Enhancing psychological capital: The impact of authentic leadership and passion for work in a South African context

A GROBLER
University of South Africa, Graduate School for Business Leadership (SBL)
grobla@unisa.ac.za

K POWELL*
University of South Africa, Graduate School for Business Leadership (SBL)
kerryn@kerrynpowell.co.za
*   corresponding author

ABSTRACT
Background
Against the backdrop of an unstable and evolving external environment, South African (SA) organisations need to enhance levels of psychological capital in the workforce in order to improve business performance and employee well-being. In addition, research indicates there is little known about how psychological capital develops.
Opportunity investigated
This article assesses the relationship between authentic leadership, passion for work and psychological capital and makes recommendations to managers on how to develop employee psychological capital.
Purpose
To contribute to the understanding of psychological capital antecedents by determining the relationship between authentic leadership and psychological capital, mediated by passion for work within the South African organisational context.
Methodology
A cross-sectional design was used, supported by quantitative statistical analysis. Data was generated by means of surveys (1771 participants from private and public sector organisations).
Findings
Hierarchical multiple regression analysis and structural equation modelling provides evidence that authentic leadership predicts psychological capital, both directly and through the mediating role of passion for work.
Implications
The findings add to the limited empirical knowledge on the role of authentic leadership and passion for work in enhancing psychological capital. The results suggest that a strong pipeline of authentic leaders and increased levels of harmonious work passion among employees may enhance psychological capital.
Limitations
Potential limitations include only concentrating on two predictors of psychological capital, aiming at the individual level of analysis which carries the risk of self-reporting bias, and not adapting the scale wording to the South African (multi-lingual) context.

1. INTRODUCTION

South Africa has faced a range of political, social and economic changes since 1994. These changes have resulted in significant repercussions in the work place (du Plessis & Barkhuizen 2012). According to Luthans, Youssef and Avolio (2007), psychological capital (PsyCap) is considered a strategic resource in today's stressful work environments due to its positive influence on human performance. Together with its positive capacities of hope, optimism, self-efficacy and resilience, PsyCap is increasingly gaining traction in the world of work as organisations strive to improve their performance while at the same time improving employee well-being. Newman, Ucbasaran, Zhu and Hirst (2014) agree with this view and propose that gaining knowledge of the antecedents of PsyCap may assist organisations in developing programmes to strengthen individual PsyCap through the design of workplace systems. The implication of this is especially important in South Africa as organisations adapt to the changing environments they face. In addition, there is some empirical work on PsyCap as a predictor of individual performance, behaviours and attitudes, but little is known as to how PsyCap develops (Avey 2014).

In order to address this need, this study assessed the relationship between authentic leadership and PsyCap, mediated by passion for work within South African Organisations.

The following abbreviations will be applied for the three variables in the study throughout the article:

AL   **Authentic leadership**

PsyCap   **Psychological capital**

PfW   **Passion for work**

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

The purpose of this research therefore, is to contribute to the understanding of PsyCap antecedents by determining the relationship between AL and PsyCap, mediated by PfW within the South African organisational context.

More specifically, the aim is to:

- Define AL, PfW and PsyCap in accordance with existing literature.
- Report on the relationship between AL, PfW and PsyCap as described in previous studies.
- Determine the suitability (construct validity) of the AL and PfW instruments within the SA context.
- Determine empirically the relationship between AL, PfW and PsyCap.
- Determine empirically the mediating effect of PfW on the relationship between AL and PsyCap.
- Make recommendations to leaders, managers, organisational development and human resource practitioners to enhance PsyCap through leadership (specifically AL) and work-related (specifically PfW) interventions.
- Make recommendations for future research.

The discussion now turns to a synthesis of the construct definitions and the relationships between them, as reported by previous scholars.

2. DEFINING KEY CONCEPTS

2.1 Authentic leadership

AL is an ethical leadership theory that is becoming increasingly relevant in light of continued corporate scandals, management wrongdoing and societal challenges. There is renewed focus on building authentic relationships with organisational stakeholders who are expecting genuine leadership and are less tolerant of inconsistencies between what leaders say and do (Avolio & Gardner 2005; Harvey, Martinko & Gardner 2006; Walumbwa, Avolio, Gardner, Wernsing & Peterson 2008).

AL has been defined by several authors in literature. Ilies, Morgenson and Nahrgang (2005), propose a four-component model of self-awareness, unbiased processing, authentic behaviour and authentic relational orientation. Similarly, Shamir and Eilam (2005) describe authentic leaders as possessing a degree of person-role merger, self-concept clarity centred

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 3

A GROBLER
K POWELL

**Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context**

around values and convictions, goals aligned with who they are, and behaviours consistent with their self-concept. In applied management literature, George (2003) defines AL as understanding your purpose, practising solid values, leading with your heart, building connected relationships, and self-discipline in delivering results. Walumbwa *et al.* (2008:94) comprehensively define AL as "a pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalised moral perspective, balanced processing of information and relational transparency on the part of leaders working with followers, fostering positive self-development".

From the definitions above, there is agreement that the key components of AL include knowing oneself; consistency between values and actions; presenting the authentic self to others through truthful relationships; and objectively analysing data and different points of view without bias before coming to a decision.

2.2   Passion for work

In the workplace, optimistic and enthusiastic employees who love what they do are surely preferred to employees who approach their work in an indifferent and complacent manner.

In literature, several authors have proposed definitions for PfW. Johri and Misra (2014) suggest that PfW consists of three components: the extent to which an employee experiences positive emotions at work (affective), feels an inner drive to do the work (cognitive), and desires to devote time and energy at work (behaviour). In addition, Zigarmi, Nimon, Houson, Witt and Diehl (2009) describe employee work passion as an individual's persistent, emotionally positive, meaning-based state of well-being stemming from reoccurring cognitive and affective appraisals of job and organisational situations resulting in consistent, constructive work intentions and behaviours. Similarly, Perrewé, Hochwarter, Ferris, McAllister and Harris (2013) propose that work passion is an individual's emotional and persistent state of desire built on cognitive and affective work appraisals resulting in consistent work intentions and behaviours. Passionate individuals desire to engage in their chosen work and these results in a uniform pattern of behaviour. On the other hand, Vallerand and Houlfort (2003) propose that passion is a strong inclination toward an activity that people like, find important, and in which they invest time and energy. They identify two types of passion. Obsessive passion, which is a motivational force that pushes the person

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 4

toward the activity and harmonious passion, which is a motivational force that leads a person to engage in the activity willingly and engenders a sense of volition and personal endorsement about pursuing it.

A composite view of the above definitions reveals PfW deals with positive emotions at work; an inner drive to accomplish the work; consistent and constructive work intentions and behaviours; cognitive and affective appraisals of organisational situations leading to meaningful connections; and, persistent desire.

2.3   Psychological capital

PsyCap, with its positive capacities of hope, optimism, self-efficacy and resilience, is a concept that is gaining traction in the world of work as organisations strive to improve their performance and employee well-being.

In literature, there seems to be agreement that PsyCap is characterised by four organisational behaviour constructs: self-efficacy; optimism; hope; and resilience (Luthans & Youssef 2004; Luthans, Youssef & Avolio 2007; Luthans, Avolio, Avey & Norman 2007; Luthans, Avey, Avolio & Peterson 2010). Although the four constructs are conceptually independent, it is suggested they share a common link in a motivational propensity to accomplish tasks and goals and that they interact synergistically to form the core construct of PsyCap (Luthans *et al*. 2007; Luthans *et al*. 2010).

3.   ANTECEDENTS TO PSYCHOLOGICAL CAPITAL

The antecedents to psychological capital can be viewed from several perspectives in existing literature. The first perspective is a model presented by Avey (2014), who maintains that little is known as to how psychological capital develops even though there are many studies on psychological capital as a predictor of individual performance, behaviours and attitudes. This model proposes four categories of antecedents on the "left side" of psychological capital. The strongest predictor of psychological capital is individual differences/cognition in terms of proactive personality and especially self-esteem.

The second strongest predictor is leadership/supervision in terms of authentic or ethical leadership. Authentic leadership has a stronger relationship with psychological capital than ethical leadership. Thirdly, task complexity has an effect on psychological capital. If task

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 5

A GROBLER
K POWELL

**Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context**

mastery can be obtained in a person's work, this will lead to higher levels of psychological capital. The last category is demographics where age is found to predict psychological capital possibly due to older employees having had more time to experience successes (Avey 2014).

Similar to Avey's (2014) perspective, Rego, Sousa, Marques and Cunha (2011) present a model where employees develop higher levels of psychological capital as a result of authentic leadership. This view is shared by Woolley, Caza and Levy (2011) whose model also includes the mediation effect of a positive work climate, i.e. authentic leaders create a positive organisational climate, which in turn helps followers to feel more confident, hopeful and optimistic about their work.

A further model of leadership style and follower psychological capital is presented by McMurray, Pirola-Merlo, Sarros and Islam (2010). This model suggests that a combination of transformational and transactional leadership has a positive effect on employee psychological capital.

Another perspective by Newman *et al.* (2014) discusses literature on the positive and negative influences on psychological capital. Positive antecedents include work-place support, an individuals' understanding of their ethnic identity and levels of leader psychological capital. On the other hand, a stressful work environment, work-family conflict and higher levels of employment uncertainty have a negative effect on an individual's level of psychological capital.

In conclusion, there is agreement that leadership (authentic, ethical, transformational and transactional) has an effect on psychological capital. Particularly relevant are the models suggesting that authentic leadership has an effect on psychological capital. The discussion that follows reports on studies where the relationship between AL, PfW and PsyCap has been empirically investigated.

4.   RELATIONSHIPS BETWEEN VARIABLES

Literature did not yield any studies focusing on the relationship between AL and PfW, PfW and PsyCap, and AL, PfW and PsyCap. However, a significant positive correlation between AL and PsyCap was reported with the magnitude ranging from $r = .37$ to $r = .67$ and an

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 6

average of r = .49 (Rego *et al*. 2011; Walumbwa, Luthans, Avey & Oke 2009; Wang, Sui, Luthans, Wang & Wu 2012; Woolley, Caza & Levy 2011).

The discourse above points to the key issue of this study, which is to empirically assess the relationship between AL, PfW and PsyCap within the Southern African context in order to contribute to the understanding of PsyCap antecedents and the knowledge gap on the relationship between AL, PfW and PsyCap.

5. METHOD

5.1 Research design

At a meta-theoretical level, this research is positivist. A cross-sectional design was used supported by quantitative statistical analysis, a typical empirical paradigm. Data was generated by means of surveys where valid and reliable instruments were used to measure the constructs.

5.2 Sample

Thirty organisations took part in the study, with 60 employees randomly selected from each organisation. The random samples were drawn by allocating random numbers to a list of full time employees in each organisation. The private sector was the best represented with 26 organisations, from the retail, medical, construction, financial, IT, communication, engineering and pharmaceutical industries participating, compared to four from public sector organisations. The organisations that represented the public sector are mainly from local government, provincial and national departments. Table 1 represents the characteristics of the participants, in terms of race, gender and the sector in which they are employed.

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 7

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

Table 1:   Characteristics of the participants

Sample characteristics (N=1 771)			
Category		n	%
Race	African	1 087	61.4
	Coloured	170	9.6
	Indian	134	7.6
	White	365	20.6
Gender	Female	831	47.2
	Male	931	52.8
Sector	Private	992	56.0
	Public	779	44.0
Function	Core	691	39.3
	Support	1068	60.7
Position	Management	604	34.2
	Non- Management	1164	65.8

Source: Calculated from survey results.

The total sample consisted of N =1 771 participants. In terms of the racial distribution, the majority of the participants were African (61.4%), followed by White (20.6%), Coloured (9.6%) and Indian (7.6%). The representation of the gender groups was slightly higher for males at 52.8% compared to 47.2% for females. The racial and gender distribution of the sample seems to be representative of the SA workforce in general. In addition, 60.7% of the sample consisted of respondents in support functions compared to 39.3% in core functions. 65.8% of respondents indicated they held non-management positions, while 34.2% of respondents held managerial positions.

The mean age of the respondents was M = 38.39 years (SD=9.52), with the mean time worked in the specific organisation (Tenure) reported as M = 8.81 years (SD=7.64). The assumption can be made that the sample is well representative of the general workforce,

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 8

and that the participants, in terms of age and tenure, were able to provide an accurate assessment of their perceptions of the constructs being measured.

5.3   Measuring instruments

The instruments used to gather data in this study are explained in more detail below. All surveys were administered individually using the pencil and paper method.

5.3.1 Authentic leadership

An adapted version of the Authentic Leadership Questionnaire (ALQ), developed by Walumbwa *et al*. (2008), was used in this study. It consists of 16 items, comprising four factors, namely self-awareness, internalised moral perspective, balanced processing and relational transparency. The adaptation was done in terms of the unit of analysis, with the original instrument intended for the assessment of the leader him/herself in terms of authentic leadership. The adaptation took place with the inclusion of the phrasing "The leaders in my organisation…" in order to assess the participant's perception of the authentic leadership attributes of the leaders in the organisation. The questionnaire was administered in English only. A five-point Likert-type scale was used in the questionnaire, with 1 = "strongly disagree" and 5 = "strongly agree". Typical items read "The leaders in my organisation acknowledge their limitations and are able to function within it" and "The actions of the leaders in my organisation reflect their core values". Walumbwa *et al*. (2008) reported acceptable Cronbach's alpha coefficients for each of the factors (ranging from .70 to .92). Due to the fact that the validation of the instrument was based on five separate samples obtained from China, Kenya, and the United States, and not a South African or Southern African sample, and because of the adaptation of the original instrument, further construct validation assessment by means of exploratory and confirmatory factor analysis is deemed to be necessary for this study.

5.3.2 Passion for work

The Passion for Work Scale, developed by Vallerand and Houlfort (2003), was used to measure the passion for work variable. It measures passion for work and the elements thereof, viz. harmonious passion (seven items) and obsessive passion (seven items). A typical item on harmonious passion for work reads: "My work allows me to live a variety of

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 9

experiences" while a typical item of obsessive passion for work reads "The urge is so strong; I can't help myself from doing my work".

The scale used in the measure is a five- point Likert scale. The maximum score is 70 and the minimum is 14. Summing of each item's scores within each section will thus provide an indication of the participant's passion for work as well as the nature of that passion. In other words, if passion for work exists, to what extent it exists and whether it tends towards a positive and harmonious form of passion or a negative and obsessive form of passion. The instrument developers reported adequate reliability coefficients, with Cronbach's alpha values ranging from .70 to .85 (Vallerand & Houlfort, 2003).

5.3.3 Psychological capital

Luthans, Youssef and Avolio (2007) developed a Psychological Capital Questionnaire (PCQ) to measure PsyCap. The original instrument consists of 24 items and has four subscales which measure the four factors, namely hope, self-efficacy, resilience and optimism. Each factor consists of six items. The scale used in the measure is a six-point Likert scale with the response choices ranging from 1 = strongly disagree to 6 = strongly agree. A high score presents high levels of the positive PsyCap constructs of self-efficacy, resilience, hope and optimism and a low score means low levels of the same. Dawkins, Martin, Scott and Sanderson (2013) reported relatively high reliability results with Cronbach's alphas ranging from .68 - .95 across the 29 studies included in their meta-analysis.

Grobler and Joubert (2018) examined the instrument properties of the PCQ within the South African/African context. The results of an exploratory and confirmatory factor analysis yielded a three factor solution. The factors were named in accordance with their original theoretical and PCQ names, with the self-efficacy (seven items - six items from the original self-efficacy factor and one item from the original hope factor), hope & optimism (eight items - four items from the original hope factor and four from the original optimism factor), resilience (five items - four from the original resilience factor and one from the hope factor). A typical item on self-efficacy reads "I feel confident in representing my work area in meetings with management", with hope & optimism, "Right now I see myself as being pretty successful at work", and resilience, "I usually manage difficulties one way or another at work". Grobler and Joubert (2018) reported Cronbach's alphas values of .90, .85 and .79 for the three factors respectively. They found that the second-order model in which the reduced

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 10

number of items (21 of the original 24) loading on the three factors that contribute to a secondary factor, namely PsyCap, is the best fitting model (χ2/df (141)=6.93, CFI=.95, RMSEA=.058). The adjusted (reconfigured) instrument was further found to satisfy the notion of construct validity, with specific reference to convergent and discriminant validity respectively (Grobler & Joubert 2018).

5.4 Statistical analysis

The Statistical Package for the Social Sciences (SPSS version 24) was used for the statistical analysis. Descriptive statistics were calculated to provide information on the distribution, with the mean score as either the average, or as the precise centre of the amalgamated values, with the standard deviation as the measure of variability. Skewness and kurtosis were also calculated to investigate the distribution of the data. The critical values for these two statistics are 2 and 7 respectively (West, Finch & Curran 1995).

The Cronbach's alpha coefficient (α) was calculated to test the proportional variance error and the internal consistency of the instrument. A score α = .70 or higher, is considered by Clark and Watson (1995) and Nunnally and Bernstein (1994) respectively as acceptable.

Correlations between the constructs were calculated by means of Pearson's product moment correlations. Stepwise multiple regression analysis was used to determine the amount of variance explained by AL in PsyCap, when PfW is forced into the analysis. The rationale for this forced inclusion of PfW is to determine whether it improves the model or not. The tolerance values, as well as VIF values, were also calculated to test for possible multicollinearity (Pallant 2013). Tolerance is an indicator of the amount of variance not explained by the other independent variables (in this case item) in the model, and should preferably be larger than .10. VIF, on the other hand, is the inverse of tolerance and values should be below 10.

In addition to the multiple regressions, structural equations analysis was used since it presents some advantages over traditional multivariate techniques (Haenlein & Kaplan 2004). In order to perform SEM, the missing values were deleted case wise. These values constituted less than 2% of the total sample, thus not impacting on the analysis. AMOS (Analysis of a Moment Structures), which is statistical software, was used to look at the model from a theoretical perspective. To clarify the meaning of mediation, a path diagram was introduced as a model for depicting a causal chain. The basic causal chain involved in

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 11

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

mediation is diagrammed in Figure 1. This model assumes a three-variable system such that there are two causal paths feeding into the outcome variable: the direct impact of the independent variable (Path c) and the impact of the mediator (Path b). There is also a path from the independent variable to the mediator (Path a).

Figure 1:   Proposed model
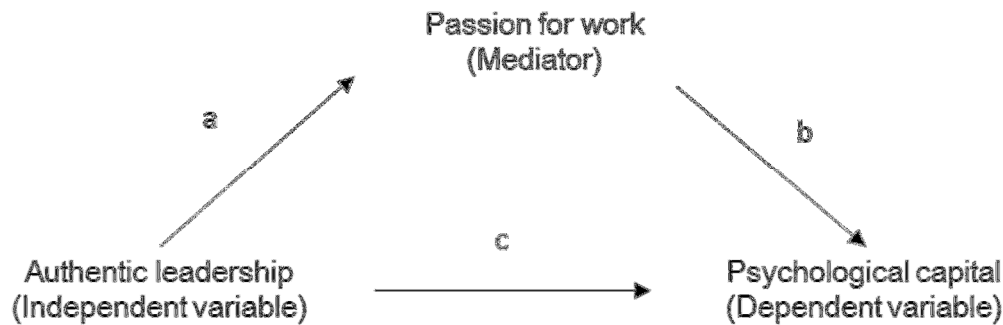
Source: Author's own

The Baron and Kenny procedure was also performed to confirm the relationship between the variables. The aim of this procedure is to determine whether the independent variable affects the dependent variable through a mediating variable (Zhao, Lynch & Chen 2010). In addition to Baron and Kenny's procedure, the Sobel test is considered to be suitable for large samples (Preacher, Rucker & Hayes 2007). Preacher and Hayes (2004) regard the Sobel test as sufficient in terms of its power and intuitive appeal. They also indicated that the rough critical value for the Sobel test is ± 1.96 ($p < .05$) for a significant mediation effect.

The discussion now turns to a report of the results which address the next objectives of the study.

6.   RESULTS

In order to determine the structural and construct validity of the adjusted ALQ, an EFA, followed by a CFA was conducted. The EFA yielded acceptable values for the Bartlett test of sphericity at $p ≤ .001$, which was higher than the set margin of $p < .05$, and the KMO (.95). This is higher than the critical value of .60 and, in other words, it meets the criteria for implied adequate correlation amongst items to perform an exploratory factor analysis. The Kaiser's criterion (K1 rule), the interpretation of the scree-plot, as well as the Monte Carlo

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 12

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

parallel analysis, suggest a one factor solution, accounting for 45% of the total variance in AL. All 16 items included in the original instrument loaded on this unidimensional construct. The communalities (h2) items are relatively high (> .35). The Cronbach alpha coefficient (α) of the unidimensional construct is considered to be acceptable (.92) when the guideline of α>.70 (Tabachnick & Fidell 2007) is applied. The skewness and kurtosis values of the unidimensional construct do not exceed the critical values of 2.00 and 7.00 respectively (West *et al.*, 1995) which is an indication that the data is normally distributed. The tolerance, as well as the VIF values, met the criteria and therefore it can be concluded that there is no violation of the multicollinearity assumption. The results of the CFA confirmed that the best fitting model was the one in which all 16 items loading directly on the one factor (i.e. AL). The results indicated a good fit (chi-square = 366.55, df = 86, $p < .001$, IFI = .98, TLI = .97, CFI = .98, RMSEA=.041).

The construct validity of the Passion for Work scale was also assessed within the SA context. The results of the CFA confirmed that the best fitting model in which all 14 items loading directly on two factors (i.e. Harmonious passion and Obsessive passion). The results indicated a good fit (chi-square = 539.13, df = 53, $p < .001$, IFI = .97, TLI = .94, CFI = .97, RMSEA=.07). No adjustments are thus necessary for this instrument and it is used as developed by Vallerand and Houlfort (2003).

The suitability (construct validity) of the AL and PfW instruments can therefore be confirmed within the SA context. Next we look at the relationships between the variables. The descriptive statistics as well as the psychometric properties of the instruments are reported in Table 2.

Table 2: Descriptive statistics

Descriptive statistics and Cronbach alpha coefficient of the factors of the authentic leadership, passion for work as well as psychological capital instruments								
Factor	N	Min	Max	Mean	SD	Skewness	Kurtosis	α
Authentic leadership (5-point Likert scale)								
AL	1 680	1	5	3.19	.69	-.22	.15	.92
Passion for work (5-point Likert scale)								
HPfW	1 761	1	5	3.75	.75	-.71	.87	.89
OPfW	1 764	1	5	2.71	.88	.25	-.42	.89
PfW_Tot	1 756	1	5	3.23	.70	-.10	.27	.90

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 13

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

Psychological capital (6-point Likert scale)								
PsyCap_SE	1 765	1	6	4.66	.87	-.85	.78	.90
PsyCap_H&O	1 766	1	6	4.51	.74	-.67	1.54	.85
PsyCap_Res	1 766	1	6	4.62	.71	-.63	1.51	.78
PsyCap_Tot	1 757	1	6	4.60	.66	-.65	1.31	.92

Source: Calculated from survey results.

Where: AL= Authentic leadership; HPfW= Harmonious passion for work; OPfW= Obsessive passion for work; PfW_Total= Passion for work total score; PsyCap_SE= Self efficacy, PsyCap_H&O=Hope and Optimism, PsyCap_Res=Resilience and PsyCap_Total=Psychological capital total score.

The descriptive statistics in Table 2 show that the skewness and kurtosis values of the factors do not exceed the critical values of 2.00 and 7.00 respectively (West *et al.* 1995), which is an indication that the data is normally distributed. The majority of the values of AL, PfW and PsyCap, as well as their respective factors on the skewness scale, were negative. This is an indication that the distribution has relatively few small values and tails off to the left. The Cronbach alpha coefficients of the factors are acceptable if the guideline of $\alpha > .70$ (Nunnally & Bernstein 1994) is applied. It would thus appear that the factors possess acceptable levels of internal consistency. The strength and the direction of the linear relationship between the factors (and total score) of AL, PfW as well as PsyCap are reported in Table 3.

Table 3:   Correlations between authentic leadership, passion for work and psychological capital

	AL	HPfW	OPfW	PfW_tot
Authentic leadership	1			
Harmonious passion for work	.43	1		
Obsessive passion for work	.28	.46	1	
Passion for work total score	.41	.83	.88	1
PsyCap_Self efficacy	.28	.43	.21	.37
PsyCap_Hope and Optimism	.29	.50	.31	.46
PsyCap_Resilience	.15	.29	.15	.25
Psychological capital total score	.28	.47	.26	.42

Source: Calculated from survey results

Where: AL= Authentic leadership; HPfW= Harmonious passion for work; OPfW= Obsessive passion for work; PfW_Tot= Passion for work total score.
All correlations are significant at p ≤.001.

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 14

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

The relationship between the AL, PfW as well as PsyCap (and its respective factors) reported medium, positive correlations, ranging between $r = .15$ to $r = .50$. The resilience factor of PsyCap reported the smallest correlations. However, it is important to remember that the factors of PsyCap interact synergistically to form the core construct of PsyCap and as suggested by Caza, Bagozzi, Woolley, Levy and Caza (2010), it is more valuable to regard psychological capital as an inclusive, comprehensive construct. The results of the stepwise multiple regression analysis between the AL, PfW and PsyCap are reported in Tables 4 to 7.

Table 4:   Results of hierarchical multiple regression analysis

Model summary with psychological capital as dependent variable and authentic leadership, harmonious and obsessive passion for work as independent variables									
Model	R	R2	Adjusted R2	Std. Error of the Estimate	Change Statistics				
					R2 Change	F Change	df1	df2	Sig. F Change
1	.28 a	.08	.08	.58	.08	137.22	1	1 665	≤.001
2	.48 b	.23	.23	.53	.15	330.78	1	1 664	≤.001
3	.48 c	.23	.23	.53	.00	1.15	1	1 663	n/s
Predictors a: (Constant), Authentic leadership									
Predictors b: (Constant), Authentic leadership, Harmonious passion									
Predictors c: (Constant), Authentic leadership, Harmonious passion, Obsessive passion									

Source: Calculated from survey results.

The stepwise multiple regression analysis, with PsyCap as dependent variable and AL as independent variable, yielded significant results. The model improved with the addition of harmonious passion for work. AL explains 8% of the variance in PsyCap ($F(1, 1\ 665) = 137.22$, $p < .001$), with 15% explained by harmonious passion for work ($F(1, 1\ 664) = 330.785$, $p < .001$). Obsessive passion for work did not contribute significantly to the model. This result is consistent with Vallerand and Houlfort's (2003) study which found that obsessive passion was generally unrelated to positive affect. The total model (consisting of AL and harmonious passion) explains 23% of the variance in PsyCap.

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 15

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

Table 5:   Results of hierarchical multiple regression analysis

Model	Unstd. Coefficients		Std. Coefficients	t	Sig.	Collinearity Statistics	
	β	Std. Error	β			Tolerance	VIF
(Constant)	2.94	.08		38.57	≤.001		
Authentic leadership	.08	.02	.10	4.00	≤.001	.81	1.23
Harmonious passion	.36	.02	.44	17.09	≤.001	.69	1.45
Obsessive passion	-.02	.02	-.03	-1.07	n/s	.77	1.29
Dependent Variable: Psychological capital							

Asessment of multicollinearity between the independent variables (authentic leadership and harmonious and obsessive passion for work)

Source: Calculated from survey results.

The tolerance values between the independent variables (the AL and the PfW sub-factors) were found to be relatively high, ranging from .69 to .81 (thus >.10). The VIF values were below the critical value for multicollinearity of 10 (ranging from 1.23 - 1.45). It may therefore be concluded that there is no violation of the multicollinearity assumption.

Table 6:   Results of hierarchical multiple regression analysis

Model	R	R2	Adjusted R2	Std. Error of the Estimate	Change Statistics				
					R2 Change	F Change	df1	df2	Sig. F Change
1	.28 a	.08	.08	.59	.08	136.13	1	1 656	≤.001
2	.41 b	.17	.16	.56	.09	177.52	1	1 655	≤.001

Model summary with psychological capital as dependent variable and authentic leadership and the total passion for work as independent variables

Predictors a: (Constant), Authentic leadership
Predictors b: (Constant), Authentic leadership, Passion for work

Source: Calculated from survey results.

The stepwise multiple regression analysis, with PsyCap as dependent variable and the two independent variables as unidimensional constructs (using the total scores of AL and PfW), yielded significant results, with AL explaining 8% of the variance in PsyCap (F(1, 1 656) = 136.13, $p < .001$). The addition of PfW improves the model by 9% (total variance explained is 16%), with F(1, 1 655) = 177.52 ($p < .001$).

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 16

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

Table 7:   Results of hierarchical multiple regression analysis

Model	Unstd. Coefficients		Std. Coefficients	t	Sig.	Collinearity Statistics	
	β	Std. Error	β			Tolerance	VIF
(Constant)	3.19	.08		41.71	≤.001		
Authentic leadership	.13	.02	.14	5.82	≤.001	.84	1.20
Passion for work	.28	.02	.33	13.32	≤.001	.84	1.20
Dependent Variable: Psychological capital							

Header spanning: *Assessment of multicollinearity between the independent variables (authentic leadership and passion for work)*

Source: Calculated from survey results.

The tolerance value is .84 and the VIF value is 1.20 indicating non-multicollinearity between the two independent variables, in this instance AL and PfW.

In order to determine the possible mediating effect of PfW on the relationship between AL and PsyCap, the Baron and Kenny's procedure was performed and the results are reported in Table 8.

Table 8:   Results of Baron and Kenny's procedure (supported by the Sobel z score)

Dependent variable	Independent variable	β	SE	C.R.	Sig.	Result
Psychological capital	Authentic leadership	.25 a	.02	11.77	< .001	Significant
After mediation of Passion for work (total score) [Sobel z value = 4.24 p ≤ .001]		.13b	.02	5.85	< .001	Significant
After mediation of Harmonious passion for work [Sobel z value = 14.69 p ≤ .001]		.08c	.02	3.91	< .001	Significant
After mediation of Obsessive passion for work [Sobel z value = 7.39 p ≤ .001]		.21d	.02	9.77	< .001	Significant

Header spanning: *The relationship between authentic leadership and psychological capital through the mediation of passion for work*

Source: Calculated from survey results

After inspection of the results reported in Table 8, it is clear that a mediated effect (b, c, d) and direct effect (a) exist and point in the same direction. The estimated beta value of the relationship between AL (independent variable) and PsyCap as dependent variable was .25, but decreased to .13 after PfW was introduced as mediating variable. The largest mediation took place with the inclusion of harmonious passion for work, decreasing the estimated beta value to .08. This is also referred to as complementary partial mediations or as "consistent"

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 17

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

or "positive confounding" models (Zhao *et al*. 2010:200). This finding is supported by all the Sobel z scores ranging from 4.24 (in model a) to 14.60 (in model c) ($p \leq .001$) respectively.

The model, as depicted in figure 1, was assessed by means of SEM in accordance with the respective fit indexes. The results indicated a good fit (chi-square = 246.14, df = 44, $p <$ .001, IFI = .97, TLI = .96, CFI = .97, RMSEA=.06).

The findings as set out in Tables 2 - 8 confirm the model in Figure 1. Medium positive correlations between the constructs were reported, suggesting that AL and PfW are important predictors of PsyCap. With the model consisting of AL and PsyCap, an 8% variance in PsyCap was explained by AL. When harmonious passion was added, the variance in PsyCap improved by 15% - i.e., a total variance of 23%. These findings are similar to the relationship between AL and PsyCap in previous studies which reported significant positive correlations with magnitudes ranging from $r = .37$ to $r = .67$ and an average of $r = .49$ (Rego *et al*. 2011; Walumbwa, Luthans, Avey & Oke 2009; Wang, Sui, Luthans, Wang & Wu 2012; Woolley, Caza & Levy 2011), but with a notable variation in the model when harmonious passion is added.

7.   RECOMMENDATIONS, LIMITATIONS AND CONCLUSION

Given the above, the discussion now turns to the last two objectives of the study: to make recommendations to leaders, managers, organisational development and human resource practitioners to enhance PsyCap through leadership (specifically AL) and work-related (specifically PfW) interventions; and, to make recommendations for future research. Recommendations were derived and validated using literature cross referencing and also included some deductions made by the researcher.

According to Ilies *et al*. (2005) and May, Hodges, Chan and Avolio (2003), AL can be improved through an organisational environment that facilitates its development; by selecting and promoting leaders with the required characteristics; and, using developmental interventions to foster the different components of AL in leaders already holding positions. In this study, the data revealed that the three highest scoring items for AL were linked to internalised moral perspective and self-awareness. Specifically, authentic leaders are guided by their morals, their actions reflect their core values and they are aware of and use their own strengths. Internalised moral perspective is evident when leaders behave in ways that

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 18

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

are consistent with their personal values, while self-awareness is evident when leaders have a positive self-concept, high levels of emotional intelligence, know their own strengths and weaknesses and trust in their own personal values, motives, feelings and cognitions (George 2003; Ilies *et al*. 2005; Shamir & Eilam 2005; Walumbwa *et al*. 2008).

On the other hand, literature asserts PfW can be developed by allowing employees to experience success while working towards challenging and achievable goals as well as providing a sense of meaning beyond simply making a profit. This includes regularly communicating the organisation's vision and the implementation thereof; individual autonomy and flexibility through clear expectations supported by necessary resources; a supportive work environment guided by recognition policies that value contributions; and opportunities for growth, collaboration and recognition using a structure that rewards and encourages teamwork, learning and excellence (Johri & Misra 2014; Luthans & Youssef 2004; Luthans, Youssef & Avolio 2007; Zigarmi *et al*. 2009). In this study, the results of the section of the questionnaire dealing with passion for work indicate that the three highest scoring items were "My line of work reflects the qualities I like about myself", "The new things that I discover within the confines of my work allow me to appreciate it even more", and "My work allows me to live a variety of experiences". These items specifically measure harmonious passion. This infers that recommendations should aim at developing an employee's level of harmonious passion, which in turn will increase an employee's level of passion for work.

The results of this study show that the relationship between AL and PsyCap is strengthened when PfW is added to the model. It would therefore be well advised to include the development of employee harmonious passion for work in any AL development initiatives to strengthen employee PsyCap.

Consequently, in addition to the approaches suggested by literature, managers need to ensure a work environment where employees can self-discover, experience challenge and personal growth. The work environment must enable and encourage employees to experience variety and learn new things using processes and procedures that are applied fairly and consistently to everyone. Employees need to feel supported by management and that their jobs are secure. Specifically, values-based coaching and mentoring programmes which make use of multi-source feedback where authentic and aspiring leaders are paired

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 19

can be used. These programmes should include self and social awareness assessments and interventions to align the assignment of work responsibilities with natural skills, abilities and passions. This will assist in aligning the qualities employees like about themselves with their work and the organization. Furthermore, communicating desired behaviours before, during, and after leadership selection as well as encouraging employees to try new approaches to their work through networking and benchmarking activities will add value. Rewarding and acknowledging these behaviours within performance management structures and processes on a regular basis will shape their development.

This research has certain limitations, mainly in terms of the methodology. The study focused on only two predictors of PsyCap, i.e. AL and PfW and all questionnaires are defined at an individual level of analysis and not at group level. There is a risk of self-report bias that occurs as a result of rating oneself and the wording of the scales was used as is, without adapting it to the South African (multi-lingual) context. Future scholars are advised to use larger samples and to explore the effect of other potential predictors of PsyCap. In addition, these relationships can be explored at group level.

In conclusion, this study provides evidence that AL and PfW interventions may enhance employee levels of PsyCap within the Southern African organisational context. This research thus contributes to the existing body of knowledge on PsyCap antecedents and has implications for organisational development interventions.

REFERENCES

AVEY JB. 2014. The left side of psychological capital: New evidence on the antecedents of psycap. *Journal of Leadership and Organisational Studies* 21(2):141-149.

AVOLIO BJ & GARDNER WL. 2005. Authentic leadership development: Getting to the root of positive forms of leadership. *The Leadership Quarterly* 16:315-338.

CAZA A, BAGOZZI RP, WOOLLEY L, LEVY L & CAZA BB. 2010. Psychological capital and authentic leadership. Measurement, gender, and cultural extension. *Asia-Pacific Journal of Business Administration* 2(1):53-70.

CLARK LA & WATSON, D. 1995. Constructing validity: Basic issues in objective scale development. *Psychological Assessment* 7:309-319.

DAWKINS S, MARTIN A, SCOTT, J & SANDERSON K. 2013. Building on the positives: A psychometric review and critical analysis of the construct of psychological capital. *Journal of Occupational and Organizational Psychology* 86:348-370.

DU PLESSIS Y & BARKHUIZEN N. 2012. Psychological Capital, a requisite for organisational performance in South Africa. *South African Journal of Economic and Management Sciences* 15(1):16-30.

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 20

A GROBLER
K POWELL

Enhancing psychological capital: The impact of
authentic leadership and passion for work in a
South African context

GEORGE W. 2003. Authentic Leadership: Rediscovering the Secrets of Creating Lasting Value. San Francisco: Jossey-Bass.

GROBLER A & JOUBERT YT. 2018. Psychological capital: Convergent and discriminant validity of a reconfigured measure. *South African Journal of Economic and Management Sciences* 21(1):a1715.

HAENLEIN M & KAPLAN AM. 2004. A beginner's guide to partial least squares analysis. *Understanding Statistics* 3(4):283-297.

HARVEY P, MARTINKO MJ & GARDNER WL. 2006. Promoting authentic behaviour in organisations: An attributional perspective. *Journal of Leadership and Organisational Studies* 12(3):1-1.

ILIES R, MORGESON FP & NAHRGANG JD. 2005. Authentic leadership and eudaemonic well-being: Understanding leader-follower outcomes. *The Leadership Quarterly* 16:373-394.

JOHRI R & MISRA RK. 2014. Self-efficacy, work passion and wellbeing: A theoretical framework. *IUP Journal of Soft Skills* 8(4):20-35.

LUTHANS F, AVEY JB, AVOLIO BJ & PETERSON SJ. 2010. The development and resulting performance impact of positive psychological capital. *Human Resources Development Quarterly* 21(1):41-67.

LUTHANS F, AVOLIO BJ, AVEY JB & NORMAN SM. 2007. Positive psychological capital: Measurement and relationship with performance and satisfaction. *Personnel Psychology* 60:541-572.

LUTHANS F, YOUSSEF CM & AVOLIO BJ. 2007. Psychological Capital: Developing the Human Competitive Edge. New York: Oxford University Press.

LUTHANS F & YOUSSEF CM. 2004. Human, social, and now positive psychological capital management: Investing in people for competitive advantage. *Organisational Dynamics* 33:143-160.

MAY DR, HODGES TD, CHAN AYL & AVOLIO BJ. 2003. Developing the moral component of authentic leadership. *Organisational Dynamics* 32(3):247-260.

MCMURRAY AJ, PIROLA-MERLO A, SARROS JC & ISLAM MM. 2010. Leadership, climate, psychological capital, commitment, and wellbeing in a non-profit organisation. *Leadership and Organisation Development Journal* 31(5):436-457.

NEWMAN A, UCBASARAN D, ZHU F & HIRST G. 2014. Psychological capital: A review and synthesis. *Journal of Organisational Behaviour* 35:120-138.

NUNNALLY JC & BERNSTEIN IH. 1994. Psychometric Theory. 3rd ed. New York: McGraw-Hill.

PALLANT J. 2013. SPSS Survival Manual: a step by step guide to data analysis using IBM SPSS. 4th ed. England: Open University Press.

PERREWÉ PL, HOCHWATER WA, FERRIS GR, MCALLISTER CP & HARRIS JN. 2013. Developing a passion for work passion: Future directions on an emerging construct. *Journal of Organisational Behaviour* 35:145-150.

PREACHER KJ. & HAYES AF. 2004. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, and Computers*. 36:717-731.

PREACHER KJ, RUCKER DD & HAYES AF. 2007. Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research* 42(1):185-227.

REGO A, SOUSA F, MARQUES C & CUNHA MP. 2011. Authentic leadership promoting employees' psychological capital and creativity. *Journal of Business Research* 65:429-437.

SHAMIR B & EILAM G. 2005. What's your story? A life-stories approach to authentic leadership development. *The Leadership Quarterly* 16:395-417.

TABACHNICK BG & FIDELL LS. 2007. Using multivariate statistics. 5th ed. Boston: Pearson.

VALLERAND RJ & HOULFORT N. 2003. Passion at work. Toward a New Conceptualization. In Gilliland SW, Steiner DD & Skarlicki DP. Ed. Emerging Perspectives on Values in Organisations. Greenwich, Connecticut: Information Age. (pp 175-204.)

WALUMBWA FO, AVOLIO BJ, GARDNER WL, WERNSING TS & PETERSON SJ. 2008. Authentic leadership: Development and validation of a theory-based measure. *Journal of Management* 34(1):89-126.

WALUMBWA FO, LUTHANS F, AVEY JB & OKE A. 2009. Authentically leading groups: The mediating role of collective psychological capital and trust. *Journal of Organisational Behaviour* 32:4-24.

Journal of Contemporary Management
DHET accredited
ISSN 1815-7440

Volume 15
2018
Pages 655-676

Page 21

WANG H, SUI Y, LUTHANS F, WANG D & WU Y. 2012. Impact of authentic leadership on performance: Role of followers' positive psychological capital and relational processes. *Journal of Organisational Behaviour* 35:5-21.

WEST SG, FINCH JF & CURRAN PJ. 1995. Structural equation models with non-normal variables: problems and remedies, in Structural equation modelling: concepts, issues, and applications. Edited by R.H. Hoyle. USA: Thousand Oaks: Sage.

WOOLLEY L, CAZA A & LEVY L. 2011. Authentic leadership and follower development: Psychological capital, positive work climate, and gender. *Journal of Leadership and Organisational Studies* 18(4):438-448.

ZHAO X, LYNCH JG & CHEN Q. 2010. Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *The Journal of Consumer Research* 37(2):197-206.

ZIGARMI D, NIMON K, HOUSON D, WITT D & DIEHL J. 2009. Beyond engagement: Toward a framework and operational definition for employee work passion. *Human Resource Development Review* 8(3):300-326.