



# Mediating effect of perceived organisational support on authentic leadership and work engagement



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**Orientation:** High levels of employee engagement are critical in the current globally competitive landscape. Scholarly research suggests that authentic leadership (AL) increases trust and ultimately work engagement. Several recent studies called for more research into the moderating and mediating variables influencing this relationship.

**Research purpose:** Employee perceptions about the support offered by their organisations have been associated with engagement. This study explores the mediating effect of this variable on the relationship between AL and work engagement.

**Motivation for the study:** This study focuses on the interaction between perceptions of support from the organisation, AL and engagement of employees.

**Research approach/design and method:** The data was collected from 202 employees from an international information technology organisation. Regression analysis was employed to test for mediation impact. The model fit was analysed to know whether the suggested model was a good fit.

**Main findings:** The study established that the mediated model was partially significant, which indicates that the relationship between AL and engagement is, in part, contextually dependent on whether employees perceive organisational support.

**Practical/managerial implications:** The presence of perceived organisational support (POS) provides space for an interaction between organisational processes and employee engagement, or, in the absence of an existing POS, an authentic leader transforms organisational resources into positive POS.

**Contribution/value-add:** This study contributes to the literature through specifically examining the interaction between the variables of employee engagement, POS and AL. Engagement does not rely on the 'right' leadership theory or model to address problems with performance or motivation, but rather on developing an organisational climate that could enable individuals and organisations to thrive.

**Keywords:** authenticity; perceptions; commitment; employees; leadership; organisational climate; organisational support; leadership development; employee engagement.

## Introduction

A deep-seated anxiety about the ethical behaviour of today's leaders based on alarming instances of corporate and government malpractices has called for leadership that is genuine and value based (Eva, Robin, Sendjaya, Van Dierendonck, & Liden, 2019; Gardner, Cogliser, Davis, & Dickens, 2011). Avolio, Gardner, Walumbwa, Luthans and May (2004) define authentic leadership (AL) as acting in accordance with deep personal values and convictions to build credibility and win the respect and trust of followers. Concurrently, a great number of researchers have also motivated that embracing AL as a leadership style is required in attaining sustainable organisational performance (Avolio & Gardner, 2005), as well as for getting the benefits of a superior team performance (Lyubovnikova, Legood, Turner, & Mamakouka, 2017).

That is why organisations are concerned with a search for leadership that exhibits resiliency in responding appropriately to appalling situations whilst also instilling a culture of assurance, courage and hopefulness (Wulffers, Bussin, & Hewitt, 2016). In a 2018 global study, Ernst & Young (EY) reported that the top challenge for chief executive officers is the development of next-generation leaders (Ray, 2018). Moreover, estimates have put leadership development spending as high as 50 billion dollars annually (Prokopeak, 2018). These practical realities point to the requirement of an in-depth understanding of leadership dynamics in organisations. This

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understanding must then contribute to a higher return on investment of leadership development programmes.

Apart from specific leadership requirements, a key component of an organisation's effectiveness and competitiveness is employee engagement (Strom, Sears, & Kelly, 2014). Schaufeli, Bakker and Salanova (2006, p. 702) defined work engagement as a 'positive, fulfilling work-related state of mind that is characterised by vigour, dedication and absorption'. As the 20th century progressed, it became increasingly clear that engagement was what really counted (McKergow, 2015).

Studies have provided evidence that AL positively affects their followers' performance by means of engagement (Wei, Li, Zhang, & Lui, 2016) and that high levels of engagement are valuable for organisations (Bailey, Madden, Alfes, & Fletcher, 2017; Merry, 2014). However, Lord and Hall (1992), as early as 1992, warned against simple bivariate correlations. In this regard, Wei et al. (2016) have advised recently that mediating and moderating variables that might influence the relationship between AL and engagement are worthy of further consideration.

Therefore, this study focuses on organisational processes and practices aimed at supporting employees. The organisational support theory explains that employees have expectations around the way in which the organisation responds to their emotional and social needs. Employees then develop universal attitudes about how much their efforts are valued and how much the organisation cares about their well-being (Dinç, 2015). Mills, Fleck and Kozikowski (2013) posited that perceived organisational support (POS) refers to employees' level of recognition of how the organisation values their welfare and appreciates their contribution.

The current study investigated the mediating effect of this variable on the relationship between AL and work engagement. The next section focuses on this construct, as well as its interface with other constructs, namely, AL and work engagement.<sup>1</sup>

## Literature review

### Authentic leadership and engagement

The nature of contemporary business environments implies that focusing specifically on employee engagement can be challenging, particularly in constantly shifting and uncertain global scenarios (Chaurasia & Shukla, 2013). Azanza, Moriano and Melero (2013) argue that in the present context of financial crises, uncertainty and related employment concerns threaten individual engagement with and at work. Specifically, contexts of uncertainty can impact the trust employees have in organisations; global changes can create individual insecurity by impacting employee roles, routines and relationships, as revealed in Giddens' classic work back in 1991 (Giddens, 1991).

<sup>1</sup>The current article is based on the research conducted by the author towards a master's degree at the University of Pretoria. The second author was the supervisor of the study.

On the one hand, bodies of literature, such as those on organisational development, have debated whether organisations have capacity in contemporary environments to focus on human-centred priorities, such as engagement (Bryant & Cox, 2014). On the other hand, as organisations are faced with ongoing issues of corporate and ethical governance (Beddoes-Jones & Swailes, 2015), they argue that human-centred approaches not only remain relevant but are essential for engaging staff members. Human-centred approaches also significantly impact the overall company performance and productivity (Matthews, Mills, Trout, & English, 2014). Alfes, Shantz, Truss and Soane (2013) argue that it is important for organisations to work towards creating a positive work environment if they seek to engage employees in the context of ongoing uncertainty. One way of achieving this is to focus on AL, because AL is increasingly emerging as an integrative concept in the literature on positive organisational behaviour, ethical leadership and transformational leadership (Baron, 2016). Fusco, Riordan and Palmer (2015) indeed declared that every epoch has its own leadership theory and, considering the amount of current research into AL, this may indicate the leadership of our time. The critical discussion of Alvesson and Einola (2019) also emphasises the zeitgeist or spirit of our time, which facilitates the emergence of positive forms of leadership, such as AL.

The authors of this article argue that AL is particularly relevant for South Africa, given the context of its diverse society and the results of recent studies. For example, Cottrill, Lopez and Hoffman (2014) established that leaders who are authentic contribute to employee perceptions of inclusion. They confirmed that authentic leaders inspire citizenship behaviour by creating an environment of inclusivity. According to Cottrill et al. (2014), leaders who are self-aware communicate more willingly and incorporate the viewpoints of others in the workplace. They are also prone to encourage colleagues to contribute to the efficiency of the group and organisation.

Not only may AL be specifically relevant for South Africa, but according to Gardner et al. (2011), a new, genuine and value-based leadership is also called for. It follows deep-rooted apprehension about the ethical demeanour of today's leaders (such as Worldcom, Enron and Martha Stewart), combined with a rise in other challenges within our society (such as terrorism, fluctuating stock values and a downturn in the United States economy) (Cooper, Scandura, & Schriesheim, 2005).

Although existing literature indicates it is the responsibility of leaders to create engagement (Hansen, Byrne, & Kiersch, 2014), further research focusing on the relationship between AL and engagement is warranted. That is, AL has been found to have a positive impact on employee behaviours (Hsieh & Wang, 2015). This study therefore proposes that AL has a positive linear relationship with work engagement,

Hypothesis 1: Authentic leadership has a positive linear relationship with work engagement.

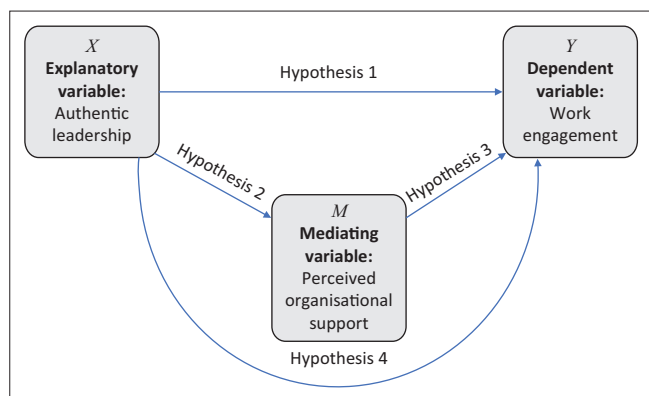


FIGURE 1: Conceptual framework with hypotheses.

Figure 1 illustrates the hypotheses on the relationships under investigation in this study.

As Osborn and Marion (2009) argued that leadership is embedded in organisational context, the current study endeavours to take organisational variables into account. Thus, it does not only look at this linear relationship as described in Hypothesis 1. Despite the classic scholarly work of Tosi (1991), advising leadership research to focus on the organisational context, Porter and McLaughlin (2006) unfortunately proclaimed that leadership research neglects the organisation as the context for leadership. Moreover, because companies are spending huge amounts of money on leadership development (Ray, 2018), the organisational dynamics around these leaders are important elements to consider. Traditional leadership theories and models have become insufficient as the context of leadership has expanded and become more complex (Kutz & Bamford-Wade, 2013). For example, Dawley et al. (2007) found that whilst mentors and supervisors can be effective in endearing the employee to the organisation, the perception of the organisational support might be more important. For these reasons, leadership has to be studied in the context of other organisational variables, such as POS, through which leadership might be influencing employee engagement. The current study thus investigates the mediating effect of POS. To illustrate the conceptual framework of this study, the literature on the relationships between the constructs is discussed in the conventional order, namely, the independent variable's (AL) association with the mediating variable (POS); the association between the mediating variable (POS) and the dependent variable (work engagement); and, finally, the mediating effect between the independent and dependent variables.

### Authentic leadership and perceived organisational support

Eisenberger, Huntington, Hutchison and Sowa (1986, p. 500) defined POS as 'employees in an organisation form global beliefs concerning the extent to which the organisation values their contributions and cares about their well-being'. There are indeed different ways for an organisation to express to its employees that it cares for their well-being and has high

regard for their inputs (Kurtessis et al., 2017). One of the factors found to be related to POS is leadership, and employees' perceptions of the organisation's favourable or unfavourable temperament are influenced by the lingering elements of the employees' connection with the organisation (Kurtessis et al., 2017).

Cropanzano, Byrne, Bobocel and Rupp (2001) discovered that fairness has a strong distinctive influence on POS and that employees perceive the organisation to have more control over procedural justice than other forms of fairness. Most importantly, and related to the objective of the current study, is Cropanzano et al.'s (2001) finding that POS is influenced by several types of inspirational and supportive leadership. Transactional leadership was found to be associated with POS to a lesser degree. Findings by Eisenberger et al. (2010, 2014) suggested that supervisors may vary in the degree to which they are identified with the organisation and that favourable leadership by supervisors is strongly linked to POS. The current study therefore proposes that AL has an association with POS,

Hypothesis 2: Authentic leadership has a relationship with POS.

### Perceived organisational support and engagement

The social exchange theory (SET) of Blau (1964) is relevant to the current study and is perceived as 'among the most influential conceptual paradigms for understanding workplace behaviour' (Cropanzano & Mitchell, 2005, p. 874). Social exchanges are interdependent and contingent on the actions of another person. Perceived organisational support theory is conceptualised in SET terms, where an employee who sees an employer as supportive is likely to return the gesture. Thus, POS theory follows from the norm of reciprocity and suggests in practice that employees who are supported will respect and value their organisation and, in return, contribute to the organisational goals. This theory additionally argues that socio-emotional needs will be fulfilled by the positive feelings felt by the employee, through POS, and endear the employee to the organisation (Kurtessis et al., 2017). The theory of organisational support and reciprocity postulates that the degree of perceived organisational commitment greatly impacts an employee's commitment to the organisation (Mills et al., 2013).

The level of engagement of employees is moulded and formed by their personal perception of their working environment (Anitha, 2014). Various studies have tested the facets of POS and its relationship with other variables, such as human resources practices, organisational commitment and job satisfaction (Mills et al., 2013). Convincing research evidence shows that greater engagement levels lead to positive effects for both individuals and the organisation. However, the literature is only at the early stages of uncovering how an employee's relationship with the organisation is impacted by how these relationships vary (Parker & Griffin, 2011).

The study by Alfes et al. (2013) took a nuanced view of the effect of engagement on employee behaviour. Most other research has focused on the direct effects of POS, for example, employee attitudes and behaviours leading to higher levels of engagement (Rich, Lepine, & Crawford, 2010). Alfes et al. (2013) suggested that POS may act as a moderator in the relationship between employee behaviour and employee engagement. However, scholars have postulated that the extent to which engagement is translated into positive employee behaviours towards the organisation varies as a function of POS.

Shantz, Alfes and Latham (2016) found that POS can compensate for lower engagement levels amongst employees. That is, employees who perceive that their organisation is supportive of them are less likely to engage in activities such as deviance, absenteeism or turnover. Perceived organisational support has been linked to notions of justice and fairness, support from the organisation by way of rewards and resources, as well as support from leadership.

Employees with higher levels of POS tend to have greater trust in the organisation and may experience a larger sense of obligation to achieve the goals and objectives of the organisation (Kurtessis et al., 2017). Employees with high levels of POS have a more favourable view of their work and a greater vested interest in their organisation (Chen et al., 2009). The psychological bond the employee forms with the organisation is nourished when POS is present. It may contribute to the inclination to exceed the expected behaviour and performance (Gupta, Agarwal, & Khatri, 2016). The consequences of POS can be summarised as commitment towards the organisation, felt obligation, organisational citizenship behaviour, organisational trust and lower stress levels (Sihag & Sarikwal, 2015). The current study therefore proposes that POS has a relationship with work engagement.

Hypothesis 3: Perceived organisational support has a relationship with work engagement.

### **Authentic leadership, perceived organisational support and engagement**

In their theory of AL, Avolio, Walumbwa and Weber (2009) suggested that authentic leaders enhance follower engagement by strengthening the identification of the group members with each other and with the organisation. Authentic leadership also promotes hope, trust, optimism and positive emotions. Eagly (2005) argued that people follow leaders who will restore and enhance their confidence to collectively achieve more. The outcomes of AL, whether conceptualised as mediating or dependent variable, have received much empirical attention (Gardner et al., 2011). However, other studies, such as Kurtessis et al. (2017), have found that employees tend to feel more content in their roles when they regularly experience supportive understanding from leaders, together with constructive

circumstances, which in turn most likely affects their POS level. This study therefore proposes that AL together with POS will positively influence work engagement. Because the authors could not find a current published study that has investigated the link between these constructs, a gap in the literature was identified. The aim of this study was to contribute to the theory on creating optimal engagement in organisations, as well as to inform management on practical arrangements to ultimately increase the engagement levels in organisations. The study thus sets the following research hypothesis:

Hypothesis 4: Perceived organisational support has a mediating effect on the impact of authentic leadership on work engagement.

## **Method**

### **Research approach**

This study followed a positivist paradigm quantitative approach. Quantitative research was thus fit for this study's purpose.

### **Measuring instruments**

Apart from demographic questions, the survey contained questions from three standardised questionnaires. The different Likert scales for these established questionnaires were kept unchanged.

### **Work engagement**

The nine-item Utrecht Work Engagement Scale (UWES) was used in this study. This self-report questionnaire assesses work engagement, which includes items such as 'I am bursting with energy in my work' (vigour); 'my job inspires me' (dedication); and 'I feel happy when I'm engrossed in my work' (absorption). The measure has been shown to have a good internal consistency ( $\alpha = 0.85-0.92$ ; Schaufeli et al., 2006). The UWES has a seven-point Likert scale, ranging from 0 (never) to 6 (always, every day).

### **Perceived organisational support**

The eight-item version of the POS survey (Eisenberger et al., 2002) was used in this study. A few of the sample items are as follows: 'my organisation really cares about my well-being' and 'my organisation strongly considers my goals and values'. Dinç (2015) found a Cronbach's alpha value of 0.85 for this short scale, where all eight items loaded on one factor and explained 56.91% of the variance. A seven-point Likert scale was used, ranging from 0 (strongly disagree) to 6 (strongly agree).

### **Authentic leadership**

This study used the Authentic Leadership Questionnaire (ALQ), which is the most frequently used measure of AL (Gardner et al., 2011). It is a 16-item scale that measures the four constructs of AL: *self-awareness* (four items), *relational*



*transparency* (five items), *internalised moral perspective* (four items) and *balanced processing* (three items). For example, Alvesson and Einola (2019) shared the following items, namely, for self-awareness: 'The leader seeks feedback to improve interactions with others; The leader accurately describes how others view his or her capabilities'. Examples of items under the construct 'relational transparency' include 'The leader says exactly what he or she means; The leader is willing to admit mistakes when they are made'. Examples of items under 'internalised moral perspective' construct include 'The leader demonstrates beliefs that are consistent with actions; The leader makes decisions based on his/her core beliefs'. Examples of 'balanced processing' items include 'The leader elicits views that challenge his or her deeply held positions; The leader listens carefully to different points of view before coming to conclusions'. A five-point Likert scale was used, ranging from 0 (not at all) to 4 (frequently, if not always).

### Control variables

In the analysis, the following control variables were added: gender, job tenure and level in organisation, as well as the size of group reporting to the leader. According to Schaufeli and Salanova (2007), gender can be associated with feelings of engagement and managers tend to feel more confident in expressing themselves (Kraus, Chen, & Keltner, 2011) than non-managers. We therefore controlled for gender (0 = female; 1 = male) and managerial position (0 = do not have a managerial role; 1 = have a managerial role at all levels).

### Research procedure

The questionnaires were distributed via e-mail by the researcher using a list of all employees available on the internal database, containing a hyperlink to the electronic survey. All business units or divisions were included to ensure variance of responses, as the employees from a specific business unit may have similar or different levels of engagement depending on the level of authenticity of the business unit's leaders.

### Statistical analysis

Data obtained from the questionnaire were analysed using Statistical Package for the Social Sciences (SPSS) and Analysis of Moment Structure (AMOS) statistical analysis software packages. The statistical analysis included four steps: (1) testing construct reliability and validity, (2) conducting multiple regression analysis to test the significance of coefficients, (3) calculating the indirect effect and (4) establishing the significance of the indirect effect.

#### Step 1: Testing construct reliability and validity

The Cronbach's alpha measure was used to test the internal consistency or reliability of the different sets of items as this

statistic is frequently used to measure the consistency of responses (Saunders, Lewis, & Thornhill, 2012). This measure is based on the correlations between different items on the same scale; an alpha coefficient of 0.7 or above is regarded as acceptable reliability and that of 0.8 or higher as good reliability (Saunders et al., 2012); that is, the questions combined in the scale are measuring the same construct. The self-rating instruments used in this study have an established validity and reliability.

Further item analysis was conducted to see the effect if one of the items was removed from the construct. Where the Cronbach's alpha improves significantly when an item is removed, this would indicate that the item can be removed from the construct.

#### Step 2: Test for mediation using regression analysis

The mediation model shows a causal sequence in which independent variable (X) affects the dependent variable (Y) indirectly, through the mediator variable (M). X is therefore postulated to affect M and this effect then propagates causally through Y (Hayes & Preacher, 2014). This indirect effect represents the mechanism by which X transmits its effect on Y. According to this model, X can also affect Y directly – the direct effect of X – independent of X's influence on M (Hayes & Preacher, 2014). Mediation analysis is thus used to quantify and examine the direct and indirect pathways through which a variable X transmits its effect on a consequent variable Y, through one or more intermediary or mediator variable (Hayes & Scharkow, 2013).

Multiple regression analysis was used to test the research questions. We tested for mediation following the steps outlined by Baron and Kenny (1986). They suggested a four-step approach utilising hierarchical regression analysis to test the mediating effect of POS in the study. To confirm the mediating effect, there are four prerequisites, as explained by Dinç (2015). Firstly, the independent variable is required to have an effect on the dependent variable. Secondly, the independent variable is required to have an effect on the mediator variable. Thirdly, the mediator variable should have an effect on the dependent variable. Finally, the mediator variable is required to have a significant effect on the dependent variable when the independent and mediator variables are added to the model. The independent variable's effect on the dependent variable should therefore lessen or vanish entirely (Dinç, 2015). Partial versus full or complete mediation was then considered. According to MacKinnon, Coxé and Baraldi (2012), complete mediation is aberrant within certain fields of psychology and testing beyond complete mediation may be more informative.

#### Step 3: Calculating the indirect effect

Morera and Castro (2013) encouraged researchers to also report measures of effect sizes as opposed to full or partial mediation. Hayes (2009) suggested that both the Judd and

Kenny approach and the Sobel approach or tests can be used. Both the Judd and Kenny approach and the Sobel product approach as path analysis were used to calculate the indirect effect through which AL affects engagement and POS.

#### Step 4: Significance of the indirect effect

An optimal method includes the confidence level of the indirect effect (MacKinnon et al., 2012). To determine whether this indirect effect was significant, bootstrap samples were used. The bootstrap method was therefore used as a resampling test to determine the distribution and standard error of the mediation estimate (MacKinnon et al., 2012).

#### Ethical consideration

Ethical clearance was obtained from the University of Pretoria's Gordon Institute of Business Science on 12 March 2019 (Protocol Number: Temp2016-01311). The purpose of the study as well as ethical considerations, such as informed consent, anonymity and confidentiality, was explained in a cover letter e-mail. It was indicated in the cover letter that participation was voluntary and that participants may withdraw from the study at any time. The employees were also assured of anonymity as they could not be traced through their e-mail or Internet protocol (IP) addresses.

## Results

In their review of the literature on POS, Rhoades and Eisenberger (2002) found little relationship between demographic characteristics (i.e. age, education, gender and tenure) and POS.

#### Gender

The sample comprised 120 male employees (59%) and 82 female employees (41%). The AL, engagement and POS mean scores were all higher for the male respondents.

#### Business units

One business unit scored a higher score for AL than that of the Global Business Services (GBS) division, but overall the GBS division had the highest score across all three variables. The mean score levels for AL were slightly higher for GBS and the Real Estate Strategy and Operations division. For work engagement, the mean scores were higher for the GBS and Sales and Distribution divisions, and, finally, for POS, the mean scores were higher for the GBS division and the Software Group.

#### Tenure

The average tenure of the respondents was 6.13 years. One-third of the respondents (29.21%) have been with the company for more than 10 years. Interestingly, the mean scores for AL, engagement and POS were higher for the group that had worked for the company for less than 1 year.

A slightly lower score was found for the group that had been with the company between 3 and 5 years, but shows higher averages across all three variables. Literature has found that engagement is inversely related to tenure (Xu & Thomas, 2011) and yet in their study Xu and Thomas (2011) found that tenure did not correlate positively with engagement.

#### Level in organisation

An interesting finding was that the executive level as well as the Learning Development Centre programme level scored higher on all three variables than any other levels in the organisation. The respondents represented a range of levels in the organisation, including executives (5.94%), business unit leaders (3.47%), middle managers (9.9%), people managers (6.44%), specialist roles (47.52%) and special programme incumbents (26.74%).

#### Reliability analysis results

The Cronbach's alpha results for the ALQ, work engagement (UWES) and POS scales were measured to be 0.9608 (ALQ), 0.9309 (UWES) and 0.8805 (POS), respectively. These high alpha values relate to very high internal consistency between the items for each construct. Table 1 lists the Cronbach's alpha values for each item in the survey questionnaire.

Item analysis was conducted to investigate how the Cronbach's alpha would be affected if one of the items for the specific construct and sub-construct was removed. All the items were found to be correctly identified in the construct and there was no need to remove any of them. All the individual items were found to be highly correlated with the total.

#### Validity analysis results

We investigated whether the respondents were able to distinguish amongst the sub-constructs. A varimax rotation of the principal components solution for engagement and AL is available on request. The principal components analysis provided the researchers with further insights into the factors that provide and account for meaningful amounts of variance. The varimax rotation was applied to the nine items of the UWES engagement scale. The two factors explained 70.57% of the variance. Under the first factor, items indicate engagement characteristics. This factor incorporates all three of the vigour items, two of the dedication items and one of the absorption items (total six items out of the nine items), and explains a total of 58.89% of the variance.

The second factor of this scale contains two of the absorption items and one of the dedication items that together explain 11.68% of the variance. For the engagement construct, it can be concluded that the sub-constructs of vigour and dedication provided meaningful variance as a single construct, where absorption provided a separate construct loading. The AL scale was also analysed with the varimax rotation. Interestingly, the scale only loaded on two factors and

**TABLE 1:** Questionnaire items with mean, standard deviation, reliability and validity.

Number	Items	Mean	SD	Cronbach's alpha reliability	EFA factor loading validity
1	The leader says exactly what he or she means	3.89697	1.03961	0.9585	0.950641
2	The leader admits mistakes when they are made	3.60000	1.22375	0.9581	0.949385
3	The leader encourages everyone to speak their mind	3.89091	1.24948	0.9578	0.931607
4	The leader tells you the hard truth	3.75152	1.20166	0.9591	0.961197
5	The leader displays emotions exactly in line with feelings	3.48485	1.16140	0.9613	0.920389
6	The leader demonstrate beliefs that are consistent with actions	3.76970	1.06853	0.9575	0.955724
7	The leader makes decisions based on his or her core values	3.87879	1.10314	0.9588	0.960580
8	The leader asks you to take positions that support your core values	3.56970	1.27941	0.9574	0.970383
9	The leader makes difficult decisions based on high standards of ethical conduct	3.88485	1.15508	0.9577	0.963960
10	The leader solicits views that challenge his or her deeply held positions	3.45455	1.19171	0.9581	0.951671
11	The leader analyses relevant data before coming to a decision	3.90303	1.08888	0.9587	0.932601
12	The leader listens carefully to different points of view before coming to a conclusion	3.80606	1.12020	0.9581	0.924843
13	The leader seeks feedback to improve interactions with others	3.59394	1.29679	0.9587	0.952130
14	The leader accurately describes how others view his or her capabilities	3.33939	1.17129	0.9575	0.952667
15	The leader knows when it is time to re-evaluate his or her position on important issues	3.59394	1.18886	0.9573	0.944294
16	The leader shows he or she understands how specific actions impact others	3.71515	1.14128	0.9574	0.962103
17	At my work, I feel bursting with energy	4.88272	1.71723	0.9193	0.82977641
18	At my job, I feel strong and vigorous	4.96914	1.65849	0.9182	0.85740287
19	I am enthusiastic about my job	5.51235	1.63896	0.9145	0.85543404
20	My job inspires me	5.38889	1.68387	0.9143	0.87717787
21	When I get up in the morning, I feel like going to work	5.14198	1.68614	0.9202	0.96318946
22	I feel happy when I am working intensely	5.87037	1.37926	0.9226	0.95924987
23	I am proud of the work that I do	6.11111	1.17426	0.9258	0.90325992
24	I am immersed in my work	5.89506	1.18273	0.9299	0.78388855
25	I get carried away when I am working	5.51235	1.52510	0.9381	0.75768051
26	The organisation values my contribution to its well-being	4.84568	1.748265	0.8629	-
27	The organisation fails to appreciate any extra effort from me	4.08025	1.911558	0.8730	-
28	The organisation would ignore any complaint from me	3.46296	1.988047	0.8608	-
29	The organisation really cares about my well-being	4.53086	1.819554	0.8698	-
30	Even if I did the best job possible, the organisation would fail to notice	3.48765	1.975897	0.8604	-
31	The organisation cares about my general satisfaction at work	4.15432	1.867761	0.8670	-
32	The organisation shows very little concern for me	3.71605	2.004529	0.8615	-
33	The organisation takes pride in my accomplishments at work	4.62346	1.784762	0.8696	-

Source: Gardner, W.L., Cogliser, C.C., Davis, K.M., & Dickens, M.P. (2011). Authentic leadership: A review of the literature and research agenda. *The Leadership Quarterly*, 22(6), 1120–1145. <https://doi.org/10.1016/j.leaqua.2011.09.007>; Schaufeli, W.B., Bakker, A.B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. *Education and Psychological Measurement*, 66(4), 701–716. <https://doi.org/10.1177/0013164405282471>; Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organisational support. *Journal of Applied Psychology*, 71(3), 500–507. <https://doi.org/10.1037/0021-9010.71.3.500>

SD, standard deviation; EFA, exploratory factor analysis.

**TABLE 2:** Descriptive statistics, correlation and scale reliabilities for main variables.

Main variables	Cronbach's alpha	n	Mean	SD	1	2	3
1. Authentic leadership	0.96	165	3.70	0.93	1	-	-
2. Work engagement	0.93	162	5.48	1.23	0.51**	1	-
3. Perceived organisational support	0.88	162	4.43	1.40	0.59**	0.60**	1

SD, standard deviation.

\*\* $p < 0.01$ .

explained 112.93% of the variance. The first factor explained 63.49% of the variance and included three items of the processing information sub-construct, all three items of the internalised moral perspective construct, two items of the self-awareness construct and one item of the relational transparency construct. The second factor that explained 49.44% of the variance consisted of the remainder of the four relational transparency sub-constructs, two self-awareness items and one of the processing information sub-constructs. Given that the construct validity has been proven by prior studies, the AL analysis in the present study followed Gardner et al.'s (2011) four sub-construct structure. Table 1 also contains the factor loadings of the items under the sub-constructs as explained above.

Given the reliability and validity of the instruments used in the study, the next section will discuss the regression analysis. Tables 2 and 3 summarise the descriptive statistics, correlation and scale reliabilities for main variables and sub-constructs, respectively.

## Regression analysis results

This section systematically reports on the various hypotheses in the model. Based on the Cronbach's alpha, the three main constructs were confirmed and used in the regression.

### Hypothesis 1

Results indicate that AL is significantly related to engagement, thereby meeting the first condition for mediation and offering support for Hypothesis 1. To determine whether the relationship between AL and work engagement found in other studies can also be found in this particular data set (Hypothesis 1): the results showed a statistically significant positive correlation coefficient of 0.6723, with a  $p$ -value of 0.0001 between AL and work engagement.

### Hypothesis 2

The total effect of AL on POS (Hypothesis 2) was measured by the parameter estimate as 0.89207, also at a significance level of 0.001.

### Hypothesis 3

The total effect of POS on engagement (Hypothesis 3) was also found to be significant at the 0.0001 level, with a coefficient of 0.52825. The results revealed that POS is significantly related to work engagement.

**TABLE 3:** Descriptive statistics, correlations and scale reliabilities for sub-constructs.

Sub-constructs	Cronbach's alpha	n	Mean	SD	1	2	3	4	5	6	7	8
1. Vigour	0.96	162	5.00	1.55	1	-	-	-	-	-	-	-
2. Dedication	0.97	162	5.67	1.38	0.84**	1	-	-	-	-	-	-
3. Absorption	0.96	162	5.76	1.11	0.65**	0.72**	1	-	-	-	-	-
4. Self-awareness	0.93	165	3.78	1.00	0.46**	0.41**	0.31**	1	-	-	-	-
5. Relational transparency	0.88	165	3.72	0.96	0.45**	0.37**	0.36**	0.85**	1	-	-	-
6. Processing information	0.87	165	3.69	1.00	0.55**	0.50**	0.40**	0.80**	0.79**	1	-	-
7. Internalised moral perspective	0.91	165	3.55	1.07	0.49**	0.43**	0.36**	0.77**	0.78**	0.86**	1	-
8. Perceived organisational support	0.88	162	4.43	1.40	0.59**	0.58**	0.44**	0.54**	0.51**	0.57**	0.58**	1

SD, standard deviation.

\*\*,  $p < 0.01$ .

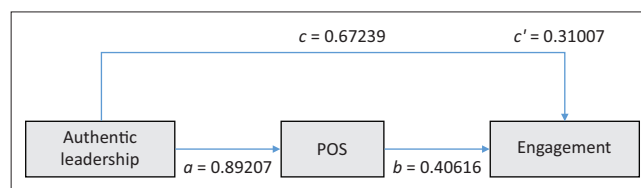
#### Hypothesis 4

Based on the significant relationships of all three of these models, the fourth model (Hypothesis 4) was also tested controlling for AL. Authentic leadership was found to still be significant, when controlling for POS. Given the results discussed above, the next two requirements of mediation have been met. The results showed that POS has a mediating effect on the impact of AL on work engagement, and when both the independent (AL) and mediator (POS) variables are put into the model together, both remain significant. Indirect effect 1 =  $c - c' = 0.67239 - 0.31007 = 0.362323$ . It can therefore be concluded that the findings support the partial mediation of POS.

The four prerequisites, as explained by Dinç (2015), were thus investigated. The results indicated that AL (independent variable) is significantly related to engagement (dependent variable), thereby meeting the first condition for mediation and offering support for Hypothesis 1. The results additionally revealed that POS (mediator variable) is significantly related to engagement (dependent variable), and that AL (independent variable) is significantly related to POS; therefore, the next two requirements of mediation have been met. Finally, when both the independent (AL) and mediator (POS) variables are put into the model together, both remain significant, indicating partial mediation. Figure 2 depicts the results of the mediation analysis.

Morera and Castro (2013) encouraged researchers to report measures of effect sizes as opposed to full or partial mediation. Supplementary to the Judd and Kenny approach, the Sobel approach or test was used to confirm the Judd and Kenny results (Hayes, 2009). To assess mediation through the Sobel approach, the direct  $ab$  cross product should be tested (Morera & Castro, 2013). According to Fritz and Mackinnon (2015), the Sobel first-order test is a widespread product-of-coefficients test that assesses mediation. The  $ab$  cross product was used. The same result of 0.362323 for the indirect effect was found: indirect effect 2 =  $b(a) = 0.40616 (0.892) = 0.362323$ . The same results were therefore obtained in one analysis as before in the four separate regressions, which confirms the credibility of the results, as follows:

$$\text{Judd and Kenny: } 1 = c - c' = 0.67239 - 0.31007 = 0.362323 \quad [\text{Eqn 1}]$$



POS, perceived organisational support.

**FIGURE 2:** Results of statistical analysis of mediating effect.

$$\text{Sobel product approach: } 2 = b(a) = 0.40616(0.892) = 0.362323 \quad [\text{Eqn 2}]$$

Koopman, Howe, Hollenbeck and Sin (2015) contested the use of bootstrapping in smaller samples of 20–80 cases. The current study, however, used a bigger sample (more than double the size of 80) and bootstrapping was therefore appropriate to use.

The results of the hierarchical regression analysis are presented in Table 4.

To determine whether the indirect effect (of 0.362323) was significant, we used the bootstrap samples (as they do not assume normal distribution of the sample) to determine the standard error of the indirect effect. Path analysis is an established technique used to assist social scientists to analyse the relationship between multiple variables and a multiple-regression variation (Stage, Carter, & Nora, 2004). Path analysis was thus used as the bootstrap intervals are obtained from this approach and also provide a number of fit indices to evaluate the overall proposed model. Table 5 summarises the regression estimates of the proposed model of research.

The strength of the relationship between AL and POS is estimated at 0.892, indicating a strong significant relationship, at the 0.001 level. For every increase in AL at a standard deviation of 1, POS would increase at a value of 0.892. The relationship between POS and work engagement is also significant at an estimated value of 0.406, at the 0.001 level of significance. Authentic leadership has a significant relationship with work engagement.

The level of significance in Table 6 is based on the critical ratio (CR) of the regression estimate. In the case where CR



**TABLE 4:** Results of the hierarchical regression analysis ( $n = 162$ ).

Predictors	Criterion variables
<b>Engagement</b>	
Step 1	
Authentic leadership	0.672**
Adjusted $R^2$	0.254
$F$ -statistic	55.92
<b>Perceived organisational support</b>	
Step 2	
Authentic leadership	0.892**
Adjusted $R^2$	0.347
$F$ -statistic	86.63
<b>Engagement</b>	
Step 3	
Perceived organisational support	0.528**
Adjusted $R^2$	0.358
$F$ -statistic	90.84
<b>Engagement</b>	
Step 4	
Authentic leadership	0.310*
Perceived organisational support	0.406**
Adjusted $R^2$	0.390
$F$ -statistic	52.53

\*,  $p < 0.0025$ ; \*\*,  $p < 0.01$ .

**TABLE 5:** Regression estimates for the proposed model of research.

Main variables	Main variables	Estimate	SE	CR	$p$
Perceived organisational support	<---Authentic leadership	0.892	0.085	10.486	***
Engagement	<---Perceived organisational support	0.406	0.079	5.154	***
Engagement	<---Authentic leadership	0.310	0.110	2.81	0.005

SE, standard error; CR, critical ratio.

Note: CR  $> \pm 2.58$  test significance of estimate at  $p < 0.01$ .

\*\*\*, Significance less than 0.001.

values are greater than or equal to 2.58, a 99% level of significance is indicated. The model was tested to understand how well the data fit with the proposed model. There are established rules of thumb used to understand whether a model fits the data. The criteria for a good, acceptable fit were those of Schermelleh-Engel, Moosbrugger and Müller (2003).

The goodness of fit index (GFI) is the proportion of the variance of the sample variance-covariance matrix accounted for by the model, which showed a value of 0.977 and was therefore a good fit because those values greater than 0.95 and thus close to 1 represent a good model fit. The adjusted goodness of fit index (AGFI) is the same measure as GFI, but is adjusted for the number of parameters in the model, and again close to 1 is considered a good fit. In this study, the estimate represented a value of 0.931 and was thus considered a good fit with the proposed model.

The comparative fit index (CFI) and normed fit index (NFI) with values greater than 0.95 represent a good model fit according to established rules and criteria. The proposed model indicated a CFI value of 0.976 and an NFI value of 0.963, both representing values greater than the threshold

**TABLE 6:** Fit indices for the proposed model of research.

Number Fitness indices	Proposed model		
	Measure of index	Remarks	
1. Chi-square value	5.527	Accept the model	
$p$	0.063		
2. Normed fit index (NFI)	0.963	Good fit	
3. CMIN/DF	2.763	Good fit	
4. Root mean square residual (RMR)	0.117	Room for improvement	
5. Comparative fit index (CFI)	0.976	Good fit	
6. Incremental fit index (IFI)	0.976	Acceptable	
7. Relative fit index (RFI)	0.945	Good fit	
8. Goodness of fit index (GFI)	0.977	Good fit	
9. Adjusted goodness of fit index (AGFI)	0.931	Good fit	
10. Tucker–Lewis index (TLI)	0.964	Good fit	
11. Root mean square error of approximation (RMSEA)	0.105	Room for improvement	

CMIN/DF, Chi-square Mean/Degree of Freedom.

of 0.95 and therefore indicating a good model fit. For the root mean square error of approximation (RMSEA), a value less than 0.05 is considered a good fit and a value less than 0.08 indicates an adequate fit. Considering the RMSEA of 0.105, there is slight room for improvement, but the other indices indicate a good fit. For example, for the Tucker–Lewis index (TLI), a value greater than 0.80 is sometimes acceptable and one that is greater than 0.90 is good, and the value of the TLI in this study is 0.964, indicating a good model fit.

## Discussion

### Outline of the results

This section discusses the results of the specific objectives and the underlying hypotheses of the study, which are presented next.

The results support the literature findings of a positive correlation between AL and engagement (Azanza et al., 2013; Scheepers & Elstob, 2016; Shu, 2015; Wang & Hsieh, 2013). Given the positive correlation between AL and engagement, companies would benefit from fostering and developing authentic leaders within the organisation. Wong and associates (2010) found that the employee first identifies with the leader, which in turn enhances identification with the work group. This positive relationship in turn fosters trust in the leader. When organisations develop authentic leaders with whom employees can identify and build trust, employees are more likely to be engaged in the workplace. An engaged workforce, in turn, leads to positive outcomes for the organisation, where the benefits of engagement can be maximised (Alfes et al., 2013).

These findings confirm that authentic leaders are capable of establishing higher levels of engagement when employees perceive the organisation to have positive levels of collaboration and support. Individuals are encouraged intrinsically to exert increased levels of effort (Biswas & Bhatnagar, 2013) when they perceive the organisation as

being supportive. Thus, when the context of AL exists, and employees experience a supportive environment within the organisation, higher levels of engagement are more likely to occur.

This study tested beyond the direct association of AL and engagement. The results offer us an in-depth understanding of the role of POS. This POS role exists in the context of organisations within the world of work today, where AL assists with identification with others in the work group, or increased work engagement (Farndale & Murrer, 2015). This study concluded that POS partially mediates the relationship between AL and engagement. Making a distinction between full and partial mediation, a theory can be influentially tested and social-psychological knowledge can be further developed (Rucker, Preacher, & Tormala, 2011). As the result was partial mediation, this study indicates that there are other factors that influence this relationship; and as expected, POS is not the only factor that impacts it; nonetheless, the influence of a mediating variable has been confirmed. Other researchers (Rhoades & Eisenberger, 2002; Scheepers & Elstob, 2016; Sihag & Sarikwal, 2015) have investigated different factors in relation to POS and our study builds on their findings.

### Practical implications

This study has several implications for management and research. Firstly, the findings indicate that POS can act as an interface between AL and employee engagement; it is highly likely that POS is beneficial for improving employee engagement through the AL that employees experience. We argue that further attention needs to be given to this interface. For example, POS from an employee perspective may be more likely if they feel they can connect with specific leaders. Perceived organisational support is also more likely when employees develop a sense of trust that enables them to feel supported, regardless of what tangible forms of support are available from the organisation. We also argue that further research investigating the specific relationship between authentic leaders and their roles in how employees view organisational support is warranted. Furthermore, the findings raise the question of whether organisational rewards and resources would be seen as POS (and, therefore, positively impact engagement) if an authentic leader was not present. These points lead us to suggest that the presence of POS provides space for interaction between organisational processes and employee engagement, or that an authentic leader perhaps plays the important role of changing organisational resources available to employees into positive POS. These points are worthy of further investigation, using an array of methodological approaches, for they are important in developing further knowledge about the variables studied in this article.

Also, although these findings may initially appear to be obvious, they indicate that further research is still needed to investigate whether or why POS is related to engagement

(and if so, in what ways). From a practice perspective, further research is important to ensure that managers develop appropriate strategies to engage staff members, rather than target their resources towards strategies. These strategies might include increasing resources available to staff members that may not actually provide effective solutions. For practising managers, we also argue that further attention should be given to recruiting and developing authentic leaders. Erkuflu (2013) posited that it is essential to consider the key organisational factors that facilitate AL development, for example, strong support from senior management (through role modelling and providing resources or through incorporating AL in performance evaluations and metrics). We argue that the subjective nature of authenticity means that developing it into a measurable performance management metric could be challenging and possibly inappropriate. However, managers can promote and display human-centred behaviours within their organisations, which are likely to lead to more positive work environments, whilst also increasing levels of engagement.

Organisations must take note of these findings and pay special attention to the development of managers' AL skills. Leadership development should include exercises and coaching to enhance the self-awareness of leaders and training on sharing authentically and transparently. These interventions could improve the return on investment of leadership development programmes. Organisations must also gather from this study's findings that they have to invest in offering tangible support to their employees, especially in times of uncertainty. Organisations must not only rely on the immediate supervisory levels or managers to offer relational support to their employees. According to this study's findings, the organisational context is an important variable to consider. Leadership development and human resources practitioners must take note of their employees' POS. Human resources practitioners should regularly undertake surveys to ascertain the perceptions of their employees, for example, regarding whether the organisation is offering adequate support to employees. These interventions could enhance ultimately employee engagement.

### Limitations and recommendations

This study makes a contribution to theory building as it examines the relationship between variables that to the best of our knowledge have not been well studied in this specific relationship before. The study is thus expected to inspire further research. The sample size was relatively small and restricted to one specific industry. The findings are therefore more relevant to other companies within the same industry and cannot necessarily be generalised to all other industries. Because of the time constraints of cross-sectional research, this study could not provide the same amount of depth as a longitudinal study would have been able to contribute. A specific leadership style, AL, was

chosen for this study and the findings cannot therefore be applied to other leadership styles.

Saks and Gruman (2014) suggested that an engagement measure more distinct from other constructs should be developed and future studies might investigate this. With organisational inclusion being of specific relevance in a diverse country like South Africa, and this being a new topic in organisational research (Cottrill et al., 2014), it would be relevant to understand how specific leadership competencies, like authenticity, influence inclusion.

## Conclusion

As Fusco et al. (2015) declared, AL may very well be the leadership theory relevant to our time. It is particularly relevant to the complex environment that challenges employee engagement (Day, Fleenor, Sturm, & Mckee, 2014). This study has shown that the relationship between AL and engagement is multifaceted. As suggested by the partial mediation, more than one factor influences the conditions under which engagement can be strengthened. The partial mediation result, however, confirms that authentic leaders are more likely to influence the employee engagement, when employees perceive their organisation as being supportive. The conclusions of our study validate the findings of Kurtessis et al. (2017) that employees feel more content and engaged in their roles when they experience and perceive leaders and the organisation as being supportive. Perceived organisational support therefore provides favourable conditions under which AL can positively influence the engagement levels of followers. This study thus suggests additional variables that serve and underpin the relationship between leadership and engagement.

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### Competing interests

The authors have declared that no competing interest exists.

### Authors' contributions

T.V. conducted this study as part of her Master of Business Administration (MBA) research and Prof. C.B. Scheepers was her research supervisor.

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### Data availability statement

Data is available upon request.

### Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of any affiliated agency of the authors.

## References

- Alfes, K., Shantz, A.D., Truss, C., & Soane, E.C. (2013). The link between perceived human resource management practices, engagement and employee behaviour: A moderated mediation model. *The International Journal of Human Resource Management*, 24(2), 330–351. <https://doi.org/10.1080/09585192.2012.679950>
- Alvesson, M., & Einola, K. (2019). Warning for excessive positivity: Authentic leadership and other traps in leadership studies. *The Leadership Quarterly*, 30(4), 383–395. <https://doi.org/10.1016/j.leaqua.2019.04.001>
- Anitha, J. (2014). Determinants of employee engagement and their impact on employee performance. *International Journal of Productivity and Performance Management*, 63(3), 308–323. <https://doi.org/10.1108/IJPPM-01-2013-0008>
- Avolio, B., & Gardner, W.L. (2005). Authentic leadership development : Getting to the root of positive forms of leadership. *The Leadership Quarterly*, 16(3), 315–338. <https://doi.org/10.1016/j.leaqua.2005.03.001>
- Avolio, B.J., Gardner, W.L., Walumbwa, F., Luthans, F., & May, D.R. (2004). Unlocking the mask: A look at the process by which authentic leaders impact follower attitudes and behaviors. *The Leadership Quarterly*, 15(6), 801–823. <https://doi.org/10.1016/j.leaqua.2004.09.003>
- Avolio, B., Walumbwa, F., & Weber, T. (2009). Leadership: Current theories, research, and future directions. *Annual Review of Psychology*, 60(1), 421–449. <https://doi.org/10.1146/annurev.psych.60.110707.163621>
- Azanza, G., Moriano, J.A., & Melero, F. (2013). Authentic leadership and organizational culture as drivers of employees' job satisfaction. *Journal of Work and Organizational Psychology*, 29(2), 45–50. <https://doi.org/10.5093/tr2013a7>
- Bailey, C., Madden, A., Alfes, K., & Fletcher, L. (2017). The meaning, antecedents and outcomes of employee engagement: A narrative synthesis. *International Journal of Management Reviews*, 19(1), 31–53. <https://doi.org/10.1111/ijmr.12077>
- Baron, L. (2016). Authentic leadership and mindfulness development through action learning. *Journal of Managerial Psychology*, 31(1), 296–311. <https://doi.org/10.1108/JMP-04-2014-0135>
- Baron, R., & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research. *Journal of Personality and Social Psychology*, 51(6), 1173–1182. <https://doi.org/10.1037/0022-3514.51.6.1173>
- Beddoes-Jones, F., & Swales, S. (2015). Authentic leadership: Development of a new three pillar model. *Strategic HR Review*, 14(3), 94–99. <https://doi.org/10.1108/SHR-04-2015-0032>
- Biswas, S., & Bhatnagar, J. (2013). Engagement: Role of perceived organizational support, P-O fit, organizational commitment and job satisfaction. *Journal of Decision Makers*, 38(1), 27–40. <https://doi.org/10.1177/0256090920130103>
- Blau, P.M. (1964). *Exchange and power in social life*. New York, NY: John Wiley.
- Bryant, M., & Cox, J.W. (2014). Beyond authenticity? Humanism, posthumanism and new organisation development. *British Journal of Management*, 25(4), 706–723. <https://doi.org/10.1111/1467-8551.12005>
- Chaurasia, S., & Shukla, A. (2013). The influence of leader-member exchange relations on employee engagement and work role performance. *International Journal of Organization Theory and Behavior*, 16(4), 465–493. <https://doi.org/10.1108/IJOTB-16-04-2013-B002>
- Chen, Z., Eisenberger, R., Johnson, K.M., Sucharski, I.L., Chen, Z., Eisenberger, R., & Sucharski, I.L. (2009). Perceived organizational support and extra-role performance: Which leads to which? *The Journal of Social Psychology*, 149(1), 119–124. <https://doi.org/10.3200/SOCP.149.1.119-124>
- Cooper, C.D., Scandura, T.A., & Schriesheim, C.A. (2005). Looking forward but learning from our past: Potential challenges to developing authentic leadership theory and authentic leaders. *The Leadership Quarterly*, 16(3), 475–493. <https://doi.org/10.1016/j.leaqua.2005.03.008>
- Cottrill, K., Lopez, P.D., & Hoffman, C.C. (2014). How authentic leadership and inclusion benefit organizations. *Equality, Diversity and Inclusion: An International Journal*, 33(3), 275–292. <https://doi.org/10.1108/EDI-05-2012-0041>
- Cropanzano, R., Byrne, Z.S., Bobocel, D.R., & Rupp, D.E. (2001). Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *Journal of Vocational Behavior*, 58(2), 164–209. <https://doi.org/10.1006/jvbe.2001.1791>
- Cropanzano, R., & Mitchell, M.S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*, 31(6), 874–900. <https://doi.org/10.1177/0149206305279602>
- Dawley, D.D., Virginia, W., Andrews, M.C., Carolina, N., Bucklew, N.S., & Virginia, W. (2008). Mentoring, supervisor support, and perceived organizational support: What matters most? *Leadership & Organization Development Journal*, 29(3), 235–247. <https://doi.org/10.1108/01437730810861290>
- Day, D.V., Fleenor, J.W., Sturm, R.E., & Mckee, R.A. (2014). Advances in leader and leadership development: A review of 25 years of research and theory. *The Leadership Quarterly*, 25(1), 63–82. <https://doi.org/10.1016/j.leaqua.2013.11.004>
- Dinc, E. (2015). Perceived organizational support as a mediator of the relationship between effort-reward fairness, affective commitment, and intention to leave. *International Business Research*, 8(4), 259–270. <https://doi.org/10.5539/ibr.v8n4p259>
- Eagly, A.H. (2005). Achieving relational authenticity in leadership: Does gender matter? *The Leadership Quarterly*, 16(3), 459–474. <https://doi.org/10.1016/j.leaqua.2005.03.007>
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organisational support. *Journal of Applied Psychology*, 71(3), 500–507. <https://doi.org/10.1037/0021-9010.71.3.500>



- Erkutlu, H. (2013). Effects of trust and psychological contract violation on authentic leadership and organizational deviance. *Management Research Review*, 36(9), 828–848. <https://doi.org/10.1108/MRR-06-2012-0136>
- Eva, N., Robin, M., Sendjaya, S., Van Dierendonck, D., & Liden, R.C. (2019). Servant leadership: A systematic review and call for future research. *The Leadership Quarterly*, 30(1), 111–132. <https://doi.org/10.1016/j.leaqua.2018.07.004>
- Farndale, E., & Murrer, I. (2015). Job resources and employee engagement: A cross-national study. *Journal of Managerial Psychology*, 30(5), 610–626. <https://doi.org/10.1108/JMP-09-2013-0318>
- Fritz, M.S., & Mackinnon, D.P. (2015). Required sample size to detect the mediated effect. *Association for Psychological Science*, 18(3), 233–239. <https://doi.org/10.1111/j.1467-9280.2007.01882.x>
- Fusco, T., O'Riordan, S., & Palmer, S. (2015). Authentic leaders are... conscious, competent, confident, and congruent: A grounded theory of group coaching and authentic leadership development. *International Coaching Psychology Review*, 10(2), 131–148.
- Gardner, W.L., Cogliser, C.C., Davis, K.M., & Dickens, M.P. (2011). Authentic leadership: A review of the literature and research agenda. *The Leadership Quarterly*, 22(6), 1120–1145. <https://doi.org/10.1016/j.leaqua.2011.09.007>
- Giddens, A. (1991). *Modernity and Self-Identity*. Oxford: Polity Press, in association with Blackwell Publishers.
- Gupta, V., Agarwal, U.A., & Khatri, N. (2016). The relationships between perceived organizational support, affective commitment, psychological contract breach, organizational citizenship behaviour and work engagement. *Journal of Advanced Nursing*, 72(11), 2806–2817. <https://doi.org/10.1111/jan.13043>
- Hansen, A., Byrne, Z., & Kiersch, C. (2014). How interpersonal leadership relates to employee engagement. *Journal of Managerial Psychology*, 29(8), 953–972. <https://doi.org/10.1108/JMP-11-2012-0343>
- Hayes, A.F. (2009). Beyond Baron and Kenny: Statistical mediation analysis in the new millennium. *Communication Monographs*, 76(4), 408–420. <https://doi.org/10.1080/03637750903310360>
- Hayes, A.F., & Preacher, K.J. (2014). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, 67(3), 451–470. <https://doi.org/10.1111/bmsp.12028>
- Hayes, A.F., & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis: Does method really matter? *Psychological Science*, 24(10), 1918–1927. <https://doi.org/10.1177/0956797613480187>
- Hsieh, C.-C., & Wang, D.-S. (2015). Does supervisor-perceived authentic leadership influence employee work engagement through employee-perceived authentic leadership and employee trust? *The International Journal of Human Resource Management*, 26(18), 2329–2348. <https://doi.org/10.1080/09585192.2015.1025234>
- Koopman, J., Howe, M., Hollenbeck, J.R., & Sin, H.-P. (2015). Small sample mediation testing: Misplaced confidence in bootstrapped confidence intervals. *The Journal of Applied Psychology*, 100(1), 194–202. <https://doi.org/10.1037/a0036635>
- Kraus, M.W., Chen, S., & Keltner, D. (2011). The power to be me: Power elevates self-concept consistency and authenticity. *Journal of Experimental Social Psychology*, 47(5), 974–980. <https://doi.org/10.1016/j.jesp.2011.03.017>
- Kurtessis, J.N., Eisenberger, R., Ford, M.T., Buffardi, L.C., Stewart, K.A., & Adis, C.S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management*, 43(6), 1854–1884. <https://doi.org/10.1177/0149206315575554>
- Kutz, M.R., & Bamford-Wade, A. (2013). Understanding contextual intelligence: A critical competency for today's leaders. *Emergence: Complexity in Organisations*, 15(3), 55–80.
- Lord, R.G., & Hall, R.J. (1992). Contemporary views of leadership and individual differences. *The Leadership Quarterly*, 3(2), 137–157.
- Lyubovnikova, J., Legood, A., Turner, N., & Mamakouka, A. (2017). How authentic leadership influences team performance: The mediating role of team reflexivity. *Journal of Business Ethics*, 141(1), 59–70. <https://doi.org/10.1007/s10551-015-2692-3>
- MacKinnon, D.P., Coxé, S., & Baraldi, A.N. (2012). Guidelines for the investigation of mediating variables in business research. *Journal of Business and Psychology*, 27(1), 1–14. <https://doi.org/10.1007/s10869-011-9248-z>
- Matthews, R.A., Mills, M.J., Trout, R.C., & English, L. (2014). Family-supportive supervisor behaviors, work engagement, and subjective well-being: A contextually dependent mediated process. *Journal of Occupational Health Psychology*, 19(2), 168–81. <https://doi.org/10.1037/a0036012>
- McKergow, M. (2015). Develop authentic leadership – Be a good host approaching leadership in a new way using the familiar techniques of hosting. *Strategic Human Resources Review*, 14(3), 85–88. <https://doi.org/10.1108/SHR-03-2015-0020>
- Merry, J. (2014). Aon Hewitt's 2013 trends in global engagement: Where do organizations need to focus attention? *Strategic HR Review*, 13(1), 24–31. <https://doi.org/10.1108/SHR-07-2013-0073>
- Mills, M.J., Fleck, C.R., & Kozikowski, A. (2013). Positive psychology at work: A conceptual review, state-of-practice assessment, and a look ahead ahead. *The Journal of Positive Psychology*, 8(2), 153–164. <https://doi.org/10.1080/17439760.2013.776622>
- Morera, O.F., & Castro, F.G. (2013). Important considerations in conducting statistical mediation analyses. *American Journal of Public Health*, 103(3), 394–396. <https://doi.org/10.2105/AJPH.2012.301047>
- Osborn, R.N., & Marion, R. (2009). Contextual leadership, transformational leadership and the performance of international innovation seeking alliances. *The Leadership Quarterly*, 20(2), 191–206.
- Parker, S.K., & Griffin, M.A. (2011). Understanding active psychological states: Embedding engagement in a wider nomological net and closer attention to performance. *European Journal of Work and Organizational Psychology*, 20(1), 60–67. <https://doi.org/10.1080/1359432X.2010.532869>
- Porter, L.W., & McLaughlin, G.B. (2006). Leadership and the organizational context: Like the weather? *The Leadership Quarterly*, 17(6), 559–576. <https://doi.org/10.1016/j.leaqua.2006.10.002>
- Prokopeak, M. (2018, March 21). *Follow the leader(ship) spending*. Chief Learning Officer. Retrieved from <https://www.clomedia.com/2018/03/21/follow-the-leadership-spending/>
- Ray, R. (2018). *Global leadership forecast 2018: 25 research insights to fuel your people strategy*. Ernst & Young, EY: Development Dimensions International, Inc. Retrieved from [https://www.ey.com/Publication/vwLUAssets/ey-the-global-leadership-forecast/\\$FILE/ey-the-global-leadership-forecast.pdf](https://www.ey.com/Publication/vwLUAssets/ey-the-global-leadership-forecast/$FILE/ey-the-global-leadership-forecast.pdf)
- Rhoades, L., & Eisenberger, R. (2002). Perceived organizational support: A review of the literature. *Journal of Applied Psychology*, 87(4), 698–714. <https://doi.org/10.1037/0021-9010.87.4.698>
- Rich, B.L., Lepine, J.A., & Crawford, E.R. (2010). Job engagement: Antecedents and effects on job performance. *Academy of Management Journal*, 53(3), 617–635. <https://doi.org/10.5465/amj.2010.51468988>
- Rucker, D., Preacher, K., & Tormala, Z. (2011). Mediation analysis in social psychology: Current practices and new recommendations. *Social and Personality*, 6, 359–371. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1751-9004.2011.00355.x/full>
- Saks, A., & Gruman, J. (2014). What do we really know about employee engagement. *Human Resource Development Quarterly*, 2(25), 155–182. <https://doi.org/10.1002/hrdq>
- Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research methods for business students* (6th edn.). London: Pearson Education Limited.
- Schaufeli, W.B., Bakker, A.B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. *Education and Psychological Measurement*, 66(4), 701–716. <https://doi.org/10.1177/0013164405282471>
- Schaufeli, W.B., & Salanova, M. (2007). Efficacy or inefficacy, that's the question: Burnout and work engagement, and their relationships with efficacy beliefs. *Anxiety Stress and Coping*, 20(2), 177–196. <https://doi.org/10.1080/10615800701217878>
- Scheepers, C.B., & Elstob, S.L. (2016). Beneficiary contact moderates relationship between authentic leadership and engagement. *South African Journal of Human Resource Management*, 14(1), a758. <https://doi.org/10.4102/sajhrm.v14i1.758>
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8(2), 23–74. <https://doi.org/10.1002/0470010940>
- Shantz, A., Alfes, K., & Latham, G.P. (2016). The buffering effect of perceived organizational support on the relationship between work engagement and behavioral outcomes. *Human Resource Management*, 55(1), 25–38. <https://doi.org/10.1002/hrm>
- Shu, C. (2015). The impact of intrinsic motivation on the effectiveness of leadership style towards on work engagement. *Contemporary Management Research*, 11(4), 327–350. <https://doi.org/10.7903/cmr.14043>
- Sihag, P., & Sarikwal, L. (2015). Effect of perceived organizational support on psychological capital – A study of IT industries in Indian framework. *Electronic Journal of Business Ethics and Organisation Studies*, 20(2), 19–26.
- Stage, F.K., Carter, H.C., & Nora, A. (2004). Path analysis: An introduction and analysis of a decade of research. *The Journal of Educational Research*, 98(1), 5–13. <https://doi.org/10.3200/JOER.98.1.5-13>
- Strom, D.L., Sears, K.L., & Kelly, K.M. (2014). Work engagement: The roles of organisational justice and leadership style in predicting engagement among employees. *Journal of Leadership & Organizational Studies*, 21(1), 71–82. <https://doi.org/10.1177/1548051813485437>
- Tosi, H.L. (1991). The organization as a context for leadership theory: A multilevel approach. *The Leadership Quarterly*, 2(3), 205–228. [https://doi.org/10.1016/1048-9843\(91\)90011-P](https://doi.org/10.1016/1048-9843(91)90011-P)
- Wang, D.-S., & Hsieh, C.-C. (2013). The effect of authentic leadership on employee trust and employee engagement. *Social Behavior and Personality*, 41(4), 613–624. <https://doi.org/10.2224/sbp.2013.41.4.613>
- Wei, F., Li, Y., Zhang, Y., & Liu, S. (2016). The interactive effect of authentic leadership and leader competency on followers' job performance: The mediating role of work engagement. *Journal of Business Ethics*, 153(3), 763–773. <https://doi.org/10.1007/s10551-016-3379-0>
- Wong, C.A., Laschinger, H., & Cummings, G.G. (2010). Authentic leadership and nurses' voice behaviour and perceptions of care quality. *Journal of Nursing Management*, 18(8), 889–900.
- Wulfers, T., Bussin, M., & Hewitt, M. (2016). Fast-tracking authentic leadership development by means of a programme. *SA Journal of Human Resource Management*, 14(1), 13. <https://doi.org/10.4102/sajhrm.v14i1.764>
- Xu, J., & Thomas, H.C. (2011). How can leaders achieve high employee engagement? *Leadership & Organization Development Journal*, 32(4), 399–416. <https://doi.org/10.1108/01437731111134661>