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# The Effect of Transformational Leadership on Employees During Organizational Change – An Empirical Analysis

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## ABSTRACT

Employees' reactions to organizational change are affected by transformational leaders, who foster employees' readiness for and commitment to change and motivate them to act in support of the change. However, just how transformational leadership affects employees remains unclear. To address this gap in knowledge, the present study analyses work engagement and the perceived consequences of a change (valence) as motivational mechanisms that explain the influence of transformational leaders on employees' behaviour during change. The study engaged 328 employees who were experiencing organizational change to complete a survey and used structural equation modelling for data analysis. Results show that work engagement and valence function as mediators in the relationship between transformational leadership and employee behaviour during change, so two motivational mechanisms are identified that shed light on the leadership process. Transformational leadership increases employees' work engagement and perceptions of attractive change consequences, subsequently evoking employee behaviour in support of change. In doing so, the study expands the research on the role of transformational leadership during organizational change and helps to sensitize managers about how they can positively influence employees in the course of organizational change.

## KEYWORDS

Transformational leadership; organizational change; work engagement; valence; employee behaviour

## Introduction

Because of developments such as digitization, globalization and demographic change, organizations must change continually if they are to stay competitive (Doppler, Fuhrmann, Lebbe-Waschke, & Voigt, 2011). Organizations initiate processes of change that include adopting new strategies, adjusting structures and implementing new or more flexible forms of employment (Doppler et al., 2011). Since many organizational changes fail to reach their defined objectives (Beer & Nohria, 2000; Burnes, 2011), empirical research on the factors of successful change has grown (Herscovitch & Meyer, 2002; Oreg, Vakola, & Armenakis, 2011). While there are multiple reasons for the low success rates of organizational change processes, researchers have found that employees themselves have a profound impact (e.g. Bormann & Rowold, 2016; Oreg et al., 2011; Self, Armenakis, & Schraeder, 2007), as it is them who put planned changes into action and respond to

the variations in their work routines that come with organizational changes. If planned changes are not realized on the individual level, they cannot be successful on the organizational level, so employees' motivation and behaviour have been found to be crucial to the success of organizational changes (Kim, Hornung, & Rousseau, 2010; Van den Heuvel, Demerouti, Bakker, & Schaufeli, 2010; Woodman & Dewett, 2004).

One way to influence employees' motivation and behaviour during change is through transformational leadership (Oreg & Berson, 2011), which has been shown to affect employees' attitudes towards and readiness to change positively (Bommer, Rich, & Rubin, 2005; Herrmann, Felfe, & Hardt, 2012) and to reduce their cynicism about change (DeCelles, Tesluk, & Taxman, 2013). Transformational leaders create a positive vision of change that is worth pursuing and inspire their followers through their charismatic nature. They also encourage innovative problem-solving and consider employees as individuals who will seek and pursue opportunities to grow personally (Bass, 1985, 1999). It is this positive influence that increases the motivation of employees (as well as of leaders) and that makes transformational leadership crucial in affecting the result of an organizational change. It should be noted that leaders themselves are employees who experience the change and may resist or support it (By, Hughes, & Ford, 2016). However, the focus of the present study should be on the individual employee (with or without leadership responsibility). Thus, the focus of analysis lies on the employee affected by the change and his or her supervisor.

Although researchers know about the positive influence of transformational leadership on employees during change, the mechanisms that underlie the relationship between transformational leadership and employees' reactions to change are less clear (Bono & Judge, 2003; Kark & Van Dijk, 2007), and there is little empirical evidence that addresses the issue (Chou, 2015). Empirical investigations that have considered mechanisms that explain how transformational leaders influence employee behaviour during organizational change are particularly scarce (Chou, 2015; Seo et al., 2012).

Kim et al. (2010) showed that the perception of attractive consequences – also called valence (Armenakis, Bernerth, Pitts, & Walker, 2007) – motivates employees to support an organizational change. Other researchers have found that transformational leaders are able to increase their followers' work engagement (Christian, Garza, & Slaughter, 2011; Ghadi, Fernando, & Caputi, 2013; Salanova, Lorente, Chambel, & Martínez, 2011; Zhu, Avolio, & Walumbwa, 2009) by convincing them that their work is meaningful and significant. As a result, employees feel pride in and enthusiasm for their work, resulting in the endurance required to achieve objectives, even in the face of obstacles (Schaufeli, Salanova, González-Romá, & Bakker, 2002), such as those that are likely to occur during change.

It is unclear whether transformational leadership can increase employees' valence during change and, consequently, elicit change-supportive behaviour, as it has not been tested empirically whether the perception of attractive consequences during change (valence) and employees' work engagement play an explanatory role regarding the relationship between transformational leadership and employees' change-supportive behaviour. Therefore, the present study analyses valence and work engagement as mechanisms that account for the association between transformational leadership and employees' behavioural support of a change. Thus, the aim of the study is to investigate the

relationship between transformational leadership and employees' behavioural support for a change, mediated by work engagement and valence.

This investigation as it relates to work engagement and valence is relevant to research for three primary reasons: work engagement can be fostered particularly well in work environments with high demands, such as during a change initiative (Bakker, Albrecht, & Leiter, 2011); since work engagement is contagious, it may have a significant effect during change efforts (Van den Heuvel et al., 2010); and valence is suggested to be one of the most important and proximal factors in influencing employees' reactions to change (Armenakis et al., 2007; Oreg et al., 2011). Therefore, determining the relationship of work engagement and valence with transformational leadership and employee behaviour during change helps to clarify employee motivation and behaviour in this special working context and opens possibilities for organizations to foster successful implementation of change.

The theoretical background and hypotheses of the study are developed in the following section, followed by a description of the structural equation modelling used as the method of analysis. Finally, results and conclusions for research and practice are presented.

## **Theoretical background and development of hypotheses**

### ***Transformational leadership, valence and work engagement***

In his *Leadership* book, Burns (1978) set the course for transformational leadership. In his understanding, transformational leadership is aligned to the wants, needs and values of followers. Thus, transformational leadership is primarily focused on the follower. Transformational leaders seek to satisfy higher needs of followers which results in a relationship between leader and follower that leads to mutual higher motivation and morality (Burns, 1978). Consequently, changes are made possible by leaders but serve the interest of all, including followers and leaders. In line with this, leadership is defined as a process that is determined by the relationship and the alignment of mutual needs and values of leader and follower. In this way, leadership is not tied to positions and could be distinguished from management (Barker, 2001). While Burns (1978) focus was leadership on the institutional and societal level, Bass (1985) concentrated his research amongst others more on business organizations. Moreover, he enabled a more systematic analysis of the effects of transformational leadership through the development of the full-range model of leadership, which is composed of three distinct leadership styles: *laissez-faire*, transactional and transformational. While *laissez-faire* is characterized by the absence of leadership, transactional leadership focuses on an exchange relationship between leader and follower that motivates followers to reach defined goals through rewards and incentives (Bass, 1999).

The influence of transformational leaders occurs through idealized influence, inspiration, intellectual stimulation and individualized consideration (Bass, 1999). *Idealized influence* is often referred to as charisma, which leads followers to trust and respect the leader through his or her aura, behaviour and function as a role model (Herrmann et al., 2012; Judge & Piccolo, 2004). *Inspiration* occurs when transformational leaders articulate a desirable future and show how to reach it, thereby demonstrating the

necessity and meaning of a planned change (Shamir, House, & Arthur, 1993) and creating a positive vision of the change. *Intellectual stimulation* by transformational leaders encourages their followers to be creative and to find new ways of solving problems (Bass, 1999) by questioning and revising routines in order to promote innovativeness (Jung, Chow, & Wu, 2003) and foster organizational change. Lastly, through *individualized consideration*, transformational leaders function as mentors to help employees manage their individual challenges, needs and goals, thereby fostering personal growth (Bass, 1999). In doing so, transformational leaders ensure that employees remain motivated and persistent during change and that they grow along with the situation (Bommer et al., 2005; Herrmann et al., 2012).

Transformational leadership has been positively linked to employees' positive attitudes (Bommer et al., 2005), commitment to change (Herold, Fedor, Caldwell, & Liu, 2008), and change readiness (Herrmann et al., 2012) and negatively linked to cynicism about change (DeCelles et al., 2013). A few studies have also found that transformational leadership influences employee behaviour during change by improving performance (Carter, Armenakis, Field, & Mossholder, 2013) and increasing behavioural support of a change (Chou, 2015). Chou (2015) investigated the leadership process during organizational change and analysed self-efficacy and affective commitment to change as explanatory variables in the association between leadership and employee behaviour.

To that research, two more variables are added in the present study, valence and work engagement, as helping to explain how transformational leaders affect employees' behaviour during change. Existing research is complemented by focusing on employees' behaviour during change instead of employees' attitudes or affect (Bommer et al., 2005; DeCelles et al., 2013; Herrmann et al., 2012) and the scarce literature on the leadership process during organizational change is enriched (Chou, 2015). Analysing valence and work engagement as mediators in the relationship between transformational leadership and employee behaviour helps to clarify the role of these variables during change. The study begins by illustrating how transformational leadership is related to valence and work engagement before moving on to focus on their mediating role in the link between transformational leadership and employee behaviour.

In the present study, it is suggested that transformational leadership enables employees to perceive the outcome of a change as attractive, thus increasing employees' valence (Armenakis et al., 2007). One central way transformational leaders motivate their followers is by elevating their followers' aims to a higher level, beyond self-interest, to embrace the organization's purpose. Transformational leaders themselves are willing to set aside their own needs, at least temporarily, in order to reach collective aims. By identifying with the leader, employees internalize shared values and needs, become willing to pursue shared goals that serve the collective group, and are inspired by a positive future vision that the transformational leader articulates (Bass, 1985; Bono & Judge, 2003). Through this influence, employees recognize the personal and collective benefits of a change and their valence increases. In line with these suggestions, Tims, Bakker, and Xanthopoulou (2011) found that transformational leaders create hope and optimism during organizational change. Moreover, Wright, Moynihan, and Pandey (2012) showed that employees' perception of the attractiveness of an organization's mission (mission valence) increases when a transformational leader articulates a clear and attractive vision. Therefore, the first hypothesis is formed as follows:

H1: During organizational change, transformational leadership positively influences employees' perceived valence.

The present study also suggests that transformational leaders foster employees' work engagement, that is, a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication and absorption (Schaufeli et al., 2002). Engaged employees have high levels of energy and mental resilience at work, perceive a sense of significance about their work, and feel pride in it. Arnold, Turner, Barling, Kelloway, and McKee (2007) showed that transformational leadership can increase followers' perceptions of their work as meaningful, and Harland, Harrison, Jones, and Reiter-Palmon (2005) showed that it can increase their mental resilience. In addition, researchers know that transformational leaders increase employees' identification with the leader and the work group (Wang & Howell, 2012) and that, under normal working conditions (not organizational change) transformational leadership can increase employees' work engagement (Christian et al., 2011; Ghadi et al., 2013; Zhu et al., 2009). However, the role of work engagement in the context of organizational change has not been widely investigated. In the present study, it is suggested that the influence of transformational leadership on work engagement lies primarily in the context of change, as transformational leadership is a change-related leadership style that aims at transforming organizations through a mutual increase of morality among leaders and followers (Bass, 1999; Burns, 1978; Judge & Piccolo, 2004). Moreover, the job-demands-resources model indicates that resources such as leadership increase in importance in highly demanding situations (Bakker & Demerouti, 2007), such as during organizational change. Therefore, it is hypothesized:

H2: During organizational change, transformational leadership has a positive influence on employee work engagement.

### ***Mediating links between transformational leadership and employees' behaviour***

Several positive change outcomes have been associated with valence, including employees' commitment to change (Fedor, Caldwell, & Herold, 2006; Hornung & Rousseau, 2007; Ning & Jing, 2012), attitude towards job changes (Van Dam, 2005) and change readiness (Vakola, 2014). Kim et al. (2010) linked valence with change-supportive employee behaviour, emphasizing its importance during change and leading to the conclusion that valence can also elicit championing behaviour – that is, 'demonstrating extreme enthusiasm for a change by going above and beyond what is formally required to ensure the success of the change and promoting the change to others' (Herscovitch & Meyer, 2002, p. 478). Moreover, valence has been identified as a mediator in the relationship between personality, context characteristics and change readiness (Vakola, 2014) and in the relationship between autonomy and commitment to change (Hornung & Rousseau, 2007). Thus, valence has important explanatory potential in the prediction of employee reactions to change (Oreg et al., 2011). In the present study, it is argued that valence can also shed light on the black box between transformational leadership and championing behaviour during change. It is suggested that transformational leaders enable employees to perceive greater valence during change, which motivates them to show championing behaviour and, thus, to support the change actively. It is hypothesized:

H3: During organizational change, perceived valence mediates the relationship between transformational leadership and championing behaviour.

Work engagement has been linked to task performance and extra-role performance under normal working conditions (Christian et al., 2011), which underscores its importance in predicting employees' behaviour. Extra-role performance can be understood as behaviour that helps the organization to function but does not necessarily directly increase productivity, such as helping colleagues with high workloads (Van den Heuvel et al., 2010). Championing behaviour is comparable to extra-role performance, but it refers directly to the context of organizational change, as it is also characterized by helping colleagues to overcome the difficulties related to a change. Therefore, in line with results regarding the relationship between work engagement and performance (Christian et al., 2011) a relationship between work engagement and championing behaviour during organizational change is predicted in the present study. This relationship is analysed because organizational change creates a social and situational context that differs from work under normal working conditions and influences how employees attend to information, process it, and form their behaviours (Salancik & Pfeffer, 1978). Research has also shown that work engagement can function as a mediator between transformational leadership as an antecedent and nurses' extra-role performance (Salanova et al., 2011) or organizational knowledge creation (Song, Kolb, Lee, & Kim, 2012). Therefore, the present study suggests that work engagement has explanatory power and helps to clarify the leadership process during organizational change. It is hypothesized:

H4: During organizational change, work engagement mediates the relationship between transformational leadership and championing behaviour.

## Method

### *Sample*

A total of 328 employees (50.8% female) from various organizations and industries participated in the study. They had in common that they were experiencing organizational change. The survey could be completed online or via paper and pencil, and participants were recruited through social media, calls in journals or newsletters, and organizational change-related consultant firms. Participants reported changes in technology (14.3%), processes (21.8%), structure (18.1%), strategic aims (5.4%), organizational culture (10.2%), staff changes (22.8%) and mergers (7.9%). Data collection was not restricted to any specific type of organizational change, since the focus of the analysis was the individual employee who is affected by the change, not the change itself (Van den Heuvel et al., 2010). Participants between ages 19 and 29 represented 33.2% of the sample, those from 30 to 39 years 23.5%, 40 to 49 22.9%, 50 to 59 19.1% and over 60 1.3%. The majority were white-collar workers (79.6%), while 32.9% of participants had managerial responsibility.

### *Measures*

#### *Transformational leadership*

The independent variable, transformational leadership, was measured using the validated German version of the transformational leadership inventory (TLI) (Podsakoff, MacKenzie,



& Bommer, 1996; Podsakoff, MacKenzie, Moorman, & Fetter, 1990; translation by Heinitz & Rowold, 2007). Participants rated their leaders' behaviours on six dimensions with 22 items (see Table 2) on a five-point Likert scale that measured how often (from *never* to *always*) their leaders showed a certain behaviour. The six dimensions of transformational leadership are 'identifying and articulating a vision', 'providing an appropriate model', 'fostering the acceptance of group goals', 'high-performance expectations', 'providing individual support' and 'intellectual stimulation'. The TLI has been developed to meet measurement problems (referring to its factorial structure) of the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 2000; Heinitz & Rowold, 2007; Podsakoff et al., 1996). Based on the literature on transformational leadership and similar to Bass's conceptualization of the MLQ (Bass & Avolio, 2000) Podsakoff et al. (1990, 1996) identified the six dimensions that summarize core behaviours of transformational leaders (Podsakoff et al., 1990, 1996). Based on results of the confirmatory factor analysis (CFA), a composite second-order factor of transformational leadership that is composed of five dimensions – the six original dimensions, less 'high-performance expectations' (see Confirmatory factor analysis results) was formed. The composite reliability (CR) of the scale was high (CR = .94).

### **Valence**

The four-item subscale valence from the organizational change recipients' beliefs scale (Armenakis et al., 2007) was translated into German using a translation–back translation procedure with a subject-specific expert and a native speaker (Brislin, 1986). The original scale meets the psychometric criteria of the American Psychological Association, and subscales can be used independently. Scale items are displayed in Table 2. Participants responded using a seven-point Likert scale (from *does not apply at all* to *fully applies*). The CR of the scale was high (CR = .86).

### **Work engagement**

The study used the validated, shortened German version of the Utrecht Work Engagement Scale (UWES-9) that measures work engagement with nine items (see Table 2) on a seven-point Likert scale (CR = .93) (Schaufeli, Bakker, & Salanova, 2006). Following practical recommendations by Schaufeli et al. (2006), a single composite work-engagement score was formed because of very high (>.9) correlations between the dimensions of vigour, dedication and absorption.

### **Championing behaviour**

Herscovitch and Meyer's (2002) championing behaviour was used to conceptualize employee behaviour. Composed of six items, the subscale has been used in comparable studies that have measured employee behaviour during organizational change (Bakari, Hunjra, & Niazi, 2017; Cunningham, 2006). Participants responded on a seven-point Likert scale (from *strongly disagree* to *strongly agree*). Again, a translation–back translation procedure was applied to translate scale items into German. Multi-group analyses revealed a significant difference on the measurement level between those participants who had leadership responsibility and those who did not, so the two items ('I persevere with the change to reach goals' and 'I try to overcome co-workers' resistance toward the change') that caused this difference were deleted in order to enable analysis on the structural level. The remaining items are displayed in Table 2. The CR of the scale was high (CR = .86).



### ***Control variables/variables of interest***

Control variables were age, gender, professional position, industry and leadership responsibility. Self-efficacy was included as a variable of interest using the validated German short version of the occupational self-efficacy scale, which measures self-efficacy with six items (see [Table 2](#)) (Rigotti, Schyns, & Mohr, 2008). Self-efficacy was considered important in the present study because it has been found to be a crucial antecedent of employee behaviour during organizational change (Armenakis et al., 2007; Chou, 2015; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Discrepancy (belief that some change is needed due to discrepancy between current and desired state) (Armenakis et al., 2007), measured using four items (see [Table 2](#)) from the organizational change recipients' beliefs scale, was included because of its importance in the prediction of employees' reactions to organizational change (Armenakis et al., 2007).

### ***Procedures for data analysis***

Using structural equation modelling, a two-step approach was applied (Anderson & Gerbing, 1988) in SPSS AMOS 22 to analyse the data. In the first step, the factor loadings, reliabilities and validities of scales were tested using CFA. The model fit of the measurement model was compared with competing models in order to determine whether measures load on their respective factors. In the second step, hypotheses were tested using a structural model. The advantage of this two-step procedure is that interactions between the measurement model and the structural model are avoided so the true relationships between constructs are revealed more accurately (Bagozzi & Yi, 2012). Following Bagozzi and Yi (2012), the model fit indices Comparative Fit Index (CFI), Tucker Lewis Index (TLI) and Root mean Square Error of Approximation (RMSEA), as well as the chi-square test were used to evaluate the model fit. Whereas CFI and TLI should be  $\geq 0.9$ , RMSEA values should be  $\leq 0.05$  (Weiber & Mülhhaus, 2014). Mediation was tested using the bootstrapping approach (Cheung & Lau, 2008).

## **Results**

### ***Descriptive analyses***

The means, standard deviations, reliabilities and correlation coefficients of the constructs that are related to the hypotheses and the variables of interest (self-efficacy, discrepancy) are presented in [Table 1](#). The variance inflation factors (VIFs) were computed for each construct to test for multicollinearity. The highest VIF was below the conventional threshold of 2.5 (1.998 for work engagement), indicating no multicollinearity problem (Allison, 1999). CR showed good reliabilities of the scales (Weiber & Mülhhaus, 2014).

### ***Confirmatory factor analysis results***

CFA was conducted to test for the factorial structure of constructs used. Because of very high correlations ( $>.9$ ) among the three dimensions of work engagement – vigour, dedication and absorption – work engagement was regarded as a single latent construct following practical recommendations by Schaufeli et al. (2006). Two out of three items that form

**Table 1.** Composite reliability along the diagonal beginning at 1, means, standard deviations and correlations of the variables.

Variables	M	SD	1	2	3	4	5	6
(1) Transformational Leadership	3.142	0.957	.944					
(2) Championing Behaviour	3.998	1.395	.375***	.862				
(3) Valence	1.986	0.823	.457***	.661***	.859			
(4) Work Engagement	4.597	1.159	.442***	.509***	.419***	.932		
(5) Self-efficacy	5.333	1.191	.223**	.454***	.319***	.568***	.902	
(6) Discrepancy	3.108	1.006	.379***	.478***	.407***	.320***	.364***	.843

Note.  $N = 328$ ; Pearson correlation (bivariate); \*\* $p \leq .01$ ; \*\*\* $p \leq .001$ .

the dimension 'high-performance expectations' (TLI-HPE) of transformational leadership had low factor loadings that were under the accepted threshold of 0.5 (Weiber & Mühlhaus, 2014), resulting in low reliability and a lack of construct validity of this dimension, so the TLI-HPE dimension (with its three items) was removed from the present study. The remaining five dimensions were used as indicators of a composite transformational leadership construct. Similar problems with the TLI-HPE dimension were found in a validation study (Heinitz & Rowold, 2007), where only one item from the TLI-HPE dimension showed insufficient factor loading. Despite low reliability and low correlations with other TLI dimensions, the authors decided not to exclude the dimension (Heinitz & Rowold, 2007), although they suggested that TLI-HPE may not be a central component of transformational leadership but may differ qualitatively from the other components (Heinitz & Rowold, 2007; Podsakoff et al., 1990). After exclusion of the TLI-HPE dimension, all but one of the remaining items (I will earn higher pay from my job after this change) had factor loadings above the accepted threshold of 0.5 (Weiber & Mühlhaus, 2014). The item pertains to the valence construct and was not removed from the study in order to maintain the construct's structure (Armenakis et al., 2007). All factor loadings are presented in Table 2.

Based on modification indices, the error terms of two reversed items from the transformational leadership scale (dimension: individualized consideration) were allowed to correlate since it is likely that their semantic structure causes these items to share common error. As Table 3 (Model 1) shows, the CFA yielded good model fit ( $\chi^2 = 1818.690$ ,  $df = 968$ ,  $\chi^2/df = 1.879$ ; good model fit for CFA and TLI  $> .9$  and acceptable to good model fit for RMSEA = .052). In a competing model (Table 3, Model 2), an overall construct of transformational leadership without distinguishing among the dimensions suggested by Heinitz and Rowold (2007) was tested. However, the fit of this model was worse based on model-fit indices (Hu & Bentler, 1999) and was statistically inferior to Model 1. In a third model (Table 3, Model 3), all items load on a single factor. The model has poor model fit and is statistically inferior to Model 2. Therefore, Model 1 was used as a baseline model for the analysis.

The convergent and discriminant validity of constructs was ensured since all average variances extracted were  $> .5$ , and AVEs for each construct were greater than any squared correlations (Fornell & Larcker, 1981). Skewness and kurtosis of all constructs were below the conventional value of 1 (max. skewness: self-efficacy =  $-.712$ ; max. kurtosis: valence =  $-.884$ ) providing evidence for an approximately normal distribution (Temme & Hildebrandt, 2009). All constructs were measured at one time and by self-reports, an approach that increases the risk of common method bias (CMB) (Podsakoff,

**Table 2.** Factors, Items and Factor Scores.

Second-order factor	Factor scores	First-order factors	Items	Factor scores	
Transformational Leadership	.914	TLI_model	Leads by example.	.900	
			Provides a good model for me to follow.	.893	
			Leads by 'doing', rather than by 'telling'.	.659	
	.955	TLI_vision	Is able to get others committed to his/her dream of the future.	.791	
			Inspires others with his/her plans for the future.	.874	
			Has a clear understanding of where we are going.	.758	
			Paints an interesting picture of the future for our group.	.799	
			Is always seeking new opportunities for the unit.	.736	
			Develops a team attitude and spirit among his/her employees.	.861	
	.866	TLI_groupgoals	Gets the group to work together for the same goal.	.861	
			Encourages employees to be 'team players'.	.788	
			Fosters collaboration among work groups.	.825	
			Treats me without considering my personal feelings.	.600	
			Acts without considering my feelings.	.588	
	.763	TLI_indcon	Behaves in a manner that is thoughtful of my personal needs.	.897	
			Shows respect for my personal feelings.	.838	
			Has stimulated me to think about old problems in new ways.	.812	
			Has ideas that have forced me to rethink some of my own ideas I have never questioned before.	.829	
	.880	TLI_intstim	Has provided me with new ways of looking at things which used to be a puzzle for me.	.788	
			I try to find ways to overcome change-related difficulties.	.523	
			I speak positively about the change to outsiders.	.871	
			I speak positively about the change to co-workers.	.930	
	Championing Behaviour		I encourage the participation of others in the change.	.712	
			Valence	I will earn higher pay from my job after this change.	.481
			The change in my job assignments will increase my feelings of accomplishment.	.882	
				With this change in my job, I will experience more self-fulfillment.	.888
	The change will benefit me.	.812			
Work Engagement		I am immersed in my work.	.725		
		I am proud of the work that I do.	.755		
		I feel happy when I am working intensely.	.520		
		When I get up in the morning, I feel like going to work.	.731		
		At my work, I feel bursting with energy.	.846		
		I get carried away when I am working.	.809		
		I am enthusiastic about my job.	.903		
		At my job, I feel strong and vigorous.	.858		
		My job inspires me.	.804		
		Self-Efficacy		I feel prepared for most of the demands in my job.	.767
I meet the goals that I set for myself in my job.	.790				
My past experiences in my job have prepared me well for my occupational future.	.793				
Whatever comes my way in my job, I can usually handle it.	.792				

*(Continued)*

**Table 2.** Continued.

Second-order factor	Factor scores	First-order factors	Items	Factor scores
			When I am confronted with a problem in my job, I can usually find several solutions.	.797
			I can remain calm when facing difficulties in my job because I can rely on my abilities.	.730
		Discrepancy	We needed to change the way we did some things in this organization.	.686
			We needed to improve the way we operate in this organization.	.843
			We needed to improve our effectiveness by changing our operations.	.875
			A change was needed to improve our operations.	.604

Note. TLI\_model: ‘providing an appropriate model’; TLI\_vision: ‘identifying and articulating a vision’; TLI\_groupgoals: ‘fostering the acceptance of group goals’; TLI\_indcon: ‘providing individual support’; TLI\_intstim: ‘intellectual stimulation’. In the survey, Items were in the German language as described in the Method section.

**Table 3.** CFA results for the measurement model.

Model	$\chi^2$	df	$\chi^2/df$	$\Delta \chi^2$	TLI	CFI	RMSEA
(1) six-factor second-order model <sup>a</sup>	1818.690	968	1.879		.915	.920	.052
(2) six-factor first-order model <sup>b</sup>	2342.645	973	2.408	523.955*** <sup>d</sup>	.863	.871	.066
(3) single-factor model <sup>c</sup>	6705.599	988	6.787	4362.954*** <sup>e</sup>	.438	.463	.133

<sup>a</sup>Transformational leadership as second-order factor composed of five dimensions; valence, work engagement, championing behaviour, discrepancy, self-efficacy as single factors.

<sup>b</sup>Transformational leadership, valence, work engagement, championing behaviour, discrepancy, self-efficacy as single factors.

<sup>c</sup>Variables load onto a single factor.

<sup>d</sup>Difference in model fit, comparing Model 1 with Model 2.

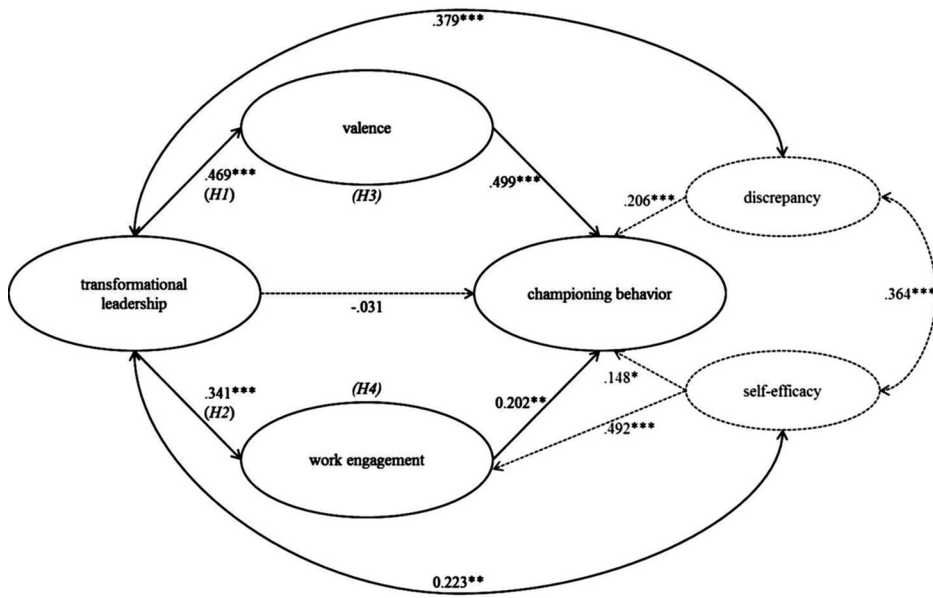
<sup>e</sup>Difference in model fit, comparing Model 2 with Model 3.

\*\*\* $p \leq .001$

MacKenzie, Lee, & Podsakoff, 2003). However, recent research claims that CMB that is due to self-reports is not necessarily a problem and is overestimated at times (Brannick, Chan, Conway, Lance, & Spector, 2010). It is preferable instead to use self-report measures when assessing affect and attitudes. Moreover, including ratings from others may cause other rating biases (e.g. sympathy for a target) or create unshared method variance (UMV), which deflates the true relationships between constructs (Spector, Rosen, Richardson, Williams, & Johnson, 2017). Finally, research has shown that many of the methods applied to resolve the problem of CMB do not have the intended effects (Spector et al., 2017). Nevertheless, Harman’s single-factor test (Podsakoff et al., 2003) was conducted, which showed that one factor explained less than 50% of the variance. In addition, including a common method, latent factor for all variables in AMOS resulted in 15% shared variance, which is significantly less than the acceptable threshold of 25% (Podsakoff et al., 2003). In sum, these results and recent discussions about CMB (Spector et al., 2017) led to the conclusion that CMB does not harm the relationships in this study.

### **Hypotheses testing: the structural model**

The research model was fitted to the data to test the hypotheses (Figure 1). For reasons of clarity, only the structural model with the variables of interest (discrepancy and self-



**Figure 1.** Results model with hypothesized effects and variables of interest.  $N = 328$ ; standardized path coefficients; grey dashed lines: variables of interest;  $***p \leq .001$ ;  $**p \leq .01$ ;  $*p \leq .05$ .

efficacy) is displayed. The research model's fit indices indicate good fit ( $\chi^2 = 1856.224$ ,  $df = 972$ ;  $\chi^2/df = 1.910$ ; TLI = .912; CFI = .917; RMSEA = .053) (Hu & Bentler, 1999; Weiber & Mülhau, 2014).

The results of the SEM analysis are depicted in Table 4. The first hypothesis proposed that transformational leadership positively influences employee valence. A significant positive direct relationship between transformational leadership and valence ( $\gamma = .469$ ;  $p \leq .001$ ) supports this hypothesis. Results also show a significant positive direct relationship between transformational leadership and work engagement ( $\gamma = .341$ ;  $p \leq .001$ ), supporting the second hypothesis, that transformational leadership positively influences employee work engagement. Hypotheses 3 and 4 proposed that valence (H3) and work engagement (H4) are mediators in the relationship between transformational leadership and championing behaviour. It was found that work engagement ( $\beta = .202$ ;  $p \leq .01$ ) and valence ( $\beta = .499$ ;  $p \leq .001$ ) are significantly related to championing behaviour but that transformational leadership has no significant direct effect on championing behaviour ( $\gamma = -.031$ ;  $p = .66$ ), providing support for mediation and Hypotheses 3 and 4 (see also Figure 1 and Table 4). In addition, bootstrapping was used in AMOS to perform 5000 resamples and two-sided bias-corrected 95% confidence intervals in order to test for significance of the indirect (mediated) effect of transformational leadership on championing behaviour. As hypothesized, statistical significance was gained for the indirect effect ( $\beta = .303$ ;  $p \leq .001$ ). Thus, Hypotheses 1 and 2 as well as mediation Hypotheses 3 and 4 are supported.

In addition to the hypothesized effects, significant effects of the variables of interest, self-efficacy and discrepancy were observed. Self-efficacy has a significant direct positive effect on work engagement ( $\gamma = .492$ ;  $p \leq .001$ ) and championing behaviour ( $\gamma = .148$ ;  $p \leq .05$ ). The same occurs for the discrepancy, which is significantly and positively



**Table 4.** SEM results with direct and indirect effects of core variables and variables of interest

		Hypothesis		Direct effects <sup>a</sup>	Total indirect effect <sup>a</sup>	BCCI	
						Lower	Upper
H1	Transformational leadership	→	Valence	.469*** (0.058)		0.353	0.582
H2	Transformational leadership	→	Work Engagement	.341*** (0.055)		0.228	0.447
H3 and H4	Transformational leadership	→	Championing Behaviour	-.031 (0.065)	.303*** (0.050)	-0.150	0.099
			Championing Behaviour			0.212	0.407
			Work Engagement → Championing Behaviour	.202** (0.076)		0.055	0.351
			Valence → Championing Behaviour	.499*** (0.064)		0.371	0.627
			Self-Efficacy → Championing Behaviour	.148* (0.066)		0.013	0.272
			Self-Efficacy → Work Engagement	.492*** (0.052)		0.381	0.588
			Discrepancy → Championing Behaviour	.206*** (0.061)		0.087	0.327

Note. BCCI: Bias-corrected confidence interval.

<sup>a</sup>Standardized coefficients with standard error in parentheses.

\*\*\* $p \leq .001$ ; \*\* $p \leq .01$ ; \* $p \leq .05$ .

related to championing behaviour ( $\gamma = .206$ ;  $p \leq .001$ ). Following recommendations by Becker (2005) analyses were repeated without controlling for self-efficacy and discrepancy. These analyses showed that results were essentially identical ruling out that the control variables are the explanation for hypothesized effects.

Large proportions of variance are explained in the variables (measured by the squared multiple correlations). In total, 50.4% of the variance in championing behaviour is explained through the direct and indirect effects of transformational leadership, work engagement, valence (and the variables of interest self-efficacy and discrepancy). Moreover, 43.3% of the variance in work engagement is explained through transformational leadership and self-efficacy, and 22% of the variance in valence is explained through transformational leadership.

## Discussion

### *Interpretation of results*

The aim of the study was to investigate the relationship between transformational leadership and employees' behavioural support for a change mediated by work engagement and valence. In line with the hypotheses, it was shown that transformational leaders can increase employees' valence and, thus, their perception of a change's consequences as beneficial (H1) and that transformational leaders increase employees' work engagement during organizational change (H2). In addition, light was shed on the leadership process by identifying valence and work engagement as mediators that explain how transformational leaders elicit championing behaviour from their employees (H3 and H4).

The results are in line with previous findings that emphasize the importance of transformational leadership during organizational change (e.g. Bommer et al., 2005; Herrmann et al., 2012; Oreg & Berson, 2011). Existing research is enhanced by linking transformational leadership to championing behaviour, which is characterized by active and persistent support for the change (Herscovitch & Meyer, 2002). This finding is congruent with the conceptually depicted influence of transformational leadership, which enables performance beyond what is expected (Bass, 1985, 1999). This influence on employee behaviour also occurs during organizational change, a context that is stressful for many employees (Vakola & Nikolaou, 2005).

The influence of transformational leadership on championing behaviour is clear only when the mediating roles of valence and work engagement are considered, as the relationship between transformational leadership and employee behaviour during change is complex, and isolated consideration of the direct effect of transformational leadership on employee behaviour would lead to false interpretation of results. Instead, the present study takes account of the complexity of relationships in uncovering two motivational mechanisms that explain how transformational leadership unfolds its effect during organizational change.

The first of these motivational mechanisms is the perception of attractive consequences of change. The study shows that transformational leadership leads to the perception of attractive consequences of a change, which then motivates employees to support the change actively through their behaviour. When employees see that a change can have positive consequences for them, they are likely to be willing to act



in favour of the change. This finding is particularly noteworthy as perceived valence was low in the present sample ( $M = 1.968$ , see Table 1). Thus, although employees perceive few attractive change consequences, valence predicts employee championing behaviour. Furthermore, it explains the association between transformational leadership and championing behaviour showing that even on a low level perceived positive change consequences influence employees' reaction to change. Previous research has also stressed valence's relevance to influence employees' reaction during organizational change and has suggested that valence could be a more proximal antecedent of employee reactions to change than other antecedents are (Oreg et al., 2011). The present study supports this view by showing that valence helps to explain the influence of transformational leadership on employee championing behaviour. A differentiated look at the dimensions through which transformational leadership unfolds its effect could allow even more precise statements about the influence of transformational leaders on employees. For example, it can be supposed that a transformational leader articulating a positive future vision is especially associated with employees' perception of change benefits. However, problems in differentiating among the dimensions of transformational leadership (Heinitz & Rowold, 2007; Krüger, Rowold, Borgmann, Staufenbiel, & Heinitz, 2011) and a lack of discriminant validity among them led to the present study's approach regarding transformational leadership as a single latent construct. Otherwise, interpretation of results would have been inconclusive.

In terms of the second motivating mechanism, and also in line with existing research, the present study revealed that transformational leadership increases employee work engagement (Christian et al., 2011; Ghadi et al., 2013; Salanova et al., 2011; Zhu et al., 2009). Existing research is extended by showing that this influence also occurs during processes of change, not only under normal (non-change) working conditions. Therefore, in an often insecure and stressful context for employees (Vakola & Nikolaou, 2005), transformational leaders create high levels of energy and mental resilience among employees, characteristics that are helpful during change. Moreover, employees perceive a sense of significance in what they do and perceive the change as more of a challenge than a threat, so they are willing to support the change through their behaviour shown through the significant mediation in the present study. Thus, another motivational mechanism that explains how transformational leaders elicit championing behaviour in employees was identified. Again, results are consistent with previous research in which work engagement functioned as a mediator (Salanova et al., 2011; Song et al., 2012), but it was shown that this mechanism also functions in a possibly stressful and insecure context (Vakola & Nikolaou, 2005). This result is in line with the job-demands-resources model, which includes work engagement as a central variable and states that resources such as leadership gain special salience in highly demanding situations (Bakker & Demerouti, 2007). Effects of the variables of interest are in line with previous results (e.g. Armenakis et al., 2007; Chou, 2015).

### **Contribution**

The study contributes to research on organizational change, transformational leadership during change and the role of work engagement and valence in the changing context in several ways:

Oreg et al. (2011) criticized that individual-level reactions to change are less frequently analysed than organizational-level reactions are, so this study addresses this criticism by focusing on individual reactions during organizational change. The study's findings help to clarify how to encourage employees to support change efforts. The present study also extends previous research that has mainly considered employees' attitudes towards change (Bommer et al., 2005; DeCelles et al., 2013; Herrmann et al., 2012) by analysing employees' championing behaviour during change, thereby adding to the comparatively few studies that analyse the influence of leadership on employees' behaviour during change (Bakari et al., 2017; Chou, 2015).

Another important contribution is related to the role of transformational leadership during change. While many studies have emphasized the importance of transformational leadership in change processes (Carter et al., 2013; DeCelles et al., 2013; Herold et al., 2008; Herrmann et al., 2012), only a few have addressed more complex relationships in an effort to clarify how transformational leadership influences employees (Bono & Judge, 2003; Kark & Van Dijk, 2007). To the best of our knowledge, Chou (2015) alone has analysed the leadership process in an effort to understand employees' behaviour during change. The present study adds to this scarce literature by focusing on the leadership process and by identifying valence and work engagement as explanatory underlying variables. In doing so, the study helps to clarify how transformational leaders influence employees during change.

The consideration of valence as a mediator in the present study expands knowledge about the meaning of attractive change consequences for employees. It has been suggested that valence can be a more proximal antecedent of employee reactions to change than other antecedents are (Armenakis et al., 2007; Oreg et al., 2011), an idea that is supported in the present study. In line with previous research, the present study finds that the perception of positive consequences of a change is one of the most important factors in motivating employees to support a change.

Lastly, the present study extends research that addresses employees' work engagement by transferring findings to the context of organizational change. Comparatively few studies have considered work engagement during organizational change (Petrou, Demerouti, & Häfner, 2015; Petrou, Demerouti, & Xanthopoulou, 2017; Van den Heuvel et al., 2010), so the study makes an important contribution by showing the meaning of work engagement in this context. In particular, the study underscores that work engagement can elicit employees' championing behaviour, a particularly useful asset during change.

### ***Limitations and implications for future research***

The study has several limitations. Because the data are cross-sectional no inferences about the causality of relationships can be made. Since all data were gained at one time and from one source, common-method bias (CMB) might be a problem (Podsakoff et al., 2003). This issue was discussed in the Method section and it was referred to Brannick et al. (2010), who claim that CMB is not a problem *per se*. Moreover, including other ratings can invoke other rating biases. So far, it is not entirely clear how the problems of CMB or UMV harm results or how these problems can be resolved (Spector et al., 2017), so the results may contain a bias caused by method variance. Multi-group analyses revealed a difference in results between participants with leadership responsibility and those without it. The difference

occurred on the measurement level and was caused by the championing behaviour scale. Therefore, two items in the scale had to be deleted because structural relationships could not have been interpreted otherwise. The two deleted items were 'I persevere with the change to reach goals' and 'I try to overcome co-workers' resistance toward the change'. It is possible that employees with leadership responsibility had a different understanding of these items compared to employees without leadership responsibility. Specifically, the expressions 'goals' and 'co-workers' might have evoked different associations. However, whether these differences occurred only in the present sample or whether a general difference was revealed remains unclear. The scale should be revalidated with other samples in order to test for its applicability to different groups.

The present study set its focus on the individual employee who is affected by his or her supervisor through transformational leadership. Although transformational leadership has been shown to positively influence employee attitudes and behaviour during organizational change (e.g. Bommer et al., 2005; Chou, 2015), the concept should also be regarded critically. First, although Burns (1978) originally defined transformational leadership as a follower-oriented process that is aligned to wants, needs and values of followers, leadership research has created an image of heroic individual transformational leaders. However, the success of an organizational change does not solely depend on the individual transformational leader. Rather, successfully leading change implies that leadership is shared among multiple people (By et al., 2016). Although transformational leadership has been proved helpful for the success of organizational change (through its influence on employees) investigating the effects of shared or distributed leadership can complement research on leadership and change in the future (By et al., 2016; Ford & Ford, 2012). Second, it is important to note that leadership is dependent on ethical values and the moral compass of the leader (By, Burnes, & Oswick, 2012). Lastly, it is not taken for granted that supervisors – who are employees themselves and affected by organizational change – necessarily take on the role as leader (By et al., 2016). Rather, a leadership role is not tied to positions but can be taken over by any person in the organization.

Several other areas in which future research is needed were also revealed in the present study. First, a longitudinal design that allows a separate measurement of the independent and dependent variables would lead to a more accurate definition of causality. Second, behavioural observations or supervisor ratings of employees' behaviour instead of self-ratings would extend results and allow these forms of measurement to be compared in order to improve interpretation of results. Third, a separated analysis of the dimensions of transformational leadership, which was not possible in the present study, could lead to more differentiated results. Fourth, in this study organizational change was regarded on a comparatively general level; the analysis was not limited to a certain phase during a change process or to a certain type of change because the level of interest was the individual who is affected by the change. Nevertheless, whether valence and work engagement function as motivators for employees' behaviour in every phase of a change remains open for future research.

## Conclusion

The present study shows that valence and work engagement can explain the effect of transformational leadership on employees' change-supportive behaviour during

organizational change. Current research is extended because two mechanisms are identified that give insight into the leadership process. From a practical perspective, the results help to design successful change management by showing that employees are motivated to support a change when they are engaged and see positive change consequences through transformational leadership. In particular, the study's results offer suggestions for leadership training that would support achievement of the desired effect of leadership. However, transformational leadership is the only one way to achieve high levels of valence and work engagement, as firms could also disseminate information that illustrates the benefits and meaning of a change for employees. The low level of perceived valence in the present study indicates that transformational leadership is effective but not sufficient for illustrating positive change consequences. Considering the importance of valence in the prediction of employee behaviour practitioners should use different paths (e.g. leadership, dissemination of information through meetings and newsletters, workshops for employees) to improve employees' perception of change consequences.

### Disclosure statement

No potential conflict of interest was reported by the authors.

### Notes on Contributors

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