Appraisal, controlling for age and gender (Beta for first step of analysis shown in parentheses)*

|                | Willingness to Change |                          | Change Appraisal |                        |
|----------------|-----------------------|--------------------------|------------------|------------------------|
|                | Beta                  |                          | Beta             |                        |
| 1. Age         | (.01)                 | -.01                     | (-.12)           | -.12                   |
| Gender         | (.04)                 | .03                      | (-.07)           | -.07                   |
|                |                       | R <sup>2</sup> = .00     |                  | R <sup>2</sup> = .02   |
| 2. PsyCap      | .49***                |                          | -.18*            |                        |
| Meaning-making | .24***                | ΔR <sup>2</sup> = .40*** | -.04             | ΔR <sup>2</sup> = .04* |

Note: R<sup>2</sup> = Step 1, ΔR<sup>2</sup> = Step 2

\* p < .05 \*\* p < .01 \*\*\* p < .001

As can be seen in Table 5, autonomy and communication contribute significantly to the explanation of willingness to change, but only communication contributes significantly to the explanation of change appraisal. On the basis of these results, it can be concluded that the third hypothesis is partially supported.

Table 5

*Standardised coefficients (Beta) for Supervisor Support, Autonomy and Communication as predictors of Willingness to Change, and Change Appraisal, controlling for age and gender (Beta for first step of analysis shown in parentheses)*

|                       | Willingness to Change |                      | Change Appraisal         |                          |
|-----------------------|-----------------------|----------------------|--------------------------|--------------------------|
|                       | Beta                  |                      | Beta                     |                          |
| 1. Age                | (.01)                 | .02                  | (-.12)                   | -.13                     |
| Gender                | (.04)                 | .05                  | (-.07)                   | -.05                     |
|                       |                       | R <sup>2</sup> = .00 |                          | R <sup>2</sup> = .02     |
| 2. Supervisor Support |                       | -.01                 |                          | .14                      |
| Autonomy              |                       | .26**                |                          | -.13                     |
| Communication         |                       | .21**                | ΔR <sup>2</sup> = .14*** | -.30***                  |
|                       |                       |                      |                          | ΔR <sup>2</sup> = .10*** |

Note: R<sup>2</sup> = Step 1, ΔR<sup>2</sup> = Step 2

\* p < .05 \*\* p < .01 \*\*\* p < .001

### 3.5 Relationships between attitudes towards change and positive outcomes

Hypothesis four stated that attitudes towards change (willingness to change and change appraisal) will be positively related to work engagement, adaptive performance and creative performance of employees in an organisation undergoing considerable change.

The results are presented in Table 6. Both willingness to change and change appraisal are significant predictors of adaptive performance and creative performance, whereas only willingness to change contributes significantly to the explanation of work engagement. Based on these results, it can be concluded that hypothesis four is partially supported.

Table 6

*Standardised coefficients (Beta) for Willingness to Change and Change Appraisal as predictors of Work Engagement, Adaptive Performance, and Creative Performance, controlling for age and gender (Beta for first step of analysis shown in parentheses)*

|                          | Work Engagement                  |  | Adaptive Performance             |  | Creative Performance             |  |
|--------------------------|----------------------------------|--|----------------------------------|--|----------------------------------|--|
|                          | Beta                             |  | Beta                             |  | Beta                             |  |
| 1. Age                   | (.02) .01                        |  | (.11) .08                        |  | (-.15) -.17                      |  |
| Gender                   | (-.03) -.05 R <sup>2</sup> = .00 |  | (.14) .10 R <sup>2</sup> = .03   |  | (-.15) -.19 R <sup>2</sup> = .04 |  |
| 2. Willingness to Change | .39***                           |  | .51***                           |  | .57***                           |  |
| Change Appraisal         | -.10 ΔR <sup>2</sup> = .17***    |  | -.24*** ΔR <sup>2</sup> = .34*** |  | -.14* ΔR <sup>2</sup> = .36***   |  |

Note: R<sup>2</sup> = Step 1, ΔR<sup>2</sup> = Step 2  
 \* p < .05 \*\* p < .01 \*\*\* p < .001

### 3.6 The mediating role of attitudes towards change

Baron and Kenny (1986) divide the analysis of mediation into four regression analyses. The first step is to show that the predictor variable is a significant predictor of the outcome variable, using regression analysis. The second step is to show that the predictor variable is a significant predictor of the mediator variable, using regression analysis. The third step is to show that the mediator variable is a significant predictor of the outcome variable. In the fourth step, the effect of the predictor variable, when controlling for the mediator variable, should be zero if there is complete mediation of the relationship between the predictor variable and the outcome variable. In case of partial mediation, the effect of the predictor variable, when controlling for the mediator variable will be reduced, but not eliminated. The mediation effects were tested for significance by using the Sobel test (Sobel, 1982).

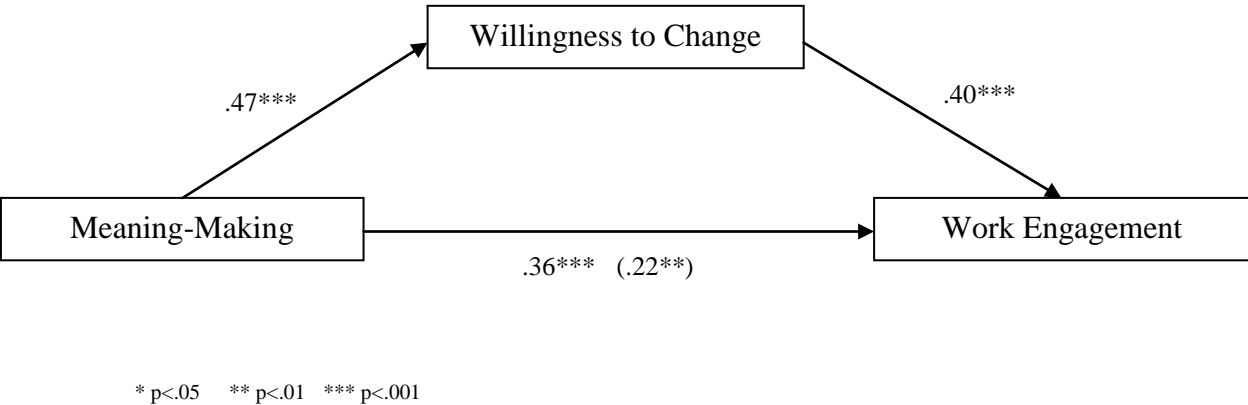
### Personal Resources & Willingness to Change

The fifth hypothesis concerned the mediating role of attitudes towards change on the relationships between personal resources and positive outcomes. A partial mediation was expected.

The relationships between personal resources and positive outcomes all met the conditions for mediation by willingness to change as proposed by Baron and Kenny (1986).

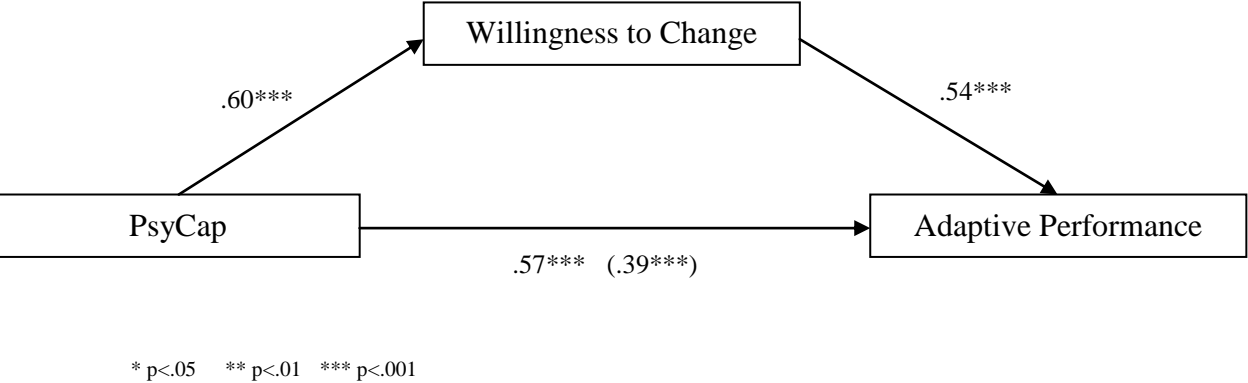
Sobel tests indicated that the following relationships were mediated significantly by willingness to change:

The relationship between meaning-making and work engagement was partially mediated by willingness to change, as can be seen in Figure 3.



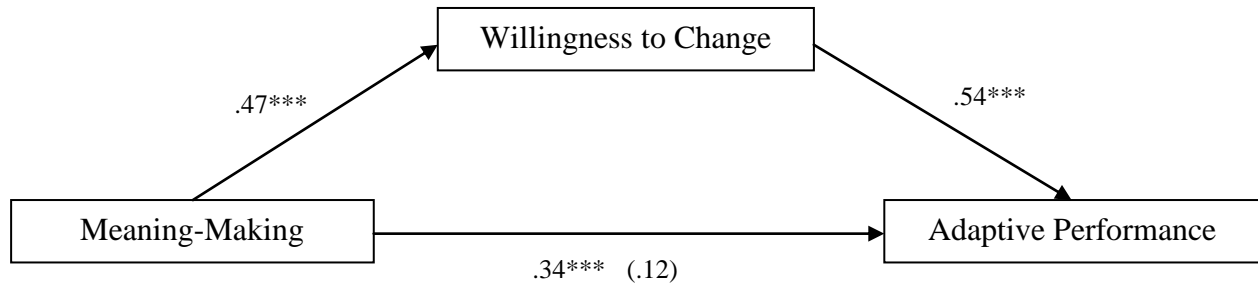
**Figure 3.** *The mediating role of Willingness to Change in the relationship between Meaning-Making and Work Engagement*

The relationship between PsyCap and adaptive performance was partially mediated by willingness to change, as can be seen in Figure 4.



**Figure 4.** *The mediating role of Willingness to Change in the relationship between PsyCap and Adaptive Performance*

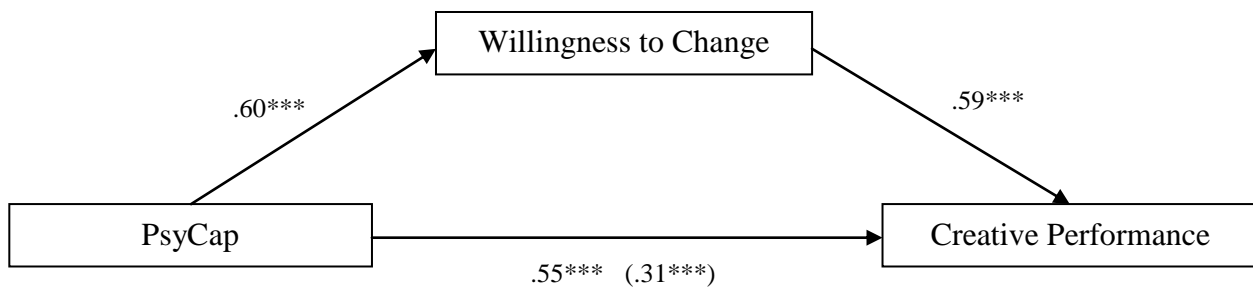
Figure 5 shows that the relationship between meaning-making and adaptive performance was fully mediated by willingness to change.



\* p<.05    \*\* p<.01    \*\*\* p<.001

**Figure 5.** *The mediating role of Willingness to Change in the relationship between Meaning-Making and Adaptive Performance*

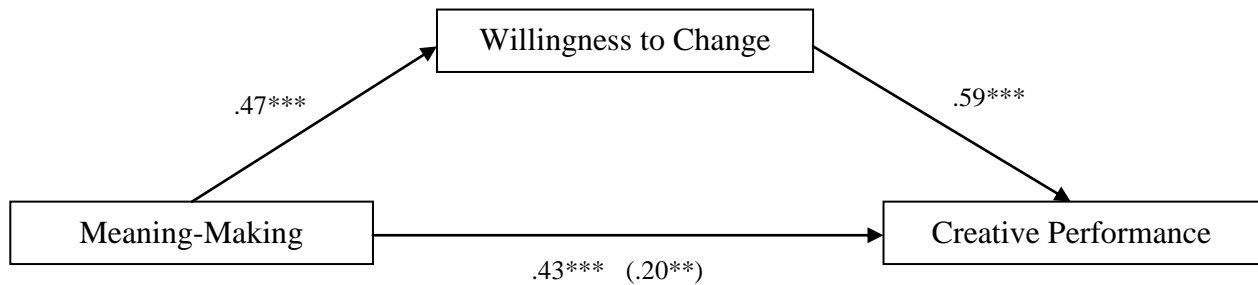
As can be seen in Figure 6, the relationship between PsyCap and creative performance was partially mediated by willingness to change.



\* p<.05    \*\* p<.01    \*\*\* p<.001

**Figure 6.** *The mediating role of Willingness to Change in the relationship between PsyCap and Creative Performance*

Figure 7 shows that the relationship between meaning-making and creative performance was partially mediated by willingness to change.



\* p<.05    \*\* p<.01    \*\*\* p<.001

**Figure 7.** *The mediating role of Willingness to Change in the relationship between Meaning-Making and Creative Performance*

#### Personal Resources & Change Appraisal

As meaning-making was not a significant predictor of change appraisal (see Hypothesis 3), the relationships between meaning-making and work engagement, adaptive performance, and creative performance did not meet Baron and Kenny’s (1986) criteria for mediation by change appraisal. As change appraisal was not a significant predictor of work engagement (see Hypothesis 4), the relationships between PsyCap and work engagement did not meet Baron and Kenny’s (1986) criteria for mediation by change appraisal.

The relationships between PsyCap and adaptive performance and between PsyCap and creative performance did meet Baron and Kenny’s (1986) criteria for partial mediation, but Sobel tests indicated that these mediation effects were not significant.

Based on the results above, it can be concluded that the fifth hypothesis was partially supported.

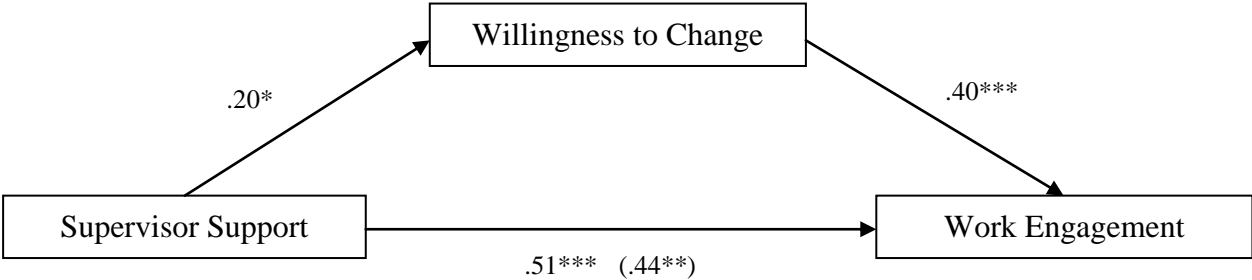
#### Job Resources & Willingness to Change

The sixth hypothesis concerned the mediating role of attitudes towards change on the relationships between job resources and positive outcomes. A partial mediation was expected.



As supervisor support was not a significant predictor of adaptive performance (see Hypothesis 2), this relationship was not included in the mediation analyses. As both supervisor support and communication were not significant predictors of creative performance (see Hypothesis 2), these relationships were also not included in the mediation analyses. All other relationships between job resources and positive outcomes did meet the conditions for mediation by willingness to change as proposed by Baron and Kenny (1986). Sobel tests indicated that the following relationships were mediated significantly by willingness to change:

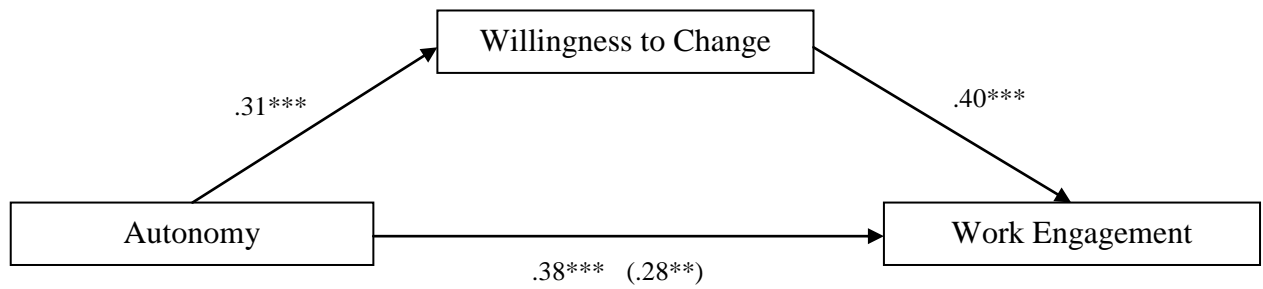
The relationship between supervisor support and work engagement was partially mediated by willingness to change, as can be seen in Figure 8.



\* p<.05    \*\* p<.01    \*\*\* p<.001

**Figure 8.** *The mediating role of Willingness to Change in the relationship between Supervisor Support and Work Engagement*

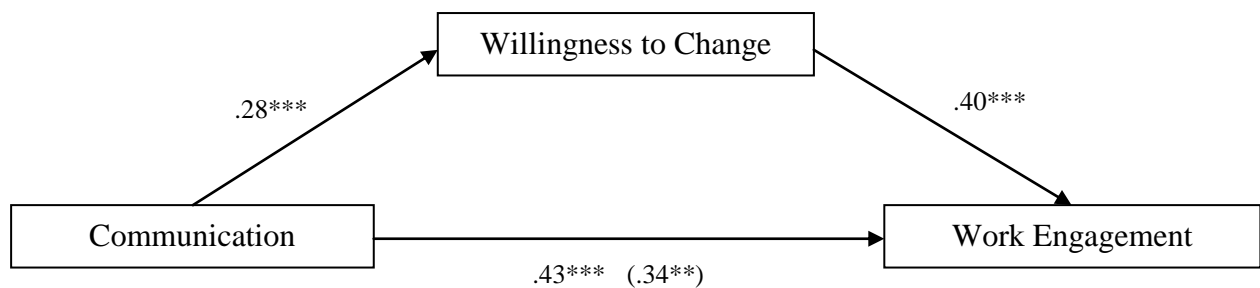
Figure 9 shows that the relationship between autonomy and work engagement was partially mediated by willingness to change.



\* p<.05 \*\* p<.01 \*\*\* p<.001

**Figure 9.** *The mediating role of Willingness to Change in the relationship between Autonomy and Work Engagement*

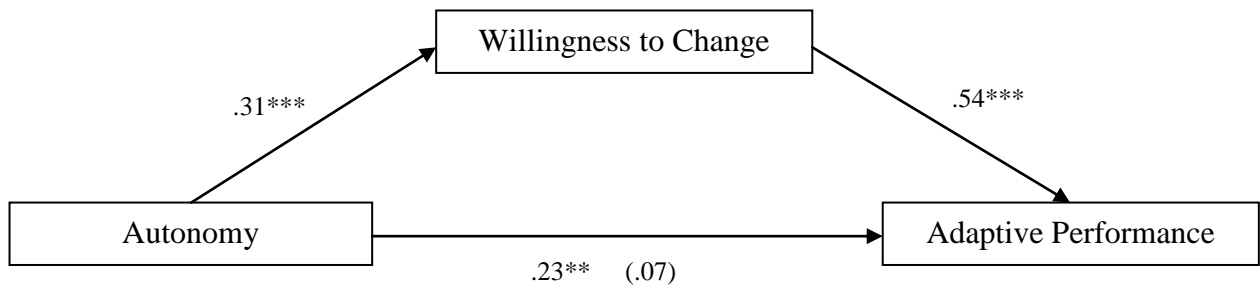
The relationship between communication and work engagement was partially mediated by willingness to change, as can be seen in Figure 10.



\* p<.05 \*\* p<.01 \*\*\* p<.001

**Figure 10.** *The mediating role of Willingness to Change in the relationship between Communication and Work Engagement*

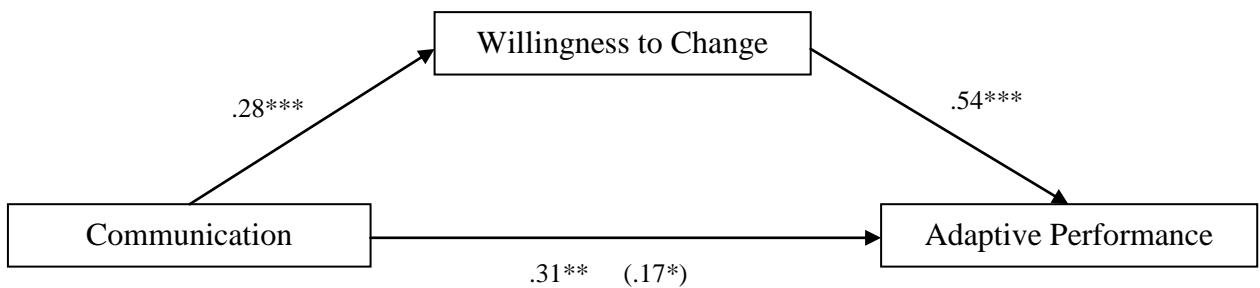
As shown in Figure 11, the relationship between autonomy and adaptive performance was fully mediated by willingness to change.



\* p<.05 \*\* p<.01 \*\*\* p<.001

**Figure 11.** *The mediating role of Willingness to Change in the relationship between Autonomy and Adaptive Performance*

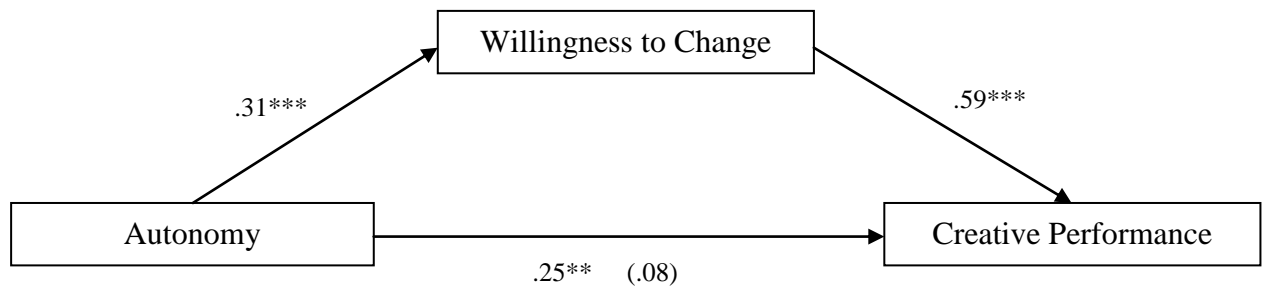
The relationship between communication and adaptive performance was partially mediated by willingness to change, as can be seen in Figure 12.



\* p<.05 \*\* p<.01 \*\*\* p<.001

**Figure 12.** *The mediating role of Willingness to Change in the relationship between Communication and Adaptive Performance*

The relationship between autonomy and creative performance was fully mediated by willingness to change, as shown in Figure 13.



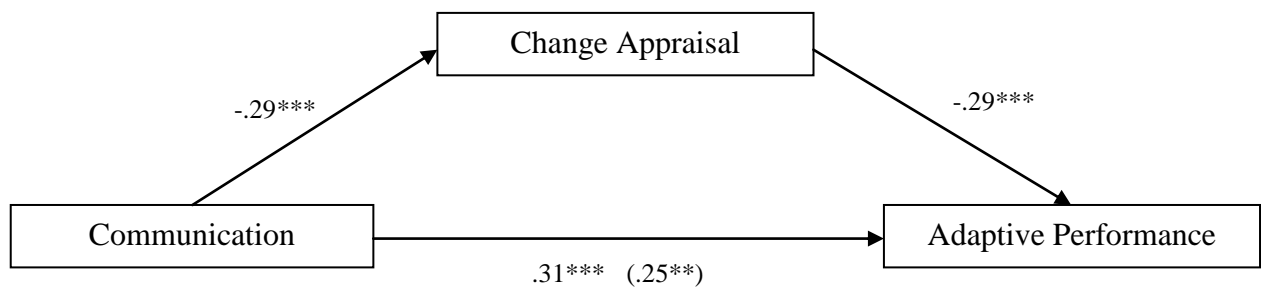
\* p<.05 \*\* p<.01 \*\*\* p<.001

**Figure 13.** *The mediating role of Willingness to Change in the relationship between Autonomy and Creative Performance*

#### Job Resources & Change appraisal

As change appraisal was not a significant predictor of work engagement (see Hypothesis 4), the relationships between the job resources and work engagement were not mediated by change appraisal. Both supervisor support and autonomy were shown not to be significant predictors of change appraisal (see Hypothesis 3), and were therefore not included in the mediation analyses of change appraisal. Communication was shown not to be a significant predictor of creative performance (see Hypothesis 2), and therefore this relationship was not included in the mediation analyses.

The only relationship that did meet the conditions for mediation by willingness to change as proposed by Baron and Kenny (1986), was the relationship between communication and adaptive performance. A Sobel test indicated that this partial mediation (Figure 14) was significant.

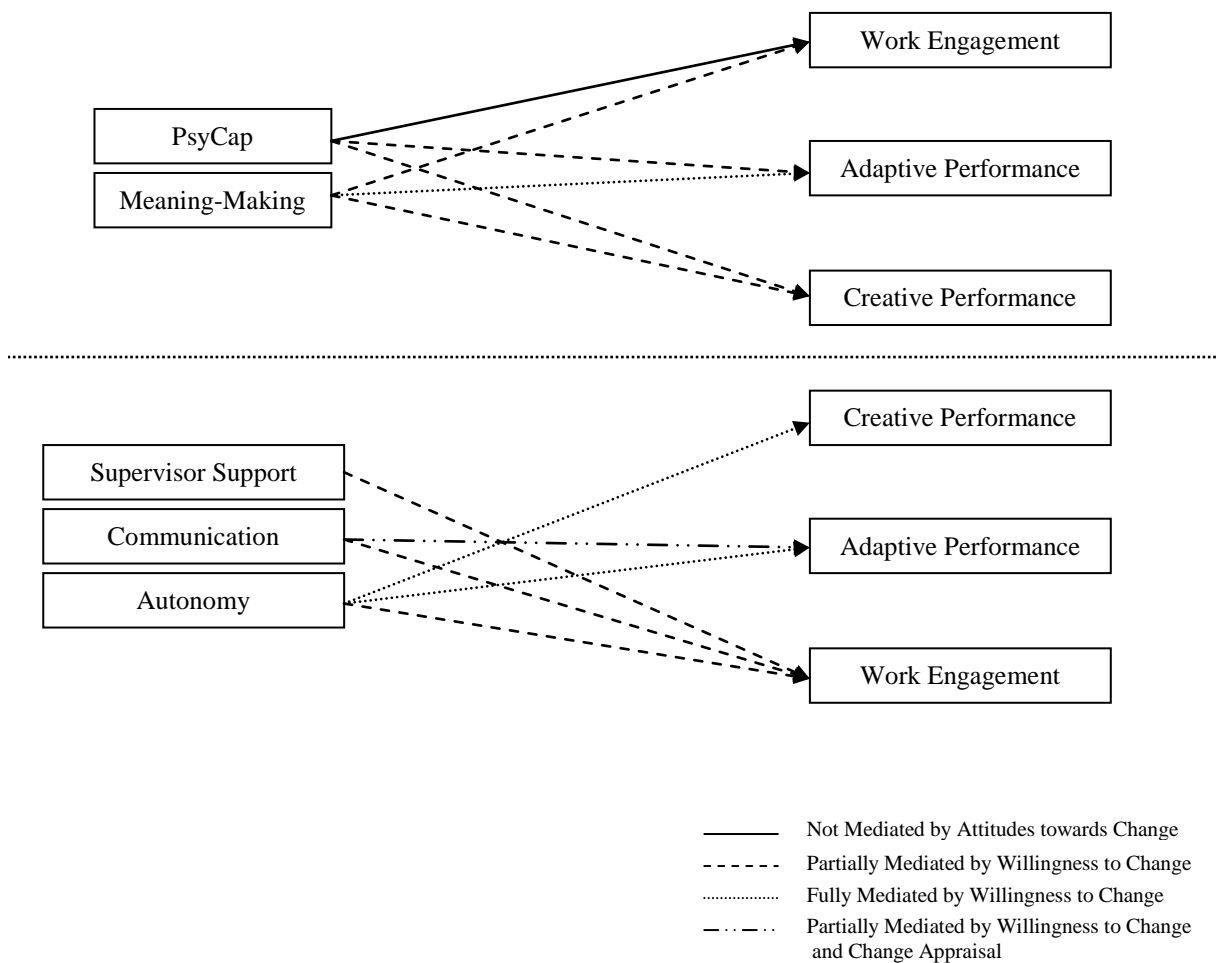


\* p<.05 \*\* p<.01 \*\*\* p<.001

**Figure 14.** *The mediating role of Change Appraisal in the relationship between Communication and Adaptive Performance*

Based on the results above it can be concluded that the sixth hypothesis was partially supported.

An overview of the mediating roles of attitudes towards change on the relationships between personal and job resources on the one hand and positive outcomes on the other, as indicated by the results above, can be found in Figure 15.



**Figure 15.** Overview of the mediating roles of Attitudes towards Change as found in the current research

Figure 15 shows that, with the exception of the relationship between PsyCap and work engagement, all the individual relationships between personal resources (PsyCap and meaning-making) and positive outcomes (work engagement, adaptive performance, and creative performance) were at least partially mediated by willingness to change. Figure 15 also shows that supervisor support is significantly related to work engagement, communication is significantly related to both adaptive performance and work engagement, and autonomy is significantly related to all three outcome variables. These relationships are all at least partially mediated by willingness to change, apart from the relationship between communication and adaptive performance, which is partially mediated by both willingness to change and change appraisal.

## ***Chapter 4: Discussion***

As Terry and Jimmieson (2003) point out, many organisations are undergoing considerable changes in order to deal with the effects of the current economic and financial uncertainty. These changes may have an impact on the well-being, motivation, and performance of the employees within these organisations (Van den Heuvel et al., 2010). In order to gain insight in the significance of this impact, the underlying processes that lead to these results need to be understood.

The aim of the current research was to gain insight into how positive aspects of one's personality and the work environment relate to the attitudes one may develop towards the organisational changes and how this all relates to positive outcomes, such as work engagement, adaptive performance, and creative performance.

Personal resources (PsyCap and meaning-making) and job resources (supervisor support, autonomy, and communication) were expected to be positively related to positive outcomes (work engagement, adaptive performance, and creative performance). The relationships between personal/job resources and positive outcomes were expected to be partially mediated by attitudes towards change (willingness to change and change appraisal). The main findings considering work engagement, adaptive performance and creative performance, including practical implications for improvement are discussed below.

### **Work Engagement**

PsyCap was shown to be the most important personal resource predicting work engagement, and supervisor support and communication were shown to be the most important job resources predicting work engagement. The relationships between the two job resources and work engagement were shown to be partially mediated by the employees' willingness to change.

As both PsyCap and communication are important predictors of willingness to change, these results indicate that in order to improve or maintain the level of work engagement of their employees, the organisation subject to the current research might benefit from developing interventions focused on improving the positive psychological capital of their employees, as proposed by Luthans, Youssef, and Avolio (2007). Also, it would be important for the organisation to provide sufficient supervisory support in combination with adequate communications regarding the change process.

In order to improve employees' PsyCap, the organisation could set up micro-interventions as described by Luthans, Avey, Avolio, Norman and Combs (2006). Luthans et al. (2006) provide an intervention format that is aimed at improving all four elements of the PsyCap construct. The first phase of the intervention involves the participants identifying personally valuable goals and generating multiple pathways to reach these goals. Potential obstacles, together with possible strategies to overcome them, are identified. During the second phase of the intervention, participants identify recent personal setbacks within their work domain, after which they are instructed to assess the realistic impact of the setbacks and their options for taking positive action and control of those situations.

To improve on perceived supervisor support, supervisors could consider organising more frequent feedback sessions and team meetings in order to support employees in dealing with the organisational changes in a positive way. Furthermore, communications regarding the change process should be adequate, timely, and useful. These communications should be focussed on answering the employees' questions regarding the changes the organisation is going through (Wanberg & Banas, 2000).

### *Adaptive Performance*

In relation to adaptive performance, again PsyCap was shown to be the most important predictor out of the two personal resources. Autonomy and communication were the prime job resources predicting adaptive performance. The relationship between PsyCap and adaptive performance was partially mediated by willingness to change, as was the relationship between communication and adaptive performance. The relationship between communication and adaptive performance was also partially mediated by change appraisal. The relation between autonomy and adaptive performance was fully mediated by willingness to change.

In order to improve the adaptive performance of the employees, the organisation could benefit from interventions focusing on improving the various components of PsyCap, as described above. In combination with these interventions, providing employees with the level of autonomy they need in performing their jobs should be a key priority. It could be considered to include the assessment of the individual level of preferred autonomy in the feedback sessions and team meetings mentioned above. Also, the communications regarding the change process should again be timely, useful, and adequate. A combination of these efforts should lead to employees having a more positive appraisal of the change process, more willingness to participate in the change process and more flexibility in coping with the



changes, which according to Pulakos et al. (2000) are key aspects of employees' ability to operate effectively in changing environments.

### *Creative Performance*

Both PsyCap and meaning-making showed a unique contribution in predicting creative performance. Of the job resources, only autonomy contributed significantly to the explanation of creative performance. The relationships between the personal resources and creative performance were both partially mediated by willingness to change and the relationship between autonomy and creative performance was fully mediated by willingness to change.

As with the other positive outcomes, interventions focusing on improving employees' positive psychological capital should be considered for improving the creative performance of the employees of the organisation subject to the current research. The organisation could also benefit from setting up interventions aimed at improving employees' ability to integrate challenging situations into a framework of personal meaning. Van den Heuvel et al. (2009) suggest that in order to improve employees' meaning-making, interventions might focus on actively encouraging and facilitating meaning-making for both leaders as individual employees. This could be accomplished by mindfulness training, helping employees to be aware of their personal values, which in turn facilitates meaning-making (Van den Heuvel et al, 2009).

Again, it would be advisable to combine these efforts with the practice of providing the employees with the level of autonomy they need to perform their jobs and to deal with the changes. A combination of these elements should result in a higher level of creative performance, leading to a better contribution to innovation, effectiveness, and organisational survival, as indicated by Shalley, Zhou, and Oldham (2004).

### *Limitations and Further Research*

The fact that none of the hypotheses were fully supported by the results, even though a positive trend was found throughout, might be due to the relatively low number of participants. This low number of participants also has an impact on the extent to which the results can be generalised, which means the results of the current research should only be interpreted in the context of the organisation in which the research took place. Unfortunately, the management of the organisation where the research took place would not allow a reminder for the used questionnaire to be sent out. The reason given was the concern of employees losing motivation to fill in surveys, when certain key performance indicators for the business

were based on survey results. A useful idea for future research would be to replicate the current research with a larger number of participants.

Further research is also needed to further integrate the Job Demands – Resources Model of Work Engagement (Bakker & Demerouti, 2008), and the Personal Resources Adaptation Model (Van den Heuvel et al., 2010) in order to gain more insight in the processes leading to positive outcomes in changing organisations. More specifically, further research is needed on the mediating role of attitudes towards change.

It should be noted that the current research model regards work engagement as a positive outcome, in accordance with the Personal Resources Adaptation Model proposed by Van den Heuvel et al. (2010). However, work engagement may have a mediating role on the relationships between personal/job resources and performance (adaptive & creative), as indicated in the Job Demands – Resources Model of Work Engagement (Bakker & Demerouti, 2008). This possible mediating role of work engagement in times of considerable organisational change would be an interesting topic for future research.

Apart from the inclusion of work engagement as an outcome variable, the model seems to fit the data rather well. However, it should be noted that because of the cross-sectional design of the current research, no clear conclusions can be formulated regarding the mediating roles of attitudes towards change on the relationships between the job/personal resources and outcome variables. It is possible that the mediating variable is caused by (one of) the outcome variables (Cole & Maxwell, 2003). Ideally, the mediating role of attitudes towards change should be researched using a longitudinal design.

### Conclusion

Even though the hypotheses of the current research were not fully supported by the results, the results do indicate the importance for changing organisations to try and optimise various job resources, personal resources, and attitudes towards change, to improve the well-being of both the employees and the organisation, as well as the success of the overall change process. Based on the results of the current research it could be concluded that a change programme focusing on building the psychological capital, meaning-making and willingness to change of employees, in combination with clear and useful communication regarding the change process should have a significant impact on the work engagement, creative performance, and adaptive performance of the employees of the organisation subject to the current research, and would therefore be useful to implement.

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