Personality Influences on the Self-Leadership Practices of Vocational College Academics

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Acknowledgements This paper is for Glenn Marshall who sadly passed away before he was able to complete his doctoral studies.

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ABSTRACT

This study examined the relationship between personality and self-leadership in a sample of vocational college academics. Structural equation modelling was used to assess the factor structure of self-leadership and its relationship with personality. Contrary to prior research the best fitting model was a one-factor model for self-leadership. The results did support the distinctiveness of locus of control, general self-efficacy and conscientiousness from overall self-leadership, but not from the behaviour-focused, natural reward and constructive thought pattern dimensions. General self-efficacy and conscientiousness of self-leadership practices. The practical and research implications of the results for self-leadership are discussed.

Keywords: leadership and personality, academics

Self-leadership has been suggested as a 'new *silver bullet(s)* for the dawn of a new era of leadership' (Pearce & Manz 2005: 133). Practicing self-leadership is believed to increase the self-awareness and self-regulation of leaders encouraging them to behave authentically, and thereby providing a positive role model for followers (Avolio & Gardner 2005; Gardner, Avolio, Luthans, May & Walumbwa 2005). Leaders who behave in ways consistent with their values and beliefs also encourage the development of authentic followers and this has positive outcomes including increased trust, engagement and well being. Essentially, by learning how to lead themselves leaders can then empower others (Bligh, Pearce & Kohles 2006; Houghton, Neck & Manz 2003; Manz & Neck 2004; Pearce & Manz 2005). Leaders who practice self-leadership are also better able to manage the stresses inherent in their role (Lovelace, Manz & Alves 2007). Other desirable organisational outcomes have also been linked to self-leadership, including individual commitment, creativity/innovation, job satisfaction, improved self-efficacy and communication skills (Neck & Houghton 2006; Morin & Latham 2000; Saks & Ashforth 1996). While much has been written about the conceptual foundations of self-leadership, empirical research into self-leadership theory and its application in organisational settings is still in its infancy (Houghton & Neck 2002; Neck & Houghton 2006).

In this study of academics we respond to calls to investigate the relationship between personality and self-leadership strategies, thereby overcoming some limitations of prior research (Houghton, Bonham, Neck & Singh 2004; Neck & Houghton 2006). We examine internal locus of control, general self-efficacy and conscientiousness that are thought to be positively related to self-leadership (Houghton et al. 2006; Williams 1997). We begin with a review of the theoretical foundation of self-

leadership and the main self-leadership strategies. The arguments in support of a relationship between personality and the practice of self-leadership are then presented, followed by the method used in the present study and a discussion of the results obtained.

THEORETICAL FRAMEWORK AND HYPOTHESES

Self-Leadership Theory

Self-leadership has been defined as 'the process of influencing oneself to establish the self-direction and self-motivation needed to perform' (Neck, Stewart & Manz 1995: 281). The process of influence encompasses a set of internal cognitive and behavioural strategies that enable individuals to improve their performance. As such, several theories provide the foundation for self-leadership, including selfregulation (Carver & Scheier 1981; Kanfer 1970), self-control (Mahoney & Arnkoff 1978, 1979; Thoresen & Mahoney 1974), self-management (Luthans & Davis 1979; Manz 1986; Manz & Sims 1980),intrinsic motivation theories (Deci 1975; Deci & Ryan 1985), social cognitive theory (Bandura 1977) and clinical cognitive psychology (Burns 1980; Ellis 1977). Three main groups of selfleadership strategies have evolved from these various theories including behaviour-focused, natural rewards, and constructive thought patterns. The primary mechanism by which these strategies result in improved performance is by enhancing the individual's self-efficacy or their belief that they can perform a particular task (Bandura 1977).

Behaviour-focused strategies. Manz and Neck (2004) suggest behaviour-focused strategies fall into two categories. Firstly, strategies that alter situational cues to influence us to behave in certain ways and, secondly, self-imposed strategies that directly control our behaviour. As such, behaviour-focused strategies include cueing strategies, self-observation, self-goal-setting, self-reward, and selfpunishment. Using cueing strategies the individual deliberately alters cues in the work environment to facilitate desired personal behaviours and eliminate undesirable ones (Manz & Neck 2004; Manz & Sims 2001). Self-observation is an important aspect of self-leadership that involves becoming more aware of the causes of our behaviour with a view to changing ineffective patterns (Manz & Neck 2004). Self-goal-setting is therefore an essential next step in self-leadership, where both the initiative for setting a goal, as well as its difficulty, is determined by the individual, rather than their supervisor

(Sims & Lorenzi 1992). Finally, self-reinforcement refers to the self-administration of consequences that increase the strength of the desired behaviour and includes both self-reward and self-punishment strategies (Sims & Lorenzi 1992). Fields (2007) has argued that the use of these behaviourally focused self-leadership strategies helps to set an example for followers which can have a positive effect on their perceptions of the leader's authenticity and integrity.

Natural reward strategies. Natural reward strategies emphasise the importance of performing an activity for the intrinsic enjoyment and pleasure that is provided by successful task performance (Deci 1975). The enhanced feelings of competence, self-determination, and sense of purpose (Manz & Neck 2004) that accompany the performance of such tasks are the primary psychological mechanisms of intrinsic motivation (Deci & Ryan 1985). In contrast to the previously mentioned behaviour-focused self-reward and self-punishment strategies, when natural rewards are present no specific external or self-administered incentives are needed to motivate an individual to perform the behaviour(s).

Constructive thought patterns. Constructive thought patterns involve an ability to engage in functional patterns of thinking including positive self-talk, challenging irrational beliefs and assumptions, and mental imagery of successful performance (Manz 1986; Manz & Neck 2004). Positive self-talk can assist the individual to acquire skills, initiate desired thinking or behaviour, control personal emotional states, and sustain effort (Manz & Neck 2004). This, in turn, can lead to increased feelings of self-efficacy (Manz & Sims 2001; Sims & Lorenzi 1992; Williams 1997). Beliefs are the underlying assumptions upon which an individual's self-talk and other behaviours are based (Watson & Tharp 1989). Through self-observation individuals can alter their thought patterns and establish more rational beliefs (Burns 1980; Ellis 1977). The essence of mental imagery is that the individual purposefully generates constructive mental images (Manz & Sims 2001) in order to change thinking and behaviour and improve performance.

Personality and Self-Leadership

Markham and Markham (1998: 195) questioned whether self-leadership might be 'an enduring personality trait', rather than a set of learned strategies as originally proposed by Manz (1986). Recent research by Houghton et al. (2004) found the three self-leadership strategies were distinct from

extraversion and conscientiousness. Stewart, Carson and Cardy's (1996) findings that self-leadership behaviours can be developed through training, also supports the notion that self-leadership is not a personality trait. Yun et al. (2006) also found the effect of an empowering or directive leader style on self-leadership depended on employees' need for autonomy, a personality trait. Finally, Gerhardt et al.'s (2007) study found individual differences in university students' self-management practices. Studies of personality may therefore help to identify individuals who are more likely to practice selfleadership and those who would benefit the most from training. Williams (1997) suggested the personality factors of internal locus of control, general self-efficacy, extraversion, emotional stability, conscientiousness, and self-monitoring might be associated with self-leadership strategies. Anderson and Prussia (1997) also highlighted the need to study self-leadership and self-efficacy, self-esteem and self-monitoring. Finally, Neck and Houghton (2006) in their review of twenty years of self-leadership research concluded that future studies should examine the relationship between self-leadership, general self-efficacy, self-esteem, locus of control and self-monitoring. However, empirical evidence for a relationship between self-leadership and personality is sparse. In this study, we examine the relationship between self-leadership, internal locus of control, general self-efficacy and conscientiousness to see if self-leadership is empirically separate.

Hypothesis 1. The behaviour-focused, natural reward and constructive thought strategies of self-leadership are empirically distinct from locus of control, general self-efficacy and conscientiousness.

Locus of control is a personality trait referring to a person's belief that they are in control of their destiny or what happens to them (Rotter 1966). Individuals with an internal locus of control (internals) believe they are in control of the events and outcomes they experience in their lives. On the other hand, those with an external locus of control (externals) believe that what happens to them is due mainly to fate or bad luck and, as such, is beyond their control. Since self-management and self-regulation are central to the self-leadership construct, it follows that people who perceive they are in control of their own choices and behaviour would be more likely to engage in self-leadership straetgies such as self-observation and self goal-setting (Williams 1997). The cognitive processes of

people with an internal locus of control also make them more likely to engage in positive self-talk and to challenge irrational beliefs they hold about themselves.

Hypothesis 2. Internal locus of control is positively related to self-leadership.

Originally conceptualized as situation-specific, self-efficacy is 'the conviction that one can successfully execute the behaviour required to produce the outcomes' (Bandura 1977: 193). Subsequent research, however, identified the existence of a general self-efficacy trait that is relatively stable across situations and that influences task-specific self-efficacy (Watt & Martin 1994; Woodruff & Cashman 1993). General self-efficacy is defined as an 'individuals' perception of their ability to perform across a variety of situations' (Judge, Erez & Bono 1998: 170). Such people believe they have the ability to successfully manage their performance in a range of situations. General self-efficacy differs from internal locus of control in that it refers to confidence with respect to behaviours, whereas locus of control refers to confidence in relation to control over outcomes (Judge et al. 1998). Foti and Hauenstein (2007) found general self-efficacy was significantly correlated with observers' perceptions of the degree of influence an individual had over others in determining the outcome of a task. Individuals high in general self-efficacy, intelligence, dominance and self-monitoring emerged as leaders. Williams (1997) suggested people with a higher level of general self-efficacy are (a) more likely to engage in self-leadership strategies, and (b) find self-leadership training beneficial because of their higher meta-learning capabilities.

Hypothesis 3. General self-efficacy is positively related to self-leadership.

Conscientiousness is 'a broad trait that is summarised as a stable tendency to be organised, efficient, goal-oriented and persistent' (Stewart et al. 1996: 146). A conscientious person is often described as dependable, careful, thorough, responsible, organized and planful (Barrick & Mount 1991). The behaviour-focused self-leadership strategy involves the conscious setting of goals, observation of progress towards those goals and the reinforcement of the desired behaviours. These behaviours are consistent with the characteristics of a person who is highly conscientiousness. Stewart et al. (1996) found conscientiousness enhanced the effects of a self-leadership training intervention in a group of hotel/resort employees. Part of the self-leadership training involved employees focusing on

skills for addressing difficult, unattractive, but necessary tasks, building natural motivation into work, and establishing constructive thought patterns. Williams et al. (1995) found students who scored high on the judging (planful and organized) dimension of the Myers-Briggs Type Indicator also rated themselves as more effective self-managers. Conscientiousness was also positively related to the self-leadership strategies of students (Gerhardt et al. 2007; Houghton et al. 2004).

Hypothesis 4. Conscientiousness is positively related to self-leadership.

METHOD

Data and Sample Measures

The sample in the present study was obtained from lecturers employed by a national college providing vocational education and training. Academics are suitable for the study of self-leadership as they have a relatively high degree of autonomy in deciding the method and order in which they complete tasks (Manz & Neck 2004). Manz and Neck also observed that college professors often practice ineffective self-leadership, such as setting unrealistic goals, being overly self-critical and engaging in dysfunctional thought patterns. Hence, a range of self-leadership strategies were expected allowing the hypotheses to be tested. The initial contact with potential respondents was made through an information presentation about the study. Lecturers who agreed to be involved completed the questionnaire anonymously during work time and returned it directly to the researchers or in a reply paid envelope. A total of 418 completed surveys were returned, representing an overall response rate of 76%. Sixty percent of the respondents were female; 13% were 26 to 35 years old; 28% were 36 to 45 years old; and 38% were 46 to 55 years old. The average tenure of respondents was 6 to 10 years. Fifty six percent of the respondents had a bachelor's degree; 13% a master's degree; 15% had a diploma and the remainder had a trade qualification or high school certificate.

Self-leadership was measured using the 35-item Revised Self-Leadership Questionnaire (RSLQ) (Houghton & Neck 2002; Houghton et al. 2004). The RSLQ measures nine dimensions of self-leadership including self-goal setting (5-items), self-reward (3-items), self-punishment (4-items), self-observation (4-items), self-cueing (2-items), natural reward strategies (5-items), mental imagery (5-items), self-talk (3-items), and evaluating beliefs and assumptions (4-items). Respondents responded

as to how accurate each of the statements was about them on a scale that ranged from not at all accurate (1) to completely accurate (7). Spector's (1988) 16-item Work Locus of Control Scale was used to measure locus of control. The scale asks about a person's beliefs about jobs in general with low scores indicating an internal locus of control. Spector (1988) has shown a domain-specific measure of locus of control is a stronger predictor of work behaviour than general locus of control scales. General self-efficacy was measured using the 8-item general self-efficacy scale developed and validated by Chen, Gully and Eden (2001). The brief bipolar markers (6-items) developed by Shafer (1999) were used to measure conscientiousness. Respondents' agreement with each of the personality statements was measured on a scale that ranged from strongly disagree (1) to strongly agree (7).

Analysis

Confirmatory factor analysis was used to test Hypothesis 1 that the personality factors of locus of control, general self-efficacy and conscientiousness are distinguishable from the behaviour-focused, natural reward and constructive thought self-leadership strategies (three-factor model). The approach suggested by Jöreskog (1993), which includes model generating and confirmatory stages, was followed in the data analysis. A series of one factor congeneric models is estimated for each construct in the model that has four or more indicators before the full measurement model is evaluated. As suggested by Jöreskog (1993), the sample was randomly divided into a calibration sample (n = 218) for the model generating stage and a validation sample (n = 200) for the confirmatory stage. Using the AMOS 16 software package (Arbuckle & Wothke 1999), one-factor congeneric models were estimated and evaluated separately in the calibration sample for the personality factors and then crossvalidated in the second sample. Since prior research has found support for a hierarchical factor structure for self-leadership (Houghton & Neck 2002; Houghton et al. 2004), First order factor models were then tested and evaluated for the behaviour-focused, natural reward and constructive thought pattern strategies in the RSLQ. In the next stage of the analysis, the hierarchical structure of the selfleadership scale was examined by comparing a one-factor model (i.e. all indicators loading on selfleadership) and a three-factor model (i.e. behaviour-focused, natural rewards and thought patterns loading on self-leadership) (Houghton & Neck 2002). Finally, Hypotheses 2, 3 and 4 were tested using

hierarchical regression with the demographic variables of age, gender (0 = male, 1 = female), education level, and organisational tenure being entered first, followed by the personality factors.

During the initial model generating stage, indicators that did not have high factor loadings (above 0.50) and/or items with highly correlated error variances were eliminated (Hair, Black, Babin, Anderson & Tatham 2006). The number of items used to predict each construct was reduced until a good fit was achieved for each scale. Indicators of the self-goal setting and self-observation sub-scales had high cross-loadings and highly correlated error variances and, as a result, had to be combined into one construct to obtain acceptable fit indices and loadings. The chi-square statistic was used to test the goodness of fit. However, as the chi-square statistic is influenced by sample size and is likely to produce a significant result, even when there is a relatively good fit, it should not be used in isolation (Bentler & Bonett 1980). Following the recommendations of Hoyle and Panter (1995), the fit indices used included the chi-square statistic (χ^2), the comparative fit index (CFI), the goodness of fit index (GFI), the adjusted goodness of fit index (AGFI), the Tucker-Lewis Index (TLI), and the root mean square error for approximation (RMSEA). Table 1 shows the fit indices for the three personality factors, natural rewards and the second order factors of behaviour-focused and constructive thought self-leadership strategies. All of the constructs met the minimum fit requirements.

Insert Table 1 about here

The sub-scales of the behaviour-focused dimension had low correlations with each other (0.13-0.36), as did those for the constructive thought dimension (0.22-0.57). These results do not support the three-factor model of self-leadership found by Houghton and Neck (2002), in which the behaviour-focused, natural rewards and constructive thought factors had a second order self-leadership factor. As a result, a one factor model of self-leadership, in which all indicators load on a single factor, was estimated and evaluated. The self-punishment, self-cueing and self-talk sub-scales, which had low loadings (< 0.50) and correlated error variances, were eliminated during the model generating stage. The self-punishment sub-scale also had highly correlated error variances with the self-reward and natural reward sub-scales of the RSLQ. The final one-factor model of self-leadership with five indicators (i.e. self-goal/self-observe, self-reward, mental imagery, evaluate beliefs and natural

rewards) had an acceptable fit to the data ($x^2 = 104.64$ [df = 29, p = 0.00], GFI [AGFI] = 0.96 [0.93], TLI = 0.95, CFI = 0.96, RMSEA = 0.04, P-CLOSE = 0.79).

The convergent validity of the remaining four constructs was assessed using Fornell and Larcker's (1981) method, which suggests convergent validity can be assumed if the average variance extracted (AVE) score is greater than 0.50, as this indicates measurement error is less than the variance captured by the construct. Convergent validity was achieved for self-leadership (AVE = 0.58), locus of control (AVE = 0.70), general self-efficacy (AVE = 0.83) and conscientiousness (AVE = 0.74). Evidence of discriminant validity is provided if two constructs' AVE scores are greater than the squared correlation between them. All of the AVE scores were greater than the squared correlations, which ranged from 0.02 to 0.28, supporting the discriminant validity of the measures.

RESULTS

Table 2 displays descriptive statistics and correlation coefficients. The majority of the sample had an internal locus of control. Respondents also reported relatively high levels of general self-efficacy and conscientiousness, with little variation as the standard deviations were 0.86 and 0.81 respectively. The reliabilities were all above the suggested minimum of 0.70, with the exception of natural rewards (0.52). However, this did not present a problem as the lack of support earlier for a hierarchical structure to self-leadership eliminated the possibility of using the three strategies in subsequent analyses. The reliability estimate for the overall self-leadership scale was 0.84. Females reported a greater tendency to practice self-leadership than males (t = 4.82, p < .001).

Insert Table 2 about here

Hypothesis 1 predicted that the self-leadership strategies of behaviour-focused, natural reward and constructive thought patterns are empirically distinguishable from locus of control, general self-efficacy and conscientiousness. Since the data did not support a three-factor hierarchical structure to self-leadership, Hypothesis 1 was not supported. However, results from the confirmatory factor analysis did provide empirical support for self-leadership being distinct from the personality factors of locus of control, general self-efficacy and conscientiousness.

Hypotheses 2, 3 and 4 posited that internal locus of control, general self-efficacy and conscientiousness are positively related to self-leadership. The results for the hierarchical regression analysis, which are shown in Table 3, suggest Hypothesis 2 was not supported. Although internal locus of control and self-leadership were weakly correlated (r = -0.08, p < 0.05), results from the hierarchical regression were not supportive when general self-efficacy and conscientiousness were included in the model. Hypotheses 3 and 4 were supported. General self-efficacy was positively and significantly related to self-leadership (model 2: $\beta = 0.35$, p < 0.001), as was conscientiousness (model 2: $\beta = 0.16$, p < 0.001). These results suggest general self-efficacy is an important predictor of self-leadership over and above the influence of conscientiousness. Gender was also a significant predictor of self-leadership five percent of the variance, with females more likely to engage in self-leadership practices than males (model 2: $\beta = 0.17$, p < 0.001). When the personality factors are entered into the regression, an additional 17 percent of the variance in self-leadership is explained. Gender, general self-efficacy and conscientiousness explained 22 percent of the variance in self-leadership (model 2: F = 16.42, p < 0.001).

Insert Table 3 about here

DISCUSSION

This study examined the relationship between the self-leadership strategies of behaviour-focused, natural rewards and constructive thought patterns, and the personality of academics. Academics tend to work with little supervision and so present a good context in which to study self-leadership. Contrary to the observations of Markham and Markham (1998), the findings support the conceptualisation of self-leadership as a set of discrete strategies distinct from personality. The findings contribute to prior research by adding generalised self-efficacy as a determinant of self-leadership over and above the influence of internal locus of control and conscientiousness. In their review of two decades of self-leadership research, Neck and Houghton (2006) suggested the practice of self-leadership can result in enhanced self-efficacy, which, in turn, leads to improved individual performance. We theorised that general self-efficacy is also an important antecedent of the application

of self-leadership strategies. General self-efficacy may influence a person's self-leadership by contributing to an upward efficacy-performance spiral (Lindsley, Brass & Thomas 1995; Shea & Howell 2000), in which practicing self-leadership strategies leads to improved confidence in people's ability to influence their thinking and behaviour.

Consistent with theory, internal locus of control was found to be positively related to self-leadership. The correlation however, was weak and became insignificant when the influence of general self-efficacy and conscientiousness on self-leadership were controlled. Hence, although locus of control may be theoretically important to self-leadership, it is of less importance when the influences of other personality factors are considered. It is possible, however, the general locus of control measure may provide different results than the domain-specific Work Locus of Control Scale and there is a need for further research into this relationship. Future research is also needed to investigate specific relationships between self-leadership and other personality factors, such as self-monitoring and self-esteem, which may also be important to the practice of self-leadership.

The results do not support the three-factor structure of self-leadership found by Houghton and Neck (2002). Highly correlated error variances and low factor loadings also resulted in a substantial reduction in the indicators of self-leadership in the final one-factor model. The lack of discriminant validity between the self-punishment, self-reward and natural reward strategies suggests respondents had difficulty differentiating between these items. This raises questions as to the distinctiveness of external self-administered rewards or punishments when compared to internal natural rewards in motivating an individual. Earlier studies that examined the factor structure of the RSLQ validated the three self-leadership strategies using student samples, whereas employees were used in the present study. This study also differs from prior validation studies of the RSLQ in that it did not use item parcelling techniques in which composites are created for the behaviour-focused and constructive thought sub-scales. Such an approach assumes all indicators contribute equally to the latent variable, which this study suggests is not the case. Further research is needed using employee samples to better establish the reliability and construct validity of the RSLQ.

Practically speaking, the results help identify individuals who are more likely to practice selfleadership within organisations and also respond to training interventions. The findings also can assist

in the design of formal training programs. For example, managerial interventions involving modelling of some of the behavioural-focused strategies such as goal-setting, cueing strategies and self-reinforcement, and verbal persuasion could assist in developing self-leadership capabilities, particularly for unconscientious and unconfident employees. Examples of cueing strategies include using physical objects to focus our attention and displaying positive achievements. For trainees with low generalised self-efficacy, task-specific self-efficacy may also need to be developed in conjunction with self-leadership training. The fact that females reported practicing self-leadership strategies more often than males was also an unexpected finding that needs further investigation. Informally, the practice of self-leadership should also be encouraged and rewarded because setting an example can help to develop authentic followers (Gardner et al. 2005).

This present study has some limitations. First, the results are based on self-report data, which may have inflated the relationships between the personality factors and self-leadership. The use of observer ratings of personality in future studies could help to avoid the possible self-presentation bias associated with self-report data (Barrick, Mount & Judge 2001; Organ, Podsakoff & MacKenzie 2006). Second, our study focused on three personality factors that have been identified as being of particular importance to the practice of self-leadership. Further research is needed into whether selfesteem and self-monitoring are related to self-leadership (Williams 1997). Establishing which of the personality factors are most important to self-leadership by simultaneously testing for their influence in a large sample of employees would further our understanding. Third, as the data were drawn from a sample of academics the findings may not generalise to a wider population. A self-selection bias may be present among academics that tend to have a higher need for autonomy. Future research is needed to examine the self-leadership practices of people in other relatively autonomous occupations such as managers, entrepreneurs and professionals. Fourth, the cross-sectional research design does not allow causal inferences to be drawn. However, the hypothesised relationships between personality and selfleadership are consistent with decades of research into the influence of personality on behaviour and thought processes. Finally, this study did not examine the relationship between self-leadership strategies and actual task performance, an area requiring future research.

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Variable	$x^{2 b}$	df	р	CFI ^c	TLI ^d	GFI ^e (AGFI) ^f	RMSEA ^g (P-close) ^h
Locus of Control	10.21	5	.07	.99	.97	.98 (.95)	.06 (.25)
General Self-Efficacy	10.82	5	.06	.99	.98	.98 (.95)	.07 (.22)
Conscientiousness	7.73	5	.17	.99	.99	.98 (.95)	.05 (.40)
Behaviour-Focused	36.56	29	.16	.99	.98	.97 (.94)	.03 (.72)
Natural Reward	7.16	5	.21	.98	.96	.99 (.96)	.04 (.48)
Constructive Thought	8.16	6	.23	99	.99	.99 (.96)	.04 (.49)

Table 1: Fit Indices for Study Variables ^a

a n = 418

 ${}^{b}x^{2}$ = Chi-square statistic ${}^{c}CFI$ = comparative fit index

 d TLI = Tucker-Lewis Index

^e GFI = goodness of fit index

^f AGFI = adjusted goodness of fit index ^g RMSEA = root mean square error of approximation ^h P-CLOSE = probability the RMSEA is close to zero

Variable	Mean	s.d.	1	2	3	4	5	6	7
1. Locus of control	3.08	1.28	(.85)						
2. General self-efficacy	6.00	0.86	13**	(.92)					
3. Conscientiousness	6.08	0.81	14**	.34***	(.86)				
4. Behaviour-focused	5.32	1.06	11*	.38***	.27***	(.76)			
5. Natural reward	5.57	1.11	09*	.32***	.12**	.54***	(.52)		
6. Constructive thought	5.22	1.07	01	.32***	.29***	.63***	.46***	(.75)	
7. Self-leadership	5.33	0.92	08*	.40***	.29***	.91***	.70***	.86***	(.84)

 Table 2: Descriptive Statistics and Correlation Coefficients ^{ab}

^a n = 418 ^b Cronbach alpha reliabilities are shown in parentheses on the diagonal * p < .05** p < .01*** p < .001

Independent Variables	Model 1	Model 2
Gender	0.20*** (0.05)	0.17*** (0.05)
Age	-0.10 (0.09)	-0.08 (0.08)
Education	0.08 (0.04)	0.07 (0.04)
Organisational tenure	0.03 (0.03)	0.03 (0.03)
Locus of control		0.01 (0.03)
General self-efficacy		0.35*** (0.05)
Conscientiousness		0.16*** (0.05)
Adjusted R^2	0.05	0.22
ΔR^2	0.05***	0.17***
F	5.58***	16.42***
df	410	407

Table 3: Results of Hierarchical Regression Analysis for Predicting Self-Leadership ^a

 $n^{a} n = 418$ *** *p* < .001