

A preliminary study: perceived transformational leadership and work engagement within the South African army

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Abstract

The objective of the study is to determine the relationship between the perceived transformational leadership styles of officers (as perceived by their followers) and their followers' levels of work engagement. Followers (n=307) were identified in units of the South African Army. They completed the Utrecht Work Engagement Scale (UWES) and the Multifactor Leadership Questionnaire (MLQ) (Form 5X) for their specific leaders. Correlational analyses indicate significant correlations between the transformational leadership style of officers and their followers' work engagement. A small amount of the variance in the work engagement outcomes can be predicted by transformational leadership. The findings suggest that there is a relationship between idealised influence (attributed) and vigour and dedication. Furthermore, individualised consideration was shown to relate to absorption within the South African sample. Idealised influence was found to predict some variance in vigour and dedication and individual consideration to predict some variance in absorption.

Key words: *transformational leadership, work engagement, vigour, dedication, absorption*

1 Introduction

A great deal of research has been done in recent years on transformational leadership and its impact on performance-related variables (Riggio, Chaleff & Lipman-Blumen 2008; Tims, Bakker & Xanthopoulou 2011; Walumbwa, Avolio & Zhu 2008). Research suggests that transformational leadership acts as a conduit for enhancing organisational commitment, proactive behaviour, work performance and employee motivation in various contexts (Riggio et al 2008; Yammarino & Bass 1990). Yammarino and Bass (1990) argue that in the United States Navy transformational leadership reduces casualties and deaths in situations of war. In these settings, transformational leaders tend to empower followers by ensuring a shared vision, developing group cohesion, providing intellectual stimulation and mentoring/coaching followers in order to ensure higher levels of work engagement (Yammarino & Bass

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1990). This results in more commitment and loyalty to both the leader and the task (Avolio & Bass 1995; Avolio, Bass & Jung 1999; Tims et al 2011), which is imperative in high-risk occupations such as law enforcement and service in the national defence force (Yammarino & Bass 1990).

However, other studies have found that transformational leadership has produced different relationships with aspects such as work engagement; this appears to depend (in part) on the nature of the context (Avolio et al 1999; Tims et al 2011). Correlational research between these constructs within high-risk occupations has showed mixed results in previous research (Tims et al 2011; Yammarino & Bass 1990). Limited research exists regarding transformational leadership and work engagement in high-risk occupations in the South African defence context. Moreover, no research could be found regarding these concepts or their relationship within the South African National Defence Force (SANDF) or its land-based faction, the South African Army (SA Army). The current paper seeks to investigate the relationship between transformational leadership and work engagement in a high-risk occupational field in South Africa, namely the SA Army.

The SA Army provides an interesting context in which to examine this relationship. Military organisations require leaders to show the ability and willingness to exert influence over subordinates (Yammarino & Bass 1990). The SA Army applies the doctrine of transformational leadership as a possible framework for understanding and developing this process (Department of Defence 2006). In this context, transformational leaders are expected to ensure that followers identify with and believe that they add value to the organisation (Avolio, Zhu, Koh & Bhatia 2004), which may result in higher levels of work engagement (Tims et al 2011). However, members of the SA Army frequently referred to their leaders, at all levels, in a most disparaging manner as a result of leadership being firmly entrenched in transactional styles (Department of Defence 2006). This results in feelings of negativity, disloyalty and disengagement (Bass 1998; Judge & Piccolo 2004), which may be destructive in high-risk occupations such as service in the SA Army.

Within the SA Army, leadership has been identified as one of the crucial issues that ensure the future success of the organisation (Department of Defence 2006). The competitive advantage of the SA Army is described as “dynamic leadership that will ensure focus, teamwork and desired outcomes in a complex environment” (Department of Defence 2006:6; South African National Defence Force 2000, 2010).

The SA Army leadership doctrine supports this approach by referring to the organisation’s need to have/develop leaders of character who will be “role models for their followers, who set the example and strive to exert an influence on their followers’ morale and cohesion, and ultimately inspire their followers to achieve extraordinary outcomes” (South African National Defence Force 2000:6). Both Bass and Riggio (2006) and Judge and Piccolo (2004) argue that transformational leadership is a powerful resource in military contexts in ensuring high levels of performance, loyalty and commitment, and one that may predict work engagement.

Work engagement is a very important concept in high-risk occupations (Britt 2003). Literature distinguishes between three broad conceptualisations of work engagement, namely state, trait, and behavioural engagement (Macey & Schneider 2008; Van Zyl, Deacon & Rothmann 2010). State engagement, which is relevant for the purposes of this study, defines engagement as an extension of the self to a work role (Kahn 1990). Kahn (1990:694) defines engagement as the “harnessing of organizational members’ selves to their work role by which they employ and express themselves physically,

cognitively and emotionally during role performance". Building on Kahn's conceptualisation (1990), Schaufeli and Bakker (2003:4) conceptualise work engagement as "a positive fulfilling work-related state of mind that is characterised by vigour, dedication and absorption". Engaged employees tend to be energetic and demonstrate a positive connection with the workplace; they also appear to have better coping mechanisms for dealing with challenges at work (Schaufeli & Bakker 2003; Van Zyl et al 2010). Furthermore, engaged employees tend to display higher levels of physical and cognitive performance than their disengaged counterparts (Schaufeli & Bakker 2003; Van Zyl et al 2010).

Work engagement is linked to the conceptualisation of transformational leadership in this study, the argument being that there may be a positive relationship between these constructs. The aim of this research is to determine the relationship between transformational leadership and work engagement within the SA Army.

2 Transformational leadership

"One of the most universal cravings of our time is a hunger for compelling and creative leadership" (Burns 1978:1). This sentiment is still as relevant today as it was 30 years ago. Leadership continues to be one of the most hotly debated topics in both practice and research (Cameron, Dutton & Quinn 2003; Northouse 2012).

Similarly, transformational leadership has been the basis of various conceptual and empirical debates in the literature over the past decade (see Northouse 2012). Transformational leadership is defined as an approach towards leadership where the leader identifies the required change, creates a vision to guide the change by inspiring his/her followers, and executes the change with the commitment of his/her followers (Bass & Riggio 2006; Northouse 2012). Furthermore, this approach challenges leaders to be creative in solving problems and to develop the leadership capacity of followers through coaching and mentoring and by providing both challenges and support (Bass & Bass 2008; Northouse 2012).

According to Bass (1985), transformational leadership comprises four factors, namely: individualised consideration, intellectual stimulation, inspirational motivation and idealised influence (charisma) (see Table 1 for definitions).

Table 1
Definitions of the components of transformational leadership

Component	Definition
Individualised consideration	Refers to recognising the need of followers to grow and develop through a process of coaching, supporting and stimulating followers. Followers are seen as unique individuals who need specific, individual attention congruent with their current developmental phase.
Intellectual stimulation	Refers to a process whereby followers are challenged to see problems from a different perspective. Followers are challenged on problem awareness and problem solving, through focusing on thought and releasing imagination.
Inspirational motivation	Refers to a process of communicating a compelling and appealing vision of the future to followers and using symbols to articulate this vision.
Idealised influence (charisma)	Refers to leadership behaviours which relate to highlighting the benefits of the vision to the followers by indicating that the groups' benefits are more important than benefits to the individual.

Adapted from Tims et al (2011)

The transactional dimensions of leadership, as determined by Bass and Avolio (1996), are encapsulated in the following styles or approaches: (a) *laissez faire* (leaders abdicate and avoid responsibilities with a “don’t care” attitude); (b) *management by exception passive* (setting standards and reluctant interventions by the leader if the standards are not met); (c) *management by exception active* (active monitoring for deviations from set standards and taking immediate corrective action); and (d) *constructive transaction/contingent reward* (providing rewards in exchange for mutually agreed-upon goal accomplishments). The reward is therefore contingent on the achievement of previously set and agreed-upon objectives and goals.

It is apparent from the above that the transformational leader recognises the contracted service, but seeks to go further by arousing and satisfying higher needs and attempting to engage the whole person (Bass & Riggio 2006; Northouse 2012). According to Burns (1978:4), the

transforming leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower. The result of transforming leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents.

According to Bass and Avolio (1996), transformational leadership occurs when leaders: (a) manage to stimulate their followers to view their work from differing perspectives; (b) are able to create an awareness of the vision and mission of the team and organisation; (c) develop higher levels of potential and ability in followers; and (d) motivate followers to see beyond their own interests and endeavour to benefit the group.

Walumbwa, Wang, Lawler and Shi (2004) endorse the relationship between leader and follower by revealing that transformational leadership is positively related to work outcomes and that such leaders are able to transcend self-interest for the sake of the group. Miller (2007) argues that there is mutuality in the relationship between transformational leaders and their followers. This mutuality is brought about by the way the leader is able to create a relationship that allows for learning and development by both leaders and followers (Miller 2007). The internalisation of the leaders’ vision by followers leads to a possible alignment of personal values with those of the organisation and consequent commitment to organisational goals which may result in higher levels of work engagement (Northouse 2012).

Kane and Tremble (2000) argue that transformational leadership within military samples accounts for unique variances in organisational outcomes in areas such as motivation, affective organisational commitment and exerted effort. These researchers indicate that transformational leadership should exist at all levels/ranks within a military institution for it to have greater effects across internal and external boundaries (Kane & Tremble 2000). However, limited research has been done on transformational leadership within army-based factions (Northouse 2012). This confirms the need for research in this area within the SA Army.

3 Work engagement

The term “engagement” has become a buzzword in modern society (Van Zyl et al 2010). Simpson (2008) argues that the original work of Kahn (1990) serves as the foundation for various streams of engagement research in the field of organisational psychology. Kahn (1990:694) conceptualised engagement as “the harnessing of organisation members’ selves to their work roles: in engagement, people employ and express themselves physically, cognitively, and emotionally during role performance.”

Building on the original conceptualisation of Kahn (1990), Schaufeli, Martinez, Pinto, Salanova and Bakker (2002:74) propose a conceptual model for work engagement. Schaufeli, Martinez et al (2002) define work-related engagement as “a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption”. *Vigour* as a dimension of engagement is exemplified by someone who demonstrates high levels of energy and mental resilience at work (Schaufeli, Bakker & Salanova 2006). *Dedication* refers to high levels of involvement in the work in which one is engaged, along with the experience of high levels of significance, enthusiasm, inspiration, pride and challenge (Schaufeli et al 2006). *Absorption* is characterised by significant levels of concentration and being happily engrossed in the work (Schaufeli, Martinez et al 2002). In this dimension, time passes quickly and detachment from the work is difficult (Schaufeli, Salanova, Gonzalez-Roma & Bakker 2002; Schaufeli et al 2006).

Schaufeli, Salanova et al (2002) regard work engagement as being characterised by energy, involvement and efficacy which, in turn, are considered the direct opposites of the three burnout dimensions of exhaustion, cynicism and lack of professional efficacy. Engaged people are seen as energetic, with an effective connection with the workplace and the ability to deal effectively with the demands of work. Furthermore, work engagement is seen as a “persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual or behaviour” (Schaufeli & Bakker 2004:294). Schutte, Toppinen, Kalimo and Schaufeli (2000:694) also regard it as an “energetic state in which the employee is dedicated to excellent performance at work and is confident of his or her effectiveness”.

This definition of work engagement implies that it acts as an indication of individual performance within an organisation (Demerouti, Bakker, Nachreiner & Schaufeli 2001; May, Gilson & Harter 2004; Schaufeli, Salanova et al 2002). Engaged workers contribute to organisational and financial success by showing motivation and organisational commitment (Koyuncu, Burke & Fiksenbaum 2006). Disengaged employees, on the other hand, tend to separate themselves from their work roles and tend to withdraw cognitively from the current work situation (Koyuncu et al 2006). Work engagement is therefore an important factor within any organisation, but more specifically within social service occupations (Simpson 2008) such as the SA Army.

Although the abovementioned benefits of work engagement are present in various settings, no research regarding the levels of work engagement of individuals in military environments exists. Furthermore, no research could be found regarding work engagement of individuals in the SA Army. This highlights the need for research on this topic in these settings.

4 The relationship between transformational leadership and work engagement

The above descriptions of the variables of transformational leadership and work engagement suggest that the transformational dimensions of leadership in particular could possibly be positively related to work engagement. Zhu, Avilio and Walumbwa (2009) investigate the moderating role of follower characteristics in respect of transformational leadership and followers' work engagement in a South African sample, across a range of industries. Their hierarchical linear modelling results show that follower characteristics moderate the positive relationship between transformational leadership and follower work engagement. More specifically, transformational leadership has a more positive effect on follower work engagement when follower characteristics are more positive (Zhu et al 2009).

The literature suggests that when followers experience high levels of social cohesion, physical involvement in decision making, as well as social support from leaders and peers, they tend to experience higher levels of work engagement (Avery, McKay & Wilson 2007; Tims et al 2011). These aspects are in line with the main concepts of Bass's (1985) conceptualisation of transformational leadership (Tims et al 2011). When individuals receive support, intellectual stimulation, inspiration and coaching from a leader, they may experience work as more challenging, meaningful and satisfactory, which could also result in higher levels of work engagement (Avery et al 2007; Tims et al 2011). It is therefore assumed that the positive experiences associated with working with a transformational leader may produce similar results (Tims et al 2011; Wang & Howell 2010). However, there is limited research that specifically explores the relationship between transformational leadership and work engagement within army factions. Scientific information about this relationship is therefore needed in order to structure interventions around the development of transformational leaders in the SA Army.

Based on the aforementioned problem statement and literature review, the main objective of this study is to investigate the relationship between the perceived transformational leadership style of officers and the work engagement levels of their followers in the SA Army. It was hypothesised that transformational leadership style would be positively related to work engagement. The study was motivated by the lack of research in South Africa regarding transformational leadership and work engagement in the SA Army. There is therefore a perceived need to augment the South African literature base regarding transformational leadership and work engagement in particular.

5 Research approach

This research may be regarded as descriptive because no research has been done pertaining to the relationship between transformational leadership and work engagement in the SA Army. The research set out to obtain information about the current state of the participants. A quantitative cross-sectional survey design was used to gather data regarding transformational leadership and work engagement in the SA Army. According to Salkind (2012), this type of design is the most popular and allows multiple samples to be drawn from the population at a particular time. A major limitation to this design is that no causal factors can be isolated and the results might have been different if the data had been gathered during a different time frame (Salkind 2012).

6 Research method

6.1 Research participants

A random probability sample ($n=307$) was drawn from the entire population of the SA Army. Missing values within this sample were not reported. The sample population consisted of a list of all the various formations in the SA Army. Three formations were randomly chosen for the survey after ensuring that every formation had an equal chance of being selected. The selected formations were Armour, Artillery and Air Defence Artillery. Table 2 provides an overview of the characteristics of the participants.

Table 2
Characteristics of the participants

Variable	Category	Frequency	Percentage
Race	Black	199	64.4
	White	55	17.8
	Coloured	53	17.2
	Indian	2	0.6
Gender	Male	247	80.2
	Female	61	19.8
Age	18 – 25	58	18.7
	26 – 44	229	73.9
	45 – 64	23	7.4
Years of service	<5	59	19.2
	6 – 10	96	31.2
	11 – 15	96	31.2
	16 – 25	41	13.3
	>25	16	5.2
Rank levels	Private	27	8.8
	Junior NCO	64	20.8
	Senior NCO	60	19.5
	Junior Officer	109	35.5
	Senior Officer	47	15.3

According to Table 2, the majority of the participants were junior officers (35,5%), black (64.4%), male (80.2%), and between the ages of 26 and 44 (73.9%). The majority of these participants had between 6 and 15 years of experience (62.4%).

6.2 Measuring instruments

The following questionnaires were used in the empirical study:

A *biographical questionnaire* was compiled and used in order to gather information relating to the race, gender, age, years of service in the SA Army and rank levels (privates, non-commissioned officers and officers) of the participants.

The transformational leadership style dimension of the *Multifactor Leadership Questionnaire (MLQ)* (Form 5X) (Bass & Avolio 1997) was used to measure transformational leadership. The transformational leadership subdimension of the MLQ (Form 5X) consists of 20 items measuring four factors of transformational leadership, namely: individualised consideration, intellectual stimulation, inspirational motivation and idealised influence (charisma). The items are rated on a six-point Likert scale ranging from 0 (*not at all*) to 5 (*frequently if not always*). The transformational style includes items such as “The leader spends time teaching and coaching” (individualised consideration); “The leader articulates a compelling vision of the future” (inspirational motivation); “The leader gets others to look at problems from many different angles” (intellectual stimulation); and “The leader emphasises the importance of having a collective sense of mission” (idealised influence). Bass and Riggio (2006) report acceptable levels of internal consistency with Cronbach’s alpha above 0.80 for all the scales.

The *Utrecht Work Engagement Survey (UWES)* instrument designed by Schaufeli Salanova et al (2002) is a 17-item questionnaire with a seven-point scale ranging from

0 (*never*) to 6 (*every day*) and consists of three main constructs/subscales, namely vigour (6 items), dedication (5 items) and absorption (6 items). A sample item for *vigour* is "At my work, I am bursting with energy"; for *dedication* "I find the work that I do full of meaning and purpose"; and for *absorption* "When I am working, I forget everything else around me" (Schaufeli & Bakker 2003). The instrument indicates that individuals who score high levels of vigour, dedication and absorption experience high levels of work engagement. The internal consistencies of the three scales contained in the UWES-17 are acceptable. The UWES-17 showed acceptable levels of internal consistency as presented by Cronbach's alphas. Levels ranged from 0.83 (vigour) and 0.82 (absorption) to 0.92 (dedication) (Schaufeli & Bakker 2003).

7 Research procedure

In order for research to be conducted in the SA Army, initial permission had to be obtained from the Counterintelligence Division of the SANDF, followed by authorisation from each of the general officers commanding the various formations that have been selected for the study. Each of the formations provided a contact officer through whom all liaisons took place. This ensured that the participants from each of the units assembled at a preset time at a particular venue. At each of the venues, a standard briefing was presented to the members participating in the research project. The briefing covered matters such as voluntary participation, informed consent, confidentiality and the purpose and aim of the study, including the focus of the various questionnaires. This was followed by a complete explanation of each of the instruments, namely the MLQ (Form 5X) and the UWES-17. The participants then completed the questionnaires and returned them to the researcher.

8 Statistical analysis

The statistical analysis was carried out with the aid of SPSS (SPSS Inc. 2008). Descriptive statistics that measured means, standard deviations, skewness and kurtosis were used to analyse the data. Sampling adequacy was determined by using the Kaiser-Meyer-Olkin measure and Bartlett's Test of Sphericity. Cronbach's alpha was used to determine the construct validity and reliability of the measuring instruments. Pearson correlation coefficients were used to specify the relationships between the variables. The cut-off point for statistical significance was set at $p < 0.01$ (Salkind 2012). Effect sizes were used to decide on the practical significance of the findings (Salkind 2012). A cut-off point of 0.30 (medium effect) was set for the practical significance of correlation coefficients (Cohen 1992). Finally, multiple regression analysis was used to determine whether transformational leadership predicts work engagement.

9 Results

Descriptive statistics were calculated for both the independent variable (leadership style) and the dependant variable (work engagement). Table 3 presents the means, standard deviations, minimum and maximum scores and Cronbach's alpha reliability coefficients for the sample of followers when rating their officer leaders, using the adapted version of the MLQ (Form 5X) and the UWES-17. The results indicate that all the measures have acceptable levels of internal consistency, ranging from 0.80 to 0.90, which is higher than Salkind's (2012) suggested cut-off point of 0.70.

Table 3
Descriptive statistics and Cronbach's alpha for the MLQ (Form 5X) and the UWES-17

Leadership dimensions	Mean	SD	Minimum	Maximum	Cronbach's alpha
Transformational leadership					
Idealised influence (attributed) (IIA)	2.4	0.98	0.00	4.0	0.82
Idealised influence (behaviour) (IIB)	2.4	0.84	0.25	4.0	0.83
Inspirational motivation (IM)	2.5	0.89	0.00	4.0	0.83
Intellectual stimulation (IS)	2.3	0.88	0.00	4.0	0.83
Individualised consideration (IC)	2.0	0.96	0.00	4.0	0.83
Work engagement dimensions					
Vigour	4.2	1.15	0.83	6.0	0.80
Dedication	4.3	1.42	0.00	6.0	0.85
Absorption	3.8	1.29	0.00	6.0	0.90

The norms for the MLQ (Form 5X) indicate that for transformational leaders to be effective and active, the frequency scores should be higher than 3.0. The lowest score for the transformational dimensions was obtained for individualised consideration (2.0). This dimension focuses on the individual and his or her professional development in the workplace.

The intercorrelations between the dimensions measured by the MLQ (Form 5X) and the UWES-17 are presented in Table 4. Each of the transformational dimensions, namely idealised influence attributed (IIA) and idealised influence behaviour (IIB), inspirational motivation (IM), intellectual stimulation (IS), and individualised consideration (IC), correlated significantly with each other, ranging from a minimum of $r=0.67$ ($p<0.01$) to a maximum of $r=0.79$ ($p<0.01$), which confirms the correlation research findings reported by Bass and Avolio (1997).

Table 4
Intercorrelations for the transformational dimensions of the MLQ (FORM 5X) and the UWES-17

	Vigour	Dedication	Absorption	IIA	IIB	IM	IS	IC
Vigour	1							
Dedication	0.82(*)	1						
Absorption	0.74(*)	0.68(*)	1					
II A	0.32(*)	0.36(*)	0.27(*)	1				
II B	0.22(*)	0.28(*)	0.27(*)	0.76(*)	1			
IM	0.28(*)	0.32(*)	0.26(*)	0.78(*)	0.75(*)	1		
IS	0.29(*)	0.29(*)	0.25(*)	0.79(*)	0.73(*)	0.71(*)	1	
IC	0.22(*)	0.26(*)	0.31(*)	0.75(*)	0.64(*)	0.64(*)	0.68(*)	1

* Correlation is significant at the 0.01 level (2-tailed): $p<=0.01$.

The three dimensions of the UWES-17 intercorrelate significantly. The correlation between dedication and vigour is equal to 0.82, that between absorption and vigour is equal to 0.74, and that between dedication and absorption is equal to 0.68. These significant correlation results support previous research conducted on the UWES-17 by Schaufeli and Bakker (2003), where correlations between the three dimensions usually exceeded 0.65.

Correlations were computed between each of the transformational dimensions in the MLQ (Form 5X) and the UWES-17 to determine the covariance of the constructs being

measured (see Table 4). *Vigour* correlates significantly ($p < 0.01$) with the transformational leadership styles IIA ($r=0.32$), IIB ($r=0.22$), IM ($r=0.28$), IS ($r=0.29$), and IC ($r=0.22$). *Dedication* correlates significantly at the 0.01 level with the transformational leadership styles IIA ($r=0.36$), IIB ($r=0.28$), IM ($r=0.32$), IS ($r=0.29$), and IC ($r=0.26$). *Absorption* correlates significantly at the 0.01 level with the transformational leadership styles IIA ($r=0.27$), IIB ($r=0.27$), IM ($r=0.26$), IS ($r=0.25$) and IC ($r=0.31$).

In Table 5 the results of a standard multiple regression are provided with the dimensions of transformational leadership as the independent variable and the three dimensions of work engagement, vigour, dedication and absorption as the dependent variables. The purpose of the regression is to determine what predictive effect, if any, transformational leadership has on work engagement and, additionally, to determine the magnitude of the correlations between the dependent and independent variables.

Table 5
Standard multiple regression analysis with the work engagement dimensions
of vigour, dedication and absorption as the dependent variables
and transformational leadership as the independent variable

Model	Non-standardised coefficients		Standardised coefficients	T	P	Part r^2 (Unique)
	B	Std. Error	Beta			
Vigour						
Intercept	3.30	0.21		15.46	0.000*	
Idealised influence (attributed)	0.43	0.14	0.37	3.14	0.002*	0.176
Idealised influence (behaviour)	-0.11	0.14	-0.08	-0.82	0.415	-0.046
Inspirational motivation	0.17	0.13	0.13	1.31	0.191	0.074
Intellectual stimulation	-0.10	0.13	-0.08	-0.77	0.439	-0.044
Individualised consideration	0.01	0.10	0.01	0.12	0.683	-0.023
	R = 0.33	R² = 0.11	Adjusted R² = 0.10			
Dedication						
Intercept	2.99	0.26		11.71	0.000*	
Idealised influence (attributed)	0.48	0.16	0.33	2.90	0.004*	0.156
Idealised influence (behaviour)	-0.08	0.16	-0.05	-0.50	0.616	-0.027
Inspirational motivation	0.18	0.15	0.11	1.18	0.238	0.064
Intellectual stimulation	0.03	0.15	0.02	0.18	0.856	0.010
Individualised consideration	-0.06	0.12	0.04	-0.47	0.639	-0.026
	R = 0.37	R² = 0.14	Adjusted R² = 0.12			
Absorption						
Intercept	2.81	0.24		11.81	0.000*	
Idealised Influence (attributed)	0.05	0.15	-0.04	-0.34	0.731	0.019
Idealised influence (behaviour)	-0.09	0.15	-0.60	-0.61	0.543	-0.034
Inspirational motivation	0.15	0.14	0.10	1.08	0.282	0.060
Intellectual stimulation	0.06	0.14	0.04	0.44	0.657	0.025
Individualised consideration	0.29	0.12	0.22	2.51	0.013*	0.140
	R=0.32	R²=0.10	Adjusted R²=0.09			

* $p < 0.01$

In this study three standard multiple regression analyses were conducted, one for each of the work engagement dimensions, to determine what portion of the total variance of

each of the work engagement variables is explained by the five dimensions of transformational leadership.

The standard multiple regressions were also used to assess how much each independent variable contributes to the overall relationship. The data were examined to establish whether the assumptions for the multiple regressions were met for the three regressions that were conducted. The scatterplots of the standardised residuals were examined for each of the three regressions and it was determined that the residuals were roughly rectangular and distributed around the point. Secondly, the plot of the regression standardised residual for each of the regressions was examined to determine any major deviations from normality. No sign of marked nonlinearity was observed, suggesting that no major deviations from normality were apparent. The regression results are also given in Table 5.

The regression ($R=0.33$) is statistically significant ($F_{(5,28)}=7,07$; $p<0.001$) for *vigour*. Only one variable (IIA) ($t=3.14$; $p<0.002$) indicates a unique contribution that is significant for the prediction of *vigour* (Part $r^2=0.18$ or 18%). In the case of *dedication*, the R for regression ($R=0.37$) is statistically significant ($F_{(5,29)}=9,38$; $p<0.001$). Of the five independent variables only IIA is able to make a unique contribution that is significant for the prediction of *dedication* (Part $r^2=0.16$ or 16%). Finally, for *absorption* the R for regression ($R=0.32$) is also statistically significant ($F_{(5,29)}=6,66$; $p<0.001$). For *absorption* the only transformational leadership variable able to provide a unique contribution that is statistically significant for the prediction of *dedication* is IC (Part $r^2=0.13$ or 13%).

10 Discussion

The objective of this study was to investigate the relationship between the transformational leadership style of officers in the SA Army and their followers' levels of work engagement. The study was based on the followers' perceptions of their leaders. The study found that there is some indication that aspects of transformational leadership predict and/or relate to followers' work engagement.

The results indicate that both the MLQ (Form 5X) and the UWES-17 have acceptable levels of internal consistency within the multicultural environment which the South African Army presents (Revelle & Zinbarg 2009). The SA Army presents an interesting case for determining the relationship between transformational leadership and work engagement. The results indicate that within this context there is a limited relationship between the dimensions of transformational leadership and work engagement, with the exception of three factors. Correlational analysis indicates that there is a relationship (with a medium affect) between attributed idealised influence, and both vigour and dedication. Furthermore, correlational analysis shows that a relationship exists between individualised consideration and absorption (with a medium affect). Similarly, regression analysis shows that very little of the variance of work engagement can be predicted by transformational leadership dimensions. However, the results show some evidence that attributed idealised influence may partially predict vigour and dedication within this context. Furthermore, regression analysis suggests that individualised consideration may predict absorption within the SA Army.

The relationship between attributed idealised influence and vigour implies that followers who show a desire to be associated with their leader may experience more energy and mental resilience. This may impact on the experience of a positive organisational culture and climate which results in experienced happiness at work and

job satisfaction, both of which could enhance performance (Cameron et al 2003). Furthermore, the results indicate that these followers may be more involved in their work and experience meaning, inspiration and enthusiasm while performing work-related tasks (dedication). Followers who experience attributed idealised influence are more inclined to form strong bonds with their leaders, which may result in more effort being exerted to maintain such a relationship (Northouse 2012). The followers may dedicate themselves to their work to ensure that they do not disappoint the leaders in order to safeguard the relationship (Cameron et al 2003; Northouse 2012).

Moreover, the results indicate that followers who perceive their leaders to be supportive and invested in their development (individualised consideration) may tend to be engrossed in their work-related tasks (absorption). Research suggests that when followers perceive their leaders to be invested in their development, there is a high probability that there will be little discrepancy between the expectations of these parties (Cameron et al 2003; Northouse 2012). This results in less role ambiguity and more role clarity as a result of the mutually acceptable clarified expectations (Northouse 2012).

However, no other significant relationships were found between the other dimensions of transformational leadership and work engagement. This may be as a result of the type of occupation in which the research was conducted. Variations in findings regarding transformational leadership and other work-related concepts (such as organisational commitment, work performance, absenteeism and job satisfaction) were found in high-risk occupations such as the SA Army (Bass & Bass 2008; Northouse 2012), implying that the internal and external stressors within this environment impact on the predictability of psychological states within such contexts. Therefore, the results may have been affected by environmental and/or organisational factors which were not controlled for in this study.

Regression analysis indicates that very few of the work engagement outcomes can be predicted by transformational leadership. The results show that idealised influence (attributed) explains 11% of the variance in vigour and 14% of the variance in dedication. No other studies were found to support this finding. However, this implies that when followers in this context perceive their leaders to present with attributed idealised influence, those followers may experience some increase in vigour and dedication.

Further results indicate that leaders exhibiting individualised consideration may have followers with higher levels of absorption. The results showed that individualised consideration explains 10% of the variance in absorption. Studies exploring similar constructs could not be found in support of this finding. This result implies that followers who are absorbed in their work may be showing significant levels of concentration and demonstrating that they are happily engrossed in their work (Schaufeli, Salanova et al 2002; Schaufeli et al 2006; Simpson 2008). Followers in this context may experience their leaders as individuals who recognise their needs for growth and development. Such leaders probably regard their subordinates as unique individuals with a need for specific and individualised attention to unlock their potential through processes of coaching, support and stimulation in line with their current developmental phases (Bass & Bass 2008; Bass & Riggio 2006).

The general aim of the research was to determine whether there is a relationship between followers' perceptions of their leaders' transformational leadership style and the followers' own levels of work engagement. The findings of this study indicate that leaders within the SA Army who practise transformational leadership may have some

effect on their followers in terms of their work engagement (vigour, dedication and absorption). However, this relationship may be far more complex than originally anticipated.

11 Practical and theoretical implications

In practical terms, this study contributes to the understanding of transformational leadership and work engagement within high risk occupations. When considering the contextual challenges experienced by people serving in the SA Army, it becomes even more important for the leaders within this context to keep their followers engaged at work. Various research studies have indicated that work engagement is a leading indicator of an individual's intention to stay with the organisation and a crucial predictor for organisational performance (see Tims et al 2011). Transformational leadership behaviours suggest a means by which to establish these factors in this context. By developing transformational leadership skills, leaders could increase work engagement through the facilitation of job resources, such as social support, performance feedback, skills variety, autonomy and personal development opportunities (Simpson 2008; Tims et al 2011). When trust in leadership manifests itself among subordinates, a psychological contact with the organisation is often subconsciously strengthened. This can result in a committed and dedicated workforce. Retention of dedicated and motivated employees becomes one of the key drivers of organisations in a world of volatile labour migration.

In order to enhance work engagement, the leader needs to pay more attention to facilitating optimal development of the staff complement by stimulating followers on a cognitive and emotional level. Interventions should therefore be aimed at equipping the leader with the necessary skills not only to manage the cognitive demands of followers but also to provide emotional/social support.

This preliminary study serves as a theoretical foundation for further research in the South African Army and Defence Force. It not only makes a contribution to the expansion of the existing body of knowledge regarding transformational leadership and work engagement, but also serves as a platform from which future research in high risk organisations such as the Defence Force can be launched.

12 Limitations and suggestions

This research is not without its limitations. Firstly, the sample consisted of one faction – the SA Army – within the South African National Defence Force, which implies that the results cannot be generalised to the entire population. Secondly, as a result of the cross-sectional survey-based research design, causal factors could not be isolated and attributed to the research findings. Thirdly, the sample size may have affected the results in this study. A larger sample might have provided more information regarding the relationships between transformational leadership and work engagement. Furthermore, it is suggested that future studies should investigate the moderating variables affecting this relationship. Finally, it is suggested that future studies investigate the measurement of transformational leadership and work engagement within the South African Army.

Future studies should aim to include all the factions of the SANDF and increase the sample size to ensure a more thorough study that could be more easily generalised. Longitudinal research should be used in future to identify and isolate causal factors, in order to ensure that environmental factors impacting on the data can be isolated and

meaningfully incorporated. Furthermore, no control was presented over variables that are known to act as moderators within this context (such as rank). Future studies should isolate these factors and control for them during the analysis. Finally, it is suggested that the results of this study be confirmed by follow-up studies in a variety of contexts, because of the apparent absence of specific published works on transformational leadership and its purported effects on work engagement. Further research clearly needs to be conducted to expand our knowledge of the possible influences or effects transformational leadership may have on work engagement.

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