

**MASTERS DEGREE IN INDUSTRIAL PSYCHOLOGY**

**-DISSERTATION-**

**Psychological safety as a mediating variable in the relationship between ethical leadership and employee engagement at work**

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A dissertation submitted to the Department of Psychology, University of the Witwatersrand, Johannesburg, in partial fulfillment for a Masters Degree in Industrial Psychology 2010/ 2011

University of the Witwatersrand, Johannesburg

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Psychological safety as a mediating variable in the relationship between Ethical leadership and Employee Engagement

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## ABSTRACT

Given the prevailing ethical crisis and subsequent collapse of a number of modern organizations, the lapse in leader ethics as a determining factor of the proliferation of corrupt practices has come to dominate leadership discourse. Ethical leadership has been linked not only to avoiding organizational destruction but to fostering healthy, productive organisations. In line with this, the current study aimed to assess the role of employee perceptions of ethical leadership in promoting employee engagement, via the mediating mechanism of employee perceptions of psychological safety.. Having distributed an email survey to administrative employees of a technological goods producer, Kalshoven *et al.*'s (2011) Ethical leadership at Work scale, Carmeli and Gittel's (2009) psychological safety scale and the 17-item version of Utrecht's employee engagement scale (Schauefeli & Bakker, 2003) were completed by 139 participants. Using structural equation modelling, the findings supported the linkage between ethical leadership and employee engagement and confirmed the role of psychological safety in mediating this relationship.

## Acknowledgements

To Karen, my supervisor, for her endless care, incisive input and lessons in life. It was an honour and privilege to work with someone of her calibre.

To my mother, for her careful proofreading and unconditional love.

To my friends, who provided an emotional anchor and worthy distractions in the face of great stress.

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## Introduction

Leadership theory has attained a prominent position in Organisational Psychology in the last five decades which is reflected by the numerous typologies, taxonomies and theories in this area (Yukl, 2001). The continuous evolution of leadership theory and research stems partially from changing environmental circumstances that occasionally shed light on overlooked aspects of leadership, resulting in both the revision of pre-existing theories and the establishment of new leadership ideas altogether. In line with this trend, ethical leadership theory was established in order to address the increasing incidence of deviant or immoral corporate leadership and the subsequent collapse of many organisations (Mathisen & Foley, 2006).

The exposure of scandals in corporate America, such as the notorious case of Enron, cast aspersions on the previously unchallenged myth of leader ethicality and integrity (Petrick & Scherer, 2003). Coupled with the disastrous outcomes of business fraud and immorality, which include not only corporate failure but also financial losses for innocent investors, this newfound skepticism resulted in an increased focus on leader ethics (Mathisen & Foley, 2006). This cause was taken up with alacrity by academics who hastened to emphasize the ethical component of leadership in contemporary thought (Trevino, Brown & Pincus Hartman, 2004). As such, leader ethics form the bedrock of contemporary leadership theories, as reflected by its prominent position in current theories of servant leadership (Russel & Stone, 2002), responsible leadership (Maak & Pless, 2006), authentic leadership and the aptly titled ethical leadership (Trevino *et al.*, 2000, 2003).

In contrast to these entirely positive leadership theories, which map out the requisite characteristics for successful leaders, a parallel body of work has arisen that focuses on negative leadership styles and forms. In accordance with this focus, destructive leadership has been defined in terms of outcomes and process. Outcome-oriented definitions assert that leadership styles or practices that result in negative organisational outcomes are considered to be destructive (Einarsen, Schanke, Aasland & Skogstad,

2007; Padilla, Hogan & Kaiser, 2007). On the other hand, destructive leader processes encompass a range of negative behaviours including intimidation, coercion and manipulation (Howell & Avolio, 1992 as cited in Padilla *et al.*, 2007) and pathological syndromes such as narcissism (Hogan & Hogan, 2001).

In understanding the influence of negative leadership styles and practices on organisational performance, it is important to establish the seminal role of employees in determining organisational productivity and success (Weaver & Yancey, 2010). Given that employees comprise the lifeblood of the organisation, organisational destruction ultimately results from the negative effects of unethical leadership on employees. As such, the destructive impact of unethical leadership arguably lies in its detrimental influence on employee well-being, job satisfaction and job commitment (Weaver & Yancey, 2010). Furthermore, destructive leadership may well cost companies billions of dollars due to its influence on factors such as turnover intention or heightened intention to leave the organisation and subsequent employee turnover, thus compromising organisational performance (Abassi & Hollman, 2000). In contrast, investment in employees and management of people in a manner that considers their needs and desires results in individual productivity and organisational success (Pfeffer & Veiga, 1999).

Given the vital role of leadership in influencing employees and subsequently affecting organizational success, the current study aims to assess the influence of ethical leader behavior in relating to employees as a mechanism to increase employee engagement through the process of psychological safety.

## Rationale

Given that employees contribute significantly to company performance, it may be in the interest of companies to identify and foster factors that create optimal conditions for employee success and productivity (Pfeffer & Veiga, 1999). Importantly, the leader has the power to enhance the likelihood of the emergence of these valued outcomes which encompass motivation (Kovach, 1995) engagement (Lockwood, 2007) and commitment (Angle & Perry, 1981). The ability of the leader to influence desired employee states and consequent company success is reflected by Avolio et al.'s (2008) study which links authentic leadership to engagement, meaningfulness, job satisfaction and commitment, which ultimately result in enhanced job performance, decreased withdrawal behaviours and heightened investment of effort. A number of studies and theorists corroborate this linkage between leadership and employee performance (Bass, 1985; Gong, Hunag & Farr, 2009; Howell & Hall-Mereneda, 1999, Vigoda-Gadot, 2006).

Taking the power of the leader to affect desirable employee states into account, ethical leadership theory focuses primarily on the influence of leader behaviours, skills, traits, competencies and characteristics on employees (Trevino *et al.*, 2000, 2003). Thus, an effective leader is defined directly in relation to the employee and is identified as one who subscribes to an ethos of altruism and cares for both organisational health and employee welfare, can be relied upon to make just decisions in relation to both employees and the organisation and is characterised by honesty, integrity and moral fortitude (Trevino *et al.*, 2000, 2003). The leader must also exhibit ethical conduct in dealings in both the professional and personal realm and act as a model of ethical behaviours for followers (Trevino *et al.*, 2000, 2003). The importance of the employee is further reflected by the fact that studies assessing ethical leadership, such as Kim and Brymer's (2011) evaluate employee perceptions of the leader's behaviour, as the employee is deemed not only the best judge of leader character, but also the primary beneficiary or victim of leader behaviour.

Employee level outcomes found to result from employee perceptions of ethical leadership include heightened job satisfaction and affective commitment, reduced turnover (Kim & Brymer, 2011), increased organisational commitment and trust in leaders (Zhu, May & Avolio, 2004), enhanced organisational citizenship behaviour (Ponnu & Tenakoon, 2009), employee satisfaction with the leader, willingness to invest additional effort in work (Toor & Oforio, 2009) and organisational attractiveness (Strobel, Tumasjan & Welpel, 2010). What is important to note is that valued employee outcomes hinge not only on leader ethicality, but the extent to which the leader is perceived to be ethical by the followers. Employee conclusions regarding leader ethicality are gleaned from interactions with and observations of the leader (Trevino *et al.*, 2000, 2003). Thus, the emergence of desirable outcomes centres on employee perceptions of leader ethicality, altruism, trustworthiness, honesty and fairness in all interactions and situations.

However, despite the overwhelmingly beneficial outcomes of ethical leadership, relatively few empirical studies have been conducted to verify its effectiveness and value as a beneficial management style and philosophy (Toor & Ofori, 2009). Furthermore, very little is known about the extent to which ethical leadership influences engagement and the manner in which leaders influence their followers' engagement and the mechanisms that explain this impact (Bakker, 2011). This study aims to address this shortage, thereby filling a gap in the existing literature. Taking cognisance of the fact that transformational leadership has been found to influence employee engagement (Dibley, 2009) and given the similarity between transformational and ethical leadership (Brown & Trevino, 2006; Nuebert *et al.*, 2009), it is plausible to infer that ethical leadership would positively influence employee engagement. The expected impact of ethical leadership on psychological safety is further premised on the linkage between perceived supervisor support on engagement (Saks, 2006; May *et al.*, 2004) and the seminal role of supervisor care and supportiveness in ethical leadership (Kalshoven *et al.*, 2011).

Additionally, the relationship between ethical leadership and engagement is likely to be facilitated by the highly valued state of psychological safety, which has been recently championed by Edmondson (2002) who defines it as the employee's perception that

interpersonal risks, such as information and help seeking, expressing one's opinion, and offering criticisms, can be taken without negative ramifications, such as embarrassment, humiliation or derision. While psychological safety has been linked with a number of desirable outcomes, such as strengthening the relationship between the implementation of transformational processes and firm performance (Baer & Frese, 2002) as well as facilitating learning behaviour in work teams (Edmondson, 1999), it has also been identified as an outcome of ethical leadership (Walumbwa, & Schaubroeck, 2009, Driscoll & Mckee, 2007, Nuebert et al, 2009, Kaptein & Van Reenen, 2001). Furthermore, psychological safety has been identified as a determinant of employee engagement (May, Harter & Gilson, 2004). Given the role of ethical leadership as a precursor to both psychological safety and engagement and considering the link between psychological safety and employee engagement, it is plausible to hypothesize that psychological safety is likely to mediate the relationship between ethical leadership and employee engagement.

In order to achieve the aim of exploring the role of psychological safety in mediating the relationship between perceptions of ethical leadership and employee engagement, this study is segmented into chapters, which contain fundamental elements of the research. Chapter 2 contains a comprehensive review of literature in the fields of leadership in general and ethical leadership theory in particular, psychological safety as well as employee engagement. Of importance are outcomes of ethical leadership, including psychological safety and employee engagement as well as consideration of the mediational effects of psychological variables in general and psychological safety in particular. The chapter provides a basis for the proposed research hypothesis, supported by previous and pertinent research in the relevant fields. Chapter 3 provides an overview of the research methodology employed in the study and covers areas such as research design; measuring instruments including the self-constructed demographic questionnaire, ethical leadership, psychological safety and employee engagement scales; data acquisition methods and procedures; the sample and statistical procedures. Additionally, the section includes an analysis of the ethical issues that were observed in the current study. Chapter 4 contains both descriptive and inferential statistics, with the latter

deduced utilising structural equation modelling and factor analysis. Finally, chapter 5 offers a discussion of the results, in addition to an examination of the limitations of the study, recommended initiatives for implementation within organisations and recommendations for future research directions.

## Chapter 2

### Literature review

#### The need for ethical leadership

Leadership has been defined as the alteration of the abilities or motivational level of other individuals in a group by a specific group member (Bass, 1990). In contrast to such broad definitions, leadership has also been defined in relation to specific contexts. As such, leadership has been viewed as a fundamental component of the organisation and its functioning (Stodgill, 1974). According to this view, leadership is a process whereby one individual influences “the activities of an organized group”, facilitating and promoting the setting of group goals and the achievement thereof (Stodgill, 1974, p.114). Irrespective of the scope of influence, however, a definitive and vital characteristic of leadership is ability to influence, shape and direct the behaviour of others, affording leaders considerable power over the destiny of fellow human beings and the course of human history (Yukl, 2001).

In contradistinction to traditional conceptualisations of leadership, which view the leader as an unwavering force for good, contemporary constructions acknowledge the destructive potential of leaders (Judge et al., 2009). The revision of traditionally positive leadership theories is exemplified by the re-conceptualisation of charismatic leadership, which involves the inspiration of followers through the articulation of a “compelling vision for the future, arousing commitment to organisational objectives and inspiring dedication...amongst subordinates” (Weber, 1947 as cited in Judge, 2009, p. 866). In contrast to this purely admiring outlook, Popper (2000) points to both the negative and constructive forms charismatic leadership may take. Socialised charismatic leadership is viewed as a potentially positive force while personalised charisma is both destructive and harmful (House & Howell, 1992 as cited in Popper, 2000). Socialised charismatic leaders focus on communal interests, the enhancement and development of their followers and accord a special regard to the rights and feelings of their subordinates (House & Howell, 1992 as cited in Popper, 2000). Personalised leaders, on the other hand, are largely preoccupied with self-promotion and advancement and the expansion of

their personal power, status and influence (House & Howell, 1992 as cited in Popper, 2000). Additionally, they are driven by an overpowering urge for hedonistic self-indulgence and adhere to the belief that others are instruments to self-promotion (Illies & Reiter-Palmon, 2008). These leaders behave in a dogmatic, authoritarian manner and accord minimal consideration to the feelings and rights of their followers (House & Howell, 1992 as cited in Popper, 2000). This revision of positive leadership styles and subsequent incorporation of the negative can also be found in the differentiation between transformational leadership and its negative corollary known as pseudo transformational leadership which is defined by manipulation, power seeking, deception and self interest. In contrast, transformational leadership focuses on morality of leader choices, actions and character (Bass & Steidlmeier, 1999).

The capacity of leaders to affect the world negatively is epitomised by tyrants, like Hitler and Bonaparte, who are notorious for the suffering they inflicted and the destruction wrought in the ceaseless pursuit of power (Judge *et al.*, 2009). In terms of modern organisations, destructive leadership has been identified as the core determinant of the demise and collapse of many corporations, such as Enron and WorldCom (Tourish & Vatcha, 2005). Whether they are immortalized in history books or wreaking havoc in modern organisations, “dark” leaders pose a significant threat to both their followers and the causes they support. Dark forms of leadership encompass a broad array of leadership types including narcissistic (Kets De Vries, 1985), hubristic (Kroll, Toombes & Wright, 2000), socially dominant (Niccol, 2009) and Machiavellian leadership (Fehr, Samsom & Paulhus, 1992).

In short, due to their desperate need for praise, admiration and power (Kets de Vries & Miller, 1997) and owing to their generalized lack of empathy, narcissists exhibit insensitive and hostile behaviour (Judge *et al.* 2009) and pursue foolhardy risks in pursuit of success (Kroll, Toombes & Wright, 2000). In their quest for social superiority, socially dominant leaders consider subordinates as human tools who must be coerced and threatened to reach production targets (Niccol, 2009) and routinely employ fear tactics to establish control over their followers and engage in unethical, manipulative and

inconsiderate behaviour (Judge *et al.*, 2009). Finally, driven by an obsession with personal power, Machiavellian leaders employ a wide range of immoral strategies in order to achieve their own ends including deception and manipulation of followers (Judge *et al.*, 2009). These aims manifest in destructive behaviours spanning hostility, aggression and authoritarianism (Fehr, Samson & Paulhus, 1992).

These forms of leadership have been linked to a host of pernicious outcomes, including organisational failure and dissatisfaction of employees who are witnesses to leader implementation of self-serving projects driven by purely selfish motives and are often the victims of anger, hostility, enraged tantrums (Kets de Vries, 1997 as cited in Rosenthal, 2006), bullying, manipulation, domineering behaviour and (Judge *et al.*, 2009).

Central to all the aforementioned dark leadership styles is a disregard for ethics and morality and a predilection towards unethical behaviour, both in professional dealings or projects and in relationships with or treatment of subordinates. In dark leadership styles, moral perversion or distortion occurs at a number of levels. Firstly, corruption may occur at the level of motives, as seen in Machiavellian leaders, who are obsessed with personal power (Judge *et al.*, 2009); in socially dominant leaders, who value domination and superiority above all else and in narcissistic leaders, who are consumed with the desire for constant praise and admiration (Kets De Vries, 1985). Driven by these desires and in order to achieve these aims, leaders may then undertake a series of unethical behaviours or activities, such as exploitation of followers, excessive monitoring of employees and wasteful expenditure of resources on doomed projects that beckon with the promise of acclaim (Kets De Vries, 1985).

While unethical leadership has largely been defined in terms of leader behaviours, such as abuse, bullying, undermining and manipulation (Tepper, 2007) it has also been defined in relation to the leader influence on unethical employee behaviour. As such, unethical leadership has been defined by Brown and Mitchell (2010, p. 588) not only as “behaviours conducted and decisions made by organizational leaders that are illegal and/or violate moral standards” but also the “imposition of processes and structures that

promote unethical conduct by followers”. The influence of unethical leaders on employee degradation is reflected in the collapse of Enron where immoral and illegal activities such as fraud, manipulation of accounts and destruction of documents were spearheaded by management, cascading into the lower levels and permeating the organisation (Zahra, Priem & Raheed, 2005). Similarly, Worldcom and Health South’s fraudulent accounting practices were conducted in accordance with direct instruction from management (Zahra, *et al.*, 2005).

In conclusion, destructive leadership and subsequent organisational failure are inextricably linked to compromised ethics which must be addressed if similar situations are to be averted.

#### Mapping the roots of ethical leadership and its similarity to existing theories

The current emphasis on leader ethics is by no means unprecedented and echoes that of early leadership theories, which placed great importance on ethical conduct and orientation of leaders. Ethics can be identified in leadership models stretching as far back as the 19<sup>th</sup> century, such as trait theories, which were premised on the notion that leadership success hinges on the possession of specific skills, qualities and characteristics (Kirkpatrick & Locke, 1991). Placed alongside valued traits and skills such as persistence, dependability, sociability, liability and determination, honesty and integrity occupied a prominent position in the extensive list of definitive leader qualities or characteristics enumerated by trait theorists (Stodgill, 1974).

An ethical emphasis can also be found in contemporary leadership theory, such as transformational leadership, which was initially introduced as a process whereby "leaders and followers raise one another to higher levels of morality and motivation" (Burns, 1978, p. 20). Transformational leaders were described as those who foster adherence to moral principles such as justice and equality. More recent proponents of transformational leadership similarly emphasize the ethical component of leadership. This is reflected by Bass (1990) who places leader concern with ethical climate under *idealized influence*,

one of four essential principles or axes of transformational leadership (Bass, 1990). The remaining principles of transformational leadership are entitled *individualized consideration*, *intellectual stimulation* and *inspirational motivation* (Bass, 1990).

Additionally, ethical behaviour plays a central role in a considerable number of contemporary leadership theories including authentic leadership, which identifies “high moral character” in its definition (Avolio, Luthans, Walumbwa, 2004, p.4) and self sacrificial leadership, which is premised on the contribution of personal losses by the leader in order to fulfil organisational goals and objectives (De Cremer & van Knippenberg, 2004). Further, servant models of leadership highlight moral characteristics such as healing, empathy, commitment to the growth of people and community building (Graham, 1991) while spiritual models of leadership prioritize values of altruism, meaningful work and widespread practice of care and concern by leaders (Fry, 2003).

Given the need for a reinstatement of ethics in modern organisations in specific and contemporary society in general, modern theory has rescued ethics from its relatively peripheral position in the literature and placed it as the primary determinant of leader effectiveness and organisational success.

### Ethical Leadership

Modern conceptualisations of ethical leadership differ from early attempts to merge the fields of business ethics and organisational psychology, which resulted in simplistic notions and definitions of the nascent concept. For example, premature definitions viewed employee perceptions of managerial concern with ethics as the sole determinant of successful leadership (Trevino et al., 1998 as cited in Trevino *et al.*, 2003). In a bid to move beyond such limited and limiting definitions, Trevino *et al.* (2000, 2003) set out to determine what is meant by the term ethical leadership. They engaged in qualitative, exploratory research, which involved questioning executives and ethics officers in a variety of industries on their beliefs concerning ethical leaders. Participants were required

to identify behaviours and characteristics of an ethical leader to whom they had been exposed in their careers, and hypothesize about the motivations of such individuals.

Insights gleaned from this study resulted in a complex, nuanced portrayal of the ethical leader. Study findings concluded that an ethical leader is a *moral person*; an individual dominated by traits of honesty and integrity, of strong character and driven by altruistic motives. These individuals behave ethically in both professional and personal spheres of life, care deeply about fellow human beings and society at large and can be relied upon to make just and fair decisions. Possibly due to their concern for the welfare of others and the world and driven by their highly developed sense of conscience, ethical leaders are not simply content to conduct their own lives in an moral manner, but envision themselves as active advocates of ethical philosophy and practice. Attempts by these leaders to spread ethical practice and belief include modeling, education and enforcement, which are classified as the *moral manager* dimension of ethical leadership. In order to impress the importance of ethics upon their followers and to guarantee the adoption thereof, these leaders purposefully model moral behaviours and actively instruct their followers in a philosophy of ethical values. In addition to practicing and preaching ethical values, these leaders further utilise their power to institute an informal system of reinforcement, rewarding and punishing subordinates for acceptable and unacceptable behaviours, respectively.

While Trevino *et al.* (2000, 2003) offer deep and useful insights into ethical leadership, a preponderance of recent studies both validate and extend this leadership taxonomy. In addition to the aforementioned theory, Brown *et al.* (2005) emphasize the importance of leader fairness, which includes treating followers with dignity and respect, acting in a considerate manner (Yukl, 2002 as cited by Brown *et al.*, 2005), and making ethical or principled decisions (Avolio, 1999 as cited by Brown *et al.*, 2005). Brown *et al.* (2005) further identify leader honesty and trustworthiness as necessary elements of the ethical leadership construct. Using Brown *et al.*'s (2005) definition, De Hoogh & Den Hartog (2008) define ethical leadership in terms of fairness, power sharing and role clarification. Fairness comprises moral and honest conduct of the leader, while role clarification

involves clear establishment of role expectations and responsibilities, free, unrestricted communication with followers and full disclosure of activities and information. Finally, power sharing comprises the full inclusion of followers in decision making processes, and the provision of a platform for followers' self-expression and airing of concerns, referred to as voice by Brown *et al.* (2005 as cited in De Hoogh & Den Hartog, 2008).

In addition to these three dimensions, Kalshoven *et al.* (2011) draw on aforementioned and additional research (House, 1998; Den Hartog and De Hoogh, 2009; De Hoogh and Den Hartog, 2008; Arnaud and Schminke, 2006; Craig and Custafson, 1998 & Brown *et al.*, 2005) to establish seven primary dimensions of ethical leadership behaviour, which serve as the basis upon which they create a scale measuring ethical leadership in the workplace. This leadership taxonomy comprises a comprehensive summary and crystallization of all the known research pertaining to ethical leadership and ethical behaviour within an organisational context. In accordance with prior research, the four additional components of ethical leadership enumerated by Kalshoven *et al.* (2011) include people orientation, integrity, ethical guidance and concern for sustainability.

Echoing the care and concern for followers postulated by Brown and Trevino (2000, 2003), people orientation encapsulates the follower centric approach adopted by ethical leaders and includes encouragement, support and respect of followers (Kanungo & Conger, 2003 as cited by Kalshoven *et al.*, 2011). On a related note, integrity encompasses the extent to which followers perceive leaders to reliably fulfill promises and commitments while ethical guidance includes the leader explanation, clarification and advocacy of integrity-related codes of conduct as well as the establishment of consequences for adherence to and deviation from the codes. Finally, concern for sustainability involves concern with environmental sustainability and recycling behaviours (Kalshoven *et al.*, 2011).

## Outcomes of ethical leadership

Even in its infancy, ethical leadership has been linked to a number of valued or desirable employee outcomes. Importantly, it has been associated with voice behaviour in employees (Walumbwa & Schaubroeck, 2009) defined as the extent to which employees are likely to speak out on identified problems or opportunities that they feel may improve the well-being of the organisation or themselves (Deter & Burris, 2007). In terms of the leader-follower dynamic, ethical leadership has been found to influence the quality of the leader-follower relationship, known as leader-member exchange (Mahmud & Yukl, 2010). In a comprehensive study, Kalshoven et al. (2011) linked ethical leadership to trust in the leader and leader effectiveness as rated by employees as well as employee organizational citizenship behaviour, as rated by the supervisor. Similarly, De Hoogh and Den Hartog (2008) found that perceptions of ethical leadership were significantly associated with employee beliefs about top management effectiveness as well as heightened levels of employee optimism concerning their place within the organisation. Furthermore, Walumbwa *et al.* (2011) and Picollo *et al.* (2010) definitively linked ethical leadership to employee performance in general and task performance in particular, providing support for ethical leadership style as a facilitator of performance and concomitant organisational success. Finally, ethical leadership has further been tied to organisational commitment, a group level outcome (Ponnu & Tenakoon, 2009; Piccolo, Greenbaum, Den Hartog & Folger, 2010; Kim & Brymer, 2011).

In terms of employee ethics, ethical leadership has been shown to influence ethical behavioural intentions in followers, through a spiralling, successive process of influence whereby top management influences supervisory practices, which infuses the general employee body with an awareness of ethical practices and consequently filters down to the average employee, resulting in enhanced intentions to behave in an ethical manner (Ruiz, Ruiz & Martinez, 2011). The necessity of leadership guidance in driving ethical behaviour at the level of individual employees is bolstered by Schroder's (2002) in-depth analysis and subsequent emphasis on managing directors or owners in both galvanizing and modelling ethical behaviour in organisations.

In considering the outcomes of ethical leadership, employee engagement has been identified as a plausible member of this group. Such an assertion is premised on the general influence of leadership style on employee engagement. This is based on the linkage between perceived supervisor support, or the extent to which supervisors encourage and bolster employees and engagement (Saks, 2006). Considering that ethical leaders are caring and supportive (Kolshaven, De Hoogh & Den Hartog, 2011), it is reasonable to expect ethical leadership to foster active employee engagement in the organisational realm. Furthermore, perceptions that the leader is an honest, principled, caring individual, who consistently makes fair decisions and conducts his behaviour with integrity, would plausibly encourage employees or subordinates to fully engage with their work. In summary, given the linkage between supportive leadership and employee engagement, and the definitive role of leader supportiveness and care in ethical leadership, it is plausible to expect ethical leadership to increase employee engagement.

In addition to the link between supervisory support and engagement and the supportive approach of ethical leaders, transformational leadership has been found to increase work engagement (Diebler, 2009; Schaufeli, 2011). Additionally, Macey and Schneider (2008) posit transformational leadership as an essential antecedent of their employee engagement model, viewing it as the primary determinant of both behavioural and state engagement. Given that transformational leadership overlaps considerably with ethical leadership, (Brown & Trevino, 2006) and considering the established association between ethical and transformational leadership styles (Toor & Ofori, 2009) this provides additional support for the expected relationship association between ethical leadership and employee engagement.

Having demonstrated the expected the linkage between ethical leadership and employee engagement, it is essential to note that a number of the component elements of ethical leadership as explored in the current model have been linked to employee engagement or can be plausibly expected to elicit this desired outcome. This provides further support for the expected relationship between ethical leadership and employee engagement.

In considering role clarification, it is pertinent to provide a short reminder of the definition thereof. Kalshoven *et al.* (2011) conceptualise role clarification as the extent to which the leader clearly explains general and performance related employee expectations, clarifies priorities and assigns responsibilities in a clear and unambiguous manner. Role clarity has been found to play a role in work engagement (Harter, Schmidt & Hayes, 2002; Russel, 2008; Saks, 2006; Steele & Fullagar, 2009; Mendes & Stander, 2011). Importantly, according to these researchers, role clarity is largely dependent on the leader and leader empowering behaviours, such as the delegation of authority, skills development, information sharing capacity and encouragement of autonomous decision-making have been linked to role clarity (Hong, Nahm & Doll, 2004; Nielsen, Randall, Yarker & Brenner, 2008). Given that role clarity has been linked to engagement and considering its rootedness in leader behaviours, it is thus reasonable to assume that leader-led role clarity increases employee engagement.

Leader integrity is defined as the extent to which leaders can be relied upon to fulfil promises and honour commitments and has been linked to outcomes such as commitment, job satisfaction, satisfaction with the leader and affect toward the organization. Given that commitment is logically related to “willingness to invest in one’s work and persistence in the face of difficulties”, a vital component of vigor dimension of engagement, and that affect is similarly linked to enthusiasm and pride, core elements of the dedication dimension of employee engagement as conceptualised in the current study, it is reasonable to assume that perceived behavioural integrity is likely to influence employee engagement levels (Davis & Rothstein, 2006, p.85).

*Person orientation* has been defined as the extent to which the leader is perceived to care for and support followers, to sympathize with their problems, pay attention to their needs, take time for personal contact, to genuinely care about their development and exhibit sincere interest in their feelings and experiences. Empirical evidence has been found linking a caring, supportive leader to engagement. This can be seen in Xu and Thomas’s (2011) study which demonstrates that a leader who supports team members, displays genuine, sincere interest in the team’s development and celebrates their successes is

likely to elicit high engagement levels in followers. This echoes May et al.'s (2004) suggestion that a supportive supervisory leadership style is associated with high levels of employee engagement. Given the inextricable link between person orientation and supervisor support, it is likely that supervisor support would elicit employee engagement.

In addition to role clarification, person orientation and integrity, *fairness* can be further expected to exhibit a similar pattern in relation to employee engagement. According to Kalshoven et al. (2011), fairness has been conceptualised as the extent to which leaders hold followers accountable for problems that are within their domain of control and desist from placing blame on innocent employees when problems arise. Fairness further includes the extent to which leaders manipulate subordinates and focus on personal goals at the expense of all else. In linking leader fairness to employee engagement, Saks (2006) found that procedural justice bolstered organization engagement, thereby implying that the process in which decisions were made impacted employee engagement levels. Given that the process in which decisions were made impacted engagement and considering that such decisions are made by individuals who occupy a position of authority and leadership, it is plausible to assume that the related construct of leader *fairness* is likely to predict engagement. While fairness as conceptualised by Kalsoven *et al.* (2011) does not explicitly refer to fairness in decision-making, procedural justice is a specific manifestation of fair leader conduct in relation to employees.

In addition to the above, ethical guidance has been defined as the extent to which leaders map out and clarify integrity-related codes of conduct, stimulate discussion concerning behavioural expectations and relay the consequences of unethical behaviour.

Finally, power sharing has been defined as leader inclusion of followers in decision-making and solicitation of follower input regarding organizational strategy. Power sharing behaviours further include leader willingness to reconsider decisions on the basis of follower suggestions, the delegation of challenging responsibilities to subordinates and the provision of permission to set personal performance goals (Kalshoven *et al.*, 2011). In terms of connections to engagement, jobs that provide personal discretion and the opportunity to make significant, meaningful contributions have been shown to elevate

employee engagement (Saks, 2006). Given that power sharing facilitates such employee experiences, it is logical to expect power sharing to elicit employee engagement.

Finally, while ethical guidance and concern for sustainability dimensions of ethical leadership have not been linked to employee engagement, it is reasonable to assume that they may play a similar role to the other components of ethical leadership in enhancing engagement.

#### Mediators of the ethical leadership-psychological safety relationship

Given the many valued outcomes of ethical leadership, a number of attempts have been made to ascertain the process through which ethical leadership elicits these outcomes. It has thus become increasingly common to investigate the psychological mechanisms, otherwise known as mediators, through which ethical leadership functions to elicit valued outcomes at both the employee and organisational level. In general terms, mediators explain “how and why” the independent variable results in a given outcome and account for the relationship between the predictor and criterion variables (Baron & Kenny, 1986, p.32). Mediators are premised on the idea that “the effects of stimuli on behaviour are mediated by various transformational processes internal to the organism” (Baron & Kenny, 1986, p.32). Specifically, “mediators explain how external physical events take on internal psychological significance”, which implies that human behaviour is indirectly linked to external phenomena which exert an indirect influence via internal, psychological mechanisms which take place within the individual (Baron & Kenny, 1986, p.32). Thus, ethical leadership elicits employee performance via intervening, transformational psychological processes or mediator variables that occur within the employee.

While the current study focuses on psychological safety as the process that connects ethical leadership to employee engagement, a number of such mediators have been identified. For example, May *et al.* (2004) point to the ethical climate of a given organisation as the determining psychological factor through which ethical leadership

functions in order to reduce employee misconduct. Thus, ethical leadership influences the prevailing psychological environment or ethical atmosphere which subsequently elicits desirable employee behaviours. In addition to this, work design, a psychological aspect of work experience, has been shown to mediate the relationship between ethical leadership and reduced co-worker bullying (Stouten, Baillien, Van den Broeck, & Euwema, 2008). Furthermore, task significance and job autonomy, which comprise the value placed on a task and the extent to which employees, perceive they have personal freedom in determining their work, have been found to mediate the relationship between ethical leadership and employee behaviour or performance (Piccolo *et al.*, 2010).

Finally, three psychological level variables, known as leader member exchange, self-efficacy and organisational identification have been identified as mediating factors in the relationship between ethical leadership and employee performance (Walumbwa *et al.*, 2011). The distinctly psychological nature of each of these constructs is evident from their definitions, with organisational identification comprising the individual's sense of belonging in a given organisation or group, while self-efficacy entails the individual's perceptions of their ability to execute a given task. Finally, leader-member exchange is defined as the quality of exchange between a supervisor and employee, with high quality exchanges characterised by trust, communication and information sharing (Graen & Ssandura, 1987 as cited in Walumbwa *et al.*, 2011).

Having explained the role of mediating variables and briefly mentioned a few that have been linked to ethical leadership and related outcomes, it is important to note that the current study focused on psychological safety in mediating the impact of ethical leadership on employee engagement. Defined briefly as the "ability to show oneself without fear of consequences to status, image or career" (Kahn, 1990, p. 708), psychological safety has been found to partially mediate the relationship between ethical leadership and voice behaviour (Walumbwa & Schaubroeck, 2009), thereby acting as the intermediary between ethical leadership and employee behaviour. Furthermore, psychological safety was found to act as the explanatory variable in the relationship between supportive supervisor relations and employee engagement (May *et*

al., 2004). Additional studies have pointed to the mediating role of psychological safety in the relationship between ethical leadership and desired outcomes (Driscoll & Mckee, 2007; Nuebert *et al*, 2009; Kaptein & Van Reenen, 2001).

In addition to the prior linkage between ethical leadership as a whole and psychological safety, it is important to note that the components of ethical leadership have been similarly linked to psychological safety at an empirical and theoretical level. This lends further support to the proposed linkage between ethical leadership and psychological safety. As such, *role clarification* has been associated with psychological safety, with clear expectations fostering psychological safety (Brown & Leigh, 1996). Conversely, “when role expectations and work situations are unclear, inconsistent, or unpredictable, psychological safety is undermined and involvement is likely to be low” (Brown & Leigh, 1996, p.360). Furthermore, perceived leader integrity has been found to predict psychological safety (Palanski & Vogelsgang, 2011). In considering the link between person orientation and psychological safety, felt care has been identified as an antecedent of psychological safety (Vinarski-Peretz & Carmeli, 2011). In line with this finding, it is expected that psychological safety is likely to be enhanced in the presence of person orientation.

It is also plausible to assume that *leader fairness* is likely to boost psychological safety, as leaders who hold followers accountable within reason, desist from manipulation and destructive behaviours in pursuit of selfish goals can be plausibly expected to create an environment in which employees feel that it is safe to take risks, such as seeking help and advice, offering opinions and making mistakes, otherwise known as a psychologically safe environment (Edmondson, 2002). Safe in the knowledge that the leader acts with the interests of the organisation at heart and will respond in a reasonable manner in general, employees are likely to experience a sense of psychological safety. Thus, leader fairness is likely to result in psychological safety experienced by employees

It is further sensible to infer that *power sharing* is likely to foster a psychologically safe environment, given that leaders who actively invite employees to contribute opinions and

participate in decision-making are likely foster employee perceptions of safety in regards to taking risks such as offering their opinions and making suggestions and reducing fears of mockery and disparagement amongst employees in response to their contributions.

Having explained the hypothesized relationship between ethical leadership and employee engagement and the mediating role psychological safety between ethical leadership and desired outcomes, the ensuing section explores psychological safety and related literature, while the role of psychological safety as a precursor of employee engagement is further explored in later sections.

### Psychological safety

In terms of an official definition, psychological safety refers to an absence of fear regarding the potential punishment or reduced social esteem that may result from expressing one's opinion freely, reporting mistakes, seeking feedback or help, critically evaluating the performance of an individual or team and asking questions or generally seeking information (Edmondson, 2002). Psychological safety arises when individuals perceive that these risky actions can be undertaken without condemnation, rebuke, scorn, rejection, disparagement or judgement (Edmondson, 2002).

Importantly, while psychological safety is generally conceptualised as a team-level phenomenon (Edmondson, 1999), it has also been considered at both the individual and organisational levels. Viewing psychological safety as an individual level variable, Kark and Carmeli (2009) investigated the influence of psychological safety on vitality and creative work involvement. Addressing psychological safety from an organisational perspective, Baer and Frese (2003) demonstrated that climates for psychological safety and initiative foster improved organisational performance and increase the impact of process innovations on performance.

In defining psychological safety, it is instructive to note that academics and practitioners differ vastly in their conceptualisation of the construct. The Shain reports on

Psychological Safety in the Workplace prepared for the Mental Health Commission of Canada (2010) define psychological safety as workplace conditions, such as excessive work demands, that influence or affect mental health in the workplace, and may lead to mental suffering in general or specific mental disorders such as stress and burnout. In contrast to defining psychological safety in terms of health related outcomes of psychological experiences in the workplace, academic definitions of psychological safety, focus primarily on psychological experiences within the work setting as opposed to the mental and health related outcomes of these experiences.

While it seems obvious that psychological safety would yield desirable outcomes, it is important to enumerate the effects thereof. In her extensive work on work teams Edmondson (2002) pointed to the essential role of psychological safety in facilitating structured learning within teams and promoting team performance (Edmondson, 1999). In a similar vein, psychological safety has been proven to facilitate speaking up, which includes help-seeking, question asking and raising errors and concerns, as well as collaboration and experimentation within teams, thereby increasing organisational learning (Nembhard & Edmondson, 2006). Psychological safety has further been linked to firm performance (Baer & Frese, 2002) increased job involvement and employee contributions of time and energy in organisations (Brown & Leigh, 1996), network ties (Schutle, Cohen & Klein, 2010) and adoption of groupware in the education setting (Schepers, de Jong, Wetzel & Ruyter, 2008).

While psychological safety has been linked to a plethora of desirable outcomes, it has also been identified as a determinant of employee engagement (May et al., 2004; Walumbwa & Schaubroeck, 2009). As described later on, employee engagement is a vital ingredient of organisational success and is thus explored in the current study as the hypothesized outcome of psychological safety. Coupled with the expected influence of ethical leadership on psychological safety, to be discussed shortly, this linkage between psychological safety and employee engagement and the expected linkage between ethical leadership and engagement form the basis for the current exploration of psychological

safety as a mediator of the relationship between ethical leadership and employee engagement.

Having defined psychological safety and established its influence on employee engagement, it is important to note the instrumental role of leadership in creating this phenomenon. In fact, Brown and Leigh's (1996) work identifies supportive management style as a determining factor in the creation of a climate for psychological safety. This management style is defined as one which permits flexibility in the accomplishment of tasks, allows subordinates to fail without fear of punishment or recrimination, provides workers autonomy and promotes worker experimentation and creativity in task fulfilment. Such an environment is antithetical to one characterised by rigidity, dogmatism and pervasive control over employees which indicates a sense of mistrust and lack of confidence in worker capability (Brown & Leigh, 1996). Furthermore, psychological safety has been further documented as an outcome of leader openness, defined as acceptance or encouragement of change (Deter & Burris, 2007).

In addition to this, Edmondson (2002) places primary responsibility on leaders for the creation of a psychologically safe or threatening environment. Thus, leaders who are distant or inaccessible and neglect to acknowledge vulnerability and fallibility perpetuate an unsafe environment whereby followers avoid interpersonally risky behaviours, such as information seeking and making suggestions due to a fear of negative repercussions for these actions (Edmondson, 2002). In contrast, leader accessibility or approachability and leader inclusiveness, which involves solicitation of follower input, opinions and feedback, are posited as facilitative conditions of team psychological safety (Edmondson, 2003; Nembhard and Edmondson (2006). Similarly, leader transparency has been found to enhance psychological safety (Walumbwa & Schaubroek, 2009).

### Employee engagement

As mentioned throughout, the current study investigates the mediating role of psychological safety in the hypothesized relationship between ethical leadership and employee engagement. While this employee state has generated a flurry of interest in

both corporate and academic circles, it has been accorded minimal attention by prior studies investigating the potential results of ethical leadership (Ferguson, 2008). While the academic field has recently begun to provide employee engagement models and embark on empirical analyses, the bulk of research and discussion has been limited to the corporate and practitioner sector (Robinson, 2004). The initial dearth of formal academic research into employee engagement is somewhat surprising, given its overwhelming popularity in organisations and related publications (Robinson, 2004). Predicted by Johnson (2004) to define the organisational focus of the current decade, employee engagement remains firmly on the agenda of organisations. Despite the initial absence of awareness concerning engagement, it has also been increasingly championed, investigated, researched and explored by academics (Saks, 2006).

### Definition of engagement

Prior to addressing engagement from an academic standpoint, it is instructive to review definitions from industry, the original driver of the engagement project. The Gallup Organization, which sparked the engagement revolution in their book entitled “First, Break All the Rules,” considers engaged employees as those who not only “work with a passion” but also “feel a profound connection to their company”. These emotional and cognitive sentiments manifest in employee actions which include driving innovation and ultimately moving “the organization forward” (GMJ, 2006). According to Vance (2006, p. 21), Dell Inc. defines employee engagement as the necessity to “win over the minds (rational commitment) and the hearts (emotional commitment) of employees in ways that lead to extraordinary effort”, in order for organisations to maintain competitiveness in a challenging business environment”. Further models and definitions of engagement can be found in abundance. For example, Hewitt’s (2000) catchy model entitled “say, stay, strive” postulates that engaged employees are likely to speak positively about their employer organisations, exhibit loyalty to the organisation due to a sense of connectedness and feeling and invest extra effort in order to ensure organisational success.

When considering engagement from an academic perspective, recent critiques have pointed to the lack of agreement concerning the composition of engagement and the subsequent absence of a universal definition thereof (Ferguson, 2008; Kular, Gatenby, Rees, Soane & Trus, 2008). This lack of consensus and clarity is reflected by a multitude of widely accepted definitions of engagement which range from the amount of discretionary effort that employees invest in their jobs (Frank *et al.* 2004) to their level of intellectual and emotional commitment to the organization (Baumruk 2004; Richman 2006; Shaw 2005).

Furthermore, Brown (2005) envisions engagement as the combination of a number of experiences within the workplace, including satisfaction (contentment derived from workplace membership), motivation (a sense of excitement about work and willingness to exert extra effort), commitment (motivation at an organisational level) and advocacy (employee proactivity). Importantly, engagement is placed at the top of the pyramid, comprising a culmination of the preceding workplace experiences and presenting the ideal employee state that garners optimal rewards for the organisation.

Engaged employees have further been characterised as individuals who take initiative, generate their own feedback, actively extricate themselves from a burnt out state when fatigue sets in, pursue extracurricular interests and activities and have an enduring sense of freedom in relation to their work (Van den Berg, Manias & Burger, 2008). They are also highly energetic, find pleasure in their work-derived exhaustion, transfer jobs when experiencing a lack of meaning and exhibit healthy attitudes to work, deriving pleasure from external activities along with their work but largely lacking the compulsive drive that defines workaholics (Schaufeli, Taris, Le Blanc, Peeters, Bakker & De Jonge, 2001).

Given the proliferation of definitions of employee engagement, some authors attempt to resolve the conceptual confusion by creating an overarching, umbrella term that incorporates the numerous types of engagement and related conceptualization. Such an approach is displayed by Macey and Schneier (2008) whose all-encompassing model includes trait engagement and the related concepts of the proactive personality, positive

affect and conscientiousness; state engagement and the associated concepts of involvement, commitment and empowerment and behavioural engagement which is defined in terms of organisational citizenship behaviour, role expansion and personal initiative.

Little and Little (2006) bemoan the lack of clarity in the definitions of engagement, showing that many mainstream engagement definitions confound attitudes and behaviours, such as Robinson (2005) who combines enthusiasm for and satisfaction with the organisation, both attitudes, with behaviours such as extending work hours and speaking positively about the organization. The waters are further muddied by a conceptual overlap between engagement as a group and individual level phenomenon (Little & Little, 2006).

Amid this confusion, Kahn's (1990) seminal work on engagement is highly regarded and forms the starting point of many academic approaches to this topic. Kahn's definition of engagement centres on the extent to which people "bring in or leave out their personal selves during work role performances" (Kahn, 1990, p. 694). Kahn (1990, p. 694) views individual engagement as a multidimensional construct that comprises employee involvement at cognitive, physical and emotional levels and involves "the harnessing of organization members' selves to their work roles". Engagement at the emotional level entails the formation of meaningful connections to others and the experience and expression of empathy and concern for their feelings. On the other hand, cognitive engagement comprises an awareness of one's mission, role and contribution to organisation. Finally, physical engagement encompasses intense physical activity and action in relation to completion of task or fulfilment of a role (Kahn, 1990). Interestingly, Kahn (1990) contends that these elements of engagement are not mutually dependent and employees may vary in their levels of engagement along the different dimensions.

Further insight into engagement is afforded by an analysis of disengagement, which is the diametric opposite of this state and which offers a benchmark against which engagement can be measured. As such, disengaged individuals adopt a self-defensive or protective

stance, performing role tasks in a detached or withdrawn manner, devoid of enthusiasm, effort or mindfulness (Kahn, 1990). They also become disconnected from their jobs and hide their authentic identity, thoughts and feelings during task completion and role performances (Olivier & Rothmann, 2007). An additional state of being that is used to differentiate engaged employees from their withdrawn counterparts is burnout, which is described as the antithesis of engagement (Maslach, Schaufeli & Leiter, 2001). Engagement is compared and contrasted to burnout along the three primary or definitive dimensions thereof, with engagement dimensions of energy, involvement and efficacy comprising a direct antithesis of the corresponding burnout components of exhaustion, cynicism, and inefficacy (Maslach et al., 2001).

In contrast to Kahn's (1990) conceptualisation of burnout as the absence of engagement Schaufeli *et al.* (2002, p.74) view engagement and burnout as opposing ends of single continuum. Engagement is viewed "as a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption." According to Schaeuefli & Bakker (2001), work-related well-being comprises two primary dimensions, namely activation, which ranges from exhaustion to vigor and identification, which extends from cynicism to dedication. While engagement encompasses vigor and dedication, burnout is defined by exhaustion and cynicism, which stand at the opposing ends of the pole. In contradistinction, absorption and inefficacy are not viewed as opposing ends of the engagement-burnout continuum, but rather are distinct constructs which represent differing ends of the engagement spectrum. Importantly, a number of studies have been carried out to validate this engagement-burnout continuum and explore its relationship to other areas (Gonzalez-Roma, Schaufeli, Bakker & Illoret, 2006; Langelaan, Bakker, Doornen & Schaufeli, 2006; Schaeufeli. Martinez, Pinot, Salanvoa & Bakker, 2002 as cited by Koyuncu, 2005).

Having clarified the corresponding and contrasting aspects of engagement and burnout, it is essential to define the components of engagement as defined by Schaeufeli *et al.* (2001). Dedication entails a sense of "significance, enthusiasm, inspiration, pride and challenge", while vigor is characterized by "high levels of energy and mental resilience

when working, the willingness to invest in one's work and persistence in the face of difficulties" (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2001, p. 74). Finally, absorption is defined as "being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulties detaching oneself from one's work". Interestingly, Schaufeli *et al.* (2001, p.75) emphasize the permanent, lasting nature of engagement that is representative of the "pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behaviour". Thus, rather than viewing engagement as a transitory, ephemeral and shifting state, engagement is viewed as a characteristic employee disposition (Schaufeli *et al.*, 2001).

Despite the limited sample of the vast number of engagement conceptualisations and definitions examined, the current analysis can be considered to be somewhat representative of the existing engagement literature and the selection of this engagement approach is based on an educated and informed analysis of existing literature in the field. Having reviewed the seminal definitions of engagement, the current study utilises Schaufeli and Bakker's (2004) widely used composition of absorption, vigor and dedication, thereby eliminating this contentious and unconventional element from its definition of engagement. Thus, the current analysis focuses primarily on the affective and cognitive areas engagement, assessing cognitions as well as thoughts and feelings of employees in relation to their work (Bakker, 2007). The decision to utilise Schaufeli, Salanova, Gonzales-Roma and Bakker's (2002) definition of engagement as a springboard for the current investigation into the mediating role of psychological safety in the relationship between ethical leadership and employee engagement is further premised on its widespread use and extensive validation (Schaufeli *et al.*, 2004).

Given that the current study is primarily dedicated to exploring antecedents of employee engagement, such as ethical leadership and psychological safety, it is imperative to investigate whether this phenomenon is worth pursuing in relation to its value to employees, organisations and society at large. Thus, having defined and posited models of engagement, it is important to enumerate some of its widely acknowledged outcomes

and thereby justify the emphasis on employee engagement and related antecedents in the current analysis.

### Outcomes of engagement

The ability of employee engagement to guarantee a range of remarkable outcomes has led organisations and corporate consultancies such as Gallup to embark on campaigns in favour of this construct (Ferguson, 2008). The popularity of employee engagement stems from the positive outcomes that it is believed to foster, such as employee and organisational performance (Gallup, 2004 as cited in Ferguson, 2008).

Documented outcomes or consequences of employee engagement include heightened job satisfaction, organizational commitment, organizational citizenship behaviour, loyalty and reduced intentions to quit (Saks, 2006; Mani, 2011). In corroboration of the link between engagement and organizational citizenship behaviour, engaged employees were rated more highly on in-role and extra role performances by colleagues, exhibiting tendencies to go the extra mile and perform at superior levels (Bakker, Demerouti & Verbeke, 2004; Schaufeli, Taris & Bakker, 2006; Gierveld & Bakker, 2005).

In terms of work standards, engagement has been definitively proven to contribute to task performance (Christian, Garza & Slaughter, 2011) with engaged employees behaving in a way that involves increased mental energy, time and physical effort in a given task that adds to productivity and value (Konrad, 2006). The productivity yielded from engagement translates into material monetary results such as elevated total shareholder returns and improved financial performance (Baumruk, 2006). Engagement-related financial profits may further be attributed to increased customer loyalty (Salanova, 2005) reduced safety-related accidents and health related costs (Rothbard, 2001).

While employee engagement is an extremely desirable and valuable organisational asset, which yields company benefits touched on above, there has been a pronounced decline in engagement levels, with global engagement scores dropping from 60 percent in 2009 to

56 percent in 2010 (Trends in global, 2010). In understanding this phenomenon, Gallup (2006) established a taxonomy of engagement, differentiating engaged, unengaged and actively disengaged employees from one another. This decline may be explained by the demoralizing effect of workplace changes necessitated by intense global competition and accelerated business pace such as increased pressure and downsizing (Cartwright & Holmes, 2006). Employees who escaped downsizing experienced lowered engagement due to ailments such as anxiety, depression and reduced self-confidence (Kim, 2003). Furthermore, the changing nature of the modern workplace and the largely transactional relationship between organisations and employees, has led to increased cynicism, disenchantment and mistrust in organisations (Cartwright & Holmes, 2006). More recently, a 2011 study conducted by Blessing White Inc. that investigated engagement on a global scale uncovered extremely low or dismal engagement levels ranging from a maximum of 37 percent in India to 30 percent in Europe. These findings highlight the fact that employee engagement is in a situation of crisis on a global scale and thus requires urgent interventions by organisations and companies.

Since employee engagement affords businesses a significant advantage in the race for corporate dominance and success (Ferguson, 2008), it is in the interest of organisations to determine factors that contribute to the facilitation of this valued state and undertake action to ensure that these factors are promoted in the workplace. It is thus incumbent on organisations to take active measures to enhance and develop ethical leadership, given the knowledge that ethical leadership promotes employee engagement.

As a final note, it is essential to realise that employee engagement is a continuously growing field that defies true oversight, given its ever expanding nature. As this paper is written so too do researchers and practitioners continue to produce literature concerning engagement. In an attempt to manage this massive body of work, a number of reviews have been recently published (Wollard & Shuck, 2011; Shuck, 2011; Shuck & Wollard, 2010). Recent work includes an exploration of the predictors of this valued phenomenon (Mohaptra & Sharma, 2010) and new perspectives on this construct (Wollard, 2011).

## Psychological safety as mediator between ethical leadership and employee engagement

The role of psychological safety in mediating the relationship between ethical leadership and employee engagement mirrors a trend in ethical leadership research, whereby psychological level variables act as the conduit or intervening step between ethical leadership and observed outcomes thereof.

The hypothesis of the current study is based on empirical and theoretical linkages between the ethical leadership style, psychological safety and employee engagement. The primary hypothesis of the study is the positive relationship between ethical leadership on employee engagement, which is based on the documented influence of transformational leadership on work engagement (Diebler, 2009; Schaufeli, 2011; Macey & Schneider, 2008; Brown & Trevino, 2006; Toor & Ofori, 2009) and the overlap between transformational and ethical leadership. This hypothesis is further based on the proven links between supervisory support and engagement (May et al., 2004) and the central role of support in ethical leadership (Kalshoven *et al.*, 2011), thereby substantiating the expected link between ethical leadership and employee engagement.

In addition to this, the study further postulates that the relationship between ethical leadership and employee engagement is likely to be mediated by psychological safety. The expected linkages between ethical leadership and psychological safety are founded upon documented ties between supportive management style (Brown & Leigh's, 1996) leader openness (Deter & Burris, 2007) leader accessibility and inclusiveness (Edmondson, 2003; Nembhard & Edmondson, 2006) and psychological safety. Given the central role of these leader behaviours in ethical leadership as defined by Kalshoven *et al.* (2011), it is reasonable to expect ethical leadership to enhance psychological safety. Given the previous link between psychological safety and employee engagement (May et al., 2004), the expected connections between ethical leadership and both psychological safety and employee engagement comprise a firm basis for the hypothesized mediation model.

### Aim of the study

The aim of the study was to examine the role of psychological safety in mediating the relationship between ethical leadership and employee engagement at work.

### Research questions

Does psychological safety mediate the relationship between ethical leadership and employee engagement? In order to answer the above research question, the following sub-questions were addressed:

- 1) Are employee perceptions of ethical leadership related to employee engagement?
- 2) Are employee perceptions of ethical leadership related to employee perceptions of psychological safety?
- 3) Are employee perceptions of psychological safety related to employee engagement?
- 4) Do employee perceptions of psychological safety mediate the relationship between employee perceptions of ethical leadership and employee engagement?

Table 1: Theoretical model



## Chapter 3

### Methodology

This chapter provides extensive information on the methods and procedures employed in the completion of the research report in order to demonstrate the soundness thereof.

### Research Design

The research design was quantitative, cross-sectional and non-experimental. Quantitative research involves the collection of numerical data and the subsequent analysis of this data using mathematically based methods known as statistics (Muijs, 2010). Statistical analysis proceeds from the ontological assumption that an objective reality exists which can be discovered utilising scientific methods (Muijs, 2010). In contrast to experimental research which is employed with the intent of establishing cause and effect relationships, non-experimental research does not search for the presence thereof (Cottrell & McKenzie, 2007). A study is classified as non-experimental when treatments or variables are not manipulated (Belli, 2006). Additionally, there is no control group in a non-experimental design, which is often used as a baseline measure against a group who has received or been exposed to the manipulated condition (Belli, 2006). The final identifying feature of a non-experimental design is the absence of a random assignment of study participants to both control and manipulation conditions (Belli, 2006).

Given that this study measured existing perceptions of ethical leadership that were not manipulated in any way, and given the absence of a control group and concomitant random assignment, it was non-experimental in nature. Considering the fact that non-experimental research does not allow for the establishment of cause and effect relationships but rather permits inferences to be drawn about the relationships between existing variables (Cottrell & McKenzie, 2007), the current research permits conclusions to be of an inferential as opposed to causal nature. Finally, as this research involves observation of the variables at a single point in time, it is cross-sectional in nature (Babbie & Mouton, 2004; Rosenthal & Rosnow, 1991).

## Procedure

A high-level human resources official at the South African branch of an international technology manufacturing firm was contacted, who obtained permission from upper management for the study to be conducted. Upon receipt of confirmation, the human resources manager of the organisation then distributed an e-mail to all the office workers in the company, containing an invitation to participate in a research study for a Masters student in Organizational Psychology. The survey was limited to employees in the sales and service departments who would have access to the web-based survey. The e-mail contained a link, which directed participants to an online questionnaire hosted on SurveyMonkey, an internet-based survey portal that captured answers on a central database.

Upon following the link, participants were directed to the participant information sheet, which described the general purpose and aims of the study and presented a short description of the study requirements. It alerted employees to the contribution they would be making to the field of leadership and organizational climate and informed employees of the approximate duration required for completion, which was estimated at 20 minutes. It emphasized the voluntary nature of participation and stressed the absence of repercussions regarding participation. Employees were further assured that their anonymity would be guaranteed as demographic information precluded the possibility for identification of participants. Finally, employees were assured of confidentiality given that their answers would only be seen and handled by the researcher and supervisor.

Following the participant information sheet, participants were required to complete a short demographic questionnaire, followed by three successive questionnaires which were each measured on a Lickert type scale. The questionnaires measured perceptions of ethical leadership in the workplace, perceptions of psychological safety in the workplace and employee engagement levels.

The online survey remained available for completion for two months commencing from the time of the original e-mail invitation. The cost was R600 for a 3 month subscription which was covered entirely by the researcher and paid directly to the survey host.

### Sample

Probability samples, which involve the selection of a random sample from a list containing the names of every individual in the population, are appropriate for large-scale, generally national level research, while non-probability sampling is utilised when access to the entire population is impossible to obtain (Babbie, 2010). Four primary types of non-probability sampling methods are utilised, including convenience, purposive, quota and snowball sampling (Babbie, 2010). The current research employed convenience sampling, where the sample is derived on the basis of availability or convenience. Thus, the current research sample was secured by approaching a number of organisations. Given the difficulty experienced in securing access to a sample, the researcher utilised the first organisation to grant permission for access to its employee population.

The available sample research population comprised 220 employees at a major technological goods producer in Johannesburg, South Africa who received the invitation to participate in the research study. Each participant was required to currently form part of a division or work team that entails interaction with an immediate supervisor, manager or leader on a regular basis. Of this available group, 209 participants commenced the survey, while 139 individuals completed the survey in its entirety. It is interesting to note that 95 percent of the recipients commenced the survey, representing a high response rate.

It is common practice to conduct basic descriptive analysis in order to describe the characteristics of a given sample (Babbie & Mouton, 2004). In line with this practice, a comprehensive portrayal of the demographic characteristics of the sample, including both frequencies and percentages is presented below.

## Biographical data

### Age

|       |      |
|-------|------|
| Mean  | S.D. |
| 33.75 | 7.68 |

In terms of age, the average was 33.75 with a standard deviation of 7.68 years.

### Gender

|        | n   | %     |
|--------|-----|-------|
| Female | 75  | 52.52 |
| Male   | 25  | 47.48 |
| Total  | 139 | 100   |

As depicted above, 73 were male (52.52) and 66 female (47.48 %).

### Marital status

|               | N   | %     |
|---------------|-----|-------|
| Never married | 51  | 36.69 |
| Married       | 59  | 42.45 |
| Cohabiting    | 14  | 10.07 |
| Divorced      | 13  | 9.35  |
| Separated     | 2   | 1.44  |
| Total         | 139 | 100   |

In terms of their demographic characteristics pertaining to marital status, 42.45% were married, 36.69 % had never previously married, while 9.35 % were divorced and a similar 10.7 % were separated. Finally, a negligible minority (1.44%) were separated.

Race

|          | N   | %     |
|----------|-----|-------|
| Black    | 49  | 35.25 |
| White    | 65  | 46.76 |
| Indian   | 9   | 6.47  |
| Coloured | 15  | 10.79 |
| Other    | 1   | 0.72  |
| Total    | 139 | 100   |

While the majority of the participants were white (46.67%), a considerable number of black employees participated (35.25%), along with a relatively small number of Indians (6.47%) and coloureds (10.79%). Interestingly, only one individual classified him or herself as a member of the racial category entitled “other”, pointing to the widespread acceptance amongst participants of the chosen racial categories.

Educational level

|                         | N  | %     |
|-------------------------|----|-------|
| Grade 10                | 10 | 7.19  |
| Matric                  | 67 | 48.20 |
| Technical certification | 38 | 27.34 |
| Undergraduate degree    | 23 | 16.55 |
| Post-graduate           | 1  | 0.72  |

While a small number of participants (7.19%) had achieved no higher than a grade 10 level of education, the overwhelming majority of the participants reported matric as their highest educational level (48.20%). In relation to post-school qualifications, 27.34 % had attained some form of technical certification, such as Microsoft Professional or Comptia course, 16.55 % had obtained an undergraduate degree and a tiny 0.72% of the sample had achieved a post-graduate level qualification.

### Language

|           | N   | %     |
|-----------|-----|-------|
| English   | 28  | 20.14 |
| Afrikaans | 65  | 46.76 |
| Zulu      | 5   | 3.60  |
| Tswana    | 10  | 7.19  |
| Sotho     | 13  | 9.35  |
| Xhosa     | 9   | 6.47  |
| Sepedi    | 4   | 2.88  |
| Tsonga    | 3   | 2.16  |
| Other     | 2   | 1.44  |
| Total     | 139 | 100   |

The sample participants represented a diverse array of language groups, with the vast majority speaking both Afrikaans (46.76%) and English (20.14%). The most widely spoken African language was Sotho (9.35 %), followed closely by Tswana (7.19 %), Xhosa (6.47%), with the remainder speaking Zulu (3.60%), Sepedi (2.88%) and Tsonga (2.16%). Only two participants selected “other” as their spoken language.

### Duration of employment

|                  | N   | %     |
|------------------|-----|-------|
| less than a year | 34  | 24.46 |
| 2-4 years        | 44  | 31.65 |
| 5-7 years        | 28  | 20.14 |
| 8-10 year        | 6   | 4.32  |
| 11 years +       | 27  | 19.42 |
| Total            | 139 | 100   |

In terms of duration of employment, 24.46% of the participants had been formally employed by the company for less than a year, 31.65 % for 2-4 years, 20.14 % for 5-7 years and 19.42 % had been employed for 11 years and above. The smallest category of employment period was the 8-10 year duration in which only 4.32 % of employees reported membership.

### Organisational level

|                   | N   | %     |
|-------------------|-----|-------|
| Semi skilled      | 27  | 42.09 |
| Skilled           | 25  | 41.01 |
| Middle management | 57  | 17.99 |
| Senior management | 6   | 0.72  |
| Total             | 139 | 100   |

From an organisational level perspective, the bulk of participants belonged to the skilled (41.01 %) and semi-skilled (42.09%) categories, with the former comprising technicians and the latter drivers, administrators and clerks. Middle management comprised 17.99 % of the current sample, while 0.72% of the sample identified themselves as members of senior management.

Department

|            | N   | %     |
|------------|-----|-------|
| Finance    | 1   | 0.72  |
| Sales      | 7   | 5.04  |
| Service    | 33  | 23.74 |
| Despatch   | 34  | 24.46 |
| HR         | 11  | 7.91  |
| Accounts   | 10  | 7.19  |
| Technical  | 7   | 5.04  |
| IT/CCTV    | 7   | 5.04  |
| Admin      | 6   | 4.32  |
| Production | 5   | 3.60  |
| Facilities | 6   | 4.32  |
| Warehouse  | 11  | 7.91  |
| Stores     | 1   | 0.72  |
|            | 139 | 100   |

Finally, service and despatch personnel featured prominently in the sample, with 23.74 % and 24.26% respectively, while there were representatives from accounts (7.19 %), HR (7.91%), technical (5.04%) and IT (04%) departments with the remainder belonging to admin and switchboard staff (4.32%) and production (10%).

## Measures

The measures used in this study are described as follows and can be found in the appendices.

Directly following the participant information sheet, participants were requested to complete a demographic questionnaire that aimed to provide pertinent information regarding the demographics of the individuals in the current sample and subsequently provide descriptive statistics. Questions included a range of general demographic descriptors such as age, race, highest level of education, language and sex. Company specific information requested from the participants encompassed department, length or duration of employment and organisational level.

### Ethical leadership scale

In order to assess ethical leadership, Kalshoven *et al.*'s (2011) Ethical Leadership at Work scale (ELW) was employed. This scale comprises 38 questions pertaining to fairness, power sharing, role clarification, people orientation, integrity and ethical guidance. For a complete list of the questions, refer to Appendix C while Appendix D indicates the questions that fall under each specific heading or subscale. Given that concern for environmental sustainability is not mentioned by any of the seminal authors of ethical leadership such as Brown *et al.* (2005) and Trevino *et al.* (2000, 2003), the current study omitted this variable in relation to employee perceptions concerning supervisor involvement and concern therewith.

The scale comprised a 5 point Likert type response pattern wherein 1 reflects strongly disagree and 5 reflects strongly agree. In terms of reliability, Cronbach's Alpha has been rated at 0.81 for Ethical Leadership at Work scale (ELW) questionnaire, indicating a relatively high reliability or internal consistency of scale items (Kalshoven *et al.*, 2011). In corroboration of earlier findings, the Ethical Leaders at Work scale in the current analysis yielded an alpha value of 0.89, indicating high internal consistency of the

constituent scale items. When considering validity of the scale, it is rather limited and has been utilised on a Dutch sample (Kolshaven, den Hartog & De Hoogh, 2012)

### Psychological safety scale

Employee perceptions of psychological safety were measured using an 8 item scale, which comprised 7 items adapted from Edmondson's (1999) measure of team psychological safety, while the eighth item was adapted from Edmondson's (1996) measure of team psychological safety. The word "organization" used to replace that of "team" in all of the scale items. This adapted scale was originally utilised by Carmeli and Gittel (2009). Items adapted from Edmondson's original measure of team psychological safety include "it is safe to take a risk in this organization" and "no one in this organization would deliberately act in a way that would undermine my efforts". The eighth and final item utilised by Carmeli and Gittel (2009) was taken from Edmondson (1996) and states "if you make a mistake in this organization, it is often held against you" (reverse scored item). The complete scale and questions can be found in the appendix. The scale was measured on a scale of 1 to 5 with 1 representing strongly disagree and 5 representing strongly agree.

In terms of reliability, Carmeli and Gittel (2009), the original users of the scale, found a Cronbach's alpha of 0.70 and 0.84 in two successive studies, thereby indicating high reliability of the measure. The current study yielded a Cronbach's alpha of 0.75, further highlighting the reliability of the psychological safety scale. In terms of validity, the scale has been validated in a number of countries including the United Kingdom, Italy, Greece (Kostopoulos & Bozionelos, 2011) and Israel (Carmeli & Gittel, 2009).

### Employee engagement scale

Employee engagement was assessed using the shortened, 17-item version of Utrecht's employee engagement scale (Schauefeli & Bakker, 2003). Sample items include "I feel happy when I am working intensely" and "I am proud of the work that I do", with the complete scale provided in Appendix E. Participants were required to answer on a scale of 1 to 7 with 1 representing almost never and 7 representing every day.

In their extensive analysis, Schaufeli and Bakker (2003) reported a Cronbach Alpha 0.93 for the UWES-17, indicating a very high level of reliability or internal consistency of the measure. The overall Cronbach alpha for the UWES-17 in the current study was 0.93, reflecting a high level of reliability additionally test-retest reliabilities were relatively high with 0.63 in Australia and 0.72 in Norway, indicating that the test yields stable answers over time (Schaufeli & Bakker, 2003). The UWES has been validated in several countries, including China (Yi-Wen & Yi-Qun, 2005), Finland (Hakanen, 2002), Greece (Xanthopoulou, Bakker, Demerouti & Kantas, 2007), South Africa (Storm & Rothmann, 2003), Spain (Schaufeli *et al.*, 2002), and the Netherlands (Schaufeli & Bakker, 2003; Schaufeli *et al.*, 2002).

### Ethical considerations

Potential participants were supplied with the full names of both the researcher and supervising professor and offered contact details for both. Participants were further informed that the study was undertaken in partial fulfilment for a Master's degree in Industrial Psychology, at the University of the Witwatersrand, Johannesburg, South Africa. All participation was voluntary as potential participants were informed of the study through an e-mail that invited them to fill out the online questionnaire, in which they could choose or refuse to participate. They were able to refuse with no repercussions. Informed consent was provided in the form of the participant information sheet, which clearly explained the requirements for participation and the possibility of dropping out of the study at any time.

Participants were further informed that handing in a completed questionnaire would be taken as consent. Anonymity was guaranteed as no identifying information was requested, such as names or identification numbers. The only demographic information that was required was age, race and sex of the participant, in addition to highest educational level achieved, department and current organizational level. Finally, confidentiality was maintained as the answer forms were seen and handled by only the researcher and supervisor.

## Statistical Analysis

### Data analysis

This study produced quantitative data, which was analyzed using SAS, a popular statistical programme. The following tests were utilized in order to test the research questions.

### Descriptive and analytical statistics

Descriptive statistics were employed to assess the biographical characteristics of the sample, as well as the mean and standard deviation thereof.

### Reliability

Reliability demonstrates the extent to which “a particular technique, applied repeatedly to the same object, yields the same result each time” (Babbie, 2010, p. 157). Reliability thus provides an indication of the dependability of a given instrument (Terreblanche & Durheim, 1999). One way of assessing reliability is through internal consistency, which measures the extent to which test items measure aspects of the same characteristic or construct (Howell, 2007). Internal consistency thus assesses whether test items are consistent with one another or work in the same direction and can be measured utilizing split-half techniques, Kuder-Richardson formulas or the Coefficient Alpha (Somekh & Lewin, 2009). Internal consistency or reliability coefficients range between 0 and 1, with 0 reflecting a lack of consistency and 1 reflecting perfect consistency (Howell, 2007). A score of 0.7 is generally considered to convey acceptable standards of reliability.

In accordance with standard practice, Cronbach Alphas were calculated in order to measure reliability of the instrumentation utilized in the current study. As such, Cronbach Alphas were computed for the overall Ethical Leadership at Work scale as well as for the scales measuring psychological safety and employee engagement.

## Correlations

Correlations indicate the extent to which two variables are related (Somekh & Lewin, 2009). Correlations thus represent the strength of association between variables in a linear relationship and describe the extent to which one variable changes in relation to a change in the other (Somekh & Lewin, 2009). Correlations are measured by means of a correlation coefficient and values run on a continuum of -1 to +1, with both extremes indicating that the data comprises a perfectly straight line (Somekh & Lewin, 2009). While an  $r$  value of 0.00 represents a lack of relationship between the variables, a negative  $r$  value depicts a negative relationship and implies that an increase in the value of one variable is associated with a decrease in the value of the other. In contrast, a positive correlation coefficient value indicates a positive relationship and implies that an increase in the value of one variable is accompanied by an increase in the other and vice versa (Somekh & Lewin, 2009). In addition to the directionality of the relationship, the  $r$  value also indicates the strength of the relationship with high values reflecting a strong association between the variables (Somekh & Lewin, 2009).

In the current analysis, correlation analyses, using the Pearson Product Moment Coefficient were employed in order to assess whether associations existed between the IV, DV and mediator and to evaluate whether these associations proceeded in the expected direction, which is a prerequisite of any mediational analysis (Baron & Kenny, 1986). Thus, prior to considering the mediating role of psychological safety in the relationship between ethical leadership and employee engagement, it was necessary to assess whether ethical leadership correlated strongly with both employee engagement and psychological safety as well as to assess the strength of the correlation between psychological safety and employee engagement. When assessing the direction of the relationship between the variables it was essential to compare the actual and expected values. For example, it was expected that ethical leadership would be positively correlated with employee engagement, as ethical leaders are expected to inspire higher engagement levels in their followers.

## Structural equation modelling (SEM) and mediation

Mediation involves the process whereby a specific variable intervenes between the independent (predictor) and dependent (outcome) variable, or acts as the mechanism through which the IV-DV relationship occurs. Thus, the mediating variable explains the relationship between the independent and dependent variables (Hoyle, 1995). The mediation model describes a causal pathway whereby the IV affects the DV through the mediating variable, upon which the relationship between the two primary variables depends (Hoyle, 1995). In the current study, psychological safety is the postulated mechanism or intervening variable that is expected to mediate the effects of ethical leadership on employee engagement.

Structural Equation Modelling (SEM) is a comprehensive statistical procedure utilised to test hypotheses about relations between one or more independent and dependent variables of either a discrete or continuous nature (Hoyle, 1995). It is widely used for testing mediated relationships among constructs or variables particularly when multiple items have been measured to capture the focal constructs (Iacobucci, Saldanha & Deng, 2007). Importantly, both the independent and dependent variables can be manifest variables which are directly measured or observed or latent variables (otherwise known as constructs) which are unobserved and measured indirectly. In SEM, the researcher hypothesizes or postulates how the measured variables relate to their latent counterparts, as well as about how the latent variables relate to one another or the structural relationships between them (Hoyle, 1995). Using this approach, the researcher hypothesized a mediational relationship between the three primary variables, postulating that ethical leadership leads to psychological safety which subsequently influences employee engagement. Thus, these three variables comprised the latent variables in the structural equation model.

Given that exogenous variables function purely to influence other variables (Hoyle, 1995), ethical leadership was classified as an exogenous variable in the current analysis as it was the independent variable. While endogenous variables may exert influence on

other variables in the model, they are defined by their susceptibility to influence by other variables therein. Given that both psychological safety and employee engagement are susceptible to influence from ethical leadership, they are defined as endogenous variables in the current analysis.

In order to investigate the mediating role of psychological safety in the relationship between employee engagement and ethical leadership, this study utilised Baron and Kenny's (1986) and Judd and Kenny's (1981) three step mediation analysis procedure. Before explaining the requirements for mediation, it is necessary to clarify some fundamental terminology. The exogenous variable or influencing variable is labelled X, while the endogenous causal variable is entitled M. Finally, the outcome or dependent variable is labelled Y. In order to prove a mediational relationship or causal pathway, a number of conditions must be fulfilled.

1. X is significantly related to M.
2. M is significantly related to Y.
3. The relationship of X to Y diminishes when M is in the model.

As displayed above, support for a mediation model requires that the independent variable (X) is significantly related to the mediator (M), that the mediator (M) is significantly related to the outcome variable (Y) and that the IV-DV (X-Y) relationship is reduced to non-significance in the presence of the mediator variable (M). Ideally, this relationship should not only decrease in size but dwindle to zero in order to support the presence of a single, dominant mediator. As such, the relationship between the IV and DV runs along a continuum, with a non-zero mediation implying the presence of multiple mediators of mediating variables (Hoyle, 1995).

Using the SEM procedure, this study assessed whether employee perceptions of ethical leadership, the independent variable, are related to employee engagement, the dependent variable; whether employee perceptions of ethical leadership are related to employee perceptions of psychological safety (mediator) and whether employee perceptions of

psychological safety are related to employee engagement. Finally, the current analysis tested whether the relationship between employee perceptions of ethical leadership and employee engagement is reduced to non-significance in the presence of perceived psychological safety.

SEM involves three primary steps: Model specification, estimation and goodness of fit evaluation. Since “a linear structural equation model is a hypothesized set of linear relationships among a set of variables, the first step involves formal specification of the model” (Hoyle, 1995, p. 17). In fact, the primary aim of SEM is to postulate a model that fits the observed data in a meaningful and parsimonious manner. As mentioned earlier, variables in the model include those are directly and indirectly measured, which are respectively known as measured and latent variables (Hoyle, 1995). In terms of symbols, conventions include utilizing ovals and square boxes to represent latent and manifest variables respectively, while straight lines depict causal relationships and curved lines indicate relationships between latent variables (Hoyle, 1995).

The model specification element of SEM centers on two primary steps: Conducting a confirmatory factor analysis to assess whether the observed variables relate to the latent variables in the hypothesized manner, as found in the measurement model, while the second step entails a path analysis or multiple regression to assess the structural relationship between the latent variables (Hoyle, 1995).

In specifying the models, the structural model contains relationships between latent variables while the measurement model maps the measurement variables or indicators to their latent counterparts. Measured variables are indicators of their latent counterparts and generally comprise scale or questionnaire items. Since it is generally preferable for latent variables to be preceded by a number of measured variables (Hoyle, 1995), each of the latent variables in the current study were preceded by at least three measured variables, created from the scale items pertaining to each variable. When established subscales were available, these subscales were utilized as the manifest indicators of the latent variable. This was the case of ethical leadership which was divided into ethical guidance, power

sharing, integrity, person orientation and role clarification subscales, which were employed as the manifest indicators of ethical leadership as a latent variable. Similarly, the subscales representing the predefined dimensions of the employee engagement scale, namely vigor, dedication and immersion were used as the primary indicators of the employee engagement latent variable. Finally, when latent variables were not structured in terms of pre-existing subscales, an exploratory factor analysis was undertaken in order to create a number of manifest indicators for the latent variable. Thus, exploratory factor analyses were undertaken in order to establish manifest indicators for psychological safety. In short, exploratory factor analysis aims to explain the correlations between a set of observed variables in terms of latent variables, entitled factors (Brewer, 2010, p. 112). It enables the researcher to specify a number of factors that represent the data and demonstrates which variables are influenced by each factor. As such, it presents a “factor pattern matrix” that depicts the size of the relationship between each observed variable and factor. In terms of the current research, all the psychological safety scale items comprised the observed variables which were then explored in terms of their relationships to three primary factors. These factors were created from the items that loaded most strongly thereon.

Prior to assessing the structural model, it is essential to establish whether the manifest indicators relate strongly to their latent counterparts through a confirmatory factor analysis carried out in the measurement model (Hoyle, 1995). It is important to note that the original measurement model depicted weak relationships between ethical leadership and some of the manifest indicators thereof. This was reflected by the low alpha values for the relationships between the latent variable of ethical leadership and the person orientation and power sharing manifest indicators, which were 0.77 and 0.56, respectively. In order to address this problematic measurement model, an exploratory factor analysis was undertaken in order to create new manifest indicators of the ethical leadership variable in the measurement model. This assessed whether scale items loaded on subscales and provided an indication of the correct formulation of manifest indicators in the measurement model.

Following the establishment of manifest and latent variables to be used in the model or model specification, path analysis is employed as it enables the researcher to pictorially map the hypothesized set of relationships or the given model, which includes the estimation of the parameters and the model fit. The estimation of parameters, takes the potential relationships, the direction of effect, as well as significant paths between each pair of variables (latent and manifest) into consideration (Hardy & Bryman, 2003). Given the complex statistical theory underlying this process, it will not be further discussed here.

In assessing goodness of fit, the model is considered to fit the data when the implied covariance matrix is equal to the observed covariance matrix. Model fit, which is executed through fit tests, determines if the model being tested should be accepted or rejected (Garson, 1998). In order to assess the adequacy of the fit, a number of indices must conform to certain criteria or minimum values. These include the Goodness of Fit Index (GFI) which requires a score of at least 0.90 for an adequate model fit. Similarly, indices such as the Adjusted GFI (AGFI), Bentler and Bonett's (1980) Non-Normed Fit Index (NNFI) and Bentler's Comparative Fit Index (CFI), requires scores of 0.9 for a reliable model fit. In contrast, higher scores indicate a poor fit in the case of the Root Mean Square Error of Approximation (RMSEA) and the Root Mean Square (RMR), where a value exceeding 0.1 indicates a poor fit values between 0.08 and 0.1 represent an average fit, while an optimal fit is indicated from values below 0.06. Furthermore, Hoelter's (1983) Critical N requires a value below 75 for a good model fit, while Probability of Close Fit must qualify for non-significance at an  $\alpha$  of 0.05 (Garson, 1998).

Having determined the goodness of fit, the results of the path analysis are interpreted in terms of the strength and significance of the relationships between the latent variables contained within the structural model. In interpreting the results of these estimations, the relationships between the independent variable and mediator and mediator and dependent variable as well as between the independent and dependent variable are assessed via the parameter estimates referred to as standardized estimates or Beta (B). These estimates primarily depict the direction of the relationships between the variables. As such, a

positive B value implies that variables increase and decrease in tandem with one another. In contrast, a negative B value indicates that variables move in opposite directions, with an increase in a particular variable accompanied by a decrease in the other. In interpreting the model, it is imperative to evaluate whether relationships between latent variables follow the expected pattern. For example, a positive parameter estimate or B value would be expected for the relationship between perceptions of psychological safety and employee engagement levels, as an increase in the one is expected to be associated with an elevation of the other (Hoyle, 1995).

Having assessed the direction of the relationships between the IV and mediator, IV and DV and mediator and DV, the significance of the paths must be assessed. In terms of significance, a t value that exceeds 2 or extends below -2 indicates a significant relationship between two given variables, while a t value between 2 and -2 indicates a lack of significance in the relationship. As described by Baron and Kenny (1986), the IV-mediator and mediator-DV relationships must both be significant and the IV-DV relationship must drop to insignificance in order to support a full mediation model.

The assumptions of a structural equation model are (Cohen, Cohen, West & Aiken, 2003):

- Normality- Each variable in the model should follow a normal distribution pattern
- Linearity- SEM assumes linear relationships between variables.
- Modelling error- In order to prevent under-identification and reduce measurement error, each latent variable requires at least three measures.
- Measurement error- all variables should be measured without error.
- Homogeneity- SEM is sensitive to sample size; therefore a minimum of 200 participants is needed for central limit theorem to have ensured that coefficients will be good estimates.
- Multicollinearity- Complete multicollinearity is assumed to be absent

While normality and measurement error, otherwise known as internal consistency, are discussed in the results chapter, modelling error was reduced by ensuring that each latent variable was preceded by at least three measured variables. For example, ethical leadership comprised five measured variables, created from the five pre-established subscales of the construct. In terms of homogeneity, given that the sample size failed to reach 200 participants, it could not be assumed that coefficients were reflective estimates of the true relationship between the variables in question, thus undermining in the current structural equation model. Additionally, a linear relationship between the variables was assumed and founded on the interval nature of the variables, which were each measured on a Licker type scale. Furthermore, mutlicollinearity was assumed to be absent and was not addressed in the current analysis.

## Chapter 4

### Results

The following chapter aims to provide a clear, simple presentation of the statistical results obtained from the current analysis. The table below reflects the means, standard deviation, maximum and minimum scores, skewness and kurtosis, as well as the internal consistency reliability coefficients for each of the scales used within the study.

Table 3: Means, Standard Deviations, Minimum and Maximum, Skewness and Kurtosis, and Internal Consistency Reliabilities of Measuring Instruments

| Variable             | N   | Mean   | Std   | Min | Max | Skewness | Kurtosis | Reliability |
|----------------------|-----|--------|-------|-----|-----|----------|----------|-------------|
| Ethical leadership   | 139 | 115.88 | 15.29 | 64  | 151 | 0.81     | 2.2      | 0.88        |
| Psychological safety | 139 | 26.88  | 5.51  | 8   | 37  | -0.94    | 1.08     | 0.75        |
| Employee engagement  | 139 | 96.94  | 16.57 | 50  | 119 | -0.85    | -0.03    | 0.93        |

### Reliability analysis

In an attempt to minimize error, Cronbach Alphas were analysed. Cronbach Alphas for the ethical leadership scales were generally high at a value of 0.88 and reflect a high degree of consistency in the ethical leadership scale. Psychological safety yielded an acceptable alpha value of 0.75, while employee engagement also yielded a high value of 0.93.

## Normality

Skewness values indicate the symmetry of the distribution curve (compared with a completely symmetrical / normal distribution). Skewness values are within acceptable range when in the region of between -1 and +1 (Huck, 2004) Kurtosis indicates the flatness or peakedness of the graph. Thus positive values indicate a peaked distribution, whilst negative values indicate a more flat distribution curve (Huck, 2004). All the skewness coefficients fell within the acceptable range indicating normal distribution of the survey responses for ethical leadership, psychological safety and employee engagement scales. In terms of kurtosis, ethical leadership, psychological safety and employee engagement were valued at 2.2, 1.08 and 0.03 respectively, which indicated a platykurtic distribution, which is flatter than normal with a wider peak.

## Preliminary measures

Prior to assessing the measurement and structural models in the Structural Equation Model, it is important to note that some of the manifest indicators of the latent variables contained items that were reverse scored. In terms of the power sharing subscale, a manifest indicator of the ethical leadership scale, item 15, which states that “my supervisor does not allow others to participate in decision-making” was reversed as it runs counter to the accompanying items in the subscale, which portray a positive or permissive supervisor prone to sharing power with followers or subordinates. Furthermore, the entire fairness subscale was reverse scored, given that high ratings by respondents on the items of the fairness subscale reflect a lack of leader ethicality, as opposed to the items on remaining ethical leadership subscales whereby high ratings reflect a strong presence of leader ethicality. For example, a high score on an item that represents the fairness subscale, “my supervisor manipulates subordinates” depicts a lack of leader ethicality. This stands in stark contrast to the general trend of items on the remaining ethical leadership subscales where high scores convey high levels of leader ethicality. For example, a high rating on item 2 of the subscale person orientation which

states that “my supervisor takes time for personal contact” portrays a high level of leader ethicality, in contrast to similar scores for the items on the fairness subscale.

### Measurement model

Every variable in the current study, including ethical leadership, psychological safety and employee engagement are classified as latent variables, comprises a number of explicit or manifest variables, such as questionnaire items and composite subscales. Prior to undertaking the actual investigation of the hypothesized model, it was essential to establish whether the latent variables were effectively measured by their manifest or indicator variables, through the analysis of the measurement model. This assesses the strength of the relationships between the manifest indicators and their corresponding latent variables. Importantly, every latent variable requires a minimum of three manifest indicators or correspondents (Hoyle, 1995). In the current study, manifest indicators for the ethical leadership scale investigated in the original measurement model were the ethical leadership subscales, such as integrity, power sharing, role clarification person orientation, fairness and ethical guidance. These pre-established subscales comprised a number of items, with integrity including items 32-35, power sharing consisting of items 14-19, role clarification combining items 27-31, person orientation containing items 1-7, fairness including items 8-13 and ethical guidance joining items 20-26.

When assessing the measurement model, some of the subscales or manifest variables exhibited poor relationships their latent counterparts as indicated by low standardized estimates or B values. While the standardized estimates for the relationships between integrity, role clarification and ethical guidance with ethical leadership were strong at values 0.84, 0.85 and 0.86 respectively, person orientation was slightly lower (B=0.77). Finally, power sharing was poorly related to the latent variable of ethical leadership (B=0.56).

In terms of psychological safety as a latent variable, three manifest items were constructed from the psychological safety items utilizing an exploratory factor analysis.

The manifest indicators comprised items 1, 3, 6 in the first one; items 4, 5 and 8 in the second and items 2 and 7 in the third, as reflected in the table below.

Table 4: Rotated factor pattern results for psychological safety

|      | <u>Factor 1</u> | <u>Factor 2</u> | <u>Factor 3</u> |
|------|-----------------|-----------------|-----------------|
| PS_1 | 0.65497         |                 |                 |
| pS_2 |                 |                 | 0.77199         |
| PS_3 | 0.7236          |                 |                 |
| PS_4 |                 | 0.81728         |                 |
| PS_5 |                 | 0.77541         |                 |
| PS_6 | 0.68937         |                 |                 |
| PS_7 |                 |                 | 0.76648         |
| PS_8 |                 | 0.8765          |                 |

Each of these three indicators were strongly related to the latent variable ( $B=0.80, 0.78, 0.86$ ), indicating that the latent variable of psychological safety was appropriately measured by the manifest indicators. Finally, when assessing the latent variables of employee engagement, manifest indicators comprised the three pre-established subscales, namely vigor (items 1, 4, 8, 11, 14, 16), dedication (items 2, 5, 7, 12, 17) and immersion (items 3, 6, 9, 10, 13, 15). The manifest indicators of engagement including vigor, dedication and immersion yielded strong standardized estimates ( $B=0.92; B=0.88; B=0.83$ ), with all standardized estimates in the expected direction. Thus increasing amounts of immersion, dedication and vigor were associated with elevated levels of employee engagement.

#### Factor analysis

In order to address the poor relationship between the manifest indicators and the underlying latent variable of ethical leadership in the original measurement model, a factor analysis was undertaken with the aim of specifying new manifest indicators for the

ethical leadership variable. The factor analysis yielded interesting results with items 20 to 31 loading on factor 1, indicating the combination of the ethical guidance and role clarification subscales to form a single manifest indicator for the latent variable of ethical leadership. A second manifest indicator was indicated by the loading of items 1-7 and 32-35 loading on factor 2, thereby indicating that person orientation and integrity should comprise one factor or manifest indicator of the latent ethical leadership variable. Finally, all the items belonging to the fairness subscale loaded on factor 3, indicating the necessity for the creation of a manifest indicator comprising items 8 to 11. Importantly, the items belonging to power sharing failed to load consistently on any one factor leading to their exclusion from the measurement model. Thus, power sharing was omitted from any of the manifest indicators utilized in the structural model analysis. All factor loadings are presented on table 4.5 below and provide a clear indication of three manifest factors underlying the latent variable of ethical leadership.

Table 5: Rotated factor pattern results for ethical leadership

|       | <u>Factor 1</u> | <u>Factor 2</u> | <u>Factor 3</u> |
|-------|-----------------|-----------------|-----------------|
| EL_1  |                 | 0.74095         |                 |
| EL_2  |                 | 0.73172         |                 |
| EL_3  |                 | 0.72999         |                 |
| EL_4  |                 | 0.81728         |                 |
| EL_5  |                 | 0.77541         |                 |
| EL_6  |                 | 0.77199         |                 |
| EL_7  |                 | 0.68937         |                 |
| EL_8  |                 |                 | 0.76648         |
| EL_9  |                 |                 | 0.78220         |
| EL_10 |                 |                 | 0.72256         |
| EL_11 |                 |                 | 0.50725         |
| EL_12 |                 |                 | 0.60805         |
| EL_13 |                 |                 | 0.58007         |

|        |         |         |         |
|--------|---------|---------|---------|
| EL_14  |         |         | 0.57281 |
| REL_15 | 0.51785 |         |         |
| EL_16  |         |         | 0.44602 |
| EL_17  |         | 0.41439 |         |
| EL_18  |         |         | 0.21783 |
| EL_19  | 0.47751 |         |         |
| EL_20  | 0.73879 |         |         |
| EL_21  | 0.83313 |         |         |
| EL_22  | 0.83772 |         |         |
| EL_23  | 0.82558 |         |         |
| EL_24  | 0.80460 |         |         |
| EL_25  | 0.70191 |         |         |
| EL_26  | 0.64176 |         |         |
| EL_27  | 0.78067 |         |         |
| EL_28  | 0.79627 |         |         |
| EL_29  | 0.77227 |         |         |
| EL_30  | 0.71641 |         |         |
| EL_31  | 0.70089 |         |         |
| EL_32  |         | 0.65181 |         |
| EL_33  |         | 0.61967 |         |
| EL_34  |         | 0.65876 |         |
| EL_35  |         | 0.72740 |         |

Re-evaluation of the measurement model yielded high standardized coefficients for the relationships between ethical leadership as a latent variable and the new manifest indicators (B=0.88, B=0.90, B=0.78). Furthermore, high standardized estimates were found for the relationships between psychological safety and the three manifest indicators thereof (B=0.77, B=0.89, B=0.82) and between employee engagement and the three

manifest indicators including vigor (B=0.76), dedication (B=0.78) and immersion (B=0.89).

### Correlations

Having a established a well-fitting measurement model, a series of correlations were undertaken in order to establish the strength of the relationships between the latent variables, a prerequisite for structural equation modeling. Correlations were computed for the relationships between all variables, in order to establish the strength thereof. When examining the relationship between the IV and the DV with the mediator, it is clear that psychological safety, the mediator, has a strong, positive relationship with ethical leadership, the IV ( $r=0.81$ ), and a moderately strong, positive relationship with the DV, employee engagement ( $r=0.62$ ). This suggests that an increase in perceived ethical leadership is accompanied by enhanced perceptions of psychological safety, which is similarly related to increased levels of employee engagement. Conversely, such findings suggest that an absence of perceived ethical leadership is accompanied by decreased levels of psychological safety, which in turn is related to a reduction in employee engagement. Furthermore, a strong, positive relationship was found between the IV and DV, or ethical leadership and employee engagement as evidenced by an  $r$  value of 0.78, implying that increased perceptions of ethical leadership are tied to heightened levels of employee engagement.

Table 6: Correlation matrix

|                      | Ethical Leadership | Psychological Safety | Employee engagement |
|----------------------|--------------------|----------------------|---------------------|
| Ethical Leadership   | 1                  | 0.81                 | 0.78                |
| Psychological Safety | 0.81               | 1                    | 0.62                |
| Employee engagement  | 0.78               | 0.62                 | 1                   |

## Path analysis for ethical leadership, psychological safety and employee engagement

Prior to conducting a path analysis, whereby the parameters are estimated for the relationships between the latent variables in the structural model, the goodness of fit of the model was assessed in terms of the relevant indicators specified by Garson (1998).

Table 7: Indicators for Goodness of Fit, and the Goodness of Fit Indicator for Ethical Leadership

| Index  | Value |
|--|-------|
| 1. Goodness of Fit Index (GFI)                                 | 0.92* |
| 2. Adjusted GFI (AGFI)   | 0.85  |
| 3. Bentler and Bonetti's (1980)<br>Non Normed Fit Index (NNFI) | 0.92* |
| 4. Bentler Comparative Fit Index (CFI)                         | 0.95* |
| 5. Root Mean Square Error of<br>Approximation (RMSEA)          | 0.1*  |
| 6. Root Mean Square (RMR)                                      | 0.56  |
| 7. Hoelter's (1983) Critical N                                 | 75*   |
| 8. Probability of Close Fit                                    | 0.001 |

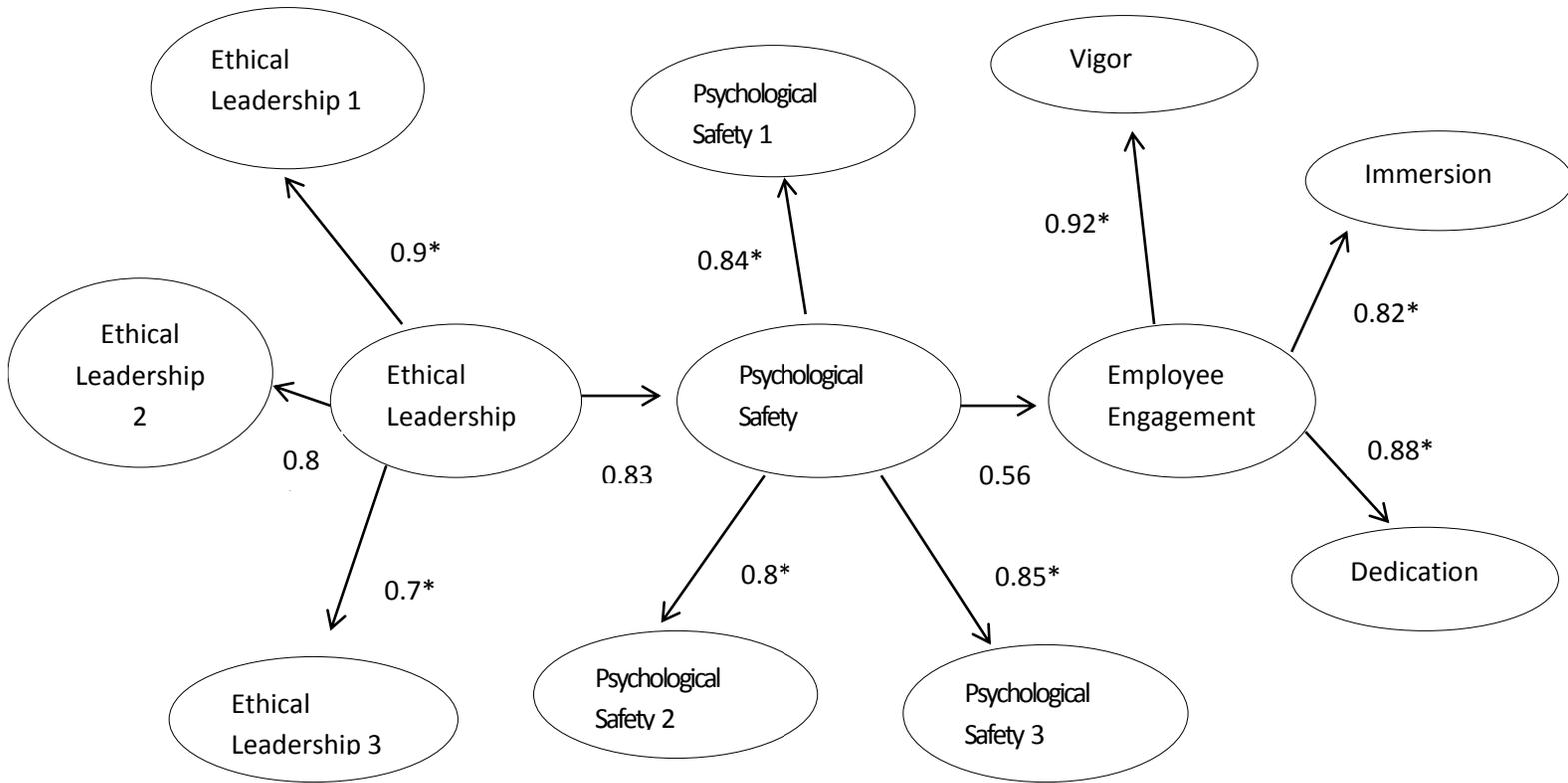
\* Indicates good model fit

When evaluating the role of psychological safety in mediating the relationship between perceptions of ethical leadership and employee engagement, a good model fit was found. The GFI, NNFI and CFI all yielded acceptable scores of 0.92, 0.92 and 0.95 respectively, indicating an excellent model fit. The AGFI was slightly low but acceptable, however, at a value of 0.85. The model fit according to Hoelter's  $N = 75$ , despite reaching the highest acceptable value. The model did not fit, however, in terms of Root Mean Square (RMR), which yielded an excessively high value of 0.56 and probability of close fit which

reached significance at a value 0.0001. Overall, the model the model represented a satisfactory fit and was thus acceptable.

Having established the goodness of fit, the path analysis of the structural equation model, which depicts the relationships and paths among the factors under examination, was then analyzed. All the hypothesized paths in the model presented the expected signs, and significance of paths as reflected by t values. Ethical leadership was positively and significantly correlated with psychological safety ( $B=0.83$ ;  $t=20.32$ ), thus indicating a strong relationship between the independent variable and mediator. Similarly, psychological safety was positively and significantly linked with employee engagement, ( $B=0.56$ ;  $t=2.95$ ) indicating a strong and positive connection between the mediator and outcome variable. Finally, in the presence of or when controlling for the mediating the variable, the IV-DV relationship, or the link between ethical leadership and employee engagement dropped to non-significance ( $B=-0.0719$ ;  $t=-0.37$ ).

Table 8 Structural and measurement model for role psychological safety in mediating the relationship between ethical leadership and employee engagement



## Chapter 5

### Discussion

The present study aimed to assess the relationship between ethical leadership and employee engagement, as mediated by psychological safety, within the sales and administrative division of a major South African technological goods producer. This chapter thoroughly discusses the results and begins with the organizational environment in order to provide a context for the discussion. Possible measures that may be employed and implemented within organizations are discussed, limitations are identified and directions for future research are considered.

#### Impact of external organizational environment on participants' scores

When considering the findings of the current study, it is important to take cognisance of the potential impact of the organisational environment on the primary outcome variables, including psychological safety and employee engagement. Of the external factors influencing the organization, the prevailing economic climate may well have affected employee experiences and attitudes. At the time of the research, the country was affected by the global economic downturn that has led to extensive downsizing and accompanying retrenchments. While no retrenchments or cessation of employment contracts had been implemented in the organization, it is likely that the general sense of unease in the business world served to heighten employee anxiety and reduce employee engagement amongst the research participants. Additionally, it is plausible that employee perceptions of psychological safety were influenced by the economic environment as employees may have been fearful of making mistakes or seeming too needy and thus appearing dispensable in the eyes of the company which would leave them vulnerable in the eventuality of downsizing.

In answering the primary question of the current study, employee perceptions of psychological safety were found to mediate the relationship between employee

perceptions of ethical leadership and employee engagement. This was premised on the structural equation model which yielded strong positive relationships between perceptions of ethical leadership and psychological safety as well as between perceptions of psychological safety and employee engagement. Given the fact that the relationship between perceptions of ethical leadership and employee engagement dropped to non-significance in the presence of psychological safety, the mediation model was fully supported. This implies that psychological safety fully mediates the relationship ethical leadership and employee engagement, thereby confirming the primary research hypotheses.

Prior to discussing the implications of the findings, it is important to clarify the composition of ethical leadership, or the independent variable as assessed in the current analysis. It is imperative to note that the ethical leadership variable considered in the current analysis, differed significantly from the originally defined variable in that the power sharing dimension was excluded due to its failure to load onto a specific factor in the preliminary factor analysis. The factor analysis undertaken in the original measurement model indicated weak relationships between the ethical leadership subscales and the latent variable of ethical leadership. The subsequent factor analysis indicated that power sharing failed to load on one individual factor, implying a lack of cohesion or meaningful connection amongst the subscale items.

Furthermore, concern for sustainability was omitted from the current consideration of ethical leadership, given that few mainstream ethical leadership theorists include this dimension in their conceptualization and measurement of this valued leadership style. Given that seminal authors such as Brown *et al.* (2005) and Trevino *et al.* (2000, 2003) both fail to mention concern for environmental sustainability and related issues in both their definition and measurement of ethical leadership, the current analysis excluded this seemingly unimportant element from its assessment. Thus, ethical leadership in the current analysis includes person orientation, ethical guidance, role clarification, integrity and fairness dimensions.

### Implications of current findings

Having clarified the composition of ethical leadership as analysed in current study, the implications for the findings can now be explored. In confirming the linkage between ethical leadership and employee engagement, the current study echoed prior research tying supervisory support to employee engagement (Saks, 2006; May *et al.*, 2004). Given the importance of supervisor care, concern and supportiveness within ethical leadership (Brown & Trevino, 2006; Kalshoven *et al.*, 2011), the current linkage between ethical leadership and employee engagement effectively validated the earlier connection between supervisor support and this valued employee state. Furthermore, given that the current study predicated the expected association between ethical leadership and employee engagement on earlier studies linking transformational leadership and employee engagement (Dibley, 2009; Schaufeli, 2011) and the established overlap of (Brown & Trevino, 2006) and relationship between transformational and ethical forms of leadership (Toor & Ofori, 2009), this study provided further evidence for the similarities between transformational and ethical leadership styles. The association between ethical leadership and psychological safety found in the present study mirrored earlier findings (Walumbwa, & Schaubroeck, 2009, Driscoll & Mckee, 2007, Nuebert *et al.*, 2009, Kaptein & Van Reenen, 2001) thereby providing further evidence for the connection between these two phenomena.

Furthermore, when considering the components of ethical leadership in relation to employee engagement, the current study confirmed the relationship between role clarification and employee engagement (Harter, Schmidt & Hayes, 2002; Saks, 2006; Steele & Fullagar, 2009; Mendes & Stander, 2011). Similarly, the linkage of person orientation to employee engagement in the current study further validated Xu and Thomas's (2011) finding which suggested that a leader who supports team members, displays genuine, sincere interest in the team's development and celebrates their successes is likely to elicit high engagement levels in followers. This connection between person orientation and employee engagement further supported May *et al.*'s (2004) suggestion that a supportive supervisory leadership style is associated with high levels of

employee engagement. Additionally, this study provided support for leader fairness as an enhancing agent of employee engagement, as based on the prior identification of procedural justice, or perceived fairness of decisions, as an antecedent of employee engagement (Saks, 2006).

In addition to confirming the expected relationship between ethical leadership and employee engagement, the current study replicated earlier findings linking psychological safety to employee engagement (May *et al.*, 2004; Walumbwa & Schaubroeck, 2009). However, the significance of the relationship between psychological safety and employee engagement points to the existence of a relationship between these two variables, it is interesting to note that the current study found a relatively weak link between psychological safety and employee engagement, at a surprisingly low standardized estimate value of 0.56. When interpreted in light of the exceedingly strong relationship between ethical leadership and psychological safety, which had a Beta value of 0.83, this relationship seems exceptionally weak. However, May *et al.* (2004) found a similarly weak, yet significant relationship between psychological safety and employee engagement, thereby suggesting that the current finding was not that surprising or unusual.

In terms of the current research, psychological safety was found to mediate the relationship between ethical leadership and employee engagement. These findings echo the large body of research identifying psychological level variables such as LMX, core job characteristics, psychological empowerment, meaningful work, self-efficacy, cohesiveness, procedural justice and trust in the relationships between transformational leadership and outcomes including follower performance and organizational citizenship behaviour, organizational commitment, psychological well-being, group commitment and task performance (Wang, Law, Hackett, Wang & Chen, 2005; Turner, Barling, Kelloway & McKee, 2005; Pillai & Williams, 2004; Avolio, Zhu, Koh & Butler, 2004; Picollo & Colquitt, 2006). Thus, the current research provides evidence of the role of psychological processes in mediating the relationship between leadership styles and desired organizational and employee outcomes.

While other leadership styles have been linked to valued outcomes through psychological variables, the current study confirmed the role of psychological phenomena in mediating the relationship between the ethical leadership style in particular and valued organizational and employee outcomes. This was in tandem with studies that linked ethical leadership to organisational citizenship behaviour and employee performance via psychological variables such as task and job autonomy, LMX, self-efficacy and organizational identification (Piccolo, Greenbaum, Den Hartog & Folger, 2010; Walumbwa *et al.*, 2011). Thus, the current study identifies psychological safety as an important process in relation to the ethical leadership style in particular and valued outcomes.

In identifying psychological safety as a mediator of the relationship between ethical leadership and employee engagement, the current study pointed to the important role of this psychological safety in mediating relationships between leader behaviour and valued employee outcomes. This echoed Wong, Tjosvold and Lu's (2010) identification of psychological safety as a mediator between leader values of participation and team learning, which was similarly reflected by Carmeli, Reiter-Palmon and Ziv (2010) who pointed to the role of psychological safety in mediating the relationship between leader openness, accessibility and availability and employee involvement in creative work. Similarly, felt care on behalf of leaders has been related to engagement in innovative behaviours in the workplace through psychological safety (Vinarski-Peterz & Carmeli, 2011). Thus, the current study validates the role of psychological safety in mediating the relationships between positive leader behaviours and desired employee outcomes.

Importantly, the current analysis filled a specific gap in the literature, given that psychological safety has been largely excluded from the list of psychological processes that have been identified as key mediators in the relationship between ethical leadership and desired employee outcomes. For example, psychological empowerment has been theorized to mediate the relationship between ethical leadership and organisational outcomes such as employee trust and commitment in leaders (Zhu, May & Avolio, 2004).

This forms part of a broader psychological approach undertaken to explicate or understand the mechanism underlying the impact of ethical leadership on organizational outcomes. In terms of empirical findings, psychological safety has been identified as mediator of the relationship between ethical leadership and outcomes such as follower voice behaviour (Walumbwa & Schaubroeck, 2009). Despite the theoretical and empirical support underpinning the role of psychological safety as a mediating variable in these relationships, there is a paucity of research examining the role of this specific psychological process in relation to ethical leadership and valued organizations. Thus, the current study lent further support to psychological safety in linking this well recognized leadership style with organizational benefits and thereby supplemented a neglected area of organizational and leadership research.

Furthermore, the study identified the linkage between ethical leadership and employee engagement, which has been largely ignored in prior research. While authentic leader behaviours (Gardner, Avoilio, Luthans, Douglas & Walumbwa, 2005) have been linked to employee engagement, ethical leadership has not been explored in relation to this valued construct. This is even more surprising given the extensive evidence pointing to the role of the leader in determining employee engagement (Sheridan & Vrendenburgh, 1978; Ribelin, 2003; Eisenberger, Stinglhamber, Vandenberghe, Sucharski, Ivan & Rhoades, 2002 as cited in Novack, 2004). Thus, while prior research has identified leader behaviour and general and authentic leadership style in particular to employee engagement, ethical leadership has been neglected in relationship to this highly valued employee state, which the current study filled.

#### Factor structure of the ethical leadership scale and implications

When considering the findings of the study in relation to the Ethical Leadership at Work Scale (Kalshoven et al., 2011) it is interesting to note that the ethical guidance and role clarification subscales loaded on an individual factor, indicating an underlying similarity or shared dimension between these seemingly discrepant subscales of the ethical leadership scale. Upon analysis of the items comprising both subscales, it is logical that

both of these subscales load on a mutually shared factor as they both entail explanations of required subordinate behaviour by supervisors. Ethical guidance involves supervisor or leader explanations of requisite behavioural standards in terms of ethical requirements while role clarification involves mapping out of specific employee behaviours and actions.

Similarly, person orientation and integrity loaded on a single factor, implying shared characteristics between both these component dimensions of the ethical leadership scale. Thus, leader care and compassion appears to be intertwined with the extent to which leaders are perceived to keep their promises, honour commitments and behave with integrity. This finding suggests that integrity and person orientation may represent an underlying factor or component of ethical leadership that differs from those originally postulated by Kalshoven *et al.* (2011).

The unconventional factor structure found in the current analysis may have important theoretical implications for the ethical leadership construct as defined and measured by Kalshoven *et al.* (2011). It may be that role clarification and ethical guidance as well as person orientation and integrity may be subsumed by two overarching factors that Kalshoven *et al.* (2011) failed to identify. This suggests that the original ethical leadership subscale should possibly be revised or re-examined in order to identify factors that underlie a number of the existing subscales. This finding further implies that future analyses must assess the presence of a similar factor structure, thereby validating or providing further support for the revision of the existing ethical leadership scale as devised by Kalshoven *et al.* (2011).

#### Study scores and implications for valued organizational outcomes

When considering the scores in the current study, employee perceptions of ethical leadership were relatively low, with participants scoring an average of 3.31 out of a possible 5 on Kalshoven *et al.*'s (2011) ethical leadership scale. Taken in comparison to other findings, the current scores were markedly lower than those reported by Kalshoven

*et al.* (2011) who reported an average score of 3.72. Given the positive impact of this leadership style on employee outcomes, the low levels of perceived ethical leadership present a challenge to the organization. In addition to preventing psychological safety and employee engagement from flourishing, an absence of ethical leadership further compromises the organization as it may reduce the extensive range of desirable outcomes that ethical leadership has been found to elicit. These include enhanced employee organizational commitment and employee trust in leaders (Ponnu & Tennakoon, 2009), increased voice behaviour in employees (Walumbwa & Schaubroeck, 2009), improved relationship between leaders and their followers, known as leader-member exchange (Mahsud & Yukl, 2010), increased organisational citizenship behaviour (Mayer *et al.*, 2009), favourable employee perceptions of top management effectiveness, heightened levels of employee optimism regarding their place within the organisation (De Hoogh & Den Hartog, 2008) and follower helping and courtesy (Kalshoven *et al.*, 2012). Thus, ethical leadership not only enhances employee engagement through the mechanism of psychological safety, but also yields a vast array of positive outcomes for organizations. Thus it is in the interest of organisations to promote the development of ethical leadership not only for its role in boosting psychological safety and employee engagement, but also for the positive employee outcomes that this leadership style has been found to elicit.

When considering employee perceptions of psychological safety, participants scored an average of 3.36 out of a possible 5 which was slightly lower than participants in Carmeli and Gittel's (2009) study who reported an average score of 3.44 out of a possible 5. Thus, psychological safety scores in the current study were slightly low, indicating a reduced level of perceived psychological safety within the organization. These depressed scores pose a challenge to the organization given that psychological safety has been found to foster an extensive list of desirable outcomes over and above that of employee engagement. Thus, while psychological safety has been identified as the mechanism through which the relationship between ethical leadership and employee engagement transpires, the enhancement of psychological safety in organizations yields benefits over and above that of employee engagement. These include increased job involvement and commitment of time and energy in organizations (Brown & Leigh, 1996), improved firm

performance (Baer & Frese, 2002), effective learning in work teams (Edmondson, 1999; Edmondson, 2002), network ties (Schutle, Cohen & Klein, 2010) and expanded adoption of groupware in the education setting (Schepers, de Jong, Wetzel & Ruyter, 2008).

In contrast to perceptions of both ethical leadership and psychological safety, employee engagement scores were remarkably high, with the sample scoring an average of 5.70 out of a possible 7. In their engagement manual, Schaufeli and Bakker (2001) report scores of 3.82 for the Dutch sample, while the mean score from the general database was 4.10. These norms point to the exceptionally high level of engagement in the current study, which is surprising given the relatively low levels of perceived psychological safety and ethical leadership amongst the participants. These high engagement levels are even more surprising given the prevailing economic downturn which could be reasonably expected to exert depressing or demoralizing effects on the research participants. However, given that prior engagement scores were not assessed, it is difficult to conclude with certainty that the economic recession did not depress employee engagement levels to some extent.

In attempting to understand the remarkably high engagement levels, it is instructive to explore the possible influence of demographic variables thereon. In terms of demographic variables, gender has been found to influence engagement amongst undergraduate students, with women exhibiting higher levels than their male counterparts (McKinzie *et al.*, 2011). However, given that the current sample comprised roughly equal numbers of male and female participants, it is unlikely this had an impact on engagement levels. While race has been documented to influence absenteeism levels, with black employees exhibiting higher absentee levels than their white colleagues (Avery, McKay, Wilson & Tonidandel, 2007), similar effects have not been documented for employee engagement. It is interesting to note that older employees (over 55) exhibit higher engagement levels than the younger cohort (James, Swanberg & McKechnie, 2007). While the findings suggest that young employees may be expected to exhibit relatively low engagement scores, the current study revealed seemingly contradicting evidence given the relatively youthful age of the sample which had an average age of 33.75 and exceedingly high engagement scores.

Given that employee engagement was identified as a prized organizational outcome in the current study, the high engagement scores exhibited by the research participants bode well for the organisation. However, it is important to note that engagement is valuable in its own right and yields a host of beneficial outcomes for organizations. These include improved in-role and extra role performance and willingness to go the extra mile (Bakker, Demerouti & Verbeke, 2004; Gierveld & Bakker, 2005; Schaufeli, Taris & Bakker, 2006), increased organizational profits (Xanthopoulou, Bakker, Demerouti, & Schaufeli), heightened employee productivity and creativity (Bakker & Demerouti, 2008) and expanded customer loyalty (Salanavo, Agut & Perio, 2005). Thus, employee engagement is valuable not only for its positive impact on organisations but also for the numerous benefits to which it has been linked. Thus, it is in the interest of organisations to improve employee engagement levels both for the sake of engagement itself and for the extensive range of positive outcomes that attend this employee state.

#### Recommendations for organizations

Having demonstrated the beneficial outcomes of ethical leaders maintaining stewardship of organizations, including not only psychological safety and employee engagement but also their numerous attendant outcomes which enhance organizational success and profitability, it is advisable that organizations institute comprehensive programs to foster ethical leadership. As discussed in the current study, these programmes should encourage leaders to behave with integrity; to set ethical guidelines and moral standards and codes and to reinforce these codes with a reward and punishment system; to clarify roles and expectations concerning employee duties and responsibilities and to exhibit care, compassion and concern for their subordinates.

While it is important for CEO's and top management to spearhead the campaign for ethicality, it is simply impossible to micromanage the behaviour and decisions of employees on a daily basis. Thus, according to Fulmer (2004), organizations must implement wide-ranging policies and practices aimed at fostering ethicality. Fulmer

(2004) argues that a case study with pharmaceutical manufacturer Pfizer reflects these policies and practice in action. Pfizer's broad-based approaches focuses on leadership development, the enhancement of organizational effectiveness within the global arena, the creation of healthy, productive environments and improvement of governance, strategic planning, organizational structure and relationships (Fulmer, 2004). Furthermore, screening of potential leaders should include an assessment of their devotion to integrity (Fulmer, 2004). Thus, the importance of ethical leadership is recognized both in practice and theory and the findings in the current report lend further support to such an organizational initiative.

When devising leadership development programmes with an emphasis on ethics, it is not entirely necessary to establish radical, new projects. Rather, it is possible to amend existing programmes to include the idea and exploration of ethical leadership. This may include discussions with leaders concerning their personal conceptualizations of ethical leadership, thereby encouraging the practice and implementation thereof (Freeman & Stewart, 2006). Such discussions may include a series of questions that leaders may ask themselves in order to reveal personal values and internal moral or ethical codes. Such insight may afford leaders a glimpse into their own internal ethical models and allow for revision in the case of problematic or worrying discoveries.

Ethical leadership may further be fostered through an organisational culture that prioritizes desirable leader practices such as promoting ethical guidelines, exhibiting care and compassion for employees, clarifying roles and expectations and behaving with fairness and integrity. In order to foster such leadership practices, organizations can create a caring corporate culture that not only values employee contributions but also facilitates avenues for good, open communication (Durkin, 2007).

Finally, Freeman and Stewart (2006) suggest that development of ethical leaders requires the initiation of conversations regarding significant values and the manner in which the organization benefits stakeholders. This form of conversation may take place within meetings where decisions are evaluated in light of company values, as conducted at

Dupont, where time is reserved in order to explore concerns regarding meeting decisions on stakeholders or challenges to company values (Freeman & Stewart, 2006).

As a caveat, it is important to tailor ethical leadership programmes and initiatives to the specific culture within which the organization is located as different cultures value or emphasize varying aspects of ethical leadership. Thus, while Nordic European societies such as Denmark, Sweden and Finland place primary emphasis on encouragement and collective motivation, Middle Eastern countries including Egypt, Kuwait, Morocco, Qatar and Turkey shun these dimensions of ethical leadership style (Resick *et al.*, 2006). In Sub Saharan Africa, altruism and collective motivation are accorded major importance in comparison to leader integrity and encouragement, which are not valued as highly as the aforementioned dimensions of ethical leadership (Resick *et al.*, 2006). These findings point to the fact that notions of ethical leadership may not be cross culturally relevant, lending further support to the current analysis which has looked at leadership within a South African management and organisational context.

In addition to creating ethical leaders, organizations should also create environments that promote psychological safety or the sense of emotional freedom wherein self-expression, critical evaluation of individual or team performance, questions, help seeking and information requests are met with acceptance and encouragement as opposed to disparagement, hostility, condemnation or mockery (Edmondson, 2002). This is due not only to the self-explanatory benefits of such an environment, but also the proven impact on employee engagement as shown in the current study. In order to create psychological safety, organizations must create supportive, open environments that encourage employee experimentation and initiative and allow failure without punishment (Kahn, 1990). Furthermore, exhibition of words and deeds by leaders that demonstrate an invitation and appreciation of follower contributions, known as leader inclusiveness, has been further proven to facilitate psychological safety. Thus, leaders must actively display an interest in their followers' thoughts, opinions and ideas which thereby creates psychological safety (Nerembhard & Edmondson, 2006).

## Limitations

In discussing the findings of the current study, it is important to mention shortcomings that may serve to undermine the validity and applicability of the findings. Firstly, given that the majority of the study respondents were not educated past matric level (59%), and considering that the questionnaire items comprised highly complex and sophisticated English, it is reasonable to assume that many of the participants misunderstood or failed to fully grasp the meaning of many of the questionnaire items. In addition to the educational level, a relatively small minority of the sample (20.14%) spoke English as their primary language.

Another concern with regard to employee understanding of questionnaire items pertains to the Ethical Leadership at Work Scale. Given that the entire group of questions contained in the fairness subscale was reverse scored; this may have created confusion in participants, as the remainder of the scale items were phrased in a positive manner

Another limitation of the current study is the relatively small sample size, which comprised 139 participants.. As noted by Walumbwa *et al.* (2010), studies that are based on a relatively small sample lack external validity and pose problems for generalizability to the broader population. A challenge to the generalizeability of the findings further arose from convenience sampling, the method chosen in order to recruit research participants. A danger in this type of sampling situation is bias, which arises when the individuals in the sample are not representative or typical of the overall populations from which they were selected or chosen (Babbie, 2010). This sampling method may thus poses problems in terms of representativeness of the sample, which does not necessarily reflect all of the elements in the population. In terms of the current study, a small group of employees from one organisation in the manufacturing industry in Johannesburg, South Africa cannot truly be considered to genuinely reflect or represent all working employees and organisations in the global business arena. Thus, convenience sampling, coupled with the relatively small sample size, presents a significant threat to the generalisability of the findings and their practical use in the business world.

While problems of bias and representativeness are a recognized challenge to all studies in field research pertaining to topics such as ethical leadership (Babbie, 2010), it nevertheless significantly undermines the researcher's ability to extend results findings to the general public or as in the case of the present research, to general organizations. Some studies attempt to counteract this limitation by recruiting a diverse or heterogeneous sample, thereby increasing the broad applicability of the findings. However, the researcher did not have such means at her disposal and was thus unable to include a large, diverse group of individuals in the sample, resulting in a highly limited group of individuals from one organization in Johannesburg, South Africa.

In discussing the representativeness of the sample, it is imperative to note the possibility of self-selection bias in the current study, which entails a process whereby individuals select themselves into the group of sample participants (Babbie, 2010). Concerns about self selection bias are based on the fact that engaged employees are most likely to complete company surveys, thereby resulting in a group that fails to accurately represent the component elements of the organisation. Self-selection bias thus results in a highly homogenous group of participants, thereby undermining the representativeness of the sample and the accompanying generalisability of the results.

Furthermore, common method variance, a non random error, was present in the current study, as all the variables were collected in the same survey format (Maruyama, 1997). Additionally, Structural Equation Modeling requires a minimum sample of 200 participants in order to satisfy the assumption of homogeneity, which renders the standardized estimates reliable indicators of the relationships between the variables. Thus, the current study sample of 139 participants was rather small for an SEM thereby casting doubt on the validity of the coefficients and related findings.

It is important to note that while the researcher initially believed that the guarantees of confidentiality and anonymity would encourage full participation and honest disclosure, it appeared that participants were highly suspicious and mistrustful of the assurance that

their identities would remain anonymous. Despite the explicit assurances explicated on the participant information sheet, a large number of participants discontinued participation following the demographic questionnaire, with a significant proportion dropping out after completion of the ethical leadership section.

Discussions with the H.R. director revealed widespread problems with employee engagement levels and ongoing complaints of supervisory punishment and maltreatment by employees. Thus, the high dropout rate was possibly due to participants' fears of reprisals or repercussions for poor portrayals of their leaders, supervisors or managers, which they possibly believed could be traced to their specific identities. Evidence for the fear of punishment is found in an e-mail that was sent to the researcher by one of the participants querying the possible punishments that would be meted out by supervisors and their organization following an unflattering review in both ethical leadership and psychological safety scales.

The suspicion may have been aroused by the detailed demographic information required. Given that some departments are particularly small, employees may have been convinced that their answers could be linked to their identities based on their age and gender. Such anxieties may have partially rooted in the decidedly hostile, tense atmosphere in the company which is characterized by a culture of fear, humiliation, punishment and employee discontent. Evidence of the pervasive fear and hostility in the organisation was gleaned from conversations with an employee, who contacted the researcher in order to request that the findings be forwarded to her upon completion of the analysis.

In attempting to understand the root of this phenomenon, it may be that the purpose of the biographical information was not explained clearly enough in the participant information sheet. As another possibility, the biographical information may have been requested at the end of the questionnaire, which may have allayed anxieties sparked by early requests for identifying information. Finally, given the low educational level of the sample, the participant information sheet may have explained the guarantee of anonymity in simpler terms.

Given the suspicion regarding the anonymity and confidentiality of the survey responses, it is further possible that response bias marred the responses of the participants. A commonly documented phenomenon in social research is response bias which includes social desirability bias, where respondents inflate or doctor accounts of themselves to appear socially desirable, and halo effect, whereby respondents rate others consistently on specific dimensions given a tendency to make global judgments concerning others (Beck, Bryan & Liao, 2004). Thus, respondents may alter their authentic beliefs or attitudes for personal reasons and psychological motivations. While the current study offered assurances of both confidentiality and anonymity, participants seemingly did not trust the stated assurance, possibly arousing resistance and muddying the authenticity of participant responses. Given the participant concerns regarding possible punishment and negative repercussions for unfavorable portrayals of their leaders as mentioned earlier, it is possible participants doctored their answers in order to present positive reflections of their leaders in a bid to evade undesirable consequences thereof.

Finally, the ethical implications of the study were a particularly problematic aspect thereof. Given the concerns of the participants regarding the confidentiality of their responses, the study seemingly evoked significant angst and anxiety amongst the employees. It may well have aroused fears of punishment or reprisals by supervisors and even created worry about employment security at the organization. However, this extreme employee reaction was not necessarily caused by the study, but may simply have been a reflection of existing levels of unease and mistrust within the organization. Thus, the research may simply have provided an avenue for the expression of pervasive fearfulness and mistrust of employees, rather than providing a unique source for the creation thereof.

### Directions for future research

It is recommended that the current research is replicated utilizing a larger, more representative sample from a number of locations that can be generalized to general organizations. Thus, it should be administered to organizations in a number of industries and include a heterogeneous racial group that accurately reflects the employee population. Furthermore, in order to counteract the haphazard selection of participants using the convenient sampling method and possible effects of self-selection bias, future studies should employ a random sampling method in order to guarantee representativeness of the sample.

Furthermore, additional psychological variables should be examined as mediators in the relationship between ethical leadership and employee engagement. These should include psychological constructs investigated for their mediating role in the relationship between ethical leadership and valued outcomes such as task and job autonomy, LMX, self-efficacy and organizational identification (Piccolo, Greenbaum, Den Hartog & Folger, 2010; Walumbwa *et al.*, 2011). Other psychological processes that may be explored include those that have been identified as mediators in the relationship between transformational leadership and desired organizational outcomes, such as core job characteristics, psychological empowerment, meaningful work, cohesiveness, procedural justice and trust in the relationships (Wang, Law, Hackett, Wang & Chen, 2005; Turner, Barling, Kelloway & McKee, 2005; Pillai & Williams, 2004; Avolio, Zhu, Koh & Butler, 2004; Picollo & Colquitt, 2006).

It may also be informative to utilize a more widely used measure of ethical leadership such as Brown, Trevino and Harrison's (2005) 10 item scale in future studies. Given that Brown *et al.*'s (2005) scale is widely used in ethical leadership research, utilization of this popular measure may add to the existing field of ethical leadership research established utilizing this measure. Furthermore, findings established utilizing this scale may be more meaningful as they may be considered in relation to the vast body of work based upon Brown *et al.*'s scale.

## Conclusion

In conclusion, the current study fully supported the role of psychological safety in mediating the relationship between ethical leadership and employee engagement. As such, it identified psychological safety as an important variable linking ethical leadership and desired outcomes, thereby lending further support to the important role of this neglected phenomenon. Furthermore, it validated the importance of ethical leadership style in fostering valued employee outcomes and concomitant organizational success.

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## **Appendix A: Participant Information Sheet**



Psychology

School of Human & Community Development

Private Bag 3, Wits 2050, South Africa. Telephone: +27 11-717-4500/2/3/4. Fax: +27-11-717-4559

Good day,

My name is Dina Hendler and I would like to invite you to participate in a research study I am currently conducting for the purposes of obtaining my Masters in Organisational Psychology at the University of Witwatersrand. As part of our course we are required to perform supervised research in a particular area of Organisational Psychology. For my research project I have chosen to examine perceptions about leadership and workplace climate.

Participation requires that you are currently involved in a team or division that requires regular contact with an immediate supervisor or manager. This research will involve completing a questionnaire, which will approximately take 20 minutes. Participation is completely voluntary. You will not be advantaged or disadvantaged in any way by choosing to complete or not complete this questionnaire. While some questions are asked about your personal circumstances, no identifying information such as your name or ID number are required of you. Your completed questionnaire will not be seen by anyone but myself and my supervisor. If the study is published, your responses will be combined with all other responses, so individual responses will not be discernable. Additionally, there will be absolutely no repercussions for participating in the study. If you fulfil the criteria for participation and are willing to participate in the study please complete the questionnaire as honestly and carefully as possible. Completion of the questionnaire is regarded as consent to participate in the study.

At the completion of the research, feedback of general trends will be available from me at your request from March 2012. Should you require further information or assistance in completing the form please feel free to contact me or my supervisor, Karen Milner. Thank you for taking time to read this letter and should you participate, thank you for your assistance.

---

Dina Hendler  
074-127-5753  
dinahendler@hotmail.com

---

Karen Milner  
011-717-4506  
[Karen.Milner@wits.ac.za](mailto:Karen.Milner@wits.ac.za)

## **Appendix B : Letter to the Organisation**



Psychology  
School of Human & Community Development  
Private Bag 3, Wits 2050, South Africa. Telephone: +27 11-717-4500/2/3/4. Fax: +27-11-717-4559

To Whom It May Concern

My name is Dina Hendler and I am studying towards my Masters in Organisational Psychology at the University of the Witwatersrand. One of the requirements of the course is a research study, which I am conducting on leader related perceptions in the workplace. This is a well-researched and highly pertinent area of study that has significant and ongoing implications for workplace dynamics.

I would like to request permission to conduct my research at your organisation. Employees would be required to fill out an online questionnaire, which would take approximately 20 minutes. All answers will be entirely confidential and will only be viewed by myself and my supervisor, Professor Karen Milner. She can be contacted at Karen.Milner @wits.ac.za or on 011- 717-4506.

Additionally, anonymity will be guaranteed, as research participants will only be required to indicate basic demographic variables like gender and age. Participation in the study will be entirely voluntary.

Feedback will be made available to the organization in March 2012 and may provide useful insight into employee perceptions and attitudes concerning leadership and current levels of engagement.

Looking forward to hearing from you.

Yours Sincerely

Dina Hendler  
Email: dinahendler@hotmail.com  
Cell: 074-127-5753  
Home: 011-346-2074/2133

### **Appendix C: Ethical leadership scale**

Below are 38 statements about your supervisor with which you may agree or disagree. Using the scale below, indicate your agreement with each item placing a cross over the appropriate number

1. Is interested in how I feel and how I am doing

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

2. Takes time for personal contact.

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

3. Pays attention to my personal needs

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

4. Takes time to talk about work-related emotions

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

5. Is genuinely concerned about my personal development

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

6. Sympathizes with me when I have problems

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

7. Cares about his/her followers

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

8. Holds me accountable for problems over which I have no control

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

9. Holds me responsible for work that I gave no control over

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

10. Holds me responsible for things that are not my fault

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

11. Pursues his/her own success at the expense of others

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

12. Is focused mainly on reaching his/her own goals

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

13. Manipulates subordinates

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

14. Allows subordinates to influence critical decisions

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

15. Does not allow others to participate in decision-making

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

16. Seeks advice from subordinates concerning organizational strategy

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

17. Will reconsider decisions on the basis of recommendations by those who report to him/her

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

18. Delegates challenging responsibilities to subordinates

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

19. Permits me to play a key role in setting my own performance goals

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

20. Clearly explains integrity related codes of conduct

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

21. Explains what is expected from employees in terms of behaving with integrity

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

22. Clarifies integrity guidelines

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

23. Ensures that employees follow codes of integrity

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

24. Clarifies the likely consequences of possible unethical behaviour by myself and my colleagues

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

25. Stimulates the discussion of integrity issues among employees

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

26. Compliments employees who behave according to the integrity guidelines

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

27. Indicates what the performance expectations of each group member are

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

28. Explains what is expected of each group member

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

29. Explains what is expected of me and my colleagues

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

30. Clarifies priorities

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

31. Clarifies who is responsible for what

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

32. Keeps his/her promises

|                   |   |   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |                |

33. Can be trusted to do the things he/she says

|          |   |   |   |   |   |   |   |          |
|----------|---|---|---|---|---|---|---|----------|
| Strongly |   |   |   |   |   |   |   | Strongly |
| disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | agree    |

34. Can be relied on to honour his/her commitments

|          |   |   |   |   |   |   |   |          |
|----------|---|---|---|---|---|---|---|----------|
| Strongly |   |   |   |   |   |   |   | Strongly |
| disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | agree    |

35. Always keeps his/her words

|          |   |   |   |   |   |   |   |          |
|----------|---|---|---|---|---|---|---|----------|
| Strongly |   |   |   |   |   |   |   | Strongly |
| disagree | 1 | 2 | 3 | 4 | 5 | 6 | 7 | agree    |

## **Appendix D: Ethical leadership subscales**

### **People orientation**

Is interested in how I feel and how I am doing  
Takes time for personal contact.  
Pays attention to my personal needs  
Takes time to talk about work-related emotion  
Is genuinely concerned about my personal development  
Sympathizes with me when I have problems  
Cares about his/her followers

### **Fairness**

Holds me accountable for problems over which I have no control  
Holds me responsible for work that I have no control over  
Holds me responsible for things that are not my fault  
Pursues his/her own success at the expense of others  
Is focused mainly on reaching his/her own goals  
Manipulates subordinates

### **Power Sharing**

Allows subordinates to influence critical decisions  
Does not allow others to participate in decision-making  
Seeks advice from subordinates concerning organizational strategy  
Will reconsider decisions on the basis of recommendations by those who report to him/her  
Delegates challenging responsibilities to subordinates  
Permits me to play a key role in setting my own performance goals

### **Ethical guidance**

Clearly explains integrity related codes of conduct  
Explains what is expected from employees in terms of behaving with integrity  
Clarifies integrity guidelines  
Ensures that employees follow codes of integrity  
Clarifies the likely consequences of possible unethical behaviour by myself and my colleagues  
Stimulates the discussion of integrity issues among employees  
Compliments employees who behave according to the integrity guidelines

### **Role Clarification**

Indicates what the performance expectations of each group member are  
Explains what is expected of each group member  
Explains what is expected of me and my colleagues  
Clarifies priorities  
Clarifies who is responsible for what

**Integrity**

Keeps his/her promises

Can be trusted to do the things he/she says

Can be relied on to honour his/her commitments

Always keeps his/her words

## **Appendix E Psychological Safety Scale**

Thinking of your organisation, please rate your own experiences of your organisation on a scale of 1 to 5 with 1 being strongly disagree and 5 being strongly agree

1=Strongly disagree

2=Disagree

3=Neither agree nor disagree

4=Agree

5=Strongly agree

1. If you make a mistake in this organisation it is often held against you

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

2. Members in this organisation are able to raise problems or bring up tough issues

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

3. People in this organisation sometimes reject others for being different

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

4. It is safe to take a risk in this organisation

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

5. It is difficult to ask other members of this organisation for help

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

6. Working in this organisation, my unique talents and skills are recognised

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

7. Everyone's view is listened to, even if it's a minority

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

8. There are real attempts to share information throughout this organisation

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

## **Appendix F: Employee Engagement Scale**

The following 17 items are about how you feel at work. Please read statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the '0'. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

0=never

1=Almost never (A few times a year or less)

2=Rarely (Once a month or less)

3=Sometimes (A few times a month or less)

4=Often (once a week)

5=Very often (A few times a week)

6=Always (Everyday)

1. At my work, I feel bursting with energy

|       |              |        |           |       |            |        |
|-------|--------------|--------|-----------|-------|------------|--------|
| Never | Almost never | Rarely | Sometimes | Often | Very often | Always |
| 0     | 1            | 2      | 3         | 4     | 5          | 6      |

2. I find the work that I do full of meaning and purpose

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 |                |

3. Time flies when I'm working

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 |                |

4. At my job, I feel strong and vigorous

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 |                |

5. I am enthusiastic about my job

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 |                |

6. When I am working I forget everything else around me

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 |                |

7. My job inspires me

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree |   |   |   |   |   | Strongly agree |
|                   | 1 | 2 | 3 | 4 | 5 |                |

8. When I get up in the morning, I feel like going to work

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

9. I feel happy when I am working intensely

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

10. I am immersed in my work

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

11. I can continue working for very long periods of time

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

12. To me, my job is challenging

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

13. I get carried away when I'm working

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

14. At my job, I am very resilient mentally

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

15. It is difficult to detach myself from my job

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

16. At my work I always persevere even when things do not go very well

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

16. I am proud of the work that I do

|                   |   |   |   |   |   |                |
|-------------------|---|---|---|---|---|----------------|
| Strongly disagree | 1 | 2 | 3 | 4 | 5 | Strongly agree |
|-------------------|---|---|---|---|---|----------------|

**Appendix G: Letter from the Organisation**

P O Box 1638  
Parklands  
2121

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Tel: +27 11 237 1000  
Fax: +27 11 314 5020  
www.mustek.co.za

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L I M I T E D  
Reg. No 198707016106

322, 15<sup>th</sup> Road  
Randjespark, Midrand  
South Africa

---

30 May 2011

**To whom it may concern**

This serves to confirm that **Dina Hendler** has been granted permission to conduct research on **Employee Engagement at Mustek Limited**.

Regards,

A handwritten signature in black ink, appearing to read "Fleur Simon", written over a horizontal line.

Fleur Simon  
**Human Resources**