Leadership styles: The role of cultural intelligence

Orientation: Within both the South African context and abroad, leaders are increasingly being required to engage with staff members whose cultures differ from their own. As the attractiveness of different leadership styles varies in line with staff member cultural preferences, the challenge leaders face is that their behaviours may no longer be apposite. To this end, it is mostly unknown whether those leaders who are deemed culturally intelligent behave in a specific manner, that is, display the empowering and directive leadership styles.

Research purpose: The purpose of this study was to explore the relationship between leader cultural intelligence and the empowering and directive styles of leadership, as perceived by subordinates.

Motivation for the study: To operate successfully, leaders need to adopt and display those leadership styles that best match the cultural expectations of their staff members. Cultural intelligence may assist in this respect. Most of the studies on leader cultural intelligence and leadership styles have concentrated on the transformational leadership style. There is, thus, a requirement to examine how leader cultural intelligence relates to other leadership styles.

Research design, approach and method: The study was quantitative in nature and made use of a cross-sectional survey design. Data were collected from 1140 staff members spread across 19 diverse organisations carrying on business activities in South Africa. Correlation and regression techniques were performed to identify relationships.

Main findings: Leader cultural intelligence was found to have a stronger relationship with empowering leadership than it had with directive leadership. With empowering leadership, leader metacognitive and motivational cultural intelligence acted as important antecedents, whilst for directive leadership, leader’s motivational, cognitive and metacognitive cultural intelligence played a predictive part that carried a medium effect.

Practical/managerial implications: The findings can be used by organisations to guide the selection of leaders and to focus initiatives for their development.

Contribution and value-add: The study adds to the cultural intelligence and leadership literature by offering empirical evidence of the relationship between leader cultural intelligence and the empowering and directive leadership styles.

Introduction

Despite the issue of leadership having held humankind’s attention for thousands of years (Blunt & Jones, 1997; Fry, Vitucci & Cedillo, 2005; Hassan, Asad & Hoshino, 2016; Higgs, 2003; Vie & Vie, 2011), a measure of uncertainty still exists as to what it really is (Bolden, 2004; Iszatt-White, Graham, Kelly, Randall & Rouncefield, 2011). This is especially perturbing because leadership is accepted as central to the success of organisations (Hanges, Aiken, Park & Su, 2016; Landis, Hill & Harvey, 2014). The lack of certainty is compounded by phenomena such as globalisation that are increasingly exposing leaders to new challenges (Ababneh, 2016; Jogulu, 2010), not the least of which is leading in a multicultural environment (Parham, Lewis, Fretwell, Irwin & Schrimsher, 2015). This is key as the composition of the workforce is becoming ever more culturally diverse (Groves & Feyerherm, 2011; Strydom & Eeden, 2013) and because an interdependent relationship exists between leadership and (personal) culture (Pauliné, 2012; Snaebjornsson & Edvardsson, 2013; Steers, Sanchez-Runde & Nardon, 2012). To this end, Dickson, Castaño, Magomaeva and Den Hartog (2012) declare that (personal) cultures are of utmost importance in the leadership context. It is thus suggested that leadership styles should be modified so that they are congruent with these cultures (Alon & Higgins, 2005) as successful leadership styles vary across them (Ng, Van Dyne & Ang, 2009). Furthermore, (personal) culture is important as it affects how leaders are chosen, viewed and developed (Dickson et al., 2012). The obstacle facing leaders, however, is that they are often oblivious to their own cultural prism through which they perceive others (Offermann & Phan, 2008).
Caldwell (2015) argues that a tsunami of cultures is rapidly increasing the requirement for and criticality of having competent and capable leaders with those attributes that allow them to lead globally. Northouse (2013) submits that leaders must develop proficiencies in both cross-cultural cognisance and application, whereas Javidan and Dastmalchian (2009) remark that leaders should be able to contrast their own cultures with those of others, the ability to efficaciously traverse the chasm that prevails between the aforesaid cultures requires a capability that extends beyond merely understanding them. Ang, Van Dyne and Rockstuhl (2015) point out that cultural intelligence (CQ), the capability to ‘grasp, reason and behave effectively in situations characterized by cultural diversity’ (Ang et al., 2007, p. 337), assists in overcoming cultural dissimilarities. Advancing a leader’s CQ is therefore vital, specifically so because Robinson (2016) states that it is of paramount importance that leaders hone a multifaceted skills repertoire to deal with an ever-expanding array of complex problems. Since CQ is regarded as a malleable capability it can be developed and enhanced (Ng et al., 2009; Ramsey & Lorenz, 2016).

As culture influences leadership styles (Bass & Bass, 2008; House, Javidan & Dorfman, 2001; Jogulu, 2010), it is reasonable to expect that culturally intelligent leaders will display the style(s) of leadership most compatible with the cultures of their subordinates. Klenke (2009) asserts that central to CQ is a leader’s ability to adapt. With this in mind, Livermore (2010) reports that adapting their leadership style is one of the key reasons leaders cite as to why CQ is required if they are to be successful in leading culturally diverse followers. Similarly, Du Plessis (2011), in her study of 353 South African managers, found that adaptive capability emerged as an important competency arising from managerial CQ.

The importance of culture within the leadership context and the role that CQ could occupy in assisting leaders to display appropriate (i.e. culturally attractive) leadership styles has been highlighted in the above discussion. However, even though the volume of literature on CQ has been increasing steadily since its initial conceptualisation by Earley and Ang (2003), empirical examination of leader CQ remains scarce (Groves & Feyerherrm, 2011; Vanderpal, 2014), especially so in the case of its relationship with leadership styles. Furthermore, the few studies that have investigated this relationship have mostly concentrated on the transformational leadership style (Elenkov & Manev, 2009; Ismail, Reza & Mahdi, 2012; Keung & Rockinson-Szapkiw, 2013; Lee, Veasna & Wu, 2013). As Ensley, Hmieleski and Pearce (2006) maintain that both empowering and directive leadership must be considered if leaders with a complete range of behavioural capabilities are to be developed, it is evident that further research is necessary to better comprehend the relationship between leader CQ and empowering and directive leadership. This understanding should assist both line and human resource personnel in identifying those candidates best suited to lead in cross-cultural conditions. Similarly, the concomitant composition of CQ training programmes aimed at the growth of leaders could be enhanced.

Research purpose and objective

The purpose of this study was to investigate the relationship between leader CQ and the empowering and directive leadership styles. As such, the objective was to determine whether leadership style (as represented by empowering and directive leadership) is a function of leader CQ.

Literature review

The literature review sought to: (1) provide an overview of CQ, empowering and directive leadership and (2) consider existing insights on the relationship between leader CQ and leadership styles.

Cultural intelligence

Initial research efforts into intelligence, given the application of a tapered perspective, tended to associate intelligence solely with academic settings (Ang, Van Dyne & Tan, 2011). A growing interest in intelligence, however, has resulted in its classification per a range of foci such as emotional, social and general mental ability (Zhang, 2012). These intelligences account for most of the variations between the achievement levels of persons in the personal, social and work domains within their own cultures (Viggiano, 2016).

To fully explain intelligence, however, Sternberg and Grigorenko (2006) submit that cultural context must be considered. It is against this background that the concept of CQ was originally conceptualised and has evolved accordingly. CQ is founded upon the Sternberg and Detterman (1986) multiple loci of intelligence framework (Ang et al., 2011; Eisenberg et al., 2013; Kurpis, 2012; Ng et al., 2009; Peng, Van Dyne & Oh, 2015; Zhang, 2012). Although related to cognitive intellect as well as emotional and social intelligence (Ang et al., 2015), CQ situates discretely (Ang et al., 2007) largely due to the aforementioned intelligences being culture specific (Thomas et al., 2008). Contrasting them, CQ depicts an etic perception of intelligence as it transfers across cultures (Klenke, 2009; Ng & Earley, 2006).

Culturally intelligent persons are competent and effectual in multiple intercultural interactions as opposed to just a single or a few such exchanges (Ang & Inkpen, 2008; Ang et al., 2015). Thomas (2006) notes that CQ depicts the capability to not simply adjust to but actually influence the cross-cultural exchange. Accordingly, CQ helps to explain why some leaders easily adjust their perspectives and behaviours across cultures whilst others do not (Van Dyne, Ang & Livermore, 2010). Although various scholars, such as Fung and Lo (2017) as well as Thomas and Inkson (2005), have offered their own conceptualisation of CQ, that which was advanced by Earley and Ang (2003) has proven most popular in underpinning CQ research (Ott & Michailova, 2016). In terms of this last-mentioned model, CQ is theorised as possessing cognitive, motivational and behavioural components. A fourth component, metacognition, was subsequently added by Ang and Van Dyne (2008). The study on which this article reports made use of the Earley and Ang (2003) and Ang and Van Dyne (2008) CQ conceptualisation.
The four components or dimensions of CQ reflect different competencies (Ng, Van Dyne & Ang, 2012). Metacognition refers to higher-order cognitive procedures (Charoensukmongkol, 2016), that is, the processes through which persons source and grasp knowledge (Ang & Inkpen, 2008) and, hence, reflects the ability of a leader to strategise when traversing cultures (Van Dyne et al., 2010). As such, metacognitive CQ stimulates the formation of novel heuristics for intercultural interfaces and promotes the questioning of one’s own cultural suppositions (Ang et al., 2011). Cognition, the second of the CQ dimensions, represents a person’s knowledge about other cultures, examples of which include customs, standards and values (Van Dyne et al., 2012). This dimension of CQ, thus, signifies the extent to which a leader comprehends how to engage with others cross-culturally (Van Dyne et al., 2010). Ang et al. (2011), though, warn that unless the know-how emanating from cognitive CQ is assimilated into the other CQ dimensions, it is possible that such knowledge may not be of much value to leaders and could indeed be harmful. A leader, for example, with relevant cultural insights who lacks the desire (motivation) to display pertinent actions (behaviours) based on these might be viewed adversely by subordinates. The third dimension, motivational CQ, portrays the leader’s desire to acclimate interculturally (Van Dyne et al., 2010), that is, the energy expended in both acquiring knowledge about other cultures and immersing oneself in cross-cultural interfaces (Ng et al., 2012). Finally, behavioural CQ denotes the adoption and display of culture-appropriate actions (Ang & Van Dyne, 2008) that may be both verbal and non-verbal (Van Dyne, Ang & Nielsen, 2008). Ang et al. (2007) indicate that the dimensions ‘may or may not correlate with each other’ (p. 338), whilst Magnusson, Westjohn, Semenov, Randriansasolo and Zdravkovic (2013) argue that the dimensions are comparatively independent. In combination, the dimensions reflect the understanding that CQ concerns the integration of knowledge about cultural disparities with the impetus and competence to consider one’s own and other persons’ cultural programming, combined with the ability to display culturally apt behaviours (Schreier & Kainzbauer, 2016).

Empowering and directive leadership

Although an abundance of leadership theories and styles exist (Avolio, Walumbwa & Weber, 2009; Brauckmann & Pashiardis, 2011; Esen, 2015; Landis et al., 2014; Perkins, 2013), leadership is most often decerned according to leader traits, qualities and behaviours (Horner, 1997). Concentrating on leader behaviours, Pearce et al. (2003) defined a typology consisting of the transactional, transformational, empowering and directive leadership styles. Transactional leadership is considered by Golla and Johnson (2013) to be a style in which leaders promote employee self-interest through the promise of rewards in return for performance. Transformational leadership targets the attainment of organisational objectives by offering staff members a vision that eclipses their self-interest (Holten, Bollingtoft & Wilms, 2015). Although the transactional and transformational leadership paradigm has attracted much scholarly attention (Clark & Waldron, 2016; Sims, Faraj & Yun, 2009), Hmiesleski and Ensley (2007) insist that such leadership styles are often reflective of ambiguous behaviours. In contrast, empowering and directive leadership, on which empirical insights remain scanty (Kalaulah, 2013; Sharma & Kirkman, 2015; Tekleab, Sims, Yun, Tesluk & Cox, 2008), are distinct from one another (Yun, Cox & Sims, 2006) and are situated at opposing ends of an action-based spectrum (Faraj & Sambamurthy, 2006). This research focused on these last-mentioned leadership styles primarily because empirical investigation of them is limited. Further, as noted above, the transformational leadership style has dominated attention in the domain of leader CQ and there is some uncertainty as to the distinction between transformational and transactional leadership behaviours in the literature. In the light of heightened global economic rivalry and with a view to improving their agility, many organisations have adapted their structural composition to reflect a more empowered workforce as opposed to the hierarchical leadership arrangements of yesteryear (Arnold, Arad, Rhoades & Drasgow, 2000). Empowering leadership aims to grow the capacity of followers to lead themselves (Mohamed, 2016; Tekleab et al., 2008) and may be defined as behaviours that promote power equality with staff members (Amundsen & Martinsen, 2014) or as the assignment of authority and responsibilities to subordinates (Hakimi, van Knippenberg & Giessner, 2010).

Empowering leadership embraces divergent employee viewpoints (Doh & Quigley, 2014) whilst spotlighting employee self-control advancement (Galanou, 2009). Ahearne, Mathieu and Rapp (2005) note that leader empowering behaviours consist of (1) enhancing work meaningfulness, that is, the extent to which a leader sets stimulating goals for subordinates and clarifies their contributions to organisational success (Kwak & Jackson, 2015), (2) encouraging decision-making involvement or the extent to which the leader facilitates decision-making by subordinates (Kwak & Jackson, 2015), (3) voicing sureness of high performance by, for example, attesting to subordinates’ capabilities (Kwak & Jackson, 2015) and (4) removing bureaucratic constraints or the degree to which a leader dissipates organisational factors that inhibit subordinates’ independence (Kwak & Jackson, 2015).

The empowering leadership style influences psychological empowerment positively (Amundsen & Martinsen, 2015; Joo, Park & Lim, 2016; Raub & Robert, 2012). It prompts followers’ perceptions of increased work challenges (Esteves & Lopes, 2017) and stimulates their feelings of self-efficacy (Biemann, Kearney & Marggraf, 2015; Bobbio, Bellan & Manganelli, 2012; Kim & Beehr, 2017). It demonstrates a positive relationship with employee creativity (Harris, Li, Boswell, Zhang & Xie, 2014; Zhang & Zhou, 2014) and innovative behaviour (Gkorezis, 2016). Empowering leadership also correlates with employees’ organisational job embeddedness (Erkutlu & Chafra, 2015) as well as with their
work effort, performance and service delivery levels (Govender, 2016). It increases the extent of knowledge sharing between team members (Lee, Lee & Park, 2014) and change-orientated organisational citizenship behaviours (Li, Liu, Han & Zhang, 2016). The strengthening of relationships with managers and colleagues (Esteves & Lopes, 2017) as well as the advent of informal leadership (Adeel & Pengcheng, 2016) are also associated with this style of leadership.

Directive leadership, on the other hand, is based upon positional power (Lorinkova, Pearsall & Sims, 2013; Yun et al., 2006) and depicts behaviours that provide subordinates with precise direction concerning objectives, how such objectives must be realised and the outputs required (Martin, Liao & Campbell, 2013). As such, it embodies behaviours that are mostly aligned with task accomplishment (Devetinick & van Ameijde, 2011). Accordingly, those leaders who adopt this style deliver leadership through the issuing of orders, commands and directives (Sims et al., 2009) based primarily upon their own judgements (Yun, Cox, Sims & Salam, 2007).

Directive leadership has been associated with some negative outcomes such as reduced team cohesiveness (Woldt, Euwema & van Emmerik, 2009) and slower product development (McDonough & Barczak, 1991). It does, however, influence employee role clarity positively (Dolatabadi & Safa, 2011). This style of leadership is also positively associated with a reduction in job demands that impede workers in the execution of their duties (Esteves & Lopes, 2017). Furthermore, it has a positive relationship with organisational commitment (Somech, 2005) and correlates with the quality of group results (Sagie, 1997) and processes (Peterson, 1997). Directive leadership is also an appropriate leadership style when subordinates lack requisite skills (Muczyk & Reimann, 1987), a major calamity is encountered (Maggitti, Slay & Clark, 2010) or the work activities are structured and routine (Sauer, 2011).

Cultural intelligence and leadership styles
As pointed out in the introduction, transformational leadership appears to be the style that has attracted the most attention in the domain of CQ. Leader CQ, as an aggregate construct, cognitive CQ and behavioural CQ have all been confirmed as coinciding with transformational leadership (Ismail et al., 2012; Keung & Rockinson-Szapkiw, 2013). In addition, Ismail et al. (2012) found that transformational leadership coincided with both leader metacognitive and motivational CQ. Leader CQ also acted as a moderator of the transformational leadership relationship with both expatriate adjustment and performance (Lee et al., 2013) as well as organisational innovation (Elenkov & Manev, 2009). The relationship between the autocratic, democratic and laissez-faire leadership styles and the leader CQ dimensions was investigated by Eken, Özturgut and Craven (2014). Apart from reporting a positive relationship between leader motivational CQ and the democratic leadership style, these researchers were unable to detect any other significant associations. The authors are not aware of any empirical studies that have specifically concentrated on the relationship between leader CQ and both the empowering and directive leadership styles.

The following null hypotheses were thus set:

H1: There is no statistically significant relationship between the CQ (as a composite value) and the empowering leadership style of leaders at organisations operating in South Africa.

H2: There is no statistically significant relationship between the CQ (as a composite value) and the directive leadership style of leaders at organisations operating in South Africa.

H3: The relationship between leader CQ (as a composite value) and the empowering leadership style does not differ from that between leader CQ (as a composite value) and the directive leadership style.

H4: There is no statistically significant relationship between each of the CQ dimensions and the empowering leadership style of leaders at organisations operating in South Africa.

H5: There is no statistically significant relationship between each of the CQ dimensions and the directive leadership style of leaders at organisations operating in South Africa.

H6: All the leader CQ dimensions do not contribute uniquely and significantly in predicting the empowering leadership style of leaders at organisations operating in South Africa.

H7: All the leader CQ dimensions do not contribute uniquely and significantly in predicting the directive leadership style of leaders at organisations operating in South Africa.

Research design
Research approach
This study, anchored within the positivist paradigm, followed a quantitative methodology. Specifically, a cross-sectional approach was adopted. Cross-sectional surveys are well suited for descriptive research and those studies aimed at exploring relationships between variables (Shaughnessy, Zechmeister & Zechmeister, 2012).

Research method
Research participants
The population consisted of all leaders (i.e. anyone to whom another staff member directly reports) at all organisations operating in South Africa. Conway (2000) and Kim and Yukl (1995) draw attention to the benefits of employing subordinate ratings as opposed to leaders self-reporting, whilst Ang et al. (2015) highlight the advantages of using informant-based CQ measures. Hence, sample data on the leaders were sourced from their subordinates.

The sample respondents, being the subordinates of the leaders, were recruited by students pursuing a Master of Business Leadership (MBL) degree through the Graduate
School of Business Leadership at the University of South Africa (GSBL). The students, by means of their respective employers, gained access to the respondents. The students then acted as fellow researchers collecting data from 18 different South African organisations.

The corresponding author also collected data from the organisation by whom he is employed. In aggregate, data were collected from 1140 respondents across the 19 organisations. Six of the organisations trade within the manufacturing industry whilst another three operate within the telecommunications industry. Three of the organisations represent the media industry and a further two fall within the public sector. The defence industry was represented by a single organisation as was the banking sector. The remaining organisations were from the services industry. Although the respondents were selected on a random basis, from the personnel records in the participating organisations, the sample was based upon convenience as the choice of organisations was not random.

Measuring instruments

The following instruments, with the permission of their respective authors, were used to measure the variables and were presented to the respondents in the form of a single consolidated questionnaire. Details of the instruments appear below and are arranged per variable.

**Leader CQ:** Measured by the Cultural Intelligence Scale (CQS) devised by Van Dyne, Ang and Koh (2008) who note that both the self and observer report versions of the CQS are convergent, discriminant and criterion valid. Rockstuhl, Seiler, Ang, Van Dyne and Annen (2011) further point out that the CQS is reliable, based on Cronbach’s coefficient alphas (that ranged from 0.71 to 0.85) achieved by Van Dyne et al. (2008), and may be generalised across samples, time and cultures. This research made use of the observer report version.

**Empowering leadership:** Evaluated via the 10-item instrument of Ahearne et al. (2005). Yoon (2012) confirmed the reliability of this instrument (Cronbach’s coefficient alpha of 0.93), whilst Zhang and Bartol (2010) remark that it depicts the distinctiveness of empowering leadership.

**Directive leadership:** Assessed through six items developed by Pearce and Sims (2002) and four from Hwang et al. (2015). Hinrichs (2011) states that the items developed by Pearce and Sims (2002) have delivered acceptable levels of reliability (Cronbach’s coefficient alpha of 0.88), whilst Hwang et al. (2015) note a similar result in respect of the items they developed (Cronbach’s coefficient alpha of 0.85).

Research procedure

Following receipt of permission from the GSBL Research Ethics Review Committee for the data to be collected, participating MBL students were fully briefed on the nature, purpose and importance of the research. The questionnaire as well as the respondent information sheet were explained to them. Each student first sourced the written approval of his or her employer’s chief executive officer, or other appropriate executive, on the basis that it would not be named. Thereafter, a list of potential respondents (i.e. subordinates of the leaders) was obtained from the human resource department. Each name on the list was allocated a number. Potential respondents were then selected randomly using a random number generator. Chosen persons were invited to a meeting at which the research was introduced to them. They were advised that participation was completely voluntary and anonymous. Those staff members who agreed to participate were handed a hard copy of the questionnaire and were requested to complete it at the meeting, after which they returned it to the respective student. The reason why a hard copy, rather than a soft copy, of the questionnaire was used is because it facilitated completion during the aforementioned meeting rather than having to follow up with the respondents (potentially on numerous occasions) following the meeting. An Excel-based template was then provided by the authors to the students wherein each captured the details from the questionnaires they had collected. The populated templates were then consolidated. The corresponding author followed the same research procedure in collecting the data from his employer.

Statistical analysis

IBM SPSS (version 24) (Field, 2012) was used to perform the data analysis. Frequencies were calculated to provide a descriptive view of respondent demographics. Measures of central tendency were also computed for the different variables included. Cronbach’s coefficient alphas were calculated to assess reliability. Reliability was accepted as satisfactory where the alpha scores exceeded 0.70, with scores above 0.80 being taken as desirable (Pallent, 2011).

Validity was examined through principal axis factor analysis with direct Oblimin rotation. The number of factors retained was based upon the rule of thumb that only those factors with eigenvalues larger than one would be included (Coovet & McNelis, 1988). Factor numbers were also confirmed through an examination of scree plots, as recommended by Costello and Osborne (2005). The process, as described by Courtney (2013), for such examination was followed; that is, the scree plot was scanned for a break or hinge (also referred to as an ‘elbow’). The number of factors was considered to be the number of eigenvalues appearing before the elbow. Factor acceptability was evaluated with reference to the guidelines of Hair, Black, Babin and Anderson (2010) and Osborne and Costello (2009), which indicate that item loadings of 0.30–0.40 are minimally acceptable whilst loadings of 0.50 and greater are favoured. Although factors that have at least four adequately loading items are generally noted to be acceptable (Osborne & Costello, 2009), there is little guidance in the literature as to the suitable number of items that should load when measurement scale length is considered. Hence, for a factor to be accepted in this research, it was decided that at least 80% of the respective items measuring it should load with a minimum weight of 0.50 each.
Pearson product-moment correlation coefficients were calculated to gauge the relationships between the variables. Only statistically significant correlations were considered. Significance was taken at the 5% level as recommended by Lazaraton (1991). To assess the practical significance of the alphas, the guidelines of Cohen (1988) were followed; that is, correlation coefficients above 0.10 were accepted as small, those exceeding 0.30 were appraised as medium and those greater than 0.50 were taken as large. The online calculator of Lee and Preacher (2013), which is based upon the Fisher r-to-z transformation and the asymptotic equations of Steiger (1980), was used to evaluate the difference between correlations.

The ability of the leader CQ dimensions to predict empowering and directive leadership was determined through stepwise regression analysis. Only those dimensions that contributed statistically significant predictions were considered. The $f^2$ statistic was used in judging the practical significance of the models; in this regard, the conclusions of Ellis and Steyn (2003) based on the guidelines of Cohen (1988) were followed. According to Ellis and Steyn (2003), where $f^2 < 0.15$, the effect is small and $R^2$ is not practically significant, where $0.15 < f^2 < 0.35$, the effect is medium and $R^2$ is practically significant and where $f^2 > 0.35$, the effect is large and thus $R^2$ is practically important. Emphasis was placed on those betas that contributed uniquely and independently to the variance in the dependent variable.

**Results**

The results of the data analysis are as follows.

**Respondent demographics**

Descriptive statistics were calculated for respondent gender, race and age and are shown in Tables 1, 2 and 3, respectively.

The genders were approximately equally represented in the sample.

The sample race demographics were broadly in line with the Statistics South Africa (2016) Quarterly Labour Force Survey results. As expected, most respondents were black people, accounting for just over two-thirds of the sample. Black and white people together made up almost 85% of the respondents.

The sample respondents ranged in age from 20 to 64 and were, on average, 38.62 years old.

**Descriptive statistics**

Basic measures of central tendency were calculated for the independent and dependent variables and are shown in Table 4.

For most of the items, the range was from 1–7. The mean score for leader CQ was 4.53 with a standard deviation of 1.17. The leader CQ dimension mean scores varied from a high of 4.96 (metacognitive CQ) to a low of 4.15 (behavioural CQ). The mean score for empowering leadership was 5.12 with a standard deviation of 0.81, respectively. It should be noted that the rating scale for directive leadership was 1–5.

**Reliability**

The Cronbach’s coefficient alphas of all the factors exceeded 0.70 and accordingly satisfied the requirement set in the data analysis section. The actual scores are shown in Table 5.

**Factorial validity**

The validity of the instruments was tested through exploratory factorial analysis. The data on leader CQ, empowering leadership and directive leadership were found to be factorable. The Kaiser–Meyer–Olkin measure was 0.95 for leader CQ, 0.92 for empowering leadership and 0.84 for directive leadership. Categorisation of these scores, per the guidelines noted by Dziuban and Shirkey (1974), indicates
that they are highly acceptable. The Bartlett’s test of sphericity was significant for all of leader CQ, empowering leadership and directive leadership ($p \leq 0.001$). Consequently, sampling adequacy was satisfactory.

Leader CQ was found to be composed of four factors, using the rule that the number of factors is predicted by eigenvalues greater than one. This structure matched that conceptualised by Earley and Ang (2003) and Ang and Van Dyne (2008). All the measurement items for leader metacognitive, motivational and behavioural CQ loaded onto their respective factors with weights exceeding 0.50. Although all the items used to measure leader cognitive CQ loaded onto it, only 83% had a weight greater than 0.50 each. This four-factor structure of leader CQ had a declared variance of 74.38%.

Empowering leadership was found to be unidimensional with all 10 measurement items loading onto it. The weight of the lowest loading item was 0.74. The declared variance was 62.15%. Although directive leadership exhibited a three-factor structure with all items having weights above 0.50, its alpha was not increased when each of the scale items were removed; that is, the items demonstrated high internal consistency and consequently directive leadership was taken, for purposes of this study, as being unidimensional too. The declared variance of the three-factor solution was 75.90%.

**Correlations**

Table 5 shows the correlations between the variables as well as their Cronbach’s coefficient alphas.

All the correlations between the variables were significant at the 5% level. The empowering leadership relationship was strongest with leader CQ (as a composite value) and leader metacognitive CQ (both 0.64), followed by leader motivational CQ (0.57), leader cognitive CQ (0.49) and then leader behavioural CQ (0.45). The directive leadership relationship was greatest with leader CQ (as a composite value) (0.39), then leader motivational CQ (0.36), leader cognitive CQ (0.35), leader metacognitive CQ (0.32), and lastly, leader behavioural CQ (0.30).

Based on the results, H1 and H2 were rejected, that is, a statistically significant relationship was found to exist between leader CQ (as a composite value) and both empowering and directive leadership. H3 was rejected because the statistical strength of the relationship between leader CQ (as a composite value) and empowering leadership was significantly greater than that between leader CQ (as a composite value) and directive leadership ($\chi = 10.129$, $p < 0.05$). As statistically significant relationships existed between each of the four leader CQ dimensions with both empowering and directive leadership, H4 and H5 were also rejected.

**Stepwise regression**

To investigate the effects of the independent variables in unison on the dependent variables and with particular focus on the contribution of each, stepwise regression analysis was undertaken. The results are reflected in Tables 6 and 7.

The stepwise regression revealed that just two of the four subscales of leader CQ, metacognitive and motivational CQ, were statistically significant predictors of empowering

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### Table 6: Stepwise regression for empowering leadership.

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>$\beta$</th>
<th>$r$-value</th>
<th>Sig</th>
<th>$F^*$</th>
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<td>1</td>
<td>-</td>
<td>0.64</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.69†</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Leader metacognitive CQ</td>
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<td>0.64</td>
<td>18.92</td>
<td>0.00</td>
<td>-</td>
<td></td>
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<tr>
<td>2</td>
<td>-</td>
<td>0.67</td>
<td>0.45</td>
<td>28.29</td>
<td>0.00</td>
<td>-</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Leader metacognitive CQ</td>
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<td>0.47</td>
<td>14.63</td>
<td>0.00</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Leader motivational CQ</td>
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<td>0.26</td>
<td>8.80</td>
<td>0.00</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

†, effect size ($R^2$)/($1-R^2$)

CQ, cultural intelligence; $R$, multiple correlation; $R^2$, proportion of variance explained; $\beta$, standardised regression coefficient; Sig, significance; $F^*$, the proportion of the variation accounted for by the regression line relative to the proportion not accounted for.

### Table 7: Stepwise regression for directive leadership.

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>$\beta$</th>
<th>$r$-value</th>
<th>Sig</th>
<th>$F^*$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>0.36</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.15†</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Leader motivational CQ</td>
<td>-</td>
<td>0.36</td>
<td>31.76</td>
<td>0.00</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-</td>
<td>0.39</td>
<td>0.15</td>
<td>13.17</td>
<td>0.00</td>
<td>-</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Leader motivational CQ</td>
<td>-</td>
<td>0.23</td>
<td>28.58</td>
<td>0.00</td>
<td>-</td>
<td></td>
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<tr>
<td>Leader cognitive CQ</td>
<td>-</td>
<td>0.19</td>
<td>5.75</td>
<td>0.00</td>
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<td></td>
</tr>
<tr>
<td>3</td>
<td>-</td>
<td>0.39</td>
<td>0.15</td>
<td>4.89</td>
<td>0.00</td>
<td>-</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Leader motivational CQ</td>
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<td>0.19</td>
<td>26.46</td>
<td>0.00</td>
<td>-</td>
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<tr>
<td>Leader cognitive CQ</td>
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<td>4.43</td>
<td>0.00</td>
<td>-</td>
<td></td>
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<tr>
<td>Leader metacognitive CQ</td>
<td>-</td>
<td>0.09</td>
<td>3.87</td>
<td>0.00</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

†, effect size ($R^2$)/($1-R^2$)

CQ, cultural intelligence; $R$, multiple correlation; $R^2$, proportion of variance explained; $\beta$, standardised regression coefficient; Sig, significance; $F^*$, the proportion of the variation accounted for by the regression line relative to the proportion not accounted for.
leadership. It follows that H6 was not rejected because neither the cognitive nor the behavioural CQ dimensions played any role in this respect.

Leader motivational, cognitive and metacognitive CQ predicted directive leadership. As leader behavioural CQ failed to occupy a position of statistical significance in predicting directive leadership, H7 was not rejected.

Discussion
Outline of the results
Correlation coefficients illustrate associations between variables, that is, they provide information on the ‘strength and direction’ of the relationship (Mukaka, 2012, p. 71). The significant associations that have been identified between leader CQ (as a composite value) and its dimensions with both empowering and directive leadership demonstrate that the respective variables have, at a statistical level, a recognised linear relationship. As all the correlation coefficients were positive, the implication is that when leader CQ or its dimensions increase or decrease, empowering and directive leadership levels would, similarly, record an escalation or reduction. However, statistical significance does not appraise whether the calculated associations between the variables are in fact important (Thompson, 2002). Using the guidelines of Cohen (1988), leader CQ (as a composite value) and both its metacognitive and motivational CQ dimensions were confirmed as having a large, that is, a strong practical association with empowering leadership. Leader cognitive and behavioural CQ, in turn, demonstrated a medium or moderate practical association with empowering leadership. Leader CQ (and each of its dimensions) had less of a practical relationship with directive leadership, however, in that the respective correlation coefficients all tended towards the lower end of Cohen’s (1988) medium range. Empowering leaders are also considered to be more culturally intelligent than directive leaders, as borne out by the statistically significant difference between the respective strengths of the empowering leadership and directive leadership relationships with leader CQ.

When applying all the leader CQ dimensions together, just metacognitive and motivational CQ were found to be statistically significant predictors of empowering leadership and, together, accounted for 45% of its variance. Individually, the metacognitive CQ dimension was the stronger of the two as evidenced by its higher $\beta$. Apart from behaviourial CQ, all the leader CQ dimensions contributed to forecasting directive leadership at a statistically significant level despite only being able to explain 15% of the variance therein. The large practical significance of the stepwise regression result for empowering leadership was evidenced by its $f^2$ statistic of 0.82. In comparison, the result for directive leadership held only a medium practical significance, given its $f^2$ statistic of 0.18.

Research efforts to understand the relationship between leader CQ and leadership styles have already been discussed in the literature review section of this article. As there is an apparent absence of empirical insights addressing the relationship between leader CQ and both empowering and directive leadership, it could be beneficial to identify other leadership styles that are similar to the aforementioned as a basis for contextualising the findings of this study. Hassan et al. (2016), as an example, incorporate empowering leadership under the transformational leadership style in their typology. This, however, should be read in conjunction with Sharma and Kirkman (2015) who argue that empirical evidence supports the existence of empowering and transformational leadership as being distinct from one another. Likewise, although Kim and Beehr (2017) state that empowering and transformational leadership might be conceptually comparable, they do remark that empowering leadership remains discrete in terms of its behaviours. Hence, it may not be appropriate to directly compare the results of this study with others that have explored the relationship between leader CQ and transformational leadership. Concerning directive leadership, Yun, Faraj and Sims (2005) assert that it is theoretically similar to the autocratic style. As discussed earlier, Eken et al. (2014) found that no empirical relationship between leader CQ (and its dimensions) and autocratic leadership existed. This study, by contrast, revealed that leader composite CQ and each of its dimensions did have a moderate association with directive leadership.

Theoretical implications
This study results in three important theoretical implications. Firstly, evidence of the four-factor structure of CQ, per Earley and Ang (2003), has been provided. This finding is consistent with that of Mahembe and Engelbrecht (2014) who confirmed the construct validity of the CQS within the South African context. Secondly, the nature of the leader CQ relationships with empowering leadership and directive leadership has been determined. The leader CQ dimensions that associated the most with and best predicted empowering and directive leadership have also been identified. The CQ and leadership nomological networks have therefore been expanded. Finally, the outputs contribute to satisfying the recent calls by scholars, such as Brannen (2016) and Clark and Waldron (2016), for empirical insights on leader CQ and its relationship with leadership styles other than transformational, as well as that by Sharma and Kirkman (2015) for research into the antecedents of different leadership styles, particularly empowering leadership.

Practical implications
This study holds value for both the appointment and growth of leaders. Organisations recruiting for either international assignments or domestic operations in culturally diverse societies, such as South Africa, may use the results to better inform their selections. Where the cultural profiles of subordinates dictate a preference for empowerment, human resource practitioners should concentrate on selecting those leaders evidencing higher levels of CQ in general and, especially, metacognitive and motivational CQ. Similarly, because these two dimensions act as important antecedents
of empowering leadership, they should form an integral component of leadership development programmes. To this end, efforts ought to be centred on enhancing the ability of leaders to map out an optimal methodology by which to approach cross-cultural interactions and for how best to modify their assumptions, during such interfaces, should these conflict with reality. Likewise, stimulating leaders’ self-belief regarding their success in cross-cultural engagement should be promoted.

Human resource professionals may use leaders’ levels of motivational, cognitive and, to a lesser extent, metacognitive CQ to gauge the probability that leaders will display directive leadership. They are, however, reminded that these leader CQ dimensions explain just a limited amount (15%) of the variance in this leadership style. Hence, they may want to augment the use of leader CQ with other antecedents of directive leadership, such as leadership level (Oshagbemi, 2008).

Limitations and recommendations

The primary limitation of this research is that it was based on a convenience sample. The scope for generalisation of the results to the population as a whole could thus be limited. However, as the participating organisations reflect broad diversity, both in terms of their size and the industry type in which they operate, and the respondents, in each of them, were chosen randomly, these factors do, to some extent, mitigate this. Another limitation is that, being cross-sectional, it was not possible for the study to produce any insights as to causality from the research outputs. Although a longitudinal or experimental design may have improved the results, it should be noted, as pointed out previously, that cross-sectional research is well suited for correlative studies such as this one. The exclusive use of observer-based perceptions may also have restricted the study. Hence, additional data, such as that from self-reporting, and objective measures of behaviour, should be included in future studies. This may allow for triangulation of results. It would also be important to consider whether the results of this research may be replicated in countries whose cultures are culturally distinct from those of South Africa or even in jurisdictions where the culture of the population is homogenous. Finally, the introduction of supplementary variables such as leadership level, which is an important predictor in the use of directive leadership (Oshagbemi, 2008), may improve the accuracy of the research.

Conclusion

Leadership style is a function of leader CQ; however, the nature and magnitude of the role played by leader CQ varies considerably between leadership styles in general and, particularly, in terms of both the statistical and practical significance thereof. Although leader composite CQ was associated with both empowering and directive leadership, the strength of the statistical relationship was not only greater in the case of empowering leadership but was also large in terms of practical relevance. The practical relevance of the relationship with directive leadership was merely moderate. In considering interventions, emphasis should be placed on the metacognitive and motivational aspects of leader CQ because they are the most important dimensions related to empowering leadership. On the other hand, the motivational, cognitive and metacognitive leader CQ dimensions should be concentrated on in the context of directive leadership. The question that this study sought to address has therefore been answered and the research problem solved.

Acknowledgements

Competing interests

The authors declare that they have no competing interests in writing this article.

Authors’ contributions

A.S. conducted the literature review, analysed the data and drafted the manuscript. R.S. provided conceptual and design input and commentary on the manuscript drafts.

References


