THE INFLUENCE OF ETHICAL VALUES ON TRANSFORMATIONAL LEADERSHIP AND ETHICAL CLIMATE IN ORGANISATIONS: AN EXPLORATORY STUDY

By

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DECLARATION

I, the undersigned, hereby declare that the work
contained in this thesis is my own original work
and that I have not previously in its entirety
or in part, submitted it at any university for a degree.

Anja Scheps

Date: 1 August 2003

ABSTRACT

SCHEPS, ANJA, MCOMM (INDUSTRIAL PSYCHOLOGY), UNIVERSITY OF STELLENBOSCH.

THE INFLUENCE OF ETHICAL VALUES ON TRANSFORMATIONAL LEADERSHIP AND ETHICAL CLIMATE IN ORGANISATIONS: AN EXPLORATORY STUDY.

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South African organisations are facing fierce international competition, and to survive in the long-term it is necessary that they be led by leaders that will move them towards their vision in an ethical manner. While society condemns and the media extensively report fraud involving millions of rands by top executives, the truth of the matter is that more money is probably lost through low productivity, idleness and the wasting of resources through mismanagement (Malan & Smit, 2001). In this study it is believed the cause of this problem is ultimately one of leadership. Leaders fail to direct and influence their subordinates to work with efficiency and integrity in order to achieve the organisation's objectives (Malan & Smit, 2001). Solutions for these problems must be found in order to build organisations that will prosper in the future. This study hopes to offer part of the solution.

The main objective of this study was to establish whether there is a relationship between transformational leadership and the development of an ethical climate in organisations. One of the objectives of this study was to establish whether there was a direct relationship between altruism and transformational leadership. Another goal of this research was to establish whether integrity had a moderating effect on the relationship between

transformational leadership and ethical climate. A model was developed to illustrate these relationships, which was tested in the South African context.

A literature study of the role of transformational leadership, ethical values of altruism and integrity, and ethical climate in organisational performance was conducted. The relationship between these constructs has also been analysed in the literature study.

A questionnaire consisting of five sections was compiled to test the hypotheses resulting from the structural models. These questionnaires were distributed to various organizations in the Cape Town area. The sample comprised 200 persons, each of whom had to complete the questionnaire. Section A was designed to give an indication of the demographics of the participants. Section B measured transformational leadership, based on Bass and Avolio's Multifactor Leadership Questionnaire (MLQ). Section C was compiled in accordance with Victor & Cullen's Ethical Climate Questionnaire (ECQ), which measured respondents' perceptions of their work climate. Section D measured altruism, based on Langley's Value Scale. Section E measured integrity and was based on Butler's Conditions of Trust Inventory.

The statistical analysis was conducted through correlation and regression analyses. The results revealed that altruism positively correlates with transformational leadership, and that transformational leadership in turn has a positive relationship with ethical climate. No convincing empirical support could be found for the proposition that integrity moderated the effect of leadership on ethical climate. However, many new and interesting insights were gained through the results.

Conclusions were drawn from the results obtained and recommendations are made for future research.

OPSOMMING

SCHEPS, ANJA, MCOMM (BEDRYFSIELKUNDE), UNIVERSITEIT VAN STELLENBOSCH.

DIE INVLOED VAN ETIESE WAARDES OP TRANSFORMASIONELE LEIERSKAP EN ETIESE KLIMAAT IN ORGANISASIES: 'n VERKENNENDE STUDIE

STUDIELEIERS: PROF. A.S. ENGELBRECHT, M.COMM, Ph.D. (Stell.)
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Suid-Afrikaanse organisasies staar strawwe internasionale kompetisie in die gesig. Om in die langtermyn te oorleef, is dit nodig dat hulle gelei word deur organisatoriese leiers wat hulle op 'n etiese wyse na hul strategiese doelwitte sal lei. Alhoewel die gemeenskap miljoene rande se bedrog deur topbestuurders veroordeel en die media ekstensief daaroor verslag lewer, is dit 'n feit dat meer geld waarskynlik verloor word deur lae produktiwiteit, sloerdery en die vermorsing van hulpbronne as gevolg van wanbestuur (Malan & Smit, 2001). Met hierdie studie word aangevoer dat die oorsaak van hierdie probleem uiteindelik een van leierskap is. Leiers misluk om hul ondergeskiktes te bestuur en te beïnvloed om sodoende effektief en met integriteit op te tree, ten einde die organisasie se doelwitte te bereik (Malan & Smit, 2001). Oplossings moet vir hierdie probleme gevind word ten einde organisasies te bou wat in die toekoms sal floreer. Hierdie studie poog om voorstelle te maak om hierdie probleme te help oplos.

Die hoofdoelwit vir hierdie studie was om vas te stel of daar 'n verband tussen transformasionele leierskap en die ontwikkeling van 'n etiese klimaat in organisasies is. Een van die doelwitte van hierdie studie was om te bepaal of daar 'n direkte verband tussen altruïsme en transformasionele leierskap is. 'n

Verdere doelwit was om te bepaal of integriteit 'n modererende effek op die verband tussen transformasionele leierskap en 'n etiese klimaat het. 'n Model is ontwikkel om hierdie verwantskappe te illustreer, en is in die Suid-Afrikaanse konteks getoets.

'n Literatuurstudie oor die rol van etiese waardes, veral die kernwaardes van altruïsme en integriteit, transformasionele leierskap en 'n etiese organisasieklimaat in organisatoriese prestasie is onderneem. Die verband tussen hierdie konsepte is ook in die literatuurstudie ontleed.

'n Vraelys, bestaande uit vyf afdelings, is opgestel om die hipoteses voortvloeiend uit die strukturele modelle te toets. Hierdie vraelyste is uitgedeel aan verskillende organisasies in die Kaapstad-omgewing. Die steekproef het uit 200 mense bestaan. Afdeling A van die vraelys was ontwerp om 'n aanduiding van die demografie van die respondente te gee. Afdeling B het transformasionele leierskap gemeet, gebaseer op Bass en Avolio se 'Multifactor Leadership Questionnaire' (MLQ). Afdeling C was opgestel in terme van Victor en Cullen se 'Ethical Climate Questionnaire' (ECQ), wat respondente se indrukke van hulle werksklimaat gemeet het. Afdeling D het altruïsme gemeet, gebaseer op Langley se 'Value Scale.' Afdeling E het integriteit gemeet en het Butler se 'Conditions of Trust Inventory' as basis gebruik.

Die statistiese analise was uitgevoer deur middel van korrelasie- en regressie-ontledings. Die resultate het getoon dat altruïsme positief met transformasionele leierskap korreleer en dat transformasionele leierskap op sy beurt 'n positiewe verband met etiese klimaat toon. Geen oortuigende empiriese gronde kon gevind word vir die stelling dat integriteit die effek van leierskap op etiese klimaat modereer nie. Die resultate het nietemin heelwat nuwe en interessante insigte aan die lig gebring.

Afleidings en gevolgtrekkings is gemaak van die resultate wat verkry is. Aanbevelings vir toekomstige navorsing is ook op grond van die resultate gemaak.

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Anja Scheps
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CHAPTER 1

BACKGROUND AND OBJECTIVES OF THE STUDY

"What is most important is that management realize that it must consider the impact of every business policy and business action upon society. It has to consider whether the action is likely to promote the public good, to advance the basic beliefs of our society, to contribute to its stability, strength and harmony." (Drucker, cited in Kanungo & Mendonca, 1996, p. 3).

"The quality of life and the very survival of a human society depend on the moral calibre of its members. However, people in leadership positions largely determine the moral calibre of members. The manner in which leaders function in these positions of influence can directly contribute to the strengthening or the deterioration of the moral fibre of society." (Kanungo & Mendonca, 1996, p. 6).

These statements indicate that leaders are vital for the entrenchment of an ethical work culture. Leaders need to move their organisations into the future by living out ethical values. The goal of this research is to investigate the key role that transformational leaders play in creating an ethical climate of an organisation.

1.1 Introduction

South Africa is facing a growing awareness of unethical practices and public distrust of business in general is widespread (Landman, 2000). Organisations face a variety of changes and challenges that impact organisational dynamics and performance in profound ways. Many of the decisions that management are faced with turn out to be ethical decisions or have ethical implications or consequences (Sims, 1994).

The primary duty and responsibility for providing the direction and high standards of performance lie with an organisation's leader. The leader's vision inspires and articulates the organisation's mission; provides the basis for the organisation's objectives and goals; and communicates the beliefs and values that influence and shape the organisation's culture and behavioural norms (Kanungo & Mendonca, 1996). The organisation's mission and values statements are futile if the leader's actions do not correspond with these statements (Kanungo & Mendonca, 1996).

From a systems perspective, the ethical behaviour of a business unit within an organisation is very important, since it has the implication that the pursuit of certain goals leads to certain consequences. If goals are pursued in an unethical manner, this can eventually lead to unproductive and unethical unit performance. Unethical leadership leads to employees no longer trusting their leaders – they begin to question the motives and actions of their leaders, resulting in a work environment of distrust and disrespect (Malan & Smit, 2001). Consequently, organisational behaviour becomes a low-risk affair where everybody builds alibis for potential failures, innovative behaviour is inhibited, effective communication disintegrates, standards drop and services plummet (Malan & Smit, 2001). Not only does quality profit from ethical behaviour, it is also dependent upon it (Bottorff, 1997). Unit effectiveness should be judged not only by conventional factors such as job satisfaction and productivity, but also by ethical dimensions.

The ethical climate of an organisation, which is the shared perceptions of what is ethically correct behaviour and how ethical issues should be handled, both reflects and defines the ethics of an organisation (Victor & Cullen, 1987). The nature of the environment in which a unit operates is critical in determining the presence of high-integrity behaviour (Argyris & Schön, 1988). Ethical climate has important consequences for organisations, including legitimisation of managerial actions, improved trust, consistency in standards and quality of products, and greater awareness of the impact of organisational leadership (Dickson, Smith, Grojean & Ehrhart, 2001). An ethical culture is believed to cause employees to be more loyal to their organisations, thus

contributing to the unleashing of their productive and creative potential within the work environment and thereby boosting business performance (Rossouw, 1997). Thus, by encouraging ethical behaviour in the workplace, it is necessary to explore how ethical climates evolve and how they can be developed (Cohen, 1993).

The solution to ethical problems lies ultimately in the establishment of moral and competent leadership (Malan & Smit, 2001). The leader of a unit is responsible for the functional and ethical output of the unit. As Kanungo and Mendonca (1996) have observed, the beliefs and values, the vision, and most importantly, the actions of the leader, can be seen as setting the ethical tone and standards for the unit or organisation. If a prerequisite to the success of a unit is an ethical climate, which is cultivated by the leader, those that develop leaders should have an understanding of the dynamics of ethical leadership behaviours. As business has become the major institutional force in the world today, it may be one of the only structures that can influence individuals to live according to ethical values.

Scholars and practitioners agree that top management's values and practices are imperative when setting the ethical tone of an organisation (Clinard, cited in Cohen, 1993). The strategic plans that top management devise should take into account non-economic as well as economic goals, with a long-term view toward the relationships the organisation must maintain (Abratt & Sacks, Andrews and Touche Ross, cited in Cohen, 1993). Ethical leadership is known for contributing to employee commitment and satisfaction, as well as attracting and retaining the best employees (Trevino, Hartman & Brown, 2000). Transformational leadership, in particular, has been proven to affect the bottom line of organisations (Lowe, cited in Parry & Proctor-Thomson, 2002). Evidence has suggested that transformational leaders possess high ethical standards and behave in ways that are congruent with these standards, including paying close and continuous attention to the consequences of their decisions (Tracey & Hinken, cited in Parry & Proctor-Thomson, 2002).

The challenge is for the leaders who guide their organisations into the future to sow the seeds of an ethical culture, so that those who follow may reap the rewards of ethical business practices. This can only be achieved through the moral example of the leaders. Only when it is understood which factors affect an ethical climate, and how these factors affect leadership behaviour, can an ethical climate be attained.

Therefore the objective of this study is to develop a model which unravels the factors that determine an ethical climate through exploring the ethical values of transformational leaders.

In the following section, some background will be provided to highlight the relevance and significance of this study.

1.2 Background

Politicians, business leaders and academics have expressed the need for business ethics. The ex-president of South Africa, Nelson Mandela, said at the opening of Parliament: "We are conscious of the reality that corruption in many forms has deeply infected the fibre of our society. Precisely because we face the challenge of dealing with systematic corruption, we need a dispassionate and systematic approach to this question" (Rossouw, 1997, p. 1539). This statement implies that the fibre of the business community is tarnished, which is reflected in the high occurrence of corruption and white-collar crime.

Rossouw (1997) has explained the cause of this problem by describing the situation caused by economic sanctions during the final years of the apartheid era. Sanctions barred South Africa from entrance to world markets, forcing businesses to find another means of access to these markets. Immoral means were often used to gain access to these markets, and these attempts were praised rather than renounced. In this way, a culture began to grow where unethical means of doing business were valued.

However, this trend of immoral behaviour did not end with the end of Apartheid. In South Africa, white-collar crime had more than doubled during the first year of the newly formed democratic government. Turning this tide has been considered to be the biggest challenge facing business ethics in South Africa. It is believed that respect for the dignity and potential of each employee and the identification of shared values by all employees of an organisation can turn the tide of low productivity (Rossouw, 1997).

Nowadays, there is an increasing realisation that business leaders need to become more responsible, not just towards their stockholders but also to their other stakeholders – consumers, employees, suppliers, government and local communities (Kanungo & Mendonca, 1996). Although a business must be profitable, the preoccupation with profit to the exclusion or neglect of other considerations is unacceptable. It is the belief of the researcher that profits should be seen as a means to serve society. This implies that business decisions should be based on high standards of both economical and ethical performance (Kanungo & Mendonca, 1996). By far the most important issue in solving this problem has been identified as the building of a moral business culture (Rossouw, 1997). This can only be achieved if the leader is seen to be inspiring others, through his or her daily actions, to live out ethical behaviour.

Against this background, an effort is made in this study to examine the relationship between transformational leadership and ethical climate, as well as the effect of ethical values on the leader's behaviour.

A number of factors provide a justification for undertaking this study, and these will now be discussed.

1.3 Justification for this research

Disregarding the ethical consequences of organisational decisions can produce serious social ramifications, affecting the safety, health and economic survival of all members of society. Since the business organisation is a

principal area for developing social norms and values, creating ethical work climates can have broader implications for moral conduct across the social spectrum (Cohen, 1993). The development of a leader as a moral person, the values he or she possesses, and what he or she can do to prepare for ethical leadership, needs to be studied.

Ethics, leadership and values have emerged as important issues in society in the past decade and are considered vital to business success in the long-term. Although the constructs have received much attention, little co-ordinated effort has been made to integrate transformational leadership with ethical climate and ethical values. This study will therefore add value to the field of organisational psychology, especially in the South African context, as the problem of unethical behaviour is intensified within South Africa at the moment. A leader will benefit from reading this by gaining new insight into how to develop as a transformational leader who can impact the ethical climate in the workplace, consequently increasing organisational effectiveness.

A study of this nature has probably not been conducted in the South African context before, which is characterised by constant change and turbulence. Unethical behaviour prevails in organisations, which renders it necessary to find solutions to improve the current situation of corrupt behaviour in organisations. Leaders play a key role in determining the ethical climate of an organisation. This research attempts to reveal one of the many conceptual relationships between leadership behaviours and the resultant effect on ethical work behaviour of organisational members.

The fact that South Africa is part of the global village defines the rules of ethical and competent leadership (Malan & Smit, 2001). This means that leaders, as creators and sustainers of morality and competence, must take the courage to do what is required of them. It is clear that understanding the behaviours that lead to the development of an ethical climate will be part of the solution to the problem of unethical practices.

1.4 Research problem

In terms of the scenario described above, the research focuses on the testing of a model of transformational leadership and ethical climate, with altruism and integrity as core ethical values. It is necessary to study the relationships between the various constructs depicted in the theoretical model (see Figure 2.1, Section 2.5) within the South African context.

Understanding leadership ethics gives rise to the following research questions:

- What is the influence of transformational leadership on an ethical climate?
- Does altruism lead to transformational leadership behaviours?
- What is the relationship between integrity, transformational leadership and ethical climate?

In this regard it is proposed that transformational leadership has a positive effect on ethical climate, and can lead either directly or indirectly through ethical climate to unit performance. The value of altruism can be directly linked to transformational leadership, while integrity has a moderating effect on the relationship between transformational leadership and ethical climate.

1.5 Objectives

This study aims to build on previously conducted research on ethical leadership, and its relationship to the development of an ethical climate. It is clear from the above discussion that an unethical organisational culture will not produce a work climate which is conducive to ethical behaviour amongst employees. The concepts of transformational leadership and the ethical values of the leader will be integrated in explaining the relationship between these leadership behaviours and an ethical climate. There is a scarcity of

empirical work considering the relationship between transformational leadership and ethics and integrity (Parry & Proctor-Thomson, 2002). Thus, it is important to empirically assess this relationship.

In this study, it is not proposed that these concepts are the only factors influencing an ethical climate in an organisation. This study attempts to explain some of the many pivotal behaviours linked to an ethical climate.

The specific objectives of this research are as follows:

- To develop and test a leadership model that leads to the development of an ethical climate.
- To advance the understanding of transformational leadership and its effect on ethical climate.
- To determine whether altruism has a positive effect on transformational leadership.
- To ascertain the effect of integrity on the relationship between transformational leadership and ethical climate.
- To explain why differences exist in ethical climates within existing units in terms of leadership behaviours and attributes.
- To design a study that has theoretical and practical relevance. The results should be of significance and interest to HR practitioners, academics and leaders alike.
- To make a contribution to theory building in the vast field of organisational psychology. The relations between the constructs are complex and indicative of many possible leadership networks.
- To design a study in which the validity of the theory is explained by the patterns of correlations found in the empirical data.

1.6 Composition of the thesis

Chapter 1 deals with the background and need for this research, as well as the research problem and resultant objectives.

Chapter 2 deals in depth with the concepts of transformational leadership, the core values of altruism and integrity, and the effect of ethical climate on unit performance. The main focus is on:

- Explaining transformational leadership.
- Defining values, as well as the core values of integrity and altruism.
- Defining ethical climate and its relevance for unit performance.
- Outlining the possible relationships between the various constructs.

Chapter 3 deals with the research strategy. The hypotheses, sample, measuring instruments and statistical analysis are outlined in this chapter.

In Chapter 4, the data of the research is analysed and the findings are reported on and discussed.

Chapter 5 contains the final conclusions as well as the proposals for future research.

CHAPTER 2

LITERATURE OVERVIEW OF THE RELATIONSHIP BETWEEN ETHICAL VALUES, TRANSFORMATIONAL LEADERSHIP AND ETHICAL CLIMATE.

2.1 Introduction

Chapter One has discussed in detail the importance of business ethics and its link with unit performance, which is the result of an ethical climate. This chapter aims to elaborate on ethical climate and its importance in achieving unit performance, as well as to explore the role of transformational leadership and the core values of altruism and integrity in creating an ethical climate. The relationships between these constructs will be outlined and are depicted in Figure 2.1. Although the existent literature provides ample explanation of these constructs, the specific relationships among them have been neglected. This chapter will thus provide new insights into how unit performance is determined by an ethical climate in the workplace. Furthermore, it will be made clear that ethical leadership creates an ethical climate. Finally, it will be illustrated that the ethical values of leaders predominantly guide ethical behaviour.

2.2 Ethical climate and unit performance

While individual moral character is a principal determinant of moral conduct, the work environment itself is an equally critical influence on behaviour (Cohen, 1993). It is argued here that the ethical climate of an organisation is of paramount importance to its unit performance, and this relationship will be discussed in greater detail in the following section. The literature on individual moral development recognises that individual characteristics alone are insufficient to explain moral and ethical behaviour, and as a result, there is an increasing concern for the impact of social factors on individual moral behaviour (Kurtines, cited in Victor & Cullen, 1988). Even the developmental psychologist Kohlberg has introduced the concepts of a "moral atmosphere"

and "just community" to consider the social context of moral and ethical behaviour. The concept of moral atmosphere is not dissimilar to ethical climate in that it represents the prevailing norms of the group and not the individual's level of moral development (Victor & Cullen, 1988).

2.2.1 Definition of ethical climate and unit performance

Leaders play a large role in influencing the performance of their subordinates and their work unit as a whole, and a leader's effectiveness is often measured by the performance of his/her unit (Henning, Theron & Spangenberg, 2002). The performance of a leader thus influences the overall organisational **unit performance**, as changes in managerial effectiveness have been directly related to changes in organisational effectiveness (House, cited in Henning, et al., 2002). Given this important role of the leader in work unit performance, Spangenberg and Theron developed a generic, standardised unit performance measure that encompasses all the unit performance dimensions for which the unit leader could be held responsible (Henning et al., 2002). The eight unit performance dimensions identified were: production and efficiency, core people processes, work unit climate, employee satisfaction, adaptability, capacity (wealth of resources), market share/scope/standing and future growth.

Ethical climate has been defined as the moral atmosphere of a social system, characterised by shared perceptions of right and wrong, as well as assumptions about how moral concerns should be addressed. It is the way in which an organisation handles issues such as responsibility, accountability, communication, regulation, equity, trust and the welfare of constituents (Victor & Cullen, 1988). It has been argued that the differences in organisational design, measured by the differences in departmental tasks and stakeholders served, influence ethical decisions leading to ethical behaviour (Weber, 1995). Vroom acknowledged the influence of the employees' work groups upon employee decisions and actions through social affiliation and the manifestation of group norms (Weber, 1995).

A subset of organisational climate is an ethical climate, consisting of normative values and beliefs involving moral issues shared by employees of the organisation (Weber, 1995). Organisational values and beliefs influence decision-making and behaviour and manifest themselves as multiple climates within a single organisation (Weber, 1995). To encourage ethical conduct in the workplace, it is necessary to explore how ethical climates evolve, and to examine how work environments which are conducive to ethical behaviour among employees, are developed.

The following section will address how ethical climate can lead to successful unit performance.

2.2.2 Relationship between ethical climate and unit performance

High rates of unethical, illegal and antisocial behaviour occur in social systems where inordinately strong emphasis is placed on attaining certain goals without a corresponding emphasis on following legitimate procedures to reach these goals (Merton, cited in Cohen, 1993). In these social systems, standards for appropriate ethical conduct are often rejected if they do not produce valued outcomes. Leaders in these organisations react only to problems that negatively affect goal achievement and the strategies that they plan focus on short-term gain rather than building long-term relationships with constituents (Cohen, 1993). If employees do challenge goals set by their leaders, they are perceived as being disloyal to the organisation.

The ethical work climate constitutes the prevailing perceptions of typical organisational practices and procedures that have ethical content (Victor & Cullen, 1988). When faced with a decision that has consequence for others, how does an employee identify the "right" alternative from the organisation's point of view? For example, in a hiring decision, expectations about whose interests should be taken into account and/or what codes or laws should be applied would be an aspect of an ethical climate. Climate perceptions also produce behavioural outcomes by informing employees that certain types of behaviour will lead to successful achievement of individual and organisational

goals (Field & Abelson and Schneider & Reichers, cited in Victor & Cullen, 1987).

An ethical climate in an organisation is one dimension of the work climate, and has many of the same strengths and weaknesses associated with the general concepts of work climate (Victor & Cullen, 1987). Research reveals that work climates foster a number of outcomes of practical relevance. Some types of work climates provide psychological environments conducive to increased managerial job performance and satisfaction (Abbey & Dickson, cited in Frederick & Preston, 1987). Such findings suggest the possibility that ethical behaviour is directly influenced by ethical climates through similar psychological processes (Victor & Cullen, 1987).

Victor & Cullen (1988) developed an Ethical Climate Questionnaire, which taps, through perceptions of employees, the ethical dimensions of organisational culture. The types of ethical climates existing in an organisation or group influence which ethical conflicts are considered, the process by which these conflicts are resolved, and the characteristics of their resolution. Kohlberg (Victor & Cullen, 1988) believed that the "socio-moral atmosphere" of an organisation has an impact on the moral decision making of individuals. The concern of Victor & Cullen's research was how individuals behave and make decisions from an ethical and moral perspective, thus focusing on those aspects of work climate that guide employees in the determination of right and wrong behaviour at work.

The types of organisational ethical climates that exist differ in terms of the three classes of ethical reasoning and are labelled: egoism, benevolence, and principle. In a largely egoistic climate, self-interest may be the main consideration. It has been argued that the egoistic notion is at the core of a business organisation: pursuit of profit maximisation and individualism (Bowie, cited in Weber, 1995). In an organisation characterised primarily by a benevolent climate, a consideration of the well-being of others may be the dominant reasoning used by employees to identify and solve ethical

problems. Within a largely principled climate, the application of rules or law might be the dominant form of reasoning.

The benefits of an ethically orientated culture are many, but often indirect. An increased effectiveness due to strengthened organisational culture, and increased effort and lower levels of turnover resulting from greater organisational commitment, have been reported (Mowday et al. and Steers, cited in Carlson & Perrewe, 1995). A strong organisational culture as well as greater organisational commitment have been correlated with ethical organisations (Carlson & Perrewe, 1995).

2.3 Ethical leadership and ethical climate

When the ethical climate is not clear and positive, ethical dilemmas will often result in unethical behaviour (Sims, 1994). Actions speak louder than words, and what the leader of an organisation values and does will set the ethical tone and create the moral environment of an organisation. This climate sets the tone for decision making at all levels. For ethical leadership to take place, an organisation should be designed and managed as a holistic system, and as a process that is founded on fundamental principles, including the qualities of moral character and leadership (Malan & Smit, 2001).

2.3.1 Definition of ethical leadership

Before elaborating on ethical leadership, a clear understanding of the word ethics is needed. Ethics is a philosophical term derived from the Greek word 'ethos', meaning character or custom (McHugh, 1990). The Concise Oxford Dictionary (Kanungo & Mendonca, 1996, p. 33) defined ethics as "relating to morals, rules of conduct... the whole field of moral science". According to Martin and Rest (cited in Schminke, 1998) ethics can be described as the systematic, descriptive and normative study of moral awareness, judgement, character and conduct at all levels of individual and collective activity. Organisational ethics can be defined as the moral values, beliefs and rules

that establish the appropriate way for organisational stakeholders to deal with one another and with the organisation's environment (Jones, 2001).

An ethical framework of leadership should make individual leaders and followers accountable to their ethical responsibilities as human beings (Rost, 1991). Personal responsibility for making ethical judgements is essential to any ethical framework of leadership content, and placing ethics on the individual shoulders of the leaders and followers ensures that the people doing the acting are responsible for their choices (Rost, 1991). Burns (1978) describes leadership as a process in which leaders and followers influence each other as the relationships evolve over time. If leadership is an influence relationship, then the process whereby followers and leaders interact is essential to the ethics of leadership (Rost, 1991).

According to Bass and Steidlmeier (1998), the ethics of leadership rests upon three pillars: firstly, the moral character of the leader; secondly, the ethical values embedded in the leader's vision and articulation thereof, and the means to achieve this vision which followers accept or reject; and lastly, the morality of the choices and actions that leaders and followers engage in and pursue to realise the ethical vision. Zaleznik (1993) singles out three concepts of leadership: competence, which is talent; character, which is the quality of ethics; and compassion, which is the use of power for the benefits of others and for the greatest good.

Hawkins (1997) believes that before a leader presents himself as an ethical leader, he should determine his basis of understanding ethics and morality. He should understand his behaviour as being moulded by standards of virtue and also as being evaluated by these standards. A leader's speech and actions in public and private contexts will determine if there is any weight to his ethical influence. Leaders who strive to build their moral influence choose to live exemplary lives because it is the right thing to do, as well as vital to influencing others.

A moral person should examine their conscience regularly, to ensure that their thinking is not falling prey to the lie that unethical behaviour is not wrong because "everyone is doing it". Hawkins (1997) believes that ethical leaders affirm the importance of taking time to evaluate the character, competence and commitment of their leadership, and to ask themselves whether their lives are based upon moral absolutes or upon cultural expediencies. This time for reflection will enable leaders to persist with and achieve their ethical visions.

At the core of personal credibility are the leader's beliefs – people expect their leaders to have the courage of their convictions (Kouzes & Posner, 1999). If leaders are not clear about what they believe in, they are much more likely to change their position with every fad or opinion poll (Kouzes & Posner, cited in Hesselbein, Goldsmith & Beckhard, 1996). The first milestone on the journey to leadership credibility is clarity of personal values. Constituents are moved by deeds, in other words the actions of the leader will prove to be the proof of the leader's credibility (Kouzes & Posner, 1999).

Malan and Smit (2001) define ethical leadership as the will and ability to strategically position, design and sustain an organisation successfully, to develop employee competence and to direct human and organisational energy in pursuit of performance and achievement that stand the ethical test of effectiveness, efficiency, economy and integrity. In this sense they believe that it is imperative for an organisation to adopt a leadership philosophy that helps it to achieve its vision successfully. Failure to do this leaves the door open for any approach an executive thinks is appropriate or which best suits the leader's needs and personality, regardless of its effects on the organisation. The wrong type of leadership philosophy in turn makes it impossible to create an environment which encourages personal growth and development, which is a central obligation of ethical leadership (Malan & Smit, 2001). Those who successfully meet this challenge will enjoy the rewards of accepting that personal morality defines leadership performance, while those who fail will continue to rationalise their failures or blame everybody else but themselves (Malan & Smit, 2001).

2.3.2 Transformational leadership as ethical leadership

Burns' (1978) theory of transforming leadership rests on a set of moral assumptions about the relationship between leaders and followers, prescribing the nature of morally good leadership (Ciulla, 1996). Burns said: "Transforming leadership ultimately becomes *moral* in that it raises the level of human conduct and ethical aspiration of both leader and the led, and thus has a transforming effect on both" (cited in Peters & Waterman, 1982, p. 83). Transforming leaders need to operate at higher need and value levels than those of their followers. Transforming leaders are concerned with end values, such as liberty, justice, and equality, and with raising followers up into leadership.

According to Rost (1991), leadership is about transformation, which is about influence relationships based on persuasion, not coercion. He posits that transformation is insisting that the changes reflect the mutual purposes of the people engaged in the transformation, and it happens when people develop common purposes which help them work for the common good (Rost, 1991). All forms of leadership are essentially about transformation, according to Gini (1997). The process of leadership always involves a certain number of transactional exchanges – short-term changes and the trading of benefits to meet immediate needs and wants – transformational change means the pursuit of new concrete, substantive and not incidental changes (Gini, 1997). Transforming leadership is an influence process between individuals, but also a process of mobilising power to changing social systems and reform institutions (Yukl, 2002). The leader seeks to shape, express, and mediate conflict among groups of people, as this conflict can be useful for channelling energy to achieve shared goals.

According to Kanungo and Mendonca (1996), charismatic leadership is in essence transformational – the self-transformation of the leader and of the followers. Charismatic leaders readily acknowledge that self-transformation should begin with one's self. Leadership is influence, and as the leadership proverb says: "He who thinks he leads, but has no followers, is only taking a

walk" (cited in Maxwell, 1998, p. 20). Leaders should become leaders that are worth following.

Transformational leadership alone is not a guarantee of ethical leadership behaviour, although many of the transformational behaviours are synonymous with ethical behaviours. Ciulla (1996) believes that the body of research on transformational leadership is promising because it contains empirical research on a theory that was constructed to address the basic moral problems of leadership. It offers a deeper understanding of leadership than theories that are only about ethics or just about leader behaviour. The ethics of influencing followers is of primary concern for theories of transformational leadership, as most of these theories involve a great amount of leader influence over follower attitudes and behaviour (Yukl, 2002). It is the transactional leaders who are more likely to engage in unethical practices, and transformational leaders who are less likely to do so (Bass, cited in Ciulla, 1996).

The ethical transformational leader begins the influence process through scanning the internal and external environment. The leader needs to conduct a careful analysis of available resources, opportunities, constraints, and of followers' needs and aspirations, with an awareness of ethical issues at the forefront of his thinking. The shortcomings of the status quo in light of ethical issues, available opportunities and of the followers' needs should be recognised. At the outset it is vital to recognise that the leader's focus is not on his or her own self, but on others. This focus on others is a vital element in preparing an ethical climate that is conducive to changing the followers' attitudes and values. Thus, leaders that are striving to achieve an ethical climate should pursue transformational leadership behaviours in their exercise of leadership.

The information gathered from the scanning of the environment forms the foundation for the four most frequently displayed transformational leadership behaviours, known as the "Four I's" (Bass & Avolio, 1994; Ciulla, 1998, Kanungo & Mendonca, 1996). These are idealised influence, inspirational

motivation, intellectual stimulation and individualised consideration. These will be discussed in the following section.

2.3.2.1 Idealised influence

If the leadership is transformational, its charisma or ethical idealised influence is the creation of an ethical vision, confidence in the vision, and the setting of high ethical standards for imitation. Managers who tend to take a big picture view of ethical problems are often the ones who have been identified as having the greatest leadership potential (Ciulla, 1996). In order for the vision of the ethically oriented organisation to be met, the leader must have a strong ethical orientation (Carlson & Perrewe, 1995). Followers who identify with the leader's ethical aspirations wish to emulate their leader's behaviour.

The research on charismatic, cultural and transformational leadership reveals that a clear and compelling vision is vital to guiding change in an organisation (Yukl, 1998). Before followers support a radical change, a vision of a brighter future is needed to justify the sacrifices the change requires. Vision can help guide and coordinate the decisions and actions of thousands of people working in many different locations (Yukl, 1998). Leaders who successfully transform their employees and the broader organisation will have skills in vision creation, articulation and communication (Nanus, 1992).

It is in the nature of organisations that the seeds of decay germinate while the fruits of success are being harvested, and only vision anticipates the yield when the seeds of decay mature (Zaleznik, 1993). Leaders will use this vision and initiate actions to change the organisation in anticipation of future problems. Without a clear idea of the kind of transformation needed, leadership will end up operating on social and political agendas and timetables, increasing the likelihood of unethical practices to occur (Covey, 1992). The vision allows leaders to inspire employees by giving their work meaning and making salient the core purpose of the organisation (Carlson & Perrewe, 1995).

Leaders need to be visibly ethical, and this can be achieved by creating an expectation in others that the leader will act ethically and expect the same actions from all employees. One way leaders can successfully be perceived as ethical is to make evident the ethical components of their decisions, as well as explaining the thought processes behind certain difficult decisions (Salopek, 2001). Shared vision will be ethical if it is developed through leader-follower interaction, but likely to be unethical if developed solely by the leader (Howell & Avolio, cited in Parry & Proctor-Thomson, 2002).

While it appears that a charismatic style usually supports effective, positive leadership, it also has the potential to be unethical and lacking in integrity (Parry & Proctor-Thomson, 2002). Although charismatic leaders may be potentially unethical, there has been much evidence to indicate that the opposite is true (Parry & Proctor-Thomson, 2002). Charismatic leaders have been associated with traits such as "ethical", "principled" and "wholesome" far more frequently, by their subordinates, than non-charismatic leaders (Atwater, cited in Parry & Proctor-Thomson, 2002). It must be remembered, however, that charismatic leadership is not transformational leadership – when transformational leadership is considered holistically, it is more likely to do better than charismatic leadership as a moral leadership style possessing integrity (Parry & Proctor-Thomson, 2000).

The transformational leader will use his or her influence in an ethical manner, as psychologist David McClelland noted: "He does not force them to submit and follow him by the sheer overwhelming magic of his personality and persuasive powers...Indeed, he is influential by strengthening and inspiring his audience...The leader arouses confidence in his followers. The followers feel better able to accomplish whatever goals he and they share" (cited in Peters & Waterman, 1982, p. 84). The leader will articulate a vision that sets standards of excellence and reflects high ideals, depicting the organisation as a responsible community with a sense of integrity that strengthens and uplifts everyone in it (Nanus, 1992).

Martin Luther King shared a vision for the future of America when he proclaimed his dream to the world on 28 August 1963 in Washington, D.C.: "I say to you today, my friends, that in spite of the difficulties and frustrations of the moment I still have a dream. It is a dream that is deeply rooted in the American dream. I have a dream that one day this nation will rise up and live out the true meaning of its creed: 'We hold these truths to be self-evident; that all men are created equal" (cited in Malan & Smit, 2001, p. 108). King's dream goes on to speak of a shared belief, of freedom and justice for all, of altruism, and of the hope that one day people will no longer be judged by the colour of their skins but by their characters. Indeed, King's followers consisted of Americans of every race (Gardner, 1995). King was able to inspire thousands of Americans to fight for this dream and to follow him regardless of personal risk.

This element of leadership boils down to thinking about actions in terms of how they impact the organisation in the long term. Managers who tend to take a big picture view of ethical problems are often the ones who have been identified as having the greatest leadership potential (Ciulla, 1996). Ethical transformational leaders will be motivated by the desire to remedy the deficiencies discovered through environmental scanning, and will take hold of the opportunities that benefit the organisation. The important set of behaviours of the ethical transformational leader is to evaluate the status quo, to formulate and articulate a vision that is discrepant from the status quo, and to achieve this vision through personal sacrifice, trust and often unconventional behaviour (Kanungo & Mendonca, 1996).

Leaders should formulate and articulate a vision of ideal goals that highlight present shortcomings in the organisation's current climate, as well as devise the means to achieve the vision. These leaders should build enthusiasm for their vision through symbols, rhetoric and through self-sacrifice (Ciulla, 1996). Values are not usually transmitted through formal written procedures, but rather through means such as stories, myths, legends and metaphors (Selznick, cited in Peters & Waterman, 1982). Kanungo & Mendonca (1996) posit that these charismatic behaviours result in high emotional attachment of

followers to leaders, high commitment to shared goals, and high task performance. It is important to note here that the followers share the vision, which makes the transformational process more enduring and effective (Kanungo & Mendonca, 1996).

2.3.2.2 Inspirational motivation

Any vision, no matter how passionate the cause, no matter how important the outcome, is likely to loose its vital energy and sense of urgency as attention shifts from lofty principles and goals to the concrete, routine, often monotonous tasks of implementation (Sethi & Williams, 2000). Most visionaries are not known for their patience or capacity to devote the same level of energy to the mundane details that translate visions of the future into activities, tasks, and discrete outcomes (Sethi & Williams, 2000). Neither does it seem reasonable to expect the rank and file of organisers, managers and employees to maintain a spirit of passionate belief and dedication; for them, "working for the cause" still comes down to the daily grind of "making a living" (Sethi & Williams, 2000).

Ethical inspirational motivation provides followers with challenges and meaning to participate in shared goals in an ethical manner. Clear goals and expectations are established for followers, and leaders are constantly inspiring teams to reach goals. It is important that the leader understands his/her followers' needs, by being familiar with the intricacies of human motivation so that he or she can gain the support of his or her followers (Carlson & Perrewe, 1995). If the personal needs of an individual are understood, the fulfilment of those needs can be used to reinforce behaviour, through a reward system which enforces what is valued by the leader (Carlson & Perrewe, 1995). Since reward systems can motivate employees and influence the culture of the organisation, intrinsic rewards are related to higher order needs, and can therefore be most effective in this situation (Deci & Herzberg, cited in Carlson & Perrewe, 1995).

Leaders, understanding the needs and values of their followers, create exchanges and interactions which leave their followers more confident and capable than before (Kouzes & Posner, 1992). One of the qualities followers admire and look for most in a leader is inspiration – people are more willing to follow those who are passionate about their convictions, positive about the future and enthusiastic about life and work (Kouzes & Posner, 1992).

Transformational leaders are most successful in inspiring their followers when their vision is incredibly strong and when they incorporate the ideas and innovation of their followers into flexible, ever developing goals (Bass, Den Hartog et al., cited in Parry & Proctor-Thomson, 2002). Tapping employees' need for recognition, a sense of belonging and self-esteem can elicit a strong motivational response (Carlson & Perrewe, 1995). By giving emotional support and making emotional appeals, transformational leaders inspire followers to exceed their initial expectations (Dubrin, 2001).

2.3.2.3 Intellectual stimulation

Ethical intellectual stimulation helps followers to question assumptions and generate more creative solutions to problems, while also persuading others on the merits of the issues involved. Ethical transformational leaders bring about changes in followers' ethical values by the merit and relevancy of their ideas, as well as their mission to their followers' benefit (Howell, cited in Bass & Steidlmeier, 1998). New ideas are welcomed and there should be no fear of mistakes or going against the grain (Parry & Proctor-Thomson, 2002). Involving followers in the planning process will result in a higher level of commitment to the achievement of the vision. The respect of the leader by his or her followers is important in transformational leadership and his or her following is strengthened when employees perceive their needs to be valued (Carlson & Perrewe, 1995).

2.3.2.4 Individualised consideration

Individualised consideration treats each follower individually and provides coaching, mentoring and growth opportunities, and the leader is concerned about developing followers into leaders who will also be concerned about creating an ethical climate (Bass, cited in Bass & Steidlmeier, 1998). The leader puts organisational interests ahead of self-interest, and strives to achieve a true consensus in aligning individual and organisation interests (Bass, 1997). The concern for employees first in a crisis situation and continuous attentiveness to employee welfare are examples of this kind of behaviour. Kouzes & Posner (1999) suggest that through the leader understanding the employees and a subsequent concern for them, employees are strengthened and empowered.

Blanchard and Peale (1988) believe that people's negative feelings about their organisation are at the root of unethical behaviour. If an employee's self esteem is built up, through the concept of "catching people doing things right" (Blanchard and Peale, 1988, p. 97), pride can be built up in organisations. When leaders emphasise what people are doing right, it leads to enhanced self-esteem and organisational pride, fostering ethical decision-making and ethical behaviour. Therefore, when employees are proud of their company and what it represents, they will fight to maintain integrity in the organisation.

2.3.3 Transformational leadership and unit performance

An increasing body of research reveals that transformational leadership has benefits for organisational functioning (Bass, cited in Turner, Barling, Epitropaki, Butcher & Milner, 2002). The transformational leader is responsible for actively managing the performance of the organisation in order for it to be successful and competitive. When this is effectively and actively managed, the organisation usually achieves positive results for reasons such as effective leaders who are concerned with pursuing the organisation's goals in the most ethical way (Malan & Smit, 2001). Transformational leadership has been linked to achieving higher performances, as well as motivating

others to do more than they originally intended and thought possible (Bass & Avolio, 1994).

The goal of transformational leadership is to transform people and organisations in mind and heart; enlarge vision, insight and understanding; clarify purposes and ensure behaviour is congruent with beliefs, principles and values while bringing about changes that are permanent (Covey, 1992). Because of these behaviours, the transformational leader brings about lasting change in an organisation – change that ensures followers achieve goals ethically. Developing transformational leadership has been shown to enhance effectiveness and satisfaction as a leader (Bass & Avolio, 1994). Transformational leaders inspire more challenging expectations and characteristically achieve higher performances than transactional leaders (Bass & Avolio, Howell & Avolio, Yammarino, Spangler, & Bass, cited in Engelbrecht, 2002).

Transformational leadership is based upon a change of heart with regards to core values and motivation, and a commitment to treating people as ends, not as means (Covey, 1992). Transformational leaders bring about change and develop values of honesty, loyalty, fairness, justice, equality and human rights (Bass & Steidlmeier, 1998). Transformational leadership is characterised by mutual trust (Engelbrecht & Cloete, 2000). A transformational leader supports his or her followers and is trusted and respected by them (Bass & Avolio, cited in Engelbrecht & Cloete, 2000). Followers are empowered through the transformational leader giving them autonomy, facilitating self-development, and serving as a role model of integrity and honesty (Engelbrecht & Cloete, 2000). According to Bass (1997), leaders are truly transformational when they increase awareness of what is right, good, important, and beautiful, and when they raise followers up into leaders who go beyond their self-interest for the good of their organisation.

The introduction of the Four I's into a leader's portfolio of leadership behaviours will have a considerable impact on an organisation's culture, the behaviour of its members, and the way decisions are made within the leader's

organisational unit, as well as within the organisation (Bass & Avolio, 1994). These behaviours of transformational leaders are expected to contribute to an organisation's efforts to improve its operations and the best use of its human resources, with the end goal being to develop a highly committed work force that is more eager and willing to take on the challenges of the new millennium (Bass & Avolio, 1994).

2.3.4 Relationship between transformational leadership and ethical climate

Climate formation starts with the leaders of the organisation – founders and early leaders bring to the organisation their individual values which play a pivotal role in determining the organisation's strategy, structure, climate and culture (Dickson, Smith, Grojean, & Ehrhart, 2001). The transformational leadership style lends itself well to the creation of an ethical climate (Carlson & Perrewe, 1995). Transformational leadership not only involves the moral elevation of individual followers, but also collective efforts to accomplish change. In the process, both leader and follower will be transformed. They consider not only what is good for themselves, but also what benefits their organisation, community and nation (Yukl, 2002). The transformational leader helps followers keep the 'big picture' in mind for the sake of the organisation, as the leader is able to envision the altering landscape upon which he or she makes decisions.

The transformational leader role models the behaviours required to reinforce ethical behaviour. Leaders that will take strong personal stands on the need for ethical behaviour will contribute to an ethical climate, as characteristics of top level executives appear to be related to organisational outcomes (Hambrick & Mason, cited in, Matthews, 1987). Organisational ethics is cultivated when top management gives strategic importance to the construction and maintenance of commitment to an organisational ethics system. This includes leadership by moral example to guide and align all ethics initiatives (Cohen, Petrick & Quinn, cited in, Schminke, 1998).

Although the above are important to the development of the organisation's ethical climate, it is the leader's personal conduct that determines the effectiveness of codes, policies, procedures and support structures. An organisation's ethical climate should be a natural overflow of the leader's commitment to ethical principles and values expressed in their daily struggle to live by them (Kanungo & Mendonca, 1996). The leader's consistency in decisions and behaviour in his or her lifestyle will make him or her dependable and trustworthy, as well as give meaning and importance to otherwise routine activities of the workplace. Thus the leader will be seen to have integrity. The resulting ethical environment will then truly reflect the soul of the organisation, as well as enable members to internalise values, which are a firm foundation for ethical behaviour (Kanungo & Mendonca, 1996).

By appealing to the moral values of the individual, transformational leadership is a process that allows the leader's vision of an ethical culture to be filtered throughout the organisation. Outcomes such as dramatic changes in the organisation's culture and strategies are often the result of transformational leadership (Carlson & Perrewe, 1995).

2.4 Ethical values and transformational leadership

Values can be defined as the general standards of guiding principles that people use to determine which types of behaviours, events, situations, and outcomes are desirable or undesirable (Jones, 2001). Values operate as a moral guide to people's personal and work-related behaviour, and determine a person's honesty, integrity, commitment, and loyalty and, in essence, provide the ethical base of his or her existence (Malan & Smit, 2001). Organisational values pertaining to ethical issues identify what is ethically correct, and contribute to an ethical climate in an organisation (Victor & Cullen, cited in Frederick & Preston, 1987). A leader is a person who bases his or her behaviour on values that directly impact people (Schuitema, 1998). Due to the influence that a transformational leader has over his/her followers, it is imperative that he/she upholds ethical values.

Great leaders have always known that morals and values are the foundation of society – Moses brought the Ten Commandments down to the Israelites who had lost their way, not only in the desert, but also in their relationships with God and each other (Tichy, 1997). Shared values allow people to live and work together, creating a sense of community. Without this, commerce would be impossible – there would be no shared understanding about the sanctity of an agreement and the delivery of goods or services and remuneration (Tichy, 1997).

Research shows that values make a difference in how people behave inside organisations and how they feel about themselves, their colleagues, and their leaders (Kouzes & Posner, 1999). People expect their leaders to stand for something; to have the courage of their convictions – credibility is the foundation of leadership, and the first step toward credibility as a leader is clarifying personal values (Kouzes & Posner, 1999). In their study of excellent companies, Peters & Waterman (1982) made the observation that each company studied took the process of value shaping seriously, and that it would be impossible to be an excellent company without having clarity on values.

Corrupt behaviour is not impulsive, it is a premeditated act, and this highlights the importance and power of sound ethical personal values to prevent unethical behaviour (Malan & Smit, 2001). In a time where the values of business are no longer held with conviction, personal values of individuals, and especially of leaders, need to shift from self-centred achievement and independence to self-actualisation and interdependence (Kanungo & Mendonca, 1996). The core of the corporate culture is in the value system, and these values, as established by leadership, will affect all aspects of the organisation (Carlson & Perrewe, 1995).

Successful leaders are highly aware of the importance values play in shaping people's behaviour. They see values as a competitive tool that allows their organisations to respond quickly and aptly (Tichy, 1997). Leaders will embody values with their own actions, and teach others to be leaders by

constantly encouraging them to examine their values and wrestle with their application in everyday situations (Tichy, 1997). The ethical values as well as the character of the leader become visible through his or her leadership behaviours. Leaders who exhibit high ethical standards become role models for others in the organisation and increase its overall level of ethical behaviour (Carlson & Perrewe, 1995). Thus ethical behaviour must start with the leader before employees can be expected to follow these behaviour patterns accordingly (Butcher & Enderle, cited in Carlson & Perrewe, 1995).

Aristotle taught that virtues can be acquired through habit, custom and application, and will elicit great strength and power in moments of crisis. When confronted by an ethical dilemma, the virtuous person acts from within the brightness of personal character, without calculation of consequences or consideration of his duty (Scott, 1998). Confucius also focused on personal cultivation as a "superior person", based on the premise that through personal cultivation guided by moral leaders, people will develop strong moral character and embrace virtue above all other things, and thereby transform themselves and society. From this framework, a vision of the development of good character, defined as commitment to virtue in all circumstances, as being the heart of a moral enterprise was formed (Bass & Steidlmeier, 1998).

When values and beliefs become embodied in work, they can increase employees' commitment, enthusiasm, and drive, giving an organisation competitive advantage (Badaracco & Ellsworth, 1991). This is because shared values generate deeper personal commitment and engage the lives of people in their work. When there is value congruence between the leader and the led, both are more satisfied emotionally (Meglino, Ravlin & Adkins, cited in Engelbrecht, 2002). Such congruence results in leaders being seen by followers as more considerate, competent and successful (Weiss, cited in Engelbrecht, 2002). Mission and value statements communicated throughout an organisation indicate which issues top management consider to be important, but if these values and standards are not put into practice by the leaders, an environment of distrust may result (Burke, cited in Cohen, 1993).

Values shape assumptions about the future and provide the context within which issues are identified and goals evaluated (Plougmann, 2000). Values are deeply rooted, persistent, and constrain new directions (Nanus, cited in Plougmann, 2000). The implication for top leadership is that they focus on long-term aspects of the business, such as the quality of their goods or services, relationships with customers, suppliers, and the community in which they conduct business, and not purely on short-term, bottom-line results. A patient leader will not be inclined to resort to unethical practices when things do not go as planned.

Whilst working towards the realisation of the vision, the leader is bound to come across obstacles in the environment, such as the reluctance of followers to accept and be committed to the vision. The vision and the spiritual convictions of the leader will contribute to the perseverance that leads him or her to continue with what needs to be done in the unyielding belief that the present difficulties are part of the progress towards achieving the vision. This requires a great deal of patience, which means that the leader trusts that his or her values and beliefs are right over the long term. According to Bennis, by focusing attention on a vision, extraordinary leaders operate on the emotional and spiritual resources of the organisation, i.e. its values, commitment and aspirations; whereas old-paradigm managers operate on conventional resources of the organisation such as capital, human skills, raw materials and technology (Plougmann, 2000).

Winston Churchill gave a speech at an English school where he was once a scholar, and when he stood up to give his speech, he said: "Never! Never! Never! Never! Give up!" and with that he sat down. This summarised the quality that epitomized Churchill's life: persistence. In ethical behaviour, persistence means keeping one's commitment and making sure that one's actions are consistent with one's guiding principles (Blanchard & Peale, 1988). It means that leaders consistently adhere to the ethical standards and vision that the organisation has established. The leader will not allow difficulties to weaken his or her resolve to continue along the right path;

rather, he or she continues to take the steps necessary, even if it means personal risk and sacrifice, to achieve the vision.

According to Covey (1992), the most effective leaders are firstly models of principle-centred leadership. They realise that everybody is subject to natural laws or governing principles, which operate regardless of people's awareness of them. Effectiveness is predicated upon alignment with these principles. The degree that leaders recognise and live in harmony with basic principles such as fairness, service, equity, justice, integrity, honesty and trust, will determine the movement toward either survival and stability on the one hand and disintegration and destruction on the other (Covey, cited in Hesselbein, Goldsmith & Beckhard, 1996).

Gardner (Tichy, 1997) describes the roles of leaders in changing values as reinterpreting and renewing values that have been encrusted with hypocrisy, corroded by cynicism or simply abandoned; and to generate new values when needed; as well as to liberate energies that have been imprisoned by outmoded procedures and habits of thought. Whenever a leader or organisation is principle-centred, they become a model – an example – to other people and organisations. This type of modelling, character, competence and action produces trust among people, causing them to identify with this modelling and be influenced by it (Tichy, 1997). Value-centred leadership is required to transform employees and organisations to make them globally competitive (Nel, cited in Engelbrecht, 2002).

2.4.1 Core ethical values and transformational leadership

Values influence a leader's preferences and aspirations, perception of situations and problems, decisions in a particular situation, interpersonal relationships, and a leader's ethical behaviour (Ciulla; England & Lee; Super & Sverko, cited in Engelbrecht, 2001). To ensure socially and ethically desired leadership behaviour, it is necessary to identify the value system of socialised transformational leaders (Engelbrecht, 2001).

Transformational leaders are able to articulate a set of core values and exhibit behaviour that is congruent with their values (Tichy & Devanna, 1990). These core values will be different from those of transactional leaders (Bass & Burns, cited in Engelbrecht, 2002). This makes it necessary to investigate the core ethical values that typify transformational leaders. Ethical leadership should be guided by values such as individual moral responsibility, caring for others, honour and integrity, tolerance and mutual respect, and human fulfilment (Gardner, cited in Engelbrecht, 2001). The underlying values of transformational leaders such as self-transcendence, developmental orientation, team rewards orientation, empowerment, and interactional justice direct ethical leader behaviour (Engelbrecht, 2001).

Organisational justice refers to the role of fairness in the workplace – the way in which employees determine if they have been treated fairly in their jobs (Krafft, 2002). Transformational leaders must be perceived as providing fair treatment to subordinates as this builds and promotes trust. Trust in turn leads to the subordinates having confidence in their leader to act in a fair, ethical and predictable manner (Krafft, 2002). A transformational leader is directed by interactional justice, comprising of values such as trust, integrity and equity (Engelbrecht, 2001). A violation of interactional justice (the interpersonal treatment employees receive during the enactment of organisational procedures) directly results in a violation of interpersonal trust (Engelbrecht, 2001).

Spirituality is considered to be another core value of transformational leadership. When an individual or organisation begins to care about the common good, the realm of spiritual values, described as values of trust, honesty, integrity, compassion and sharing, is entered into (Barrett, cited in Plougmann, 2000). Transformational leaders often articulate visions embracing ideological and spiritual values such as beauty, fairness, honesty, dignity, humanitarianism and respect for organisational members, customers and the environment in which the organisation functions (Burns; Conger & Kanungo, House & Podsakoff; Milliman & Neck and Sashkin, cited in Engelbrecht 2001).

Leaders need to prepare themselves and their organisations to meet the demands of their role as transforming themselves and their followers. The resources needed for this extend beyond the merely material domain; leaders need to draw on their inner spiritual strength (Kanungo & Mendonca, 1996). Hawkins (2000) believes that ethical leaders must have a philosophical or theological basis from which they derive their understanding of ethics. The researcher believes that there is no stronger base than faith in God. Without this basis, the leader's practice of ethical behaviour will be constantly changing as a result of changing circumstances and personal preferences.

It is the spiritual experience that enables each person to grow and realise the enormous potential that is unique to that person (Kanungo & Mendonca, 1996). When the spirituality of the leader is expressed, it provides the leader with the means to develop as a moral person and create the organisation's moral environment that is conducive for ethical behaviour (Kanungo & Mendonca, 1996).

Altruism has been recognised in the literature as a core ethical value of transformational leadership (Ciulla, 1996; Engelbrecht, 2002; and Kanungo & Mendonca, 1996). To be ethical, the leader must not intend any harm and respect the rights of all followers (Gini, cited in Yukl, 2002).

Integrity is argued to be a core value of transformational leadership, as no organisation can function to its capacity unless its people can rely upon the promises and commitments of their leaders (Pollard, cited in Hesselbein et al., 1996). Leaders must keep their promises to the people they lead, even if it is at their own personal risk and sacrifice. Servant leaders should be value driven and performance oriented, thinking through right and wrong whilst executing their duties (Pollard, cited in Hesselbein et al., 1996).

Leaders must provide an example by their actions and conduct, maintaining a continuing expectation and standard for the people of the organisation. The truth of what they say must be shown by what they do – as someone once said: "if you don't live it, you don't believe it." It is the leaders who are close

to their followers who can lose their ethical reputation with just one episode of hypocrisy or shading of truth (Bass, 1997).

It appears that integrity and benevolence are predominant in determining a leader's trustworthiness as perceived by his or her followers (Engelbrecht & Cloete, 2000). It is clear from the literature study that altruism and integrity are two of the core ethical values which a transformational leader should live out. These will now be discussed in greater detail.

2.4.2 Altruism and transformational leadership

Altruism has been defined as behaviour intended to benefit others without the expectation of an external reward (Macaulay & Berkowitz, cited in Kanungo & Mendonca, 1996) and as behaviour "that renders help to another person" (Worchel, Cooper, & Goethals, cited in Kanungo & Mendonca, 1996, p. 37) regardless of the intention of the provider of help. Altruism involves an active, motivational aspect, which promotes the person to perform a beneficent act (Blum, 1980). St. Augustine regarded the first and final task of leadership as one of serving the needs and well-being of the followers (Ciulla, 1996).

The truly transformational leader who is seeking the greatest good for the greatest number and is concerned about doing what is right and honest is likely to avoid stretching the truth as he wants to set an example to followers about the value in maintaining the mutual trust of his followers (Bass, 1997). Both leaders and followers must transcend their own self-interests if the collectivity is to succeed (Bass, 1997).

Altruism is highly regarded in all cultures as the quintessence of moral principles. Organisational leaders are truly effective when they are motivated by a genuine concern for other people and when their actions are guided by the criteria of "the benefit to others even if it results in some cost to self". (Kanungo & Mendonca, 1996, p. 37). The purpose for having a leader in an organisation is to move it toward the attainment of goals that benefit both the organisation and its members. Leadership effectiveness may thus be

ensured by altruistic acts that reflect the leader's constant desire and concern to benefit others despite the risk of personal cost in such behaviour (Kanungo & Mendonca, 1996). Altruistic leadership encourages and inspires people to use their human potential and energy in the best way so that the organisation's purpose may be achieved (Malan & Smit, 2001).

Shared ethical values are a fundamental part of altruistic leadership, and lay the foundation for sound governance (Malan & Smit, 2001). They create a moral guide for human energy, provide a sense of unified direction, security and trust, and establish the ethical framework for leaders to be both credible and successful (Malan & Smit, 2001). The transformational leader's influence of followers is gained through the fact that followers perceive the leader's efforts to be selfless and their intent to be altruistic (Kanungo & Mendonca, cited in Engelbrecht, 2001). The altruistic leader not only tries to live according to the principles of integrity, service and promotion of the broader interest, but also that of transformational leadership, where the focus is on transforming the followers in the same way (Malan & Smit, 2001).

The transformational leader's focus is on the interests, needs and values of others, and not on himself (Kanungo & Mendonca, 1996). A transformational leader sacrifices self-gain for the gain of others, and motivates followers to transcend their own self-interests from the interests of their organisation (Bass & Avolio, Conger & Kanungo and Sashkin, cited in Engelbrecht, 2001). The transformational leader aligns the altruistic values of his/her followers with his/her own, resulting in altruistic value congruence, which leads to higher levels of trust based relationships between leaders and followers (Engelbrecht, 2002). Thus, in order to gain trust, build commitment to his or her goals, and achieve exceptional levels of performance, the transformational leader should be perceived as sharing altruistic values (Engelbrecht, 2002). Benevolence has been found to be predominant in determining a leader's trustworthiness (Engelbrecht & Cloete, 2000). Engelbrecht (2002) posits that in order to foster ethical transformational leader behaviour, altruistic values such as collectivism, benevolence and equity must exceed trading values such as achievement and advancement. This is

consistent with research by Kanungo and Mendonca (1996) who argue that altruism must be a central aspect of any ethical climate.

2.4.3 Integrity and transformational leadership

2.4.3.1 Definition of integrity

Integrity lies at the heart of leadership. The root meaning of the term integrity according to the Oxford English Dictionary is wholeness, which suggests coherence between principle and action, rightness, and a sense of moral soundness (McFall, 1987). It implies a character of uncorrupted virtue, honesty and sincerity (Montefiore & Vines, 1999). Leaders with integrity will aspire to a consistency and coherence among what they believe, how they lead, and the type of organisations they want to build (Badaracco & Ellsworth, 1991). This consistency of personal beliefs and values, daily working behaviour, and organisational aims is referred to as integrity.

Integrity has been considered by most scholars to be a requirement for ethical leadership, however the definition has been subject to debate (Yukl, 2002). The most basic definition constitutes honesty and consistency between a person's behaviour and values, but what the leader values and how the person acts are not part of this definition. This definition has been criticised as it does not specify that the values must be moral and the behaviour ethical (Becker, cited in Yukl, 2002). In other words, consistency between actions and immoral principles does not qualify, but rather the consistency of behaviour with a set of justifiable moral principles (Yukl, 2002).

Zalesnik (1993) and Gardner (1995), both refer to the integrity of leadership as morality (Plougmann, 2000). A leader with integrity will not necessarily engage in ethical behaviour, he or she may in fact display unethical behaviour in a very consistent manner. As Bennis said: "I often observe people in top positions doing the wrong thing well" (Rost, 1991, p. 166). Bennis was indicating that when people use ethical processes to do the wrong thing, they are not practising leadership (Rost, 1991). An ethical leader cannot be ethical

unless he or she displays integrity. If leadership is an influence relationship, then the process whereby leaders and followers interact becomes crucial to the ethics of leadership, and this process defines the ethical integrity of leadership (Rost, 1991). For this reason, it is argued in this study that integrity must be ethical if the leader's actions are to carry any weight in influencing followers to behave ethically.

To clarify the concept of integrity, Montefiore & Vines (1999) have outlined three points on integrity:

- Integrity is about character.
- Integrity concerns actions which flow from choices.
- Integrity concerns choices which are informed by the person's values or ends.

From the above three points it can be noted that a person of integrity displays a consistency of character which is rooted in morally serious commitments to ends and values which are strongly enough felt to enable that person to resist pressure to act otherwise. It has been said that effective leadership is overwhelmingly the function of character (Plougmann, 2000). The ethical responsibility of leadership is to take the lead in defining a sound value system. The best way of achieving this is by uncompromisingly and openly living that value system (Malan & Smit, 2000). A leader who acts consistently and sincerely on the basis of their values will have their authenticity demonstrated to others over time, and their followers will be loyal to them (Schuitema, 1998).

Consistency means that the same principles will be applied to the variety of problems, situations, and personalities that a leader faces. And these are principles, not rigid rules (Badaracco & Ellsworth, 1991). Problems should be resolved only after a leader has asked which course of action is the right one. A real test of a leader's consistency is how infrequently others must guess about what kind of thinking he or she will use when approaching a problem. If leaders are consistent, followers will have a sense of the values and concerns

their leaders will consider in making a decision (Badaracco & Ellsworth, 1991).

2.4.3.2 The importance of integrity in leadership

Ethical integrity is an important aspect of leadership – leadership skills alone are not sufficient, these skills must be coupled with integrity and ethical behaviour (Carlson & Perrewe, 1995). To be optimally effective, leaders should be perceived by followers as displaying a level of integrity consistent with followers' expectations (Craig & Gustafson, 1998). Consistency of action is important for a number of reasons, as posited by Badaracco & Ellsworth (1991):

- For values to matter, a leader must consistently defend and promote them, as values cannot be institutionalised through compromise.
- Inconsistent behaviour sends mixed signals to employees, increasing anxiety-producing uncertainty, raising concerns about fairness, confusing the priority of goals and raising the possibility that a leader will be seen as manipulative.
- Effective leaders are not human chameleons, but are people with distinct personalities who behave consistently in accordance with that personality; to do the contrary invites mistrust and mistakes.

It is a firm belief of good leadership that leaders should walk their ethical talk by living and not merely promoting the organisation's value system and design. They should personally demonstrate commitment and loyalty to the organisation, by behaving and leading with integrity and by showing what it means to behave congruently and consistently (Malan & Smit, 2001). The leader gains influence by demonstrating important personal characteristics, which are by-products of his or her strong value system (Carlson & Perrewe, 1995).

A leader should be able to identify conflicts that involve vital values and norms. This is only possible if a leader has a strong personal commitment to these values, which will ensure that the leader does not compromise on issues involving the company's basic values. The inconsistencies that result from compromise of these values prevent the leader's ability to motivate others to take an organisation's values seriously.

Integrity is vital in leadership because the reputation of an organisation will depend on it (Vogl, 2001). According to Vogl (2001), outstanding employees will only want to work for organisations whose leadership they trust and whose values they respect; and joint venture partners will only be willing to enter into alliances with organisations that enhance the company's public reputation. This is of particular relevance to South African organisations which face fierce global competition. Consumers will begin to focus on the values behind brand labels, and investors will more clearly see the relationships between integrity management, competitiveness and the resulting bottom line benefits (Vogl, 2001). This also implies that shareholders will press harder for more transparent leadership and greater accountability by boards of directors. In the short-term, the unethical organisation may still be a winner, but the survivors of the long-term will be those who toil daily to secure reputations of integrity.

However, a reputation for ethical leadership cannot be accepted as a given because most employees in large organisations do not interact with senior executives, and any information they receive about executives is filtered through multiple layers in the organisation. Being an ethical person is the basis of ethical leadership, yet to develop a reputation for this, the leader's challenge is to convey it to others (Trevino, Hartman & Brown, 2000). Adherence to the highest standards of ethical behaviour and integrity inspires confidence and trust, both inside and outside the organisation. This contributes to creating an environment which encourages innovation.

Effective ethical managers realise that they live in a fishbowl of sorts and employees are watching them for cues about what is important – this is where

role modelling of ethical values is important. The saying "Your actions speak so loudly, I can't hear what you are saying" applies. If employees do not hear about ethics and values from top management, it is not clear to them that ethics and values are important (Trevino et al., 2000).

2.4.3.3 The relationship between integrity and transformational leadership

Transformational leadership has been shown to be related to a number of positive subordinate outcomes, including trust and respect for the leader, organisational citizenship behaviours, performance, satisfaction, organisational commitment, and lower turnover intentions (Howell & Avolio, cited in Craig & Gustafson, 1998; Krafft, 2002). Integrity and trustworthiness have been identified as important aspects of the highly effective transformational leadership style (Bass, cited in Craig & Gustafson, 1998; Engelbrecht, 2001).

Leaders communicate their values and standards most directly through their actions, and subsequently, through how they direct their attention, respond to problems and formulate strategies (Trevino, cited in Cohen, 1993). Leaders with integrity always encourage open and honest communication, particularly in discussions which concern decision-making. Leaders value an individual's viewpoint and the feedback that results from sharing (Gottlieb & Sangria, cited in Parry & Proctor-Thomson, 2002). Such a leadership value-set is consistent with transformational leadership. Bass states that within transformational leadership "new ideas and creative problem solutions are solicited from followers, who are included in the process of addressing problems and finding solutions" (Parry & Proctor-Thomson, 2002, p. 80).

Transformational leaders work upon a basis of personal values such as integrity and justice and believe that it is the best way to instil ethical behaviour in organisations (Carlson & Perrewe, 1995). However, although integrity, justice and ethics are conceptually related to transformational

leadership within the literature, the link between them has had little empirical consideration (Parry & Proctor-Thomson 2002).

2.5 Theoretical model

Based on the information derived from the literature study, a theoretical model has been derived, and is depicted in Figure 2.1. The general model illustrates how altruism as a core ethical value directly affects transformational leadership. Transformational leadership has a positive effect on ethical climate, and can lead either directly or indirectly to unit performance. Ethical climate thus has a moderating effect on the relationship between transformational leadership and unit performance. Integrity has a moderating effect on the relationship between transformational leadership and ethical climate. This moderating effect is explained in the specific section of the explanation of the model.

For the purposes of this study, Victor and Cullen's (1988) dimensions of ethical climate will be used. The relationships between the dimensions of the variables are indicated in Figure 2.2. The following section explains the relationships between the variables depicted in the specific model in Figure 2.2.

The value of **altruism** can be directly linked to the dimensions of transformational leadership as follows:

- ***Individualised consideration***: This refers to the leader treating each follower individually and providing coaching and mentoring opportunities, with a concern for developing followers into leaders. The leader channels his or her need for power in socially constructive ways into the service of others, taking the interests of others seriously and is forgetful of the self alone (Bass & Steidlmeier, 1999).

- ***Intellectual stimulation***: Authentic transformational leaders will openly bring about changes in follower's values by the merit and relevancy of their ideas and mission to their followers' ultimate benefit and satisfaction (Howell, cited in Bass & Steidlmeier, 1999). Leaders will not criticise followers for having different ideas, in fact they will be supported for questioning assumptions made by both the leader and themselves. Leaders will question the status quo if it violates the interests of the followers, and will attempt to solve the discrepancies found.

- ***Idealised influence***: Leaders are admired, respected and trusted. Among the things done to earn this credit is considering the needs of others over the leader's own personal needs, and avoiding using power for personal gain (Bass & Avolio, 1994). The leader acts out of selfless motives, sincerely wanting the best for his or her followers.

- ***Inspirational motivation***: The leader gets followers involved by providing meaning and challenge in their work. The leader creates clearly communicated expectations that followers want to meet (Bass & Avolio, 1994). The leader remains optimistic about likely outcomes and boosts employees' confidence in success, always encouraging them to reach their goals (Waldman, cited in Bass & Avolio, 1994).

The value of **integrity** has a moderating effect on the relationship between transformational leadership and ethical climate. In this study it is postulated that integrity must be ethical if the leader's actions are to carry any weight in influencing followers ethically. It is argued that integrity moderates the effect of the following dimensions of transformational leadership on ethical climate:

- ***Idealised influence***: This involves the creation of an ethical vision, and the setting of high ethical standards for imitation to achieve this vision. The leader proposes to his or her followers the highest

ethical standards which are implemented in his or her own life publicly and privately (Bass & Steidlmeier, 1998). Idealised influence will only result in followers emulating the leader and buying into his or her vision if these ethical standards are implemented in his or her own life. This display of integrity in the leader's behaviour can lead to building the trust and respect of the followers. The actual items measuring idealised influence in the MLQ intuitively relate positively to integrity, for example, the measurement on the MLQ includes items based on values and beliefs, pride in association, going beyond self-interest, building respect, and considering the moral and ethical consequences of actions (Parry & Proctor-Thomson, 2002).

Thus, it is proposed that integrity has a moderating effect on the relationship between idealised influence and the sub-climates of Law and Code, Rules and Caring, respectively.

- ***Inspirational motivation***: The leader challenges followers to participate in shared goals in an ethical manner, and to achieve the vision through personal sacrifice and trust. The leader manifests consistency between word and deed (Bass & Steidlmeier, 1998). The leader's efforts at inspirational motivation are likely to fail unless the leader demonstrates integrity. Inspirational motivation will thus only result in an ethical climate if the leader demonstrates integrity.

It is proposed that integrity has a moderating effect on the relationship between inspirational motivation and the sub-climates of Independence and Caring.

The following transformational leadership dimensions can be linked to ethical climate as follows:

Individualised consideration can be linked to the following dimensions of ethical climate:

- ***Caring Climate*:** This refers to the degree that people in the company look out for the best interests of others, through statements that are benevolence descriptors. The individually considerate leader takes the needs and interests of the followers into account.

- ***Independence Climate*:** The leader treats each follower individually, as individual differences in terms of needs and desires are recognised. This allows followers to make their own decisions with regards to ethical decisions, without the leader coercing them to follow a certain course of action.

Intellectual stimulation leads to the dimension of ***Independence Climate*** as this creates a climate that supports followers questioning their own values, beliefs, and expectations. It also enables the followers to make their own decisions about what is right and wrong. The leader is instrumental in getting followers to re-examine assumptions that may inhibit creativity and innovation (Waldman, cited in, Bass & Avolio, 1994).

Idealised influence leads to the following dimensions:

- ***Rules Climate*:** This includes items such as "It is very important to follow strictly the company's procedures here" (Victor & Cullen, 1988). This climate would be evident if the leader lives out the ethical standards which they have set, in other words their actions match their words. This leads to integrity, resulting in the followers trusting their leader.

- ***Law and Code:*** In this climate, the law and professional standards are put above all other considerations. The leader will always consider the applicable law whenever a decision has to be made, and can be counted on to do the right thing. The leader demonstrates high standards of ethical and moral standards, thus becoming a role model who is respected and trusted by his followers.

- ***Caring Climate*:** The leader in this climate always looks out for the good of his followers, and puts others before himself. This sets an example for followers to do the same, and the leader is admired and trusted because of this behaviour. Followers will want to emulate the leader.

Inspirational motivation leads to the following dimensions:

- ***Independence Climate*:** This involves principle descriptors such as "In this company, people are expected to follow their own personal moral and ethical beliefs" (Victor & Cullen, 1988). Leaders with inspirational motivation behave in ways that motivate and inspire those around them by providing meaning and challenge to followers' tasks, while giving them the autonomy to decide for themselves what is right or wrong. Inspirational leaders raise awareness about what is important in a problem and encourage the use of "gut feeling" and intuition in solving problems (Bass, cited in, Bass & Avolio, 1994). The leader gives his followers the freedom to decide their own ethical principles.

- ***Caring Climate*:** The leader remains optimistic about likely outcomes despite setbacks that may occur, constantly providing encouragement and feedback to followers, as well as boosting their confidence in achieving success. The leader reminds them of the mission, and is concerned about the big picture. Inspirational leaders are likely to increase the enabling and empowerment of their followers and their

commitment to search for solutions to problems (Bass, cited in, Bass & Avolio, 1994).

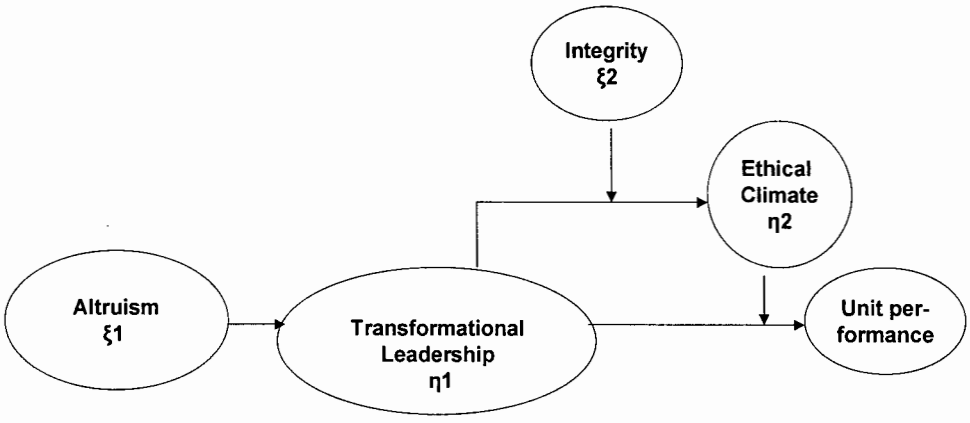


Figure 2.1: A theoretical model of the structural relationships between leadership and ethical climate.

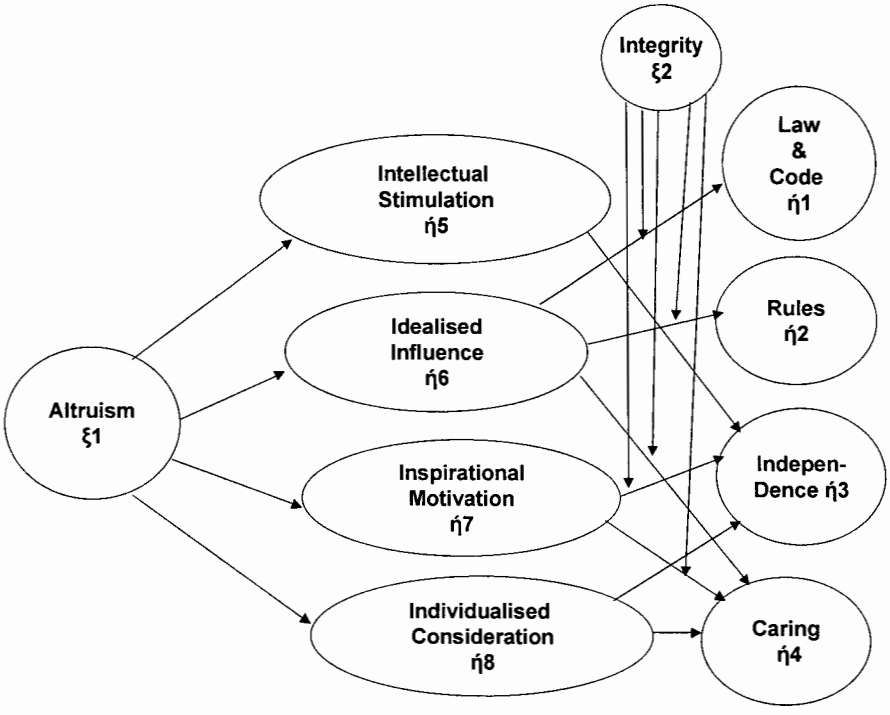


Figure 2.2 The expanded model of the hypothesised relationships between leadership and ethical climate.

2.6 Summary

The importance of an ethical climate within organisations was highlighted as being necessary for encouraging ethical behaviour in employees. It was suggested that the leader is the key role-player to developing an ethical climate, and the means of achieving this through transformational leadership were also discussed.

In this chapter an effort was made to explain and define the concepts of ethical climate, unit performance, transformational leadership, the core ethical values of integrity and altruism, as well as the relationships that exist between them. This overview of the literature provides a background and also supports the content of the next chapter. In Chapter 3, a succinct description of the research strategy is provided.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

The literature study systematically unfolded an argument on the presumed influence of leadership on ethical climate that culminated in a theoretical model, which is depicted in Figure 2.1 and Figure 2.2. The first, collapsed, version of the model (Figure 2.1) depicts the structural relationships assumed to exist between the four latent variables without considering the linkages between the dimensions comprising transformational leadership and ethical climate. Altruism as a core ethical value is believed to directly affect transformational leadership. Transformational leadership in turn is assumed to have a positive effect on ethical climate and on unit performance. Ethical climate, however, is assumed to moderate the effect of transformational leadership on unit performance. Specifically an ordinal leadership-ethical climate interaction effect on unit performance is assumed. Transformational leadership is thus assumed to have a more pronounced effect on unit performance under high ethical climate conditions than under low ethical climate conditions. Integrity is likewise hypothesised to moderate the effect of transformational leadership on ethical climate. Again an ordinal interaction effect is assumed. In this case, however, transformational leadership is believed to affect ethical climate, but only if the leader demonstrates high integrity.

The second version of the model (Figure 2.2) elaborated on the hypothesised relationship that exists between leadership and ethical climate, by portraying the specific structural relationships assumed to exist between the four dimensions of transformational leadership and the five dimensions of ethical climate. The specific leadership-climate linkages moderated by leader integrity were also explicated in the expanded model. In addition, the

expanded model also specified the presumed linkages between altruism and the specific transformational leadership dimensions.

A description of the research design, the statistical hypotheses, the analysis techniques, the sample and the measuring instruments utilised in the empirical testing of the aforementioned models are subsequently presented.

3.2 Research Design

The theoretical model derived from the literature study hypothesises specific structural relationships between the latent variables. The validity of the hypothesised relationships is to be investigated empirically. The research design sets up the framework that will regulate the manner in which the validity of the hypothesised relations among variables will be examined. The function of the research design is to try and ensure empirical evidence that can be interpreted unambiguously for or against the stated hypotheses. The research design achieves this through control of variance in the measures of the endogenous latent variables. More specifically the primary function of a research design is to maximize systematic variance, to minimize error variance and to control systematic non-relevant variance (Kerlinger & Lee, 2000).

A correlational design, which is one of the *ex post facto* designs, is used in this field study. According to Kerlinger and Lee (2000), *ex post facto* research is systematic empirical inquiry in which the researcher does not have direct control of independent variables as their manifestations have already occurred or because they are inherently not manipulable. Experimental manipulation and random assignment are not possible in *ex post facto* research. The difference with regard to experimental design is therefore the lack of direct control that the scientist could have had in controlling variance in the dependent variable(s) through these two design characteristics (Babbie & Mouton, 2001; Kerlinger & Lee, 2000). The purpose of *ex post facto* research, as with experimental research, is to test the empirical validity of the statement "if ξ then η". Inferences about the hypothesised relation existing

between the latent variables ξ and η are made from concomitant variation in independent and dependent variables (Kerlinger & Lee, 2000).

Ex post facto research has three major interrelated limitations, namely the inability to manipulate the independent variables, the lack of power to randomise and the risk of improper interpretation. When compared to experimental designs, *ex post facto* research lacks control and erroneous interpretations may originate due to the possibility of more than one explanation for the obtained difference or correlation (Kerlinger & Lee, 2000). This is especially risky when there are no clearly formulated hypotheses, which is, however, not true for this study. Kerlinger and Lee (2000) therefore warn that results from *ex post facto* research should be treated with caution. The value of *ex post facto* design lies in the fact that most research in the social sciences does not lend itself to experimentation. A certain degree of controlled inquiry may be possible, but experimentation is not, thus making an *ex post facto* design valuable in this regard (Kerlinger & Lee, 2000).

The objective of this study is to establish the nature of causal linkages between transformational leadership and ethical climate. The argument unfolded by the literature study resulted in hypotheses on the manner in which the dimensions of transformational leadership are expected to influence the dimensions of ethical climate. The ex post facto nature of the research design, however, will preclude the drawing of causal inferences from significant correlation coefficients.

3.3 Hypotheses

In accordance with the proposed relationships among the latent variables as depicted in Figure 2.1 and Figure 2.2, the following statistical hypotheses are formulated. The following notational system will be used. Indicator variables of the endogenous latent variables (η_i) will be represented by the symbol Y_i, carrying the same footnote as the latent variable. A single indicator variable

will be used to represent each latent variable. Indicator variables of the exogenous latent variables (ξ_j) will be represented by the symbol X_j.

The nature of the envisaged statistical analyses will necessarily affect the format in which the statistical hypotheses will be formulated. The possibility of utilising structural equation modelling to evaluate the model was considered. The fitting of a structural model, which contains one or more interaction effects between continuous latent variables, however, is appreciably more complicated than the fitting of a model where the relationships between all latent variables can be expressed by linear equations (Schumacker & Lomax, 1996). Kenny and Judd (1984) developed a procedure to estimate non-linear and interaction effects of latent variables in structural equation models. In order to incorporate an interaction effect $\xi_3=\xi_1*\xi_2$ into a structural model, Kenny and Judd (1984) use algebraic substitution to create a series of new latent variables. The indicator variable representing the interaction effect can thus be written as: $X_3=X_1*X_2=(\lambda_1\xi_1+\delta_1)(\lambda_2\xi_2+\delta_2)$ and simplified. In the classic Kenny-Judd model (Kenny & Judd, 1984) this procedure would result in 15 latent variables and 9 indicator variables. The implementation of this procedure via LISREL nonetheless remains cumbersome in that some of the non-linear constraints cannot be estimated directly (Schumacker & Lomax, 1996).

The first, collapsed, version of the model (Figure 2.1) has been evaluated via structural equation modelling by adapting the Kenny-Judd procedure (Kenny & Judd, 1984; Schumacker & Lomax, 1996) for an interaction effect comprising an exogenous and an endogenous latent variable instead of two exogenous latent variables. The adaptation of the basic Kenny-Judd procedure and the results of the subsequent analysis are reported in Theron, Scheps and Engelbrecht (2003).

Both the first, collapsed, version of the model (Figure 2.1) and the second, elaborated version of the model (Figure 2.2) have, however, only also been evaluated via correlation and regression analysis.

The following substantive research hypotheses and associated statistical hypotheses were formulated for the second, elaborated version of the model (Figure 2.2).

Hypothesis 1:

Altruism has a positive effect on intellectual stimulation.

H_{01}: $\rho[X_1, Y_5] = 0$

H_{a1}: $\rho[X_1, Y_5] > 0$

Hypothesis 2:

Altruism has a positive effect on idealised influence.

H_{02}: $\rho[X_1, Y_6] = 0$

H_{a2}: $\rho[X_1, Y_6] > 0$

Hypothesis 3:

Altruism has a positive effect on inspirational motivation.

H_{03}: $\rho[X_1, Y_7] = 0$

H_{a3}: $\rho[X_1, Y_7] > 0$

Hypothesis 4:

Altruism has a positive effect on individualised consideration.

H_{04}: $\rho[X_1, Y_8] = 0$

H_{a4}: $\rho[X_1, Y_8] > 0$

Hypothesis 5:

Intellectual stimulation has a positive effect on the independence climate.

H_{05}: $\rho[Y_5, Y_3] = 0$

H_{a5}: $\rho[Y_5, Y_3] > 0$

Hypothesis 6:

Idealised influence positively affects the law and code climate.

H_{06}: $\rho[Y_6, Y_1] = 0$

H_{a6}: $\rho[Y_6, Y_1] > 0$

Hypothesis 7:

Idealised influence positively affects the rules climate.

H_{07}: $\rho[Y_6, Y_2] = 0$

H_{a7}: $\rho[Y_6, Y_2] > 0$

Hypothesis 8

Idealised influence positively affects the caring climate.

H_{08}: $\rho[Y_6, Y_4] = 0$

H_{a8}: $\rho[Y_6, Y_4] > 0$

Hypothesis 9

Inspirational motivation positively affects the independence climate.

H_{09}: $\rho[Y_7, Y_3] = 0$

H_{a9}: $\rho[Y_7, Y_3] > 0$

Hypothesis 10

Inspirational motivation positively affects the caring climate.

H_{010}: $\rho[Y_7, Y_4] = 0$

H_{a10}: $\rho[Y_7, Y_4] > 0$

Hypothesis 11:

Individualised consideration positively affects the independence climate.

H_{011}: $\rho[Y_8, Y_3] = 0$

H_{a11}: $\rho[Y_8, Y_3] > 0$

Hypothesis 12:

Individualised consideration positively affects the caring climate.

H_{012}: $\rho[Y_8, Y_4] = 0$

H_{a12}: $\rho[Y_8, Y_4] > 0$

Hypothesis 13a:

The interaction between integrity and idealised influence produces variance in law and code climate not attributable to the main effect of idealised influence.

H_{013a}: $\beta[Y_6 * X_2] = 0 | \beta[Y_6] \neq 0$

H_{a13a}: $\beta[Y_6 * X_2] > 0 | \beta[Y_6] \neq 0$

Hypothesis 13b:

The main effect of idealised influence produces variance in law and code climate not attributable to the interaction between integrity and idealised influence.

H_{013b}: $\beta[Y_6] = 0 | \beta[Y_6 * X_2] \neq 0$

H_{a13b}: $\beta[Y_6] > 0 | \beta[Y_6 * X_2] \neq 0$

Hypothesis 14a:

The interaction between integrity and idealised influence produces variance in rules climate not attributable to the main effect of idealised influence.

H_{014a}: $\beta[Y_6 * X_2] = 0 | \beta[Y_6] \neq 0$

H_{a14a}: $\beta[Y_6 * X_2] > 0 | \beta[Y_6] \neq 0$

Hypothesis 14b:

The main effect of idealised influence produces variance in rules climate not attributable to the interaction between integrity and idealised influence.

H_{014b}: $\beta[Y_6] = 0 | \beta[Y_6 * X_2] \neq 0$

H_{a14b}: $\beta[Y_6] > 0 | \beta[Y_6 * X_2] \neq 0$

Hypothesis 15a:

The interaction between integrity and idealised influence produces variance in caring climate not attributable to the main effect of idealised influence.

H_{015a}: $\beta[Y_6*X_2] = 0|\beta[Y_6] \neq 0$

H_{a15a}: $\beta[Y_6*X_2] > 0|\beta[Y_6] \neq 0$

Hypothesis 15b:

The main effect of idealised influence produces variance in caring climate not attributable to the interaction between integrity and idealised influence.

H_{015b}: $\beta[Y_6] = 0|\beta[Y_6*X_2] \neq 0$

H_{a15b}: $\beta[Y_6] > 0|\beta[Y_6*X_2] \neq 0$

Hypothesis 16a:

The interaction between integrity and inspirational motivation produces variance in independence climate not attributable to the main effect of inspirational motivation.

H_{016a}: $\beta[Y_7*X_2] = 0|\beta[Y_7] \neq 0$

H_{a16a}: $\beta[Y_7*X_2] > 0|\beta[Y_7] \neq 0$

Hypothesis 16b:

The main effect of inspirational motivation produces variance in independence climate not attributable to the interaction between integrity and inspirational motivation.

H_{014b}: $\beta[Y_7] = 0|\beta[Y_7*X_2] \neq 0$

H_{a14b}: $\beta[Y_7] > 0|\beta[Y_7*X_2] \neq 0$

Hypothesis 17a:

The interaction between integrity and inspirational motivation produces variance in caring climate not attributable to the main effect of inspirational motivation.

H_{017a}: $\beta[Y_7*X_2] = 0|\beta[Y_7] \neq 0$

H_{a17a}: $\beta[Y_7*X_2] > 0|\beta[Y_7] \neq 0$

Hypothesis 17b:

The main effect of inspirational motivation produces variance in independence climate not attributable to the interaction between integrity and inspirational motivation.

$H_{0_{17b}}$: $\beta[Y_7] = 0 | \beta[Y_7 * X_2] \neq 0$

$H_{a_{17b}}$: $\beta[Y_7] > 0 | \beta[Y_7 * X_2] \neq 0$

To examine the hypothesised interaction effect between transformational leadership and integrity on ethical climate, the model depicted in Figure 2.2 was simplified to the model depicted in Figure 2.1. The following hypotheses were formulated in accordance with the simplified/collapsed model.

Hypothesis 18:

Altruism has a positive influence on transformational leadership

$H_{0_{18}}$: $\rho[X_1, Y_1] = 0$

$H_{a_{18}}$: $\rho[X_1, Y_1] > 0$

Hypothesis 19:

Transformational leadership has a direct positive influence on ethical climate.

$H_{0_{19}}$: $\rho[Y_1, Y_2] = 0$

$H_{a_{19}}$: $\rho[Y_1, Y_2] > 0$

Hypothesis 20a:

The interaction between integrity and transformational leadership produces variance in ethical climate not attributable to the main effect of transformational leadership.

$H_{0_{20a}}$: $\beta[Y_1 * X_2] = 0 | \beta[Y_1] \neq 0$

$H_{a_{20a}}$: $\beta[Y_1 * X_2] > 0 | \beta[Y_1] \neq 0$

Hypothesis 20b:

The main effect of transformational leadership produces variance in ethical climate not attributable to the interaction between integrity and transformational leadership.

$H_{0_{20b}}$: $\beta[Y_1] = 0 | \beta[Y_1 * X_2] \neq 0$

$H_{a_{20b}}$: $\beta[Y_1] > 0 | \beta[Y_1 * X_2] \neq 0$

3.4 Statistical analyses

The data set contained missing values on the indicator variables used to represent the latent variables depicted in the two structural models. Imputation was used to replace missing values. The psychometric integrity of the item sets used to represent the latent variables in the models was subsequently evaluated by assessing the dimensionality of each items set and by assessing the contribution made by each item to a reliable measure of the underlying latent variable. These aspects will be discussed in greater detail in Chapter 4.

Hypotheses 1 to 12 were tested by calculating a matrix of zero-order Pearson correlation coefficients and the corresponding conditional probabilities $P[|r_{ij}| \geq r_c | H_0: \rho_{ij}=0]$. Given a 5% significance level and directional alternative hypotheses, $H_0: \rho_{ij}=0$ will be rejected if $P[|r_{ij}| \geq r_c | H_0: \rho_{ij}=0] < 0,05$.

To establish whether idealised influence and the integrity*idealised influence interaction each significantly explain unique variance in law and code climate (hypotheses 13a & 13b) the following multiple regression model was fitted to the data using standard multiple regression[1]:

$$E[Y_1 | Y_6, Y_6 * X_2] = \alpha + \beta[Y_6] + \beta[Y_6 * X_2]$$

To establish whether idealised influence and the integrity*idealised influence interaction each significantly explain unique variance in rules climate

[1] credibility of the correlation and regression results reported in Chapter 4 would have been enhanced if the assumptions of linearity, normality and homoscedasticity underlying these analyses would have been formally examined and reported.

(hypotheses 14a & 14b) the following multiple regression model was fitted to the data using standard multiple regression:

$$E[Y_2|Y_6, Y_6{*}X_2] = \alpha + \beta[Y_6] + \beta[Y_6{*}X_2]$$

To establish whether idealised influence and the integrity*idealised influence interaction each significantly explain unique variance in caring climate (hypotheses 15a & 15b) the following multiple regression model was fitted to the data using standard multiple regression:

$$E[Y_4|Y_6, Y_6{*}X_2] = \alpha + \beta[Y_6] + \beta[Y_6{*}X_2]$$

To establish whether inspirational motivation and the integrity*inspirational motivation interaction each significantly explain unique variance in independence climate (hypotheses 16a & 16b) the following multiple regression model was fitted to the data using standard multiple regression:

$$E[Y_3|Y_7, Y_7{*}X_2] = \alpha + \beta[Y_7] + \beta[Y_7{*}X_2]$$

To establish whether inspirational motivation and the integrity*inspirational motivation interaction each significantly explain unique variance in caring climate (hypotheses 17a & 17b) the following multiple regression model was fitted to the data using standard multiple regression:

$$E[Y_4|Y_7, Y_7{*}X_2] = \alpha + \beta[Y_7] + \beta[Y_7{*}X_2]$$

To establish whether transformational leadership and the integrity*leadership interaction each significantly explain unique variance in ethical climate (hypotheses 20a & 20b) the following multiple regression model was fitted to the data using standard multiple regression:

$$E[Y_2|Y_1, Y_1{*}X_2] = \alpha + \beta[Y_1] + \beta[Y_1{*}X_2]$$

A critical excedence probability of 0,05 was again used in the evaluation of null hypotheses 13a to 20b. SPSS (Release 11) was used to perform both the correlation and standard multiple regression analyses (SPSS, 2003).

3.5 Sample

The target population was defined as medium to large companies (companies with 1000 or more employees) operating in the Western Cape. In this study, non-probability sampling, more specifically convenience sampling, was used. A total of 360 questionnaires were sent out to various selected firms. A total of 203 completed questionnaires were returned. This represents a response rate of 56%. Ideally, it would have been desirable to know the amount of questionnaires, which came from each organisation, but due to a logistical dilemma this was not possible. A sample is meant to reflect the characteristics of the target population. The use of a non-probability sampling procedure precludes the unqualified generalisation of the findings to the target population. This is, however, not regarded as overly serious in this case as the objective is not so much to describe/audit the target population in terms of transformational leadership and/or ethical climate, but rather to corroborate the hypothesised relationships between specific transformational leadership dimensions and specific dimensions of ethical climate. The hypothesised relationships receiving support in this sample might be due to idiosyncrasies characterising this particular sample. This would, however, have been true even if the sample could have been claimed to be representative. The generalisation of research findings would need to be established by repeating the study under conditions that differ on one or more dimensions from those that have characterised the original study (Kerlinger & Lee, 2000).

The organisations investigated varied in terms of industry sector in which they are active, and ranged from electricity manufacturing plants to insurance firms, retailers and banks to accounting and auditing firms. A covering letter explaining the purpose and content of the study accompanied the questionnaires. Anonymity and confidentiality were assured to participants (See Appendix A).

Table 3.1: Demographic profile of the sample

Ethnic group		
Responses	**Frequency**	**Percentage**
African	6	3.1
Asian	5	2.5
Coloured	59	29.1
White	126	62.1
Sex		
Responses	**Frequency**	**Percentage**
Male	123	60.6
Female	77	37.9
Job level		
Responses	**Frequency**	**Percentage**
Non-managerial	117	57.6
Lower level management	38	18.7
Middle level management	31	15.3
Upper level management	13	6.4
Variable	**Mean (years)**	**Standard Deviation**
Age	32.24	10.17
Work experience	12.35	10.16

Table 3.1 indicates that nearly twice as many males responded to this questionnaire than females. It is apparent that the ethnic group consists of predominantly white people, followed by Coloured, African and Asian people, in that order.

Of the respondents, 57.6 % are working in non-managerial positions, 18.7 % and 15.3% are employed in lower-level and middle-level management positions, respectively. Only 13 upper-level managers responded to the questionnaire. Table 3.1 indicates that the average age of employees was 32.2 years. The average working experience of employees who responded to this questionnaire is 12.35 years. This information is important in as far as it characterises the sample under investigation. These sample characteristics could moderate the effect of transformational leadership on ethical climate as discussed earlier in this paragraph. To determine the external validity of the research findings obtained on this sample, the research would have to be

replicated on samples with a demographic profile that differs systematically from the current on one or more variables.

3.6 Measuring Instruments

The research utilised a combined questionnaire consisting of five sections. (The questionnaire and the accompanying letter are presented in Appendix A).

Section A measured the **demographic characteristics** of the various respondents. The demographic questionnaire consisted of two broad sections. The first acquired an indication of the general background of the participants. Questions here related to the candidates' gender, ethnic group and age. The second section consisted of questions relating to the respondents' job level and their total work experience. This information was obtained so as to characterise the sample under investigation. Demographic information on the leader itself was not obtained. With the wisdom of hindsight this seems a somewhat regrettable omission.

Section B measured **transformational and transactional leadership** with an adapted version of the Multi-Factor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1995). The MLQ is the most widely used measurement for transformational leadership behaviours (Pillai, Schriesheim & Williams, 1999). The MLQ also assesses the dimensions of management-by-exception (active and passive). Only questions relating to transformational and transactional leadership were, however, chosen from this questionnaire. Transactional leadership was measured even though it does not fall within the scope of this study, for possible further research purposes. Respondents rated their immediate supervisor on the MLQ. The ideal would have been to obtain 360-degree ratings of each manager. The logistics and resources required to obtain ratings from peers, followers and superiors, however, precluded pursuing this, methodologically more sound, alternative procedure. Self-ratings generally tend to be inflated (Kerlinger, 1973). Likewise the

danger exists that ratings obtained from either peers, subordinates or superiors could be biased.

The subscales relevant to transformational leadership in this research were idealised influence (eight items), inspirational motivation (four items), intellectual stimulation (four items) and individualised consideration (four items). Hartog and Van Muijen (1997) report the following reasonably satisfying internal consistency reliability coefficient values of 0,93, 0,72, 0,81 and 0,75 for the four subscales respectively. In a more recent study Krafft (2002) reports values of 0,84, 0,80, 0,72 and 0,77 for the internal consistency reliability coefficient for the four scales.

The five-point Likert response alternatives were changed to six-point Likert response alternatives, ranging from "almost never" to "almost always". The reason for this was to try to alleviate the problem of centrality. Although no empirical support could be found for this position, it seems not altogether unreasonable to argue that a five point scale with 3 occupying a clear midpoint would encourage a central tendency more than would a six point scale.

In the past there has been some criticism of the MLQ, especially concerning its ability to accurately measure and differentiate the four key dimensions of transformational leadership from each other (Parry & Proctor-Thomson, 2002). Certain items measuring idealised influence were found to produce significant loadings on inspirational motivation (Du Rand, 2001). High inter-correlations of transformational behaviours did not make it possible to separate their effects in survey studies (Yukl, 1998).

However, there has been substantial evidence to support the use of the MLQ (Lowe et al., cited in Parry & Proctor-Thomson, 2002). Research findings using the MLQ have generally reported statistically significant relationships between leader effectiveness and transformational scales (Krafft, 2002). A meta-analysis of the MLQ literature was conducted, and it was found that the

transformational leadership scales were reliable and possessed good predictive validity (Lowe et al. cited in Parry & Proctor-Thomson, 2002).

Section C measured **ethical climate** using Victor and Cullen's (1987) Ethical Climate Questionnaire (ECQ). The questionnaire was developed to tap the respondents' perception of how the members of their organisations make decisions requiring ethical judgements (Weber, 1995). Scales were constructed from items identified by factor analyses as representing five emergent dimensions of corporate ethical climate. The five sub-climates are caring-, law and code-, rules-, instrumental- and independence climate. The measures of each sub-climate have satisfactory reliabilities (0,65 – 0,82) (Victor & Cullen cited in Frederick & Preston, 1987). A moderate degree of independence between the sub-scales was reported, displaying reasonably low levels of inter-correlation ranging from 0,00 to 0,37 (Victor & Cullen cited in Frederick & Preston, 1987). They conclude from their analysis that the Ethical Climate Questionnaire scales are adequate for subsequent investigative research (Weber, 1995).

Respondents in the study were asked to respond not in terms of how they would prefer their department to be, but in terms of how they perceive it really is in their department. Ethical climate was measured with a 19-item scale that has six-point Likert response alternatives, ranging from 'completely false' to 'completely true'. Methodologically the ideal procedure would, however, have been to obtain 360° ratings on ethical climate from an independent set of raters who have not been involved in the leadership ratings. Again, logistical and resource constraints prevented this option.

The first climate dimension was labelled the caring climate, and consisted of benevolence descriptors such as "the most important concern here is the good of all the people in the company". The second climate factor, known as the law and code climate, was derived from the principle dimension of ethical climate. Items such as "in this company, the first consideration is whether a decision violates any law" loaded on this factor.

The third climate dimension, identified as the rules climate, was characterised by principle descriptors such as "it is very important to follow strictly the company's procedures here". The fourth climate dimension, called the instrumental climate, consisted of egoism descriptors. It was decided not to use this climate dimension in this study, as it is believed that egoism descriptors do not correspond with transformational leadership behaviours. Descriptors were those such as "In this company, people protect their own interests above all else". The last climate dimension, named the independence climate, consisted of principle descriptors such as "in this company, people are expected to follow their own personal moral and ethical beliefs".

Section D measured **altruism** using the altruism sub-scale of the Values Scale of Langley (1992). The scale consists of five items, in the form of statements, which describe the leader's behaviour. Respondents again had to rate their immediate superiors. The comments made earlier with regards to this procedure would also be applicable here. The four-point Likert response alternatives were changed to six-point Likert response alternatives, which ranged from 'of no importance' to 'very important'. The reason for this was again to try and alleviate the problem of centrality. The reliability coefficients obtained by Langley for the altruism sub-scale was 0,86 for the total sample, and construct validity was evidenced by the nature of the factor structure explaining the inter-correlations of the scales (Langley, 1992).

Section E measured **integrity** using Butler's (1991) Conditions of Trust Inventory. Items measuring integrity (honesty), consistency and promise fulfilment were used to form a 12-item scale (Engelbrecht & Cloete, 2000). Respondents had to rate their immediate superiors on a six-point Likert scale with response alternatives, ranging from 'strongly disagree' to 'strongly agree'. Methodologically the ideal procedure would, again, have been to obtain 360° ratings on integrity from an independent set of raters who have not been involved in any of previous ratings. The root meaning of the term integrity is

wholeness, which suggests coherence between principle and action, rightness, and a sense of moral soundness (McFall, 1987). It implies a character of uncorrupted virtue, honesty and sincerity (Montefiore & Vines, 1999). Leaders with integrity will aspire to a consistency and coherence among what they believe, how they lead, and the type of organisations they want to build (Badaracco & Ellsworth, 1991). This consistency of personal beliefs and values, daily working behaviour and organisational aims is referred to as integrity. For this reason, integrity in this study was measured using the above-mentioned scale. Butler (1991) reported satisfactory internal consistency for the sub-scale of integrity (α = 0,92), consistency (α = 0,87) and promise fulfilment (α = 0,96).

3.7 Summary

In this chapter the hypotheses relevant to the study were stated, as well as the research methodology used to test these hypotheses. An overview of the sample and measuring instruments was provided. The next chapter will present the results obtained from the statistical analyses in detail.

CHAPTER 4

RESEARCH RESULTS

4.1 Introduction

The theoretical model derived from the literature study hypothesises specific structural relationships between the latent variables. In accordance with the proposed relationships among the latent variables as depicted in Figure 2.1 and Figure 2.2, specific statistical hypotheses were formulated. The purpose of this chapter is to report the results of the statistical analyses aimed at testing the stated null hypotheses. The chapter will, however, first discuss the treatment of missing values and will subsequently provide detailed results of the dimensionality analyses and item analyses performed to establish the psychometric integrity of the indicator variables used to represent the various latent variables. The results of the correlation and regression analyses will then be presented.

4.2 Missing values

Missing values presented a minor problem that had to be addressed before the data could be analysed. Missing values did not seriously plague the various items comprising the scales discussed earlier. The maximum number of respondents who failed to respond to any individual item was seven. Table 4.1 depicts the distribution of missing values across items.

Various options to solve the missing value problem were explored. The classical treatment of the missing value problem through list-wise deletion of cases would have resulted in a reduction of the sample size to 162. Replacing the missing values with item means would also not have been advisable since it would effectively wash out some of the structure that exists

in the data. Pair-wise deleting of cases also presented itself as a less than satisfactory alternative in that it results in a correlation matrix with variation in N-values [a maximum of 203 and a minimum of 193 in this particular case]. According to Jöreskog & Sörbom (1996), experience indicates that such correlation matrices sometimes fail to be positive-definite.

Table 4.1. Distribution of missing values

Number of missing values	Number of items
0	10
1	14
2	11
3	13
4	15
5	4
7	1

It was consequently decided to use imputation as a method to solve the problem. Imputation is the process of substituting real values for missing values. The substitute values replaced for a case are derived from one or more other cases that have a similar response pattern over a set of matching variables (Jöreskog & Sörbom, 1996). The ideal is to use matching variables that will not be utilised in the subsequent statistical analyses. This was, however, not possible in this case. The items least plagued by missing values were firstly identified. A set of ten items with no missing values per variable was subsequently defined to serve as matching variables. The PRELIS program (Jöreskog & Sörbom, 1996) was used to impute missing values. The subsequent PRELIS run on the reduced item set proved to be satisfyingly effective in countering the missing value problem. By default, cases with missing values after imputation are eliminated. After imputation, 200 cases with observations on all 68 measured items remained in the validation sample.

4.3 Dimensionality Analysis

The various sub-scales are designed to reflect an underlying uni-dimensional latent variable. Dimensionality analyses were conducted with the use of SPSS (SPSS, 1990) to examine this assumption. Hulin, Drasgrow and Parsons (1983), however, caution that factor analysis as performed here on a matrix of product moment correlations might not be the most appropriate procedure for establishing the uni-dimensionality of a scale due to the danger of extracting artefact factors reflecting differences in item difficulty value or variance only. A series of confirmatory factor analyses utilising LISREL probably would have provided more stringent tests of the dimensionality of each sub-scale. Unrestricted principal component analyses with Varimax rotation were nonetheless performed on each sub-scale of the questionnaire with the objective to confirm the uni-dimensionality of each sub-scale and to remove items with insufficient factor loadings and/or split heterogeneous sub-scales into two or more homogenous subsets of items if necessary. The eigenvalue greater than unity rule of thumb was used to determine the number of factors to extract. Analyses were performed on the original data set containing missing values and the imputed data set. A summary of the results is presented in Table 4.2 – Table 4.5.

In the case of the MLQ, all four of the transformational leadership sub-scales passed the uni-dimensionality test. No additional factors needed to be extracted in terms of the eigenvalue greater than unity rule. All factors had satisfactory factor loadings ($0.498 < \lambda < 0.864$) on the dimensions they were originally allocated to. This can be seen in Table 4.2.

The matrices of residual correlations, nonetheless contain large percentages of large residuals (> 0,05), indicating that the assumption of a single latent component underlying each scale is only a rough approximation. The first principle component in each case explained more than 52% of the variance in the items comprising the scale. More specifically the first principle component explained 53% of the variance in the items of the intellectual stimulation scale, 57% of the variance in the idealised influence scale, 67% of the variance in

the inspirational motivation scale and 64% of the variance in the individualised consideration scale.

Table 4.2. Principal component loadings for items on the transformational leadership dimensions

Intellectual Stimulation			Idealised Influence			Inspirational Motivation			Individualised Consideration		
Item	λ b.i*	λ a.i*	Item	λ b.i*	λ a.i*	Item	λ b.i*	λ a.i*	Item	λ b.i*	λ a.i*
B2	0,645	0,642	B5	0,517	0,498	B7	0,829	0,820	B13	0,813	0,807
B6	0,700	0,690	B8	0,790	0,788	B11	0,793	0,788	B17	0,739	0,734
B27	0,839	0,835	B12	0,785	0,791	B24	0,864	0,863	B26	0,788	0,783
B29	0,843	0,837	B16	0,722	0,705	B32	0,805	0,802	B28	0,871	0,864
			B19	0,860	0,852						
			B21	0,752	0,745						
			B23	0,586	0,582						
			B30	0,786	0,774						

b.i* = before imputation
a.i* = after imputation

Only one of the four sub-scales of the Ethical Climate Questionnaire failed the uni-dimensionality test. The problem could, moreover, not be solved through the deletion of single wayward items. The caring climate sub-scale presented a clear, relatively easily interpretable two-factor orthogonal factor structure[2]. The sub-scales were subsequently subdivided into two orthogonal uni-dimensional scales and defined based on the common theme in the items loading strongly on each factor. All items allocated to the subdivided sub-scales loaded satisfactory ($0,542 < \lambda < 0,873$) on a single factor (see Table 4.3). The caring climate sub-scale could be subdivided into two independent, uni-dimensional sub-scales, namely (1) a caring about others sub-scale and (2) a caring about efficiency sub-scale. The first sub-scale refers to the extent to which members of a unit in decision-making and action reflect concern for what is best for the unit and its members. The second sub-scale refers to the extent to which members of a unit share a common concern for performance efficiency. The modest loading of the item C5 on the second principal component in conjunction with the wording of the item does seem to make the inclusion of the item in the second sub-scale somewhat tenuous though. The

[2] The credibility of this claim would have been higher if the items had been screened for differential skewness prior to the principal component analyses. Differential item skewness could have created artefactors. If this was the case, however, one would have expected the extracted principle components to be less easily interpretable than was the case here. Appendix 2 reveals the presence of numerous skewed items. The possibility of transforming the offending items to symmetry should have been considered.

factor fission would made theoretical sense in as far as these two facets of ethical climate could be expected to be sensitive/responsive to different dimensions of transformational leadership. Initially it was argued that a linkage should exist between both idealised influence and inspirational motivation and the caring about efficiency climate dimension and that individualised consideration should positively affect the caring for other climate dimension only. Further deliberation, however, suggested that this argument was based on too restrictive interpretations of the transformational leadership dimensions in question. The initial structural model relating the various facets of transformational leadership to the four dimensions of ethical climate was consequently not modified (Figure 2.2).

Table 4.3. Principal component loadings for items on the ethical climate dimensions

Law and Code Climate			Rules Climate			Independence Climate		
Item	λ b.i*	λ a.i*	Item	λ b.i*	λ a.i*	Item	λ b.i*	λ a.i*
C8	0,862	0,861	C12	0,774	0,769	C16	0,769	0,746
C9	0,852	0,851	C13	0,820	0,816	C17	0,833	0,824
C10	0,852	0,849	C14	0,794	0,790	C18	0,871	0,864
C11	0,734	0,725	C15	0,713	0,705	C19	0,812	0,800

Caring Climate				
Item	λ_1 b.i*	λ_1 a.i	λ_2 b.i*	λ_2 a.i
C1	0,867	0,859	0,132	0,127
C2	0,840	0,836	0,241	0,242
C3	0,782	0,768	0,247	0,235
C4	0,779	0,789	0,109	8,435E-02
C5	0,279	0,286	0,570	0,542
C6	0,270	0,231	0,794	0,808
C7	-5,864E-03	-7.47E-03	0,871	0,873

Caring Climate		
Item	λ b.i*	λ a.i*
C1	0,807	0,801
C2	0,841	0,841
C3	0,795	0,779
C4	0,720	0,719
C5	0,536	0,525
C6	0,647	0,616
C7	0,435	0,446

b.i* = before imputation a.i* = after imputation

The matrices of residual correlations, again contain large percentages of large residuals (> 0,05), indicating that the assumption of a single latent component

underlying each scale is only a rough approximation. The first principle component in the case of the first three scales explained more than 60% of the variance in the items comprising the scale. More specifically the first principle component explained 68% of the variance in the items of the law and code climate scale, 60% of the variance in the rules climate scale, 66% of the variance in the independence climate scale. The first two principal components explained 66% of the variance in the items of the original caring climate scale.

The Altruism scale passed the uni-dimensionality test. All items comprising the scale displayed very satisfactory factor loading on the first principle component ($0,866 < \lambda < 0,927$) (see Table 4.4). In the case of four out of the ten inter-item correlations, the reproduced correlation derived from the first principal component solution differed more than 0,05 from the observed inter-item correlation. The first principle component explained 81% of the variance in the items comprising the scale. The assumption of a single latent variable underlying the items comprising the altruism scale thus seems reasonable.

Table 4.4. Principal component loadings for the altruism scale

Altruism Scale		
Item	λ b.i*	λ a.i*
D1	0,872	0,872
D2	0,912	0,912
D3	0,864	0,866
D4	0,928	0,927
D5	0,914	0,914

b.i* = before imputation; a.i* = after imputation

The integrity scale failed the uni-dimensionality test. The problem could, again, not be solved through the deletion of single wayward items. The integrity scale presented a clear, relatively easily interpretable two-factor orthogonal factor structure. Three items (E4, E8 and E10) had negative loadings on one or both factors. These items were subsequently reflected and the analysis repeated. The two-factor orthogonal factor structure remained unaffected by the reflection but for the desired change in the sign of the loadings of the items in question. The scale was subsequently subdivided

into two orthogonal uni-dimensional sub-scales and defined based on the common theme in the items loading strongly on each factor. All items allocated to the subdivided sub-scales loaded satisfactory ($0,478 < \lambda < 0,906$) on a single factor (see Table 4.5). The integrity scale could be subdivided into two independent, uni-dimensional sub-scales, namely (1) a consistency in words sub-scale and (2) a consistency in actions sub-scale. The second sub-scale (E1 – E3) seems to measure the consistency in the actions of the leader over time, while the first sub-scale (items E5 – E12) appears to measure the extent to which the leader displays consistency in what he says and what he does to subordinates (this sub-scale could thus possibly also be interpreted as a honesty scale). Although the item E4 has a moderate loading on the first principle component (0,478), the nature of the item (I seldom know what my supervisor will do next) seems to be logically somewhat out of step with the remainder of the items loading on the first sub-scale. It could, however, be argued that the particular item shares the theme of trust (or the lack of it) with the remainder of the items loading on the first component. Logically one would rather expect the particular item to load on the second component since it seems to imply a consistency (or lack of it) in the actions of the leader. Table 4.5, however, clearly shows that this is not the case. When forcing an orthogonal three factor solution item, E4 emerges as the only item loading on the third principle component. With no other items loading on the third component a three factor solution is, however, not warranted.

Although the factor fission was found to result in a conceptually meaningful division of the integrity dimension in question, this dimension will not be extended for the purpose of this paper. To do so would be to complicate an already complex structural model. If the hypothesised structural model satisfactorily fits the data, subsequent analyses could investigate refinements suggested by the foregoing results.

Table 4.5. Principal component loadings for the Integrity Scale

Integrity Scale				
Item	λ_1 b.i*	λ_1 a.i	λ_2 b.i*	λ_2 a.i
E1	0,319	0,313	0,877	0,883
E2	0,189	0,202	0,907	0,906
E3	0,313	0,310	0,876	0,877
E4	0,475	0,478	0,213	0,190
E5	0,831	0,831	0,312	0,291
E6	0,807	0,792	0,277	0,294
E7	0,862	0,856	0,271	0,286
E8	0,743	0,743	4,200E-02	5,914E-02
E9	0,774	0,748	0,357	0,385
E10	0,682	0,712	0,272	0,252
E11	0,818	0,811	0,278	0,260
E12	0,819	0,805	0,261	0,275

Integrity Scale		
Item	λ b.i*	λ a.i*
E1	0,732	0,734
E2	0,636	0,652
E3	0,725	0,728
E4	0,516	0,506
E5	0,871	0,859
E6	0,832	0,828
E7	0,877	0,877
E8	0,655	0,661
E9	0,847	0,838
E10	0,723	0,737
E11	0,842	0,825
E12	0,834	0,828

b.i* = before imputation; a.i = after imputation

4.4 Item Analysis

Item analyses were conducted on all the sub-scales before and after imputation. Item analysis was performed through the SPSS Reliability Procedure (SPSS, 2000) to identify and eliminate possible items that were not contributing to an internally consistent description of the latent variables measured by the sub-scales in question.

A summary of the results of the item analyses are presented in Table 4.6. Generally, the Cronbach alpha values are satisfactorily high, as they lie above the generally accepted value of 0,70 (Nunnally, 1978). The reliability of the intellectual stimulation and rules climate sub-scales could, however, be considered somewhat borderline.

Table 4.6. Reliability of the sub-scale measures

Sample *after* imputation (n=200)				Sample *before* imputation			
Scale	**Alpha**	**Mean**	**Variance**	**Sample size (n)**	**Alpha**	**Mean**	**Variance**
Intellectual Stimulation	0,7465	14,9350	18,2520	197	0,7556	14,9695	18,7338
Idealised Influence	0,8662	30,1050	72,9487	192	0,8723	30,2344	75,4265
Inspirational Motivation	0,8360	15,5050	22,4422	197	0,8414	15,5279	22,9342
Individualised Consideration	0,8084	14,7800	23,3986	195	0,8160	14,8154	24,0276
Law and Code Climate	0,8352	15,3550	13,7377	201	0,8395	15,4030	13,8818
Rules Climate	0,7696	14,2550	10,9447	201	0,7764	14,3085	11,2044
Independence Climate	0,8231	9,1850	18,8349	201	0,8393	9,3532	20,1196
Caring Climate	0,8131	21,5150	33,8490	193	0,8232	21,6062	34,5108
Altruism	0,9391	21,8550	33,6422	198	0,9392	21,8939	33,9938
Integrity	0,9320	52,4000	181,0653	196	0,9357	39,4337	116,2058

Table 4.6 furthermore indicates that imputation has a weak attenuating effect on the coefficient of internal consistency calculated for each sub-scale.

Table 4.7 to Table 4.16 present the more detailed results of the item analyses performed on the imputed data set.

Item B2 of the intellectual stimulation sub-scale of the MLQ is indicated in Table 4.7 as a candidate for possible elimination. However, given the length of the scale, the marginal increase in α affected by the removal of the item and the magnitude of the item-total correlation, it was decided to retain the item.

Item B5 of the idealised influence sub-scale of the MLQ was also considered for possible elimination (Table 4.8). Again, given the marginal increase in α affected by the removal of the item and the magnitude of the item-total correlation, it was decided to retain the item.

With regards to the inspirational motivation sub-scale of the MLQ, no aberrant items are indicated by the results depicted in Table 4.9.

Table 4.9. Reliability analysis of the inspirational motivation sub-scale

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 200.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	15.5050	22.4422	4.7373	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
B7	11.5900	13.0672	.6669	.4759	.7927
B11	11.5050	13.8794	.6253	.4008	.8104
B24	11.9600	12.5512	.7321	.5462	.7624
B32	11.4600	13.7572	.6442	.4163	.8024

Reliability Coefficients 4 items

Alpha = .8360 Standardized item alpha = .8357

With regards to the individualised consideration sub-scale of the MLQ, no aberrant items are indicated by the results depicted in Table 4.10.

Table 4.10. Reliability analysis of the individualised consideration sub-scale

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 200.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	14.7800	23.3986	4.8372	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
B13	11.4950	14.0904	.6302	.4777	.7573
B17	10.5000	14.4724	.5490	.3160	.7965
B26	11.0800	14.3956	.6088	.3767	.7675
B28	11.2650	13.0500	.7169	.5527	.7138

Reliability Coefficients 4 items

Alpha = .8084 Standardized item alpha = .8087

Item C11 of the law and code sub-scale of the Ethical Climate Questionnaire presented itself as a candidate for possible elimination (Table 4.11). Given the length of the sub-scale, the modest increase in α affected by the removal

of the item and the magnitude of the item-total correlation, it was decided to retain the item.

Table 4.11. Reliability analysis of the law and code climate sub-scale

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 200.0

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	15.3550	13.7377	3.7064	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
C8	11.3450	8.2774	.7248	.5346	.7684
C9	11.6800	7.7765	.7049	.5249	.7735
C10	11.3650	8.2731	.7014	.5292	.7772
C11	11.6750	8.2808	.5532	.3131	.8466

Reliability Coefficients 4 items

Alpha = .8352 Standardized item alpha = .8399

With regards to the rules climate sub-scale no aberrant items are indicated by the results depicted in Table 4.12.

Table 4.12. Reliability analysis of the rules climate sub-scale

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 200.0

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	14.2550	10.9447	3.3083	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
C12	10.2200	7.1272	.5517	.4589	.7257
C13	10.2450	6.6482	.6167	.4920	.6917
C14	11.2100	5.8753	.6123	.4184	.6939
C15	11.0900	6.8662	.5156	.3540	.7433

Reliability Coefficients 4 items

Alpha = .7696 Standardized item alpha = .7718

With regards to the independence climate sub-scale no aberrant items are indicated by the results depicted in Table 4.13.

Table 4.13. Reliability analysis of the independence climate sub-scale

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 200.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	9.1850	18.8349	4.3399	4

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
C16	6.5550	11.7960	.5679	.3448	.8125
C17	7.1100	10.8421	.6601	.5050	.7710
C18	7.0950	10.8804	.7270	.5563	.7407
C19	6.7950	11.3598	.6371	.4063	.7815

Reliability Coefficients 4 items

Alpha = .8231 Standardized item alpha = .8236

With regards to the original caring climate sub-scale, Table 4.14 confirms the results reported earlier on the dimensionality analysis of the caring sub-scale of the ECQ. Item C5 of the caring about efficiency sub-scale of the ECQ is indicated as a questionable indicator of the latent variable underlying the other items comprising the scale. Item C7 also emerges as a somewhat questionable item. Given the magnitude of the item-total correlations and the effect of their removal on alpha, it was decided to retain the items.

Highly pleasing item statistics are apparent in Table 4.15 for the items comprising the altruism scale.

Table 4.14. Reliability analysis of the caring climate sub-scale

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Statistics for	Mean	Variance	Std Dev	N of Variables
SCALE	21.5150	33.8490	5.8180	7

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
C1	18.8600	23.1461	.6574	.7681
C2	18.7800	23.1172	.7253	.7549
C3	19.2150	24.3405	.6485	.7706
C4	18.9400	24.8607	.5672	.7856
C5	17.4450	28.3990	.4028	.8110
C6	18.2150	26.3807	.4974	.7974
C7	17.6350	29.2581	.3397	.8191

Reliability Coefficients

N of Cases = 200.0 N of Items = 7

Alpha = .8131

Table 4.15. Reliability analysis of the altruism scale

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 200.0

Statistics for	Mean	Variance	Std Dev	N of Variables
Scale	21.8550	33.6422	5.8002	5

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
D1	17.2900	22.6290	.7977	.6894	.9318
D2	17.4000	22.1809	.8577	.7478	.9214
D3	17.6300	21.9328	.7936	.6754	.9330
D4	17.3100	21.9939	.8813	.7834	.9173
D5	17.7900	20.5587	.8611	.7573	.9210

Reliability Coefficients 5 items

Alpha = .9391 Standardized item alpha = .9401

Table 4.16 reflects the decision not to split the original scale into the two orthogonal factors indicated by the dimensionality. Item E4 again stands out as a somewhat questionable indicator of the latent variable underlying the other items comprising the scale. The magnitude of the item-total correlation taken in conjunction with the marginal increase in α resulting from the culling of this item, led to the retention of the item.

Table 4.16. Reliability analysis of the integrity scale

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

N of Cases = 200.0

Statistics for Scale	Mean	Variance	Std Dev	N of Variables
	52.4000	181.0653	13.4561	12

Item-total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Alpha if Item Deleted
E1	48.0200	154.7433	.6822	.7650	.9270
E2	48.1800	158.3594	.5921	.7044	.9302
E3	48.0600	155.2024	.6763	.7562	.9272
E4	48.4750	161.2356	.4501	.2278	.9360
E5	47.9800	147.6780	.8160	.7710	.9216
E6	48.1700	146.9559	.7798	.7535	.9231
E7	47.9350	147.2470	.8416	.7996	.9206
E8	47.7350	155.8842	.6019	.4899	.9302
E9	48.0350	152.1143	.7882	.7072	.9232
E10	47.8650	153.6953	.6863	.5559	.9269
E11	48.0150	151.3415	.7690	.8182	.9237
E12	47.9300	152.5780	.7741	.7996	.9237

Reliability Coefficients 12 items

Alpha = .9320 Standardized item alpha = .9322

Total scores on each of the scales were subsequently calculated to serve as effect indicator variables of the latent variables depicted in Figures 2.1 and 2.2. The results of the foregoing analyses indicate that the items comprising the various scales do succeed in reflecting a similar construct. Although no conclusive evidence in this regard was derived from the current data set, it is nonetheless assumed that the scales do reflect the intended latent variables. Confronting the respective measurement models with the current data set via a series of confirmatory factor analyses utilizing Lisrel would, however, have enhanced the credibility of this assumption.

The following section will discuss the analyses performed on the data to test the statistical null hypotheses formulated in chapter 3.

4.5 Results on correlation and regression analyses performed on the elaborated version of the leadership-ethical climate model

Twenty-two substantive research hypotheses and associated statistical hypotheses were formulated earlier for the second, elaborated version of the model (Figure 2.2).

Hypotheses 1 to 12 were tested by calculating a matrix of zero-order Pearson correlation coefficients and the corresponding conditional probabilities $P[|r_{ij}| \geq r_c|H_0:\rho_{ij}=0]$. Given a 5% significance level and directional alternative hypotheses, $H_0:\rho_{ij}=0$ will be rejected if $P[|r_{ij}| \geq r_c|H_0:\rho_{ij}=0] < 0,05$. The matrix of zero-order Pearson correlation coefficients and the corresponding conditional probabilities is portrayed in Table 4.18.

The convention proposed by Guilford (cited in Tredoux & Durrheim, 2002, p. 184) and depicted in Table 4.17 will be used to interpret sample correlation coefficients. Although somewhat arbitrary and although it ignores the normative question about the magnitude of values typically encountered in a particular context, it nonetheless fosters consistency in interpretation.

Table 4.17: Guilford's interpretation of the magnitude of significant r

Absolute value of r	Interpretation
< 0,19	Slight; almost no relationship
0,20 – 0,39	Low correlation; definite but small relationship
0,40 – 0,69	Moderate correlation; substantial relationship
0,70 – 0,89	High correlation; strong relationship
0,90 – 1,00	Very high correlation; very dependable relationship

The objective of this study is to establish the nature of causal linkages between altruism and transformational leadership and transformational leadership and ethical climate. The argument unfolded by the literature study resulted in hypotheses on the manner in which the dimensions of transformational leadership are influenced by altruism and the manner in which the dimensions of transformational leadership are expected to influence the dimensions of ethical climate. The ex post facto nature of the research design will however, preclude the drawing of causal inferences from

significant correlation coefficients. A significant correlation only implies that the degree of covariance observed between two variables is unlikely attributable to sampling error under the null hypothesis. In as far as covariance is a necessary but insufficient condition to establish a causal relationship between two variables, the causal substantive hypothesis can be said to be corroborated in as far as it has survived an opportunity to be refuted.

Table 4.18. Matrix of zero-order Pearson correlation coefficients and the corresponding conditional probabilities

	ALTRU	IS	II	IM	IC	LAW	RULE	INDEP	CARE	INTEG
ALTRU	1 . 200	.527 .000 200	.645 .000 200	.497 .000 200	.542 .000 200	.288 .000 200	.301 .000 200	.172 .008 200	.434 .000 200	.484 .000 200
IS	.527 .000 200	1 . 200	.731 .000 200	.662 .000 200	.735 .000 200	.303 .000 200	.237 .000 200	.148 .018 200	.407 .000 200	.574 .000 200
II	.645 .000 200	.731 .000 200	1 . 200	.818 .000 200	.753 .000 200	.319 .000 200	.257 .000 200	.200 .002 200	.489 .000 200	.585 .000 200
IM	.497 .000 200	.662 .000 200	.818 .000 200	1 . 200	.678 .000 200	.325 .000 200	.223 .001 200	.236 .000 200	.461 .000 200	.493 .000 200
IC	.542 .000 200	.735 .000 200	.753 .000 200	.678 .000 200	1 . 200	.217 .001 200	.141 .023 200	.216 .001 200	.390 .000 200	.643 .000 200
LAW	.288 .000 200	.303 .000 200	.319 .000 200	.325 .000 200	.217 .001 200	1 . 200	.577 .000 200	.077 .139 200	.609 .000 200	.297 .000 200
RULE	.301 .000 200	.237 .000 200	.257 .000 200	.223 .001 200	.141 .023 200	.577 .000 200	1 . 200	.019 .393 200	.510 .000 200	.235 .000 200
INDEP	.172 .008 200	.148 .018 200	.200 .002 200	.236 .000 200	.216 .001 200	.077 .139 200	.019 .393 200	1 . 200	.264 .000 200	.167 .009 200
CARE	.434 .000 200	.407 .000 200	.489 .000 200	.461 .000 200	.390 .000 200	.609 .000 200	.510 .000 200	.264 .000 200	1 . 200	.429 .000 200
INTEG	.484 .000 200	.574 .000 200	.585 .000 200	.493 .000 200	.643 .000 200	.297 .000 200	.235 .000 200	.167 .009 200	.429 .000 200	1 . 200

Correlation is significant at the 0,01 level (1-tailed) if $P[|r_{ij}| \geq r_c|H_0{:}\rho_{ij}=0] \leq 0{,}01$.
Correlation is significant at the 0.05 level (1-tailed) if $P[|r_{ij}| \geq r_c|H_0{:}\rho_{ij}=0] \leq 0{,}05$.

4.5.1 The relationship between altruism and the dimensions of transformational leadership

This section focuses on the results as they relate to hypotheses 1 to 4. Pearson product-moment correlation coefficients were calculated so as to establish the nature of the relationships between altruism and the dimensions of transformational leadership. The calculated Pearson product-moment correlation coefficients between the different variables are displayed in Table 4.18 and will be referred to in following paragraphs in this section.

4.5.1.1 The relationship between altruism and intellectual stimulation

Hypothesis 1 postulates that altruism has a positive linear effect on intellectual stimulation. Table 4.18 indicates a substantial ($r = 0,527$) and significant relationship ($p < 0,05$) between altruism (as measured by the Values Scale) and intellectual stimulation (as measured by the MLQ). H_{01} can therefore be rejected. Approximately 28% of the variance in the intellectual stimulation measure can be explained in terms of the variance in the altruism measure. Hypothesis 1, stating that altruism has a positive effect on intellectual stimulation has thus survived an opportunity to be refuted. This finding implies that leaders who practice altruism as a value tend to be perceived as leaders with intellectual stimulation. This finding is consistent with the literature, which suggests that ethical transformational leaders bring about changes in followers' ethical values by the merit and relevancy of their ideas, as well as their mission to their followers' benefit (Howell, cited in Bass & Steidlmeier, 1998).

4.5.1.2 The relationship between altruism and idealised influence

Hypothesis 2 postulates that altruism has a positive linear effect on idealised influence. As seen in Table 4.18, the results indicate a moderate ($r = 0,645$) and significant correlation ($p < 0,05$) between altruism and idealised influence. H_{02} can therefore be rejected. Approximately 42% of the variance in idealised

influence can be explained in terms of the variance in altruism. Hypothesis 2, stating that altruism has a positive effect on idealised influence is thus corroborated. This implies that leaders who practice altruism as a value will tend to be perceived as leaders with idealised influence. This finding is consistent with the literature study, which suggests that followers who identify with the leader's ethical aspirations wish to emulate their leader's behaviour.

4.5.1.3 The relationship between altruism and inspirational motivation

According to hypothesis 3, altruism has a positive linear effect on inspirational motivation. As seen in Table 4.18, the results indicate a substantial ($r = 0,497$) and significant relationship ($p < 0,05$) between altruism and inspirational motivation. H_{03} can therefore be rejected. Approximately 25% of the variance in inspirational motivation can be explained in terms of the variance in altruism. Hypothesis 3, stating that altruism has a positive effect on inspirational motivation, is thus corroborated. This implies that leaders who practice altruism as a value will tend to be perceived as leaders with inspirational motivation. This finding is consistent with the literature study, which suggests that ethical inspirational motivation provides followers with challenges and meaning to participate in shared goals in an ethical manner.

4.5.1.4 The relationship between altruism and individualised consideration

Hypothesis 4 states that altruism has a positive linear effect on the individualised consideration. As seen in Table 4.18, the results indicate a moderate ($r = 0,542$) and significant ($p < 0,05$) correlation between altruism and individualised consideration. H_{04} can therefore be rejected. Approximately 25% of the variance in individualised consideration can be accounted for by the variance in altruism. Hypothesis 4, stating that altruism has a positive effect on individualised consideration, is thus corroborated. This implies that leaders who practice altruism as a value will tend to be perceived as leaders with individualised consideration. This finding is consistent with the literature, which suggests that a leader practicing

individualised consideration treats each follower individually and provides coaching, mentoring and growth opportunities. The leader is concerned about developing followers into leaders who will also be concerned about creating an ethical climate (Bass, cited in Bass & Steidlmeier, 1998).

4.5.1.5 General concluding comments on the relationship between altruism and the dimensions of transformational leadership

Support has been found for the linkages between altruism and the dimensions of transformational leadership as proposed by Figure 2.2. In the case of each of the hypothesised linkages, altruism explained 25% or more of the variance observed in the transformational leadership dimensions. Cognisance should, however, be taken of the fact that moderate to high correlations exist between the dimensions of transformational leadership (see Table 4.18). It could thus be that altruism to some extent explains the same variance in each of the leadership dimensions. A one-way MANOVA with the dichotomised altruism total score as the independent variable and the MLQ transformational scales as four dependent variables, confirms the findings reported thus far. However, when utilising a step-down approach in a series of one-way ANOVA's by using the MLQ scales that served as dependent variables in prior ANOVA's as a covariates in subsequent ANOVA's, a slightly different picture emerges. When controlling for intellectual stimulation, the unique variance in altruism still significantly ($p<0,05$) explains variance in idealised influence not accounted for by intellectual stimulation. However, when controlling for both intellectual stimulation and idealised influence, altruism no longer significantly ($p > 0,05$) explains variance in inspirational motivation. Neither does altruism significantly ($p > 0,05$) explain variance in individualiaed consideration when controlling for the first three MLQ scales. Different permutations would most likely return similar results.

4.5.2 The relationship between the dimensions of transformational leadership and the dimensions of ethical climate

This section focuses on the results as they relate to the main effect hypotheses on the effect of transformational leadership on ethical climate, that is to say hypotheses 5 to 12. Pearson product-moment correlation coefficients were calculated so as to establish the strength of the relationships between specific dimensions of transformational leadership and specific dimensions of ethical climate as proposed in Figure 2.2. The calculated Pearson product-moment correlation coefficients between the different variables are displayed in Table 4.18 and will be referred to in following paragraphs in this section.

4.5.2.1 The relationship between intellectual stimulation and the independence climate dimension of ethical climate

Hypothesis 5 postulates that intellectual stimulation has a positive, linear effect on independence climate. As seen in Table 4.18, the results indicate only a slight ($r = 0,148$) but still significant relationship ($p < 0,05$) between intellectual stimulation and independence climate. H_{05} can therefore be rejected. Hypothesis 5, stating that intellectual stimulation has a positive effect on the independence climate, has thus survived an opportunity to be refuted. However, only approximately 2% of the variance in independence climate can be explained in terms of variance in intellectual stimulation.

This implies that leaders who are perceived to practice intellectual stimulation tend to be only weakly associated with work units characterised by an independence climate. This finding is consistent with the literature study in as far as a significant relationship between intellectual stimulation and independence climate has been shown. This finding is, however, inconsistent with the literature study in as far as the latter suggests that a transformational leader practicing intellectual stimulation will contribute substantially to the creation of an independence climate.

4.5.2.2 The relationship between idealised influence and the law and code dimension of ethical climate

Hypothesis 6 suggests that idealised influence positively affects the law and code dimension of ethical climate. As seen in Table 4.18, the results indicate a low ($r = 0,319$) and significant correlation ($p < 0,05$) between idealised influence and law and code climate. H_{06} can therefore be rejected. Approximately 10% of the variance in law and code climate can be explained in terms of variance in idealised influence. Hypothesis 6, stating that idealised influence has a positive effect on the law and code climate, is thus corroborated. This implies that leaders who are perceived to be creating an ethical vision, confidence in the vision, and the setting of high ethical standards which are implemented in his or her own life for imitation, tend to be associated with units characterised by a climate which encourages followers to adhere to the laws and codes of the organisation at all times. This finding is consistent with the literature study, which suggests that a transformational leader exercising idealised influence will contribute to the development of a law and code climate.

4.5.2.3 The relationship between idealised influence and the rules dimension of ethical climate

Hypothesis 7 proposes that idealised influence linearly and positively affects the rules climate. Table 4.18, indicates a low ($r = 0,257$) but nonetheless significant ($p < 0,05$) correlation between idealised influence and rules climate. H_{07} can therefore be rejected. Only approximately 7% of the variance in this particular ethical climate dimension can be explained in terms of concomitant variance in idealised influence. Hypothesis 7, stating that idealised influence has a positive effect on the rules climate, is thus corroborated.

This implies that if the leader displays idealised influence, he or she lives out the ethical standards which they have set. Followers will take this example of ethical behaviour and emulate it (Bass & Avolio, 1994), thus resulting in a

climate valuing doing things according to the book. This finding is consistent with the literature, which suggests that a leader displaying idealised influence will contribute to the creation of a rules climate.

4.5.2.4 The relationship between idealised influence and the caring dimension of ethical climate

Hypothesis 8 proposes that idealised influence has a linear, positive effect on the caring dimension of ethical climate. The results in Table 4.18, indicate a substantial ($r = 0,489$) and significant relationship ($p < 0,05$) between idealised influence and the caring climate dimension. H_{08} can therefore be rejected. Hypothesis 8, stating that idealised influence has a positive effect on the caring climate, is thus corroborated. Approximately 24% of the variance in this particular ethical climate dimension can be explained in terms of concomitant variance in idealised influence.

This implies that leaders who are perceived as leading by example will tend to be associated with units characterised by a climate where efficiency and caring about others are held in high regard. This finding is consistent with the literature study, which argued that a transformational leader practicing idealised influence will contribute to the creation of a caring ethical climate.

4.5.2.5 The relationship between inspirational motivation and the independence dimension of ethical climate

Hypothesis 9 proposes that inspirational motivation has a linear, positive effect on the independence climate. The results in Table 4.18 indicate a small but definite ($r = 0,236$) and significant relationship ($p < 0,05$) between inspirational motivation and independence climate. H_{09} can therefore be rejected. However, only approximately 6% of the variance in this particular ethical climate dimension can be explained in terms of concomitant variance in inspirational motivation. Hypothesis 9, stating that inspirational motivation has a positive effect on the independence climate, is thus corroborated.

This implies that inspirational leaders who raise awareness about what is important in a problem and encourage the use of "gut feeling" and intuition in solving problems (Bass, cited in, Bass & Avolio, 1994) will weakly tend to be associated with the independent dimension of ethical climate. This is consistent with the literature study, which suggests that if the leader gives his or her followers the freedom to decide their own ethical principles, it will contribute to the development of an independent ethical climate.

4.5.2.6 The relationship between inspirational motivation and the caring dimension of ethical climate

Hypothesis 10 proposes that inspirational motivation has a linear, positive effect on the caring about efficiency dimension of ethical climate. The results in Table 4.18 indicate a moderately strong ($r = 0,461$) and significant relationship ($p < 0,05$) between inspirational motivation and the caring climate dimension. H_{010} can therefore be rejected. Approximately 21% of the variance in the caring ethical climate dimension can be explained in terms of concomitant variance in inspirational motivation. Hypothesis 10, stating that inspirational motivation has a positive effect on the caring climate, is thus corroborated.

This implies that inspirational leaders will tend to be associated with the caring dimension of ethical climate. This is consistent with the literature study, which implies that inspirational leaders are likely to increase the enabling and empowerment of their followers and their commitment to search for solutions to problems (Bass, cited in, Bass & Avolio, 1994); which in turns leads to the development of the caring dimension of ethical climate.

4.5.2.7 The relationship between individualised consideration and the independence dimension of ethical climate

Hypothesis 11 proposes that individualised consideration has a linear, positive effect on the independence climate. The results in Table 4.18 indicate a low ($r = 0,216$) and significant relationship ($p < 0,05$) between individualised

consideration and independence climate. H_{011} can therefore be rejected. However, only approximately 5% of the variance in the independent climate dimension can be explained in terms of concomitant variance in individualised consideration. Hypothesis 11, stating that individualised consideration has a positive effect on the independence climate, is thus corroborated.

This is consistent with the literature study which implies that leaders with individualised consideration care about the followers' needs to make their own decisions about what is ethical or not, contributing to the development of an independent ethical climate.

4.5.2.8 The relationship between individualised consideration and the caring dimension of ethical climate

Hypothesis 12 proposes that individualised consideration has a linear, positive effect on the caring for others dimension of ethical climate. The results in Table 4.18 indicate a moderate ($r = 0,390$) and significant relationship ($p < 0,05$) between individualised consideration and the climate dimension. H_{012} can therefore be rejected. Approximately 15% of the variance in the ethical climate dimension can be explained in terms of concomitant variance in individualised consideration. Hypothesis 12, stating that individualised consideration has a positive effect on caring climate, is thus corroborated.

This is consistent with the literature study, which implies that leaders who are individually considerate look out for the best interests of others, taking the needs and interests of the followers into account (Bass & Avolio, 1994). This contributes to the development of a caring ethical climate as people are not only interested in their own needs, but the needs of others and that of the unit also.

4.5.2.9 General concluding comments on the relationship between the dimensions of transformational leadership and the dimensions of ethical climate

Figure 2.2 proposed specific causal linkages between specific dimensions of transformational leadership and specific dimensions of ethical climate. The foregoing discussion revealed some degree of support for the proposed linkages within the limitations set by the ex post facto nature of the research design. The model depicted in Figure 2.2 at the same time, however, proposes that no causal linkages exist between the remaining possible combinations of dimensions of transformational leadership and dimensions of ethical climate. The results depicted in Table 4.18, however, seem to argue otherwise. No insignificant ($p > 0,05$) correlations are observed between any of the dimensions of transformational leadership and dimensions of ethical climate not linked by the model.

Moreover, some of the unanticipated relationships not provided for by the model are substantially stronger than those relationships the model did anticipate. These correlations could have been explained in terms of causal linkages between the ethical climate dimensions if the model had hypothesised such linkages. However, since the model does not allow one ethical climate dimension to affect another, the possibility of this type of third variable explanation for the unanticipated correlations falls away. Apart from the possibility of the model being wrong in not allowing for additional causal linkages, the findings could possibly be explained in terms of the moderate to high correlations observed between the transformational leadership dimensions and the more modest correlations found between some of the ethical climate dimensions. Structural equation modelling would offer one possible way of gaining some clarity on the matter by fitting and comparing a number of nestled models.

4.5.3 The extent to which integrity moderates the relationship between specific dimensions of transformational leadership and specific dimensions of ethical climate

In the argument presented earlier, which culminated in the structural model depicted in Figure 2.2, it was contended that the extent to which specific dimensions of transformational leadership will affect specific dimensions of ethical climate would depend on the extent to which the leader demonstrates integrity. Leadership integrity is thus hypothesised to moderate the effect of leadership on ethical climate. Standard multiple regression was used to establish whether the leadership main effect and the leadership-integrity interaction effect each significantly explain variance in ethical climate.

4.5.3.1 The extent to which integrity moderates the relationship between idealised influence and the law and code dimension of ethical climate

Hypothesis 13a claims that the interaction between integrity and idealised influence produces variance in law and code climate not attributable to the main effect of idealised influence. Table 4.19 indicates that the interaction between idealised influence and integrity (in*ii) does not significantly ($p > 0,05$) explain variance in law and code climate when included in a model already containing the idealised influence main effect. H_{013a} can therefore not be rejected.

Table 4.19. Regression of law and code on idealised influence and the interaction between idealised influence and integrity

Source	Type III Sum of Squares	df	Mean Square	F	p.
Corrected Model	19.075	2	9.538	12.379	.000
Intercept	100.240	1	100.240	130.099	.000
II	.441	1	.441	.572	.450
IN_II	1.689	1	1.689	2.192	.140
Error	151.787	197	.770		
Total	3118.063	200			
Corrected Total	170.862	199			

R Squared = .112 (Adjusted R Squared = .103)

	B	Std. Error	t	Sig.	95% Confidence Interval	
Parameter					Lower Bound	Upper Bound
Intercept	2.988	.262	11.406	.000	2.471	3.505
II	.100	.133	.756	.450	-.161	.362
IN_II	2.762E-02	.019	1.481	.140	-9.165E-03	6.440E-02

Source	Type I Sum of Squares[3]	df	Mean Square	F	p.
Corrected Model	19.075	2	9.538	12.379	.000
Intercept	2947.200	1	2947.200	3825.094	.000
II	17.386	1	17.386	22.565	.000
IN_II	1.689	1	1.689	2.192	.140
Error	151.787	197	.770		
Total	3118.063	200			
Corrected Total	170.862	199			

Idealised influence does, however, significantly ($p < 0,05$) explain variance in law and code climate when included in a model on its own (i.e., when it is allocated all the dependent variable variance it can account for). The ability to account for the variance in law and code climate in terms of idealised influence is therefore not improved by allowing for different slopes in the regression of law and code climate on idealised influence.

Hypothesis 13b maintains that the main effect of idealised influence produces variance in law and code climate not attributable to the interaction between integrity and idealised influence. Table 4.19 indicates that the idealised influence main effect does not significantly ($p > 0,05$) explain variance in law and code climate when included in a model already containing the interaction between idealised influence and integrity (in*ii). H_{013b} can therefore not be rejected. The proportion of variance in law and code, not explained by the interaction effect, which is explained by the idealised influence main effect, is therefore not significant. Idealised influence does, however, significantly ($p <$

[3] Hierarchical regression was used to test H_0: $\beta[Y_6] = 0|\beta[Y_6*X_2] = 0$

0,05) explain variance in law and code climate when included in a model on its own. The hypothesis H_0: $\beta[Y_6] = 0|\beta[Y_6{*}X_2] = 0$ can therefore be rejected.

4.5.3.2 The extent to which integrity moderates the relationship between idealised influence and the rules dimension of ethical climate

Hypothesis 14a claims that the interaction between integrity and idealised influence produces variance in rules climate not attributable to the main effect of idealised influence. Table 4.20 indicates that the interaction between idealised influence and integrity (in*ii) does not significantly ($p > 0,05$) explain variance in rules climate when included in a model already containing the idealised influence main effect. H_{014a} can therefore not be rejected.

Table 4.20. Regression of rules climate on idealised influence and the interaction between idealised influence and integrity

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	10.317	2	5.158	7.181	.001
Intercept	100.102	1	100.102	139.362	.000
II	.810	1	.810	1.128	.290
IN_II	.298	1	.298	.414	.520
Error	141.503	197	.718		
Total	2884.889	200			
Corrected Total	151.820	199			

R Squared = .068 (Adjusted R Squared = .058)

	B	Std. Error	t	Sig.	95% Confidence Interval	
Parameter					Lower Bound	Upper Bound
Intercept	2.986	.253	11.805	.000	2.487	3.485
II	.136	.128	1.062	.290	-.117	.389
IN_II	1.159E-02	.018	.644	.520	-2.392E-02	4.711E-02

Source	Type I Sum of Squares[4]	df	Mean Square	F	Sig.
Corrected Model	10.317	2	5.158	7.181	.001
Intercept	2733.069	1	2733.069	3804.961	.000
II	10.019	1	10.019	13.948	.000
IN_II	.298	1	.298	.414	.520
Error	141.503	197	.718		
Total	2884.889	200			
Corrected Total	151.820	199			

[4] Hierarchical regression was used to test H_0: $\beta[Y_6] = 0|\beta[Y_6{*}X_2] = 0$

Hypothesis 14b maintains that the main effect of idealised influence produces variance in rules climate not attributable to the interaction between integrity and idealised influence. Table 4.20 indicates that the idealised influence main effect does not significantly ($p > 0,05$) explain variance in rules climate when included in a model already containing the interaction between idealised influence and integrity (in*ii). H_{014b} can therefore not be rejected. The proportion of variance in rules climate, not explained by the interaction effect, which is explained by the idealised influence main effect, is therefore not significant. Idealised influence does, however, significantly ($p < 0,05$) explain variance in rules climate when included in a model on its own. The hypothesis H_0: $\beta[Y_6] = 0|\beta[Y_6 \cdot X_2] = 0$ can therefore be rejected.

4.5.3.3 The extent to which integrity moderates the relationship between idealised influence and the caring dimension of ethical climate

Hypothesis 15a claims that the interaction between integrity and idealised influence produces variance in caring climate not attributable to the main effect of idealised influence. Table 4.21 indicates that the interaction between idealised influence and integrity (in*ii) does significantly ($p < 0,05$) explain variance in caring climate when included in a model already containing the idealised influence main effect. H_{015a} can therefore be rejected.

When controlling for the leadership main effect in both the predictor and the criterion, the interaction effect explains approximately 3% ($0,183^2$) of the variance in caring climate. The unique variance in the interaction between idealised influence and integrity (in*ii) explains 2,6% ($0,160^2$) of the total variance in caring climate (i.e., when controlling for the idealised influence main effect in the predictor only).

Table 4.21. Regression of caring climate on idealised influence and the interaction between idealised influence and integrity

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	36.378	2	18.189	35.446	.000
Intercept	41.247	1	41.247	80.380	.000
II	.696	1	.696	1.357	.245
IN_II	3.511	1	3.511	6.843	.010
Error	101.090	197	.513		
Total	2026.837	200			
Corrected Total	137.468	199			

a R Squared = .265 (Adjusted R Squared = .257)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
Model		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.917	.214		8.966	.000			
	II	.126	.108	.162	1.165	.245	.489	.083	.071
	IN_II	3.982E-02	.015	.364	2.616	.010	.509	.183	.160

Source	Type I Sum of Squares[5]	df	Mean Square	F	Sig.
Corrected Model	36.378	2	18.189	35.446	.000
Intercept	1889.368	1	1889.368	3681.916	.000
II	32.867	1	32.867	64.050	.000
IN_II	3.511	1	3.511	6.843	.010
Error	101.090	197	.513		
Total	2026.837	200			
Corrected Total	137.468	199			

	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
Model					R Square Change	F Change	df1	df2	Sig. F Change
1	.489	.239	.235	.72684	.239	62.214	1	198	.000
2	.514	.265	.257	.71634	.026	6.843	1	197	.010

Model 1: Predictors: (Constant), II
Model 2: Predictors: (Constant), II, IN_II

Hypothesis 15b maintains that the main effect of idealised influence produces variance in caring climate not attributable to the interaction between integrity and idealised influence. Table 4.21 indicates that the idealised influence main effect does not significantly ($p > 0,05$) explain variance in caring climate when included in a model already containing the interaction between idealised influence and integrity (in*ii). H_{015b} can therefore not be rejected. The proportion of variance in rules climate, not explained by the interaction effect, which is explained by the idealised influence main effect, is therefore not significant. Idealised influence does, however, significantly ($p < 0,05$) explain

[5] Hierarchical regression was used to test H_0: $\beta[Y_6] = 0|\beta[Y_6*X_2] = 0$

variance in rules climate when included in a model on its own. The hypothesis H_0: $\beta[Y_6] = 0|\beta[Y_6{*}X_2] = 0$ can therefore be rejected. When the idealised influence main effect is allocated all the caring climate variance it can account for via hierarchical multiple regression, the interaction effect (necessarily) still significantly explains unique variance in caring climate as indicated above.

4.5.3.4 The extent to which integrity moderates the relationship between inspirational motivation and the independence dimension of ethical climate

Hypothesis 16a proposes that the interaction between integrity and inspirational motivation produces variance in independence climate not attributable to the main effect of inspirational motivation. Table 4.22 indicates that the interaction between inspirational motivation and integrity (in*im) does not significantly ($p > 0,05$) explain variance in independence climate when included in a model already containing the inspirational motivation main effect. H_{016a} can therefore not be rejected. Inspirational motivation does, however, significantly ($p < 0,05$) explain variance in independence climate when included in a model on its own (i.e., when it is allocated all the dependent variable variance it can account for). The ability to account for the variance in independence climate in terms of inspirational motivation is therefore not improved by allowing for different slopes in the regression of independence climate on inspirational motivation. No support is thus found for the hypothesis that the extent to which inspirational motivation will affect independence climate would depend on the extent to which the leader demonstrates integrity.

Table 4.22. Regression of independence climate on inspirational motivation and the interaction between inspirational motivation and integrity

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	15.539	2	7.769	6.998	.001
Intercept	37.370	1	37.370	33.659	.000
IM	3.732E-02	1	3.732E-02	.034	.855
IN_IM	2.525	1	2.525	2.274	.133
Error	218.721	197	1.110		
Total	1288.813	200			
Corrected Total	234.260	199			

R Squared = .066 (Adjusted R Squared = .057)

	B	Std. Error	t	Sig.	95% Confidence Interval	
Parameter					Lower Bound	Upper Bound
Intercept	1.644	.283	5.802	.000	1.085	2.202
IM	2.584E-02	.141	.183	.855	-.252	.304
IN_IM	3.143E-02	.021	1.508	.133	-9.669E-03	7.253E-02

Source	Type I Sum of Squares[6]	df	Mean Square	F	Sig.
Corrected Model	15.539	2	7.769	6.998	.001
Intercept	1054.553	1	1054.553	949.827	.000
IM	13.014	1	13.014	11.721	.001
IN_IM	2.525	1	2.525	2.274	.133
Error	218.721	197	1.110		
Total	1288.813	200			
Corrected Total	234.260	199			

Hypothesis 16b maintains that the main effect of inspirational motivation produces variance in independence climate not attributable to the interaction between integrity and inspirational motivation. Table 4.22 indicates that the inspirational motivation main effect does not significantly ($p > 0,05$) explain variance in independence climate when included in a model already containing the interaction between inspirational motivation and integrity (in*im). H_{016b} can therefore not be rejected.

The proportion of variance in independence climate, not explained by the interaction effect, which is explained by the inspirational motivation main effect, is therefore not significant. Inspirational motivation does, however, significantly ($p < 0,05$) explain variance in independence climate when included in a model on its own. The hypothesis H_0: $\beta[Y_7] = 0|\beta[Y_7{*}X_2] = 0$ can therefore be rejected.

[6] Hierarchical regression was used to test H_0: $\beta[Y7] = 0|\beta[Y7{*}X_2] = 0$

4.5.3.5 The extent to which integrity moderates the relationship between inspirational motivation and the caring dimension of ethical climate

Hypothesis 17a proposes that the interaction between integrity and inspirational motivation produces variance in caring climate not attributable to the main effect of inspirational motivation. Table 4.23 indicates that the interaction between inspirational motivation and integrity (in*im) does significantly ($p < 0,05$) explain variance in caring climate when included in a model already containing the inspirational motivation main effect. H_{017a} can therefore be rejected. The ability to account for the variance in caring climate in terms of inspirational motivation is therefore improved by allowing for different slopes in the regression of independence climate on inspirational motivation. Support is thus found for the hypothesis that the extent to which inspirational motivation will affect caring climate would depend on the extent to which the leader demonstrates integrity. When controlling for inspirational motivation in the predictor and the criterion, the unique variance in the interaction effect explains approximately 5% ($0,211^2$) of the variance in caring climate not explained by the leadership main effect. When controlling for inspirational motivation in the predictor only, the interaction effect explains approximately 3% ($0,184^2$) of the total variance in caring climate.

Table 4.23. Regression of caring climate on inspirational motivation and the interaction between inspirational motivation and integrity

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	37.541	2	18.770	37.004	.000
Intercept	44.589	1	44.589	87.903	.000
II	2.484	1	2.484	4.897	.028
IN_IM	4.674	1	4.674	9.214	.003
Error	99.928	197	.507		
Total	2026.837	200			
Corrected Total	137.468	199			

R Squared = .273 (Adjusted R Squared = .266)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
Model		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	1.818	.194		9.376	.000			
	II	.180	.081	.231	2.213	.028	.489	.156	.134
	IN_IM	3.289E-02	.011	.317	3.035	.003	.505	.211	.184

Hypothesis 17b maintains that the main effect of inspirational motivation produces variance in caring climate not attributable to the interaction between integrity and inspirational motivation. Table 4.23 indicates that the inspirational motivation main effect does significantly ($p < 0,05$) explain variance in caring climate when included in a model already containing the interaction between inspirational motivation and integrity (in*im). H_{017b} can therefore be rejected. The proportion of variance in caring climate, not explained by the interaction effect, which is explained by the inspirational motivation main effect, is therefore significant. When controlling for the interaction effect in the predictor and the criterion, the unique variance in the leadership main effect explains approximately 2% ($0,156^2$) of the variance in caring climate not explained by the interaction effect. When controlling for the interaction effect in the predictor only, the inspirational motivation effect explains 1,8% ($0,134^2$) of the total variance in caring climate. The standardised regression coefficients, partial correlation coefficients and semi-partial correlation coefficients associated with the two effects included in the model indicate that the interaction between inspirational motivation and integrity is the more important of the two predictors.

4.6 Results on correlation and regression analyses performed on the simplified version of the leadership-ethical climate model

The foregoing discussion shed light on the question whether individual variables significantly explained variance in dependent latent variables as projected by the complex model. To examine the hypothesised interaction effect between transformational leadership and integrity on ethical climate, the model depicted in Figure 2.2 was simplified to the model depicted in Figure 2.1. Four research hypotheses and associated statistical hypotheses were formulated in accordance with the simplified/collapsed model.

Hypotheses 18 and 19 were tested by calculating a matrix of zero-order Pearson correlation coefficients and the corresponding conditional probabilities $P[|r_{ij}| \geq r_c|H_0:\rho_{ij}=0]$. Given a 5% significance level and directional

alternative hypotheses, $H_0:\rho_{ij}=0$ will be rejected if $P[|r_{ij}| \geq r_c|H_0:\rho_{ij}=0] < 0,05$. The matrix of zero-order Pearson correlation coefficients and the corresponding conditional probabilities is portrayed in Table 4.24. The convention proposed by Guilford (cited in Tredoux & Durrheim, 2002, p. 184) will again be used to interpret the sample correlation coefficients.

Table 4.24. Matrix of zero-order Pearson correlation coefficients and associated excedence probabilities calculated for the reduced model

	LEAD	CLIM	ALTRU	INTEG	LEAD_IN
LEAD	1 . 200	.478 .000 200	.629 .000 200	.576 .000 200	.915 .000 200
CLIM	.478 .000 200	1 . 200	.419 .000 200	.392 .000 200	.488 .000 200
ALTRU	.629 .000 200	.419 .000 200	1 . 200	.453 .000 200	.599 .000 200
INTEG	.576 .000 200	.392 .000 200	.453 .000 200	1 . 200	.835 .000 200
LEAD_IN	.915 .000 200	.488 .000 200	.599 .000 200	.835 .000 200	1 . 200

Correlation is significant at the 0,01 level (1-tailed) if $P[|r_{ij}| \geq r_c|H_0:\rho_{ij}=0] \leq 0,01$.
Correlation is significant at the 0.05 level (1-tailed) if $P[|r_{ij}| \geq r_c|H_0:\rho_{ij}=0] \leq 0,05$.

Hypotheses 20a and 20b were tested through standard multiple regression analysis. The substantive research hypothesis underlying hypothesis 20 is that the transformational leadership main effect and the leadership-integrity interaction effect each significantly explains unique variance in the endogenous latent variable, ethical climate, not explained by the other variable included in the model.

4.6.1 The relationship between altruism and transformational leadership

Hypothesis 18 suggests that altruism has a positive, linear influence on transformational leadership. As seen in Table 4.24, the results indicate a substantial ($r = 0,629$) and significant relationship ($p < 0,05$) between altruism

and transformational leadership (as measured by the total score on the MLQ). H_{018} can therefore be rejected. Approximately 40% of the variance in transformational leadership can be statistically explained in terms of the variance in altruism. Hypothesis 18, stating that altruism has a positive effect on transformational leadership, is thus corroborated. The finding implies that the more the leader is perceived to hold altruistic values the more his or her leadership tends to be perceived as transformational.

This finding supports the research of Kanungo and Mendonca (1996) who argue that altruism is a crucial prerequisite for effective transformational leadership. In order to achieve exceptional levels of performance, the transformational leader should be perceived as sharing altruistic values (Engelbrecht, 2002). Effective transformational leadership thus is enabled by altruistic acts that reflect the leader's constant desire and concern to benefit others despite the risk of personal cost in such behaviour (Kanungo & Mendonca, 1996).

4.6.2 The relationship between transformational leadership and ethical climate

Hypothesis 19 postulates that transformational leadership has a direct positive influence on ethical climate. As seen in Table 4.24, the results indicated a fairly substantial ($r = 0,478$) and significant relationship ($p < 0,05$) between transformational leadership and ethical climate (as measured by the total score on the ECQ). H_{019} can therefore be rejected. Approximately 23% of the variance in ethical climate can be explained in terms of the variance in transformational leadership. Hypothesis 19, stating that transformational leadership has a positive effect on ethical climate, thus survived the opportunity to be refuted. The finding means that the more unit leaders demonstrate transformational leadership, the stronger the ethical climate that exists in their units.

This is consistent with the literature study, which suggests that the transformational leadership style lends itself well to the creation of an ethical

climate (Carlson & Perrewe, 1995). This could be because the transformational leader role models the behaviours required to reinforce ethical behaviour, and the followers follow this ethical example.

4.6.3 The extent to which integrity moderates the relationship between transformational leadership and ethical climate

Hypothesis 20a claims that the interaction between integrity and transformational leadership produces variance in ethical climate not attributable to the main effect of transformational leadership. A summary of the results of the standard regression analysis is presented in Table 4.25.

Table 4.25 indicates that the interaction between transformational leadership and integrity (lead_in) does significantly ($p < 0,05$) explain variance in ethical climate when included in a model already containing the transformational leadership main effect. H_{020a} can therefore be rejected. The transformational leadership-integrity interaction effect does explain unique ethical climate variance not explained by the leadership main effect. Table 4.23, moreover, indicates that only 2% ($0,142^2$) of the variance in ethical climate, not accounted for by the leadership main effect, can be explained in terms of the unique variance in the interaction effect. The squared semi-partial correlation reveals that only approximately 1,5% ($0,124^2$) of the total variance in ethical climate can be explained in terms of the unique variance in the interaction effect not shared with the leadership main effect.

Table 4.25. Regression of ethical climate on transformational leadership and the interaction between transformational leadership and integrity

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	22.104	2	11.052	31.845	.000
Intercept	43.934	1	43.934	126.591	.000
LEAD	.571	1	.571	1.645	.201
LEAD_IN	1.402	1	1.402	4.039	.046
Error	68.370	197	.347		
Total	2037.224	200			
Corrected Total	90.474	199			

R Squared = .244 (Adjusted R Squared = .237)

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
Model		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	2.106	.187		11.251	.000			
	LEAD	.131	.102	.197	1.282	.201	.478	.091	.079
	LEAD_IN	3.320E-02	.017	.308	2.010	.046	.488	.142	.124

Source	Type I Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	22.104	2	11.052	31.845	.000
Intercept	1946.750	1	1946.750	5609.348	.000
LEAD	20.702	1	20.702	59.652	.000
LEAD_IN	1.402	1	1.402	4.039	.046
Error	68.370	197	.347		
Total	2037.224	200			
Corrected Total	90.474	199			

R Squared = .244 (Adjusted R Squared = .237)

Hypothesis 20b proposes that the main effect of inspirational motivation produces variance in independence climate not attributable to the interaction between integrity and inspirational motivation. Table 4.25 indicates that the transformational leadership main effect does not significantly ($p > 0,05$) explain variance in ethical climate when included in a model already containing the interaction between transformational leadership and integrity (lead_in). H_{020b} can therefore not be rejected. The proportion of variance in ethical climate, not explained by the interaction effect, which is explained by the transformational leadership main effect, is therefore not significant. Transformational leadership does, however, significantly ($p < 0,05$) explain variance in ethical climate when included in a model on its own or when allocating to it all the dependent variable variance it can account for. The hypothesis H_0: $\beta[Y_1] = 0|\beta[Y_1 \cdot X_2] = 0$ can therefore be rejected although H_{020b}: $\beta[Y_1] = 0|\beta[Y_1 \cdot X_2] \neq 0$ can not. The interaction term, as indicated earlier, necessarily still serves a useful purpose in the regression model even when allocating all the dependent variable variance it can account for to the leadership main effect. The regression model, however, explains only approximately 24% of the variance in ethical climate.

The integrity scale was subsequently dichotomised to create a dummy variable (integd). The saturated regression model containing the leadership main effect, the integrity dummy variable and the leadership-integrity interaction effect (in_lead) was then fitted to the data. The saturated regression model is thus given by:

$$E[Y|lead, integd, in\_lea] = \alpha + \beta_1 lead + \beta_2 integd + \beta_3 in\_lea$$

The saturated regression model was used to test for coincidence in the regression of ethical climate on transformational leadership for the low and high integrity groups by testing H_{021}.

$$H_{021}: \beta_2[integd] = \beta_3[in\_lea] = 0 | \beta_1[lead] \neq 0$$

The results of the standard multiple regression analysis is depicted in Table 4.26. Table 4.26 also depicts the results of the simple linear regression of ethical climate on transformational leadership.

Table 4.26. Regression of ethical climate on transformational leadership, dichotomised integrity and the interaction between transformational leadership and dichotomised integrity

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	22.149	3	7.383	21.387	.000
Intercept	24.938	1	24.938	72.238	.000
LEAD	7.627	1	7.627	22.093	.000
INTEGD	7.984E-06	1	7.984E-06	.000	.996
IN_LEA	2.070E-02	1	2.070E-02	.060	.807
Error	64.556	187	.345		
Total	1958.674	191			
Corrected Total	86.706	190			

R Squared = .255 (Adjusted R Squared = .244)

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	20.702	1	20.702	58.750	.000
Intercept	48.901	1	48.901	138.775	.000
LEAD	20.702	1	20.702	58.750	.000
Error	69.771	198	.352		
Total	2037.224	200			
Corrected Total	90.474	199			

R Squared = .229 (Adjusted R Squared = .225)

The relevant test statistic is given by (Berenson, Levine & Goldstein, 1983):

$$F = \{[SSR(b_1,b2,b_3) - SSR(b_1)]/2\}/MSE(b_1,b_2,b_3)$$

Substituting the relevant figures from Table 4.24 the following test statistic is obtained:

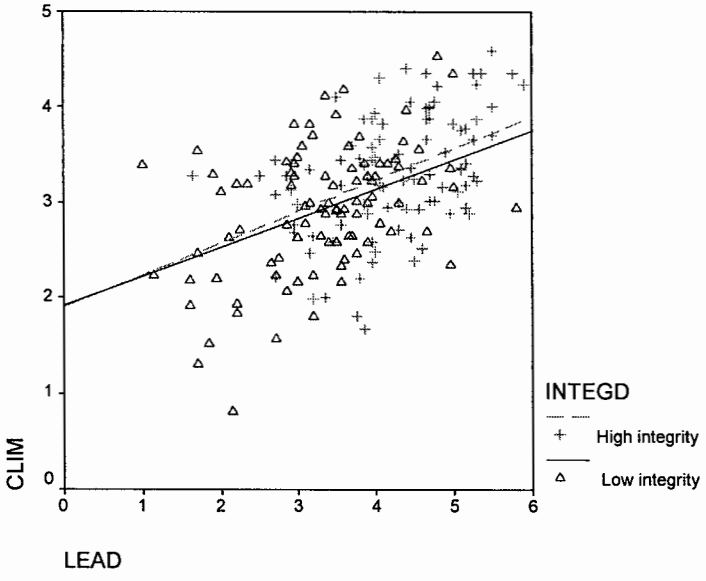
$$F = \{[22,149-20,702/2\}/0,345$$

$$= 2,097$$

$$F(,05;2,187) \approx 3,04$$

H_{021} can thus not be rejected, indicating that the addition of the integrity main effect and the interaction effect to a model already containing the leadership main effect does not significantly ($p>0,05$) explain additional variance in ethical climate. It can thus be concluded that the regression of ethical climate on transformational leadership does not significantly differ in intercept and/or slope between leaders with relatively low and high levels of integrity. The regression of ethical climate on transformational leadership thus coincides for the low and high integrity groups as depicted in Figure 4.1.

Figure 4.1. Regression of ethical climate on transformational leadership depicted for low and high integrity leaders separately



The ability to account for the variance in ethical climate in terms of transformational leadership is therefore not improved by allowing for different slopes in the regression of ethical climate on transformational leadership for different levels of integrity. In terms of the present analysis no support is thus found for the hypothesis that the extent to which transformational leadership will affect ethical climate will depend on the extent to which the leader demonstrates integrity.

Projecting the data points in Figure 4.1 on the X-axis does, however reveal that high integrity leaders tend to demonstrate more transformational leadership competencies than low integrity leaders. Table 4.27 indicates that the difference is significant and that integrity accounts for approximately 22% of the variance in transformational leadership.

Table 4.27. Univariate analysis of variance on the significance of differences in transformational leadership across integrity groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	41.210	1	41.210	52.726	.000
Intercept	2712.854	1	2712.854	3470.970	.000
INTEGD	41.210	1	41.210	52.726	.000
Error	147.719	189	.782		
Total	2921.190	191			
Corrected Total	188.929	190			

R Squared = .218 (Adjusted R Squared = .214)

	Mean	Std. Error	95% Confidence Interval	
INTEGD			Lower Bound	Upper Bound
low integrity	3.305	.092	3.125	3.486
high integrity	4.235	.089	4.059	4.411

Although the initial model only made provision for an altruism main effect on transformational leadership, the foregoing finding begs the question whether integrity would significantly explain variance in transformational leadership

when included in a model already containing altruism. Table 4.28 reveals that both integrity and altruism significantly explain unique variance in transformational leadership. Approximately 50% of the variance in transformational leadership can be explained in terms of the weighted linear composite of these two predictors. Table 4.28, moreover, indicates that approximately 18% ($0,420^2$) of the variance in transformational leadership, not accounted for by altruism, can be explained in terms of the unique variance in integrity. The squared semi-partial correlation reveals that approximately 11% ($0,327^2$) of the total variance in transformational leadership can be explained in terms of the unique variance in integrity not shared with altruism.

Table 4.28. Regression of transformational leadership on altruism and integrity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.709	.503	.498	.71492

Predictors: (Constant), INTEG, ALTRU

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	101.816	2	50.908	99.603	.000
	Residual	100.688	197	.511		
	Total	202.505	199			

Predictors: (Constant), INTEG, ALTRU
Dependent Variable: LEAD

		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Correlations		
Model		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	.276	.259		1.067	.287			
	ALTRU	.404	.049	.463	8.221	.000	.629	.505	.413
	INTEG	.427	.066	.366	6.503	.000	.576	.420	.327

In the argument presented thus far it was contended that the extent to which specific dimensions of transformational leadership will affect specific dimensions of ethical climate would depend on the extent to which the leader demonstrates integrity. Leadership integrity was thus hypothesised to moderate the effect of leadership on ethical climate. No convincing empirical support for this position could, however, be found. Only one interaction hypothesis gained support, namely that the extent to which inspirational

motivation will affect caring climate would depend on the extent to which the leader demonstrates integrity. The foregoing findings seem to suggest that integrity should still be viewed as a prerequisite for the establishing ethical climate via leadership, but (rather or possibly, also) operating in a different fashion than initially proposed. It would now seem that the more leaders demonstrate integrity in that they display a consistency and coherence among what they believe, how they lead, and the type of organisations they want to build, the more their followers will tend to perceive them as transformational leaders. Transformational leadership, in turn positively influences the ethical climate existing in a work unit.

In addition, Table 4.28 reveals that of the two independent variables included in the model, altruism is the more influential predictor of transformational leadership. This is indicated by the larger standardised regression coefficient associated with altruism, the larger proportion of variance explained in leadership when holding integrity constant in both the criterion and the predictor ($0,505^2$) and the larger proportion of variance explained in leadership when holding integrity constant in the predictor only ($0,413^2$). This finding is in agreement with the general view that is held in the literature regarding altruism as a core ethical value of transformational leadership (Ciulla, 1996, Engelbrecht, 2002 and Kanungo & Mendonca, 1996).

4.7 Summary

The purpose of this chapter was to report the results obtained in this study. Even though not all the hypotheses were supported by the results, the objectives of this study have nonetheless been met to a satisfactory extent.

In the next chapter an elaboration will follow regarding the general conclusions drawn from the research, and recommendations for future research purposes on this extensive topic, will be suggested.

CHAPTER 5

GENERAL CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

5.1 Introduction

This chapter will discuss the general conclusions derived from the results obtained in this study, after which recommendations for future research will be discussed.

5.2 General Conclusions

The main purpose of the study was to investigate the key role that transformational leaders play in the development of an ethical climate in an organisation. Given the results of the study as discussed in Chapter 4, the following conclusions are made with respect to the dimensionality analyses, the reliability analyses and the hypothesised relationships.

5.2.1 Dimensionality Analysis

The aim of the dimensionality analysis was to confirm the uni-dimensionality of each sub-scale and to remove items with insufficient factor loadings and/or split heterogeneous sub-scales into two or more homogenous subsets of items if necessary. In the case of the MLQ, all four of the transformational leadership sub-scales passed the uni-dimensionality test.

Only one of the four sub-scales of the Ethical Climate Questionnaire failed the uni-dimensionality test. The problem could, moreover, not be solved through the deletion of single wayward items. The caring climate sub-scale presented a clear, relatively easily interpretable two-factor orthogonal factor structure and could be subdivided into two independent, uni-dimensional sub-scales, namely a caring about others sub-scale and a caring about efficiency sub-

scale. The factor fission would make theoretical sense if these two facets of ethical climate could be expected to be sensitive/responsive to different dimensions of transformational leadership. Initially it was argued that a linkage should exist between both idealised influence and inspirational motivation and the caring about efficiency climate dimension and that individualised consideration should positively affect the caring for other climate dimension only. Further deliberation, however, suggested that this argument was based on too restrictive interpretations of the transformational leadership dimensions in question. The initial structural model relating the various facets of transformational leadership to the four dimensions of ethical climate was consequently not modified.

In the case of the Integrity Scale, the uni-dimensionality assumption was also not supported. The problem could, again, not be solved through the deletion of single wayward items. The integrity scale presented a clear, relatively easily interpretable two-factor orthogonal factor structure. The principal component analysis revealed that the first three items measured the consistency in actions of the leader, while the remaining items measured whether the leader was consistent in words with subordinates. No items needed to be deleted due to poor factor loadings. Although the factor fission was found to result in a conceptually meaningful division of the integrity dimension in question, it was decided that this dimension would not be extended for the purpose of this paper, as doing so would complicate an already complex structural model.

The Altruism scale passed the uni-dimensionality test. All items comprising the scale displayed a highly satisfactory factor loading on the first principle component.

5.2.2 Item Analysis

According to Nunnally (1978), when deciding on whether an instrument reaches a satisfactory level of reliability, it must be considered how the measure is being used. He suggests that during the early stages of research

on predictor tests or hypothesised measures of a construct, it is adequate to work with instruments having a modest reliability, for which purposes reliability coefficients of 0,70 or higher will be satisfactory.

Using this as a guideline, the item analyses produced satisfactory results as all scales and sub-scales exceed the recommended reliability of 0,70. Although exceeding the recommended cut off value, the reliability of the intellectual stimulation and rules climate sub-scales could, nonetheless, be considered somewhat borderline (0,7465 and 0,7696 respectively). The imputation of missing values, in addition, seems to have had a weak attenuating effect on the coefficient of internal consistency calculated for each sub-scale. The item analyses revealed a limited number of questionable items that had to be considered for possible elimination in a number of the scales and sub-scales. In all such cases it was decided to retain the items in question, primarily due to the marginal increases in the coefficient of internal consistency which would have resulted from the removal of the items.

5.3 Hypothesised relationships

Fortunately, many of the hypotheses could be corroborated in this study. The conclusions regarding the hypothesised relationships will be discussed in the following sections, beginning with the relationships between the specific variables in the elaborated model (see Figure 2.2), and then discussing the regression analysis results obtained on the simplified model (see Figure 2.1).

It needs to be reiterated again that although the objective of this study was to establish the nature of causal linkages between altruism and transformational leadership and transformational leadership and ethical climate, the ex post facto nature of the research design precluded the drawing of causal inferences from significant correlation and partial regression coefficients. A significant correlation only implies that the degree of covariance observed between two variables is unlikely attributable to sampling error under the null hypothesis. In as far as covariance is a necessary but insufficient condition to establish a causal relationship between two variables, the causal substantive

hypothesis can be said to be corroborated in as far as it has survived an opportunity to be refuted.

5.3.1 The relationship between altruism and the dimensions of transformational leadership

This study proposed that altruism positively affects transformational leadership. The following section will focus on the results as they relate to the hypotheses on the relationship between altruism and the dimensions of transformational leadership.

5.3.1.1 Altruism and intellectual stimulation

Altruistic leaders look out for the good of others, and transformational leaders practising intellectual stimulation will openly bring about changes in follower's values by the merit and relevancy of their ideas and mission to their followers' ultimate benefit and satisfaction (Howell, cited in, Bass & Steidlmeier, 1998). For this reason, it was necessary to explore the influence of altruism on the intellectual stimulation facet of transformational leadership. Consequently, it was hypothesised that a significantly positive relationship exists between altruism and intellectual stimulation. This hypothesis was corroborated, as the results indicated a substantial and significant relationship between the two variables. This supports the findings in the literature study, which suggests that transformational leaders practising altruism as a core value will not criticise followers for having different ideas but will rather be supported for questioning assumptions made by both the leader and themselves.

5.3.1.2 Altruism and idealised influence

Leaders that exercise idealised influence are admired, respected and trusted. This is manifested through altruistic behaviour that considers the needs of others over the leader's own personal needs, and avoiding using power for personal gain (Bass & Avolio, 1994). The leader acts out of selfless motives, sincerely wanting the best for his or her followers.

For this reason, it was seen as worthwhile to explore the influence of altruism on the idealised influence facet of transformational leadership. Consequently, it was hypothesised that a significantly positive relationship exists between altruism and idealised influence. This hypothesis was corroborated, as the results indicated a moderate and significant relationship between the two variables. This supports the findings of the literature study, which suggests that leaders who practice altruism as a core value will be perceived as leaders who exercise the idealised influence facet of transformational leadership.

5.3.1.3 Altruism and inspirational motivation

The altruistic leader who practices inspirational motivation gets followers involved in the accomplishment of organisational goals by providing meaning and challenge in their work. The leader creates clearly communicated expectations that followers want to meet (Bass & Avolio, 1994). The leader remains optimistic about likely outcomes and boosts employees' confidence in success, thereby encouraging them to reach organisational and their own goals (Waldman, cited in, Bass & Avolio, 1994).

Due to this reason, it was viewed as necessary to explore the influence of altruism on the inspirational motivation facet of transformational leadership. Consequently, it was hypothesised that a significantly positive relationship exists between altruism and inspirational motivation. This hypothesis was corroborated, as the results indicated a substantial and significant relationship between the two variables. This supports the findings of the literature study, which suggests that leaders who practice altruism as a core value will be perceived as leaders who exercise the inspirational motivation facet of transformational leadership.

5.3.1.4 Altruism and individualised consideration

A leader with individualised consideration treats each follower individually; and provides coaching and mentoring opportunities with a concern for

developing followers into leaders. The leader takes the interests of others seriously and is forgetful of the self alone, and channels his or her need for power in socially constructive ways into the service of others (Bass & Steidlmeier, 1998).

Therefore it was seen as necessary to explore the influence of altruism on the inspirational motivation facet of transformational leadership. Consequently, it was hypothesised that a significantly positive relationship exists between altruism and inspirational motivation. This hypothesis was corroborated, as the results indicated a moderate and significant relationship between the two variables. This supports the findings of the literature study, which suggests that leaders who practice altruism as a core value will be perceived as leaders who exercise the individualised consideration facet of transformational leadership.

5.3.1.5 General concluding comments on the relationship between altruism and the dimensions of transformational leadership

Support has been found for the linkages between altruism and the dimensions of transformational leadership as proposed by Figure 2.2. In the case of each of the hypothesised linkages, altruism explained 25% or more of the variance observed in the transformational leadership dimensions. It should, however, be noted that moderate to high correlations exist between the dimensions of transformational leadership. It could thus be that altruism to some extent explains the same variance in each of the leadership dimensions.

Thus it can be concluded that a leader who is driven by altruistic motives will be perceived as being transformational by his or her followers. This supports the various findings in the literature study by numerous authors (Bass & Avolio, 1994; Engelbrecht, 2002; Kanungo & Mendonca, 1996) that a transformational leader is characterised by acts of altruism.

5.3.2 The relationship between the dimensions of transformational leadership and the dimensions of ethical climate

This research revealed that transformational leadership positively effects ethical climate. This section focuses on the results as they relate to the main effect hypotheses on the effect of transformational leadership on ethical climate.

5.3.2.1 Intellectual stimulation and the independence dimension of ethical climate

In this study it was postulated that intellectual stimulation leads to the dimension of independence climate as the leader plays a large role in getting followers to re-examine assumptions (Waldman, cited in, Bass & Avolio, 1994). This behaviour creates a climate that supports followers questioning their own values, beliefs, and expectations; in other words, the independence climate.

Thus it was seen as worthwhile to explore the influence of intellectual stimulation on the independence climate. Consequently, it was hypothesised that a significantly positive relationship exists between intellectual stimulation and the independence climate. This hypothesis was corroborated, as the results indicated a slight, but still significant relationship between the two variables. This fairly weak correlation could be due to the fact that followers may perceive a leader that gives them the freedom to decide between right and wrong is not due to the leader's intellectual stimulation, but rather because the leader is not interested in promoting the rules and regulations of the company.

5.3.2.2 Idealised influence and the law and code dimension of ethical climate

The leader practising idealised influence will consider the applicable law whenever a decision has to be made, and can be relied upon to do the right

thing, thereby becoming a role model who is respected and trusted by his followers (Bass & Avolio, 1994). In the law and code climate, the leader puts the law and professional standards above all other considerations. This demonstration of high ethical standards is believed to lead to the development of the law and code climate.

Due to this reason, it was seen as worthwhile to explore the influence of idealised influence on the law and code climate. Consequently, it was hypothesised that a significantly positive relationship exists between idealised influence and the law and code climate. This hypothesis was corroborated, as the results indicated a low but still significant relationship between the two variables. This supports the findings in the literature study which suggests that a leader practising idealised influence will tend to be associated with the law and code climate dimension of an ethical climate.

5.3.2.3 Idealised influence and the rules dimension of ethical climate

Leaders practising idealised influence are seen as being a role model for their followers. This is because the leader lives out the ethical standards that they have set; in other words, their actions match their words. This results in the followers trusting their leader. The rules climate would be evident if the employees in the unit considered the law and the organisation's codes during decision-making.

Therefore it was viewed as necessary to explore the influence of idealised influence on the rules climate. Consequently, it was hypothesised that a significantly positive relationship exists between idealised influence and the rules climate. This hypothesis was corroborated, as the results indicated a low but nonetheless significant relationship between the two variables. This supports the findings in the literature study which suggests that a leader practising idealised influence will tend to be associated with the rules climate dimension of an ethical climate.

5.3.2.4 Idealised influence and the caring dimension of ethical climate

The leader displaying the idealised influence dimension of transformational leadership will use his or her influence to encourage followers to achieve the organisation's objectives in an effective and ethical manner. This display of ethical idealised influence sets an example for followers to do the same, and the leader is admired and trusted because of this behaviour. Followers will therefore want to emulate the leader (Bass & Avolio, 1994). This leads to the development of a caring climate, as the leader cares for his or her followers, whilst at the same time ensuring that goals are achieved efficiently and ethically.

Thus it was regarded as noteworthy to explore the influence of idealised influence on the caring climate. Consequently, it was hypothesised that a significantly positive relationship exists between idealised influence and the caring climate. This hypothesis was corroborated, as the results indicated a substantial and significant relationship between the two variables. This supports the findings in the literature study which suggests that a leader practising idealised influence will tend to be associated with units characterised by a climate where efficiency and caring about others are esteemed.

5.3.2.5 Inspirational motivation and the independence dimension of ethical climate

Leaders with inspirational motivation behave in ways that motivate and inspire those around them by providing meaning and challenge to their follower's tasks, while giving them the autonomy to decide for themselves what is right or wrong. This behaviour is believed to lead to the independence climate dimension of ethical climate, as inspirational leaders increase awareness about what is important in a problem and encourage the use of "gut feeling" and intuition in solving problems (Bass, cited in, Bass & Avolio, 1994). This

climate is characterised by the employees having the freedom to decide their own ethical principles.

Therefore it was viewed as necessary to explore the influence of inspirational motivation on the independence climate. Consequently, it was hypothesised that a significantly positive relationship exists between inspirational motivation and the independence climate. This hypothesis was corroborated, as the results indicated a relatively weak but significant relationship between the two variables. This supports the findings in the literature study which suggests that a leader practising inspirational motivation will tend to be associated with the independence climate dimension of an ethical climate.

5.3.2.6 Inspirational motivation and the caring dimension of ethical climate

The leader with inspirational motivation remains positive about likely outcomes despite setbacks that may occur, by constantly providing encouragement and feedback to followers, as well as by strongly believing in the ability of the followers. The leader constantly reminds followers of the mission of the organisation, and gives feedback as to whether goals are being achieved. This will contribute to the creation of a caring climate, as inspirational leaders are likely to raise the enabling of their followers (through caring about their progress) in the achievement of the organisation's goals (Bass & Avolio, 1994).

Due to this reason, it was viewed as noteworthy to explore the influence of inspirational motivation on the caring climate. Consequently, it was hypothesised that a significantly positive relationship exists between inspirational motivation and the caring climate. This hypothesis was corroborated, as the results indicated a moderate and significant relationship between the two variables. This supports the findings in the literature study which suggests that a leader practising inspirational motivation will tend to be associated with the caring climate dimension of an ethical climate.

5.3.2.7 Individualised consideration and the independence dimension of ethical climate

The leader practicing individualised consideration treats each follower individually, as individual differences in terms of needs and expectations are recognised (Bass & Avolio, 1994). It is believed that this behaviour results in an independence climate, as it allows followers to make their own decisions with regards to ethical decisions, without the leader forcing them to follow a certain course of action.

Thus it was seen as necessary to explore the influence of individualised consideration on the independence climate. Consequently, it was hypothesised that a significantly positive relationship exists between individualised consideration and the independence climate. This hypothesis was corroborated, as the results indicated weak yet nonetheless significant relationship between the two variables. This supports the findings in the literature study which suggests that a leader practising individualised consideration will tend to be associated with the independence climate dimension of an ethical climate.

5.3.2.8 Individualised consideration and the caring dimension of ethical climate

The individually considerate leader takes the needs and interests of the followers into account, showing concern for the individual and providing coaching opportunities if necessary (Bass & Avolio, 1994). The caring climate refers to the degree that people in the company look out for the best interests of others. It is believed that the individually considerate leader's behaviour will lead to a caring climate, in which people look out for each other's needs.

Therefore it was viewed as necessary to explore the influence of individualised consideration on the caring climate. Consequently, it was hypothesised that a significantly positive relationship exists between individualised consideration and the caring about others climate. This

hypothesis was corroborated, as the results indicated a moderate and significant relationship between the two variables. This supports the findings in the literature study which suggests that a leader practising individualised consideration will tend to be associated with the caring climate dimension of an ethical climate.

5.3.2.9 General concluding comments on the relationship between the dimensions of transformational leadership and the dimensions of ethical climate

The foregoing discussion revealed a certain amount of confirmation for the linkages proposed between specific dimensions of transformational leadership and specific dimensions of ethical climate. The model in Figure 2.2 proposed that no causal linkages exist between the remaining possible combinations of dimensions of transformational leadership and dimensions of ethical climate. However, no insignificant correlations were observed between any of the dimensions of transformational leadership and dimensions of ethical climate not linked by the model. Some of the unanticipated relationships not provided for by the model were even stronger than those relationships the model did anticipate.

The findings could possibly be explained in terms of the moderate to high correlations found between the transformational leadership dimensions and the more modest correlations found between some of the ethical climate dimensions. Structural equation modelling would be one possible solution to resolve this issue by fitting and comparing a number of nestled models. An analysis of the modification indices obtained for the unspecified paths in the current model and an evaluation of the substantive theoretical meaningfulness of proposed paths might suggest more complex models in which the current model would be nestled.

5.3.3 The extent to which integrity moderates the relationship between specific dimensions of transformational leadership and specific dimensions of ethical climate

In this study, it was proposed that the extent to which specific dimensions of transformational leadership would affect specific dimensions of ethical climate would depend on the extent to which the leader demonstrates integrity. It was thus hypothesised that leadership integrity moderates the effect of leadership on ethical climate. Standard multiple regression was used to establish whether the leadership main effect and the leadership-integrity interaction effect each significantly explained variance in ethical climate.

5.3.3.1 The extent to which integrity moderates the relationship between idealised influence and the law and code dimension of ethical climate

It was argued that integrity has a moderating effect on the effect of the idealised influence component of transformational leadership on the law and code dimension of ethical climate. This was argued because of the belief that followers would tend to emulate a leader which proposes to his or her followers the highest ethical standards (that is, the rules and codes of the organisation) only if the same high ethical standards are implemented in his or her own life publicly and privately (Bass & Steidlmeier, 1998). Followers will want to emulate the leader's idealised influence behaviour, thus resulting in a law and code climate, provided that he displays integrity in that the message he projects to his followers and his actions form a coherent whole. This idealised influence behaviour of the leader thus tends to be conditionally associated with the law and code dimension of ethical climate.

Thus it was deemed necessary to investigate the proposed relationships. It was postulated that the interaction between integrity and idealised influence produces variance in law and code climate not attributable to the main effect of idealised influence. The results indicated that the interaction between idealised influence and integrity did not significantly explain variance in law

and code climate when included in a model already containing the idealised influence main effect. The null hypothesis in question could therefore not be rejected. Thus the proposal in the literature study, that the interaction between integrity and idealised influence produces variance in law and code climate not attributable to the main effect of idealised influence, had been refuted.

Idealised influence did, however, significantly explain variance in law and code climate when included in a model on its own. The ability to account for the variance in law and code climate in terms of idealised influence was therefore not improved by allowing for different slopes in the regression of law and code climate on idealised influence.

It was further postulated that the main effect of idealised influence produced variance in law and code climate not attributable to the interaction between integrity and idealised influence. The results indicated that the idealised influence main effect did not significantly explain variance in law and code climate when included in a model already containing the interaction between idealised influence and integrity. The conditional null hypothesis in question could therefore not be rejected. The proportion of variance in the law and code climate, not explained by the interaction effect, which is explained by the idealised influence main effect, was therefore not significant.

5.3.3.2 The extent to which integrity moderates the relationship between idealised influence and the rules dimension of ethical climate

Based on essentially the same argument as outlined in the previous paragraph, it was postulated that the interaction between integrity and idealised influence would produce variance in rules climate not attributable to the main effect of idealised influence. This hypothesis could not be corroborated, as the results indicated that the interaction between idealised influence and integrity did not significantly explain variance in rules climate

when included in a model already containing the idealised influence main effect.

It was further hypothesised that the main effect of idealised influence would produce variance in rules climate not attributable to the interaction between integrity and idealised influence. The results indicated that the idealised influence main effect did not significantly explain variance in rules climate when included in a model already containing the interaction between idealised influence and integrity. The proportion of variance in rules climate, not explained by the interaction effect, which is explained by the idealised influence main effect, was therefore not significant. Idealised influence did, however, significantly explain variance in rules climate when included in a model on its own.

5.3.3.3 The extent to which integrity moderates the relationship between idealised influence and the caring dimension of ethical climate

In this study it was suggested that the interaction between integrity and idealised influence would produce variance in caring climate not attributable to the main effect of idealised influence. This hypothesis was again grounded in the belief that integrity would facilitate the effect of idealised influence on caring climate. The results indicated that the interaction between idealised influence and integrity did significantly explain variance in caring climate when included in a model already containing the idealised influence main effect.

The second hypothesis in this regard maintained that the main effect of idealised influence would produce variance in caring climate not attributable to the interaction between integrity and idealised influence. The results indicated that the idealised influence main effect did not significantly explain variance in caring climate when included in a model already containing the interaction between idealised influence and integrity. Thus, the proportion of variance in caring climate, not explained by the interaction effect, which is explained by the idealised influence main effect, was therefore not significant.

However, idealised influence significantly explained variance in caring climate when included in a model on its own. When the idealised influence main effect is allocated all the caring climate variance it can account for via hierarchical multiple regression, the interaction effect still significantly explains unique variance in caring climate as indicated above. Although the interaction effect explained only a very small percentage of the variance in the caring climate dimension, some support for the hypothesised moderating role of integrity was nonetheless found.

5.3.3.4 The extent to which integrity moderates the relationship between inspirational motivation and the independence dimension of ethical climate

In this study it was postulated that integrity moderates the relationship between inspirational motivation and the independence dimension of ethical climate. This is proposed because the leader with inspirational motivation challenges followers to participate in shared goals in an ethical manner, and to achieve the vision through personal sacrifice and trust. This trust should allow followers to make their decisions independently, that is, to decide for themselves between right and wrong – which would be indicative of the independence climate – provided that the leader manifests consistency between word and deed (Bass & Steidlmeier, 1998). This behaviour will lead to the followers seeing the leader as a person of integrity, and they will then become responsive to his inspirational motivation and thus will desire to reach their goals in the same manner as that of the leader.

It was therefore viewed as noteworthy to explore the hypothesised relationships. The first hypothesis in this regard proposed that the interaction between integrity and inspirational motivation produced variance in independence climate not attributable to the main effect of inspirational motivation. The results indicated that the interaction between inspirational motivation and integrity did not significantly explain variance in independence climate when included in a model already containing the inspirational

motivation main effect. The conditional null hypothesis in question could therefore not be rejected.

Inspirational motivation did, however, significantly explain variance in independence climate when included in a model on its own. No support was thus found for the hypothesis that the extent to which inspirational motivation will affect independence climate would depend on the extent to which the leader demonstrates integrity.

The second hypothesis in this regard proposed that the main effect of inspirational motivation produced variance in independence climate not attributable to the interaction between integrity and inspirational motivation. The results indicated that the inspirational motivation main effect did not significantly explain variance in independence climate when included in a model already containing the interaction between inspirational motivation and integrity. The conditional null hypothesis could therefore not be rejected. The proportion of variance in independence climate, not explained by the interaction effect, which was explained by the inspirational motivation main effect, was therefore not significant. Inspirational motivation did, however, significantly explain variance in independence climate when included in a model on its own.

5.3.3.5 The extent to which integrity moderates the relationship between inspirational motivation and the caring dimension of ethical climate

Based on essentially the same argument as outlined in the previous paragraph, it was proposed that the interaction between integrity and inspirational motivation would produce variance in caring climate not attributable to the main effect of inspirational motivation. The results indicated that the interaction between inspirational motivation and integrity did significantly explain variance in caring climate when included in a model already containing the inspirational motivation main effect. The ability to account for the variance in caring climate in terms of inspirational motivation

was therefore improved by allowing for different slopes in the regression of independence climate on inspirational motivation. Support was thus found for this hypothesis that the extent to which inspirational motivation would affect caring climate would depend on the extent to which the leader demonstrates integrity. The interaction effect however accounted for only a small percentage of the variance in caring climate.

The second hypothesis in this regard maintained that the main effect of inspirational motivation would produce variance in caring climate not attributable to the interaction between integrity and inspirational motivation. The results indicated that the inspirational motivation main effect did significantly explain variance in caring climate when included in a model already containing the interaction between inspirational motivation and integrity. The proportion of variance in caring climate, not explained by the interaction effect, which was explained by the inspirational motivation main effect, was therefore significant, albeit of modest proportions.

5.3.4 Results on correlation and regression analyses performed on simplified version of the leadership-ethical climate model

To further examine the hypothesised interaction effect between transformational leadership and integrity on ethical climate, the model depicted in Figure 2.2 was simplified to the model depicted in Figure 2.1.

The substantive research hypothesis in this regard was that the transformational leadership main effect and the leadership-integrity interaction effect each significantly explained unique variance in the endogenous latent variable, ethical climate, not explained by the other variable included in the model. Four research hypotheses and associated statistical hypotheses were formulated in accordance with the simplified/collapsed model.

5.3.4.1 The relationship between altruism and transformational leadership

Transformational leaders are altruistic by characterisation, especially in the sense of individual consideration where the focus is on the followers' best interests and needs. The transformational leader should be perceived as sharing altruistic values in order to achieve high levels of performance (Engelbrecht, 2002). It is believed that leadership effectiveness may be ensured by altruistic acts that reflect the leader's aspiration to benefit others despite the chance of personal cost in such behaviour (Kanungo & Mendonca, 1996). More specifically altruism is hypothesised to influence transformational leadership which in turn determines the leaders success in influencing follower behaviour. An altruism main effect on transformational leadership is thus hypothesised.

Due to this reason, it was deemed necessary to explore the influence of altruism on transformational leadership. Consequently, it was hypothesised that a significantly positive relationship exists between altruism and transformational leadership. This hypothesis was corroborated, as the results indicated a strong and significant relationship between the two variables. This finding suggests that the more the leader is perceived to hold altruistic values, the more his or her leadership tends to be perceived as transformational. This supports the numerous findings in the literature study on the importance of altruism in transformational leadership (Kanungo & Mendonca, 1994; Engelbrecht, 2002; Malan & Smit, 2000).

5.3.4.2 The relationship between transformational leadership and ethical climate

The literature study suggests that the transformational leadership style lends itself well to the creation of an ethical climate (Carlson & Perrewe, 1995). Throughout the literature study it is emphasised that the values and

behaviours of a transformational leader will encourage the development of an ethical climate.

Thus it was viewed as noteworthy to explore the influence of transformational leadership on ethical climate. Consequently, it was hypothesised that a significantly positive relationship exists between transformational leadership and ethical climate. This hypothesis was corroborated, as the results indicated a fairly strong and significant relationship between the two variables. The finding implies that the more the unit leaders demonstrate transformational leadership, the stronger the ethical climate that exists in their units. This supports the findings in the literature study on the positive effect of transformational leadership on an organisation's work climate (Malan & Smit, 2000). Leaders that desire their organisations to be characterised by an ethical work climate should thus develop leadership skills in the facets of the transformational leadership behaviours.

5.3.4.3 The extent to which integrity moderates the relationship between transformational leadership and ethical climate

In this study it was postulated that integrity must be demonstrated if the leader's actions are to carry any weight in influencing followers ethically. It was argued that integrity has a moderating effect on the relationship between transformational leadership and ethical climate.

In this regard, the first hypothesis claimed that the interaction between integrity and transformational leadership produced variance in ethical climate not attributable to the main effect of transformational leadership. The results indicated that the interaction between transformational leadership and integrity did significantly explain variance in ethical climate when included in a model already containing the transformational leadership main effect. This hypothesis could therefore be rejected. The transformational leadership-integrity interaction effect did explain unique ethical climate variance not explained by the leadership main effect.

The second hypothesis regarding the above-mentioned relationship proposed that the main effect of transformational leadership produced variance in ethical climate, not attributable to the interaction between integrity and transformational leadership. The results revealed that the transformational leadership main effect did not significantly explain variance in ethical climate when included in a model already containing the interaction between transformational leadership and integrity. This hypothesis could therefore not be rejected. The proportion of variance in ethical climate, not explained by the interaction effect, which was explained by the transformational leadership main effect, was therefore not significant.

Transformational leadership does, however, significantly explain variance in ethical climate when allocating to it all the dependent variable variance it can account for. The hypothesis H_0: $\beta[Y_1] = 0|\beta[Y_1 \cdot X_2] = 0$ can therefore be rejected although H_{020b}: $\beta[Y_1] = 0|\beta[Y_1 \cdot X_2] \neq 0$ can not. The interaction term, as indicated earlier, necessarily still serves a useful purpose in the regression model even when allocating all the dependent variable variance it can account for to the leadership main effect. The regression model, however, explains only approximately 24% of the variance in ethical climate. Although this could possibly be interpreted as support for the aforementioned interaction hypothesis, the fact that both partial regression coefficients in the standard multiple regression model were not significant seems to argue against such a conclusion. The prudence of this more conservative interpretation is demonstrated by the subsequent findings.

A saturated regression model was used to test for coincidence in the regression of ethical climate on transformational leadership for the low and high integrity groups by testing the final hypothesis, which stated that the addition of the integrity main effect and the interaction effect to a model already containing the leadership main effect does not significantly explain additional variance in ethical climate. This hypothesis could not be rejected, thus indicating that the addition of the integrity main effect and the interaction effect to a model already containing the leadership main effect did not significantly explain additional variance in ethical climate.

Thus, it could be concluded that the regression of ethical climate on transformational leadership did not significantly differ in intercept and/or slope between leaders with relatively low and high levels of integrity. Hence, no convincing support was found for the hypothesis that the extent to which transformational leadership would affect ethical climate, would depend on the extent to which the leader demonstrated integrity.

Although the initial model only made provision for an altruism main effect on transformational leadership, it was decided to investigate whether integrity would significantly explain variance in transformational leadership when included in a model already containing altruism. It was revealed that both integrity and altruism significantly explained unique variance in transformational leadership. Furthermore it was found that approximately 18% of the variance in transformational leadership, not accounted for by altruism, could be explained in terms of the unique variance in integrity.

No convincing empirical support for the suggestion that leadership integrity moderated the effect of leadership on ethical climate could be found. Only one interaction hypothesis gained support, namely that the extent to which inspirational motivation would affect independence climate would depend on the extent to which the leader demonstrates integrity. These findings seem to suggest that integrity should still be viewed as a prerequisite for the establishing ethical climate via leadership, but operating in a different fashion than initially proposed. However, the results seem to suggest that the more leaders demonstrate integrity in that they display a consistency among what they believe, how they lead, and the type of organisations they want to develop, the more their followers will tend to perceive them as transformational leaders. In turn, transformational leadership positively influences the ethical climate existing in a work unit.

It was also revealed that of the two independent variables (i.e. integrity and altruism) included in the model, altruism is the more influential predictor of transformational leadership. This finding is in agreement with the generally

held view in the literature that altruism is a core ethical value of transformational leadership (Ciulla, 1996, Engelbrecht, 2002 and Kanungo & Mendonca, 1996).

5.4 Shortcomings of the study

During this study the relationship between ethical values, transformational leadership and the development of an ethical climate were investigated. Ethics is not unique to the work environment, and is being studied in other circumstances in South Africa, such as in the politics. This study focuses on ethical behaviours of leaders in the work situation and can thus not be generalised to other contexts.

The model that was developed did not take into account all the possible relationships between the transformational leadership facets and the ethical climate dimensions. The results indicated that many of the relationships not anticipated by the model were stronger than those anticipated by the model. These results may have added value to the present study by providing valuable insights into the relationship between transformational leadership and the development of an ethical climate.

Furthermore, the model does not make provision as to whether ethical behaviour can be learnt, and what the contribution of ethical development programmes are in the development of an ethical climate. This study also did not take into account the impact that followers may have on the ethical behaviour of a leader.

This study was unable to compare the perceptions that prevail at the different job levels. The use of a non-probability sampling procedure reduced the ability to generalise the results of this study. Also, logistical problems made it impossible to know the specific amount of questionnaires which came from each organisation. It would have been interesting to explore whether certain factors affecting ethical climate were industry specific or not. Furthermore, the *ex post facto* nature of the research design, precluded the drawing of

causal inferences from significant correlation coefficients, even though the argument unfolded by the literature study resulted in hypotheses on the manner in which the dimensions of transformational leadership are influenced by altruism, and the manner in which the dimensions of transformational leadership are expected to influence the dimensions of ethical climate. The nature of the latent variables involved, however, seems to suggest that no straightforward solution to this problem exists.

5.5 Practical implications

The present study affirmed that altruism positively effects transformational leadership, which in turn positively influences the development of an ethical climate. No convincing support was found for the suggestion that integrity has a moderating effect on the relationship between transformational leadership and ethical climate. Consequently, these findings have certain significant implications, which will now be discussed. These practical implications are, however, based on a causal interpretation of the results, which are, as indicated above, not completely warranted by the nature of the research design and thus to a certain extent do constitute leaps of faith.

With regard to the effect of altruism on transformational leadership, the data analysis has indicated that altruism is strongly related to transformational leadership. It is vital for a leader to practice altruism as a core ethical value, in order to be perceived as transformational. This has implications for leaders who wish to develop their transformational behaviours – they must be driven by altruistic motives, as failure to do so may result in followers not perceiving their leaders to be transformational in their leadership style. This means that leaders who wish to bring about lasting change in their organisations should be constantly looking out for the good of others and considering others' needs above their own.

It was also revealed that transformational leadership has a positive effect on ethical climate. This has major implications for organisations wishing to develop ethical work climates, as it affirms that the leadership style and

philosophy in an organisation has a direct effect on whether a work climate is ethical or not. The institutionalisation of organisational ethics helps to create an understanding amongst employees about what is appropriate conduct. An effective process by which this can be achieved is through the use of a transformational leader, as the leader is an integral part of the organisation. By effectively utilising the transformational leadership process, the organisation's culture can be transformed into one that encourages ethical behaviour by its members (Carlson & Perrewe, 1998).

Thus organisations that aim to build an ethical climate should develop their leaders into transformational leaders, and during the recruitment process should only select those leaders that display transformational leadership behaviours. Training and development of leaders should focus on enhancing and encouraging the transformational leadership behaviours (intellectual stimulation, idealised influence, inspirational motivation and individualised consideration).

The results indicated that integrity need not be taken into account when trying to model the relationship between transformational leadership and ethical climate. Although it is vital that integrity should be encouraged in leadership so that an ethical work climate may prevail, no significant relationships could be inferred from the analysis to suggest that integrity plays a significant moderating role in the relationship between transformational leadership and ethical climate. The only hypothesis which could be corroborated in this regard, was that which postulated that the extent to which inspirational motivation would affect caring climate would depend on the extent to which the leader demonstrates integrity. This has important implications for transformational leaders, as it implies that the more leaders demonstrate integrity in that they display a consistency among what they believe and how they build their organisations, the more their followers will tend to perceive them as transformational leaders. This is consistent with the literature study, which suggests that for a leader to be effective in bringing about lasting change in their organisation, they need to display integrity in their

transformational leadership behaviour. In turn, transformational leadership positively influences the ethical climate existing in a work unit.

5.6 Recommendations for future research

This study has provided some insights into the relationships between transformational leadership, ethical climate and core ethical values (altruism and integrity). To provide a more comprehensive view of understanding this vast field, the following recommendations can be made.

An in-depth study should be undertaken to determine the relationship between many of the other ethical values which ethical leaders display, to explore whether these have a greater effect on ethical climate than the two values investigated in this study.

Understanding the consequences of ethical climates should prompt the design of intervention strategies to change climates and evaluation research to assess change strategies, such as whether the various types of ethical codes actually affect ethical climate and corresponding ethical behaviour (Victor & Cullen, 1987).

Previous research on ethical climates has been limited to a single organisation, whereas in this study, a diverse range of organisations has been investigated. It may be discovered that ethical sub-climate findings are industry specific.

Leadership style within units should be explored to determine its influence upon the organisation's sub-climates (Morgan, cited in Weber, 1995). This can be accomplished by focusing upon the ethical sub-climates that exist within an organisation's ethical climate. Research regarding these differences and influences should have significant implications in the attempt to better understand, explain and possibly even predict employee ethical behaviour (Weber, 1995).

It is also recommended that a study be undertaken to investigate whether ethical development programmes improve the ethical behaviour of employees. According to Sims (1994), ethics training has been identified as an important factor in countering unethical behaviour in organisations. The potential effectiveness of ethical leadership strategies such as codes of ethics, training, selection, and monitoring systems should be assessed within the context of an understanding of the organisation's ethical climate. For example, an extensive written code of ethics may be effective in a rules climate, but may fall on deaf ears in a caring climate.

An individual's adaptation to an ethical climate in terms of his or her personal ethics is an area of exploration, which might increase the understanding of several affective and behavioural responses to organisations. Conflict between personal ethical beliefs and ethical climate at work presents a possible source of dissatisfaction, turnover and performance problems (Victor & Cullen, 1987).

The results of the influence of integrity on the relationship between transformational leadership and ethical climate revealed that integrity does not moderate this relationship. Integrity was however shown to correlate strongly and significantly with transformational leadership. In this study the assumption was made that integrity co-determines transformational leadership along with altruism. Due to the ex post facto, correlational nature of the research design other possible structural models could be developed to account for this finding. Transformational leadership could for example be influenced by altruism, and in turn could influence perceived integrity. A future study could investigate this, possibly via a comparison of the fit of competing models.

The finding of significant correlations between various facets of transformational leadership and the dimensions of ethical climate, where the expanded model hypothesised no linkages should exist, should also be followed up in subsequent studies in the manner proposed earlier.

The hypothesised relationship between ethical climate and unit performance depicted in Figure 2.1 should be tested empirically in subsequent studies, possibly by including this path in the aforementioned structural models.

5.7 Conclusion

This study tested the relationship between altruism and transformational leadership, transformational leadership and ethical climate, and of the moderating effect that integrity has on the relationship between transformational leadership and ethical climate. The objective of this study was to investigate the different theoretical relationships between the constructs depicted in the model in Figure 2.1 in the South African context.

Although this study did not confirm all the hypothesised relationships between transformational leadership, integrity and ethical climate, an important insight was gained into the direct role transformational leaders play in the development of an ethical climate. The positive effect of altruism and integrity on transformational leadership revealed that leaders will only be perceived as transformational if they are driven by altruistic motives and actions and if they display a consistency in words and actions.

The positive relationship between transformational leadership and ethical climate emphasises the importance of transformational leadership behaviour when developing leaders and ethical organisations. Transformational leaders can make a significant impact on the ethical performance of organisations. The literature study has suggested that the leader is responsible for the set of ethics or norms that govern the conduct of people in the organisation (Bennis & Nanus, cited in Kouzes & Posner, 1992), and that it is vital that the work climate of the organisation encourage ethical behaviours. In order to create and develop ethical leaders, top management must be committed to a clear code of ethical conduct; recruit, select, and promote leaders with high ethical standards; develop performance standards that reward ethical behaviour; and encourage training in ethical leadership skills (Howell & Avolio, cited in Carlson & Perrewe, 1998). The data analyses have confirmed this, and

leaders who wish to build ethical organisations should take cognisance of the influence of their behaviour on the development of ethical work climates.

It is believed that a valuable contribution has been made by this study to the field of organisational psychology for practitioners and academics alike. This study can change the way leaders behave if they recognise the importance of their behaviour in the development of an ethical climate. As John Maxwell said: "Leadership is influence. Nothing more, nothing less." (Maxwell, 1993, p. 4).

REFERENCES

Argyris, C. & Schon, D.A. (1988). Reciprocal Integrity: Creating Conditions That Encourage Personal and Organisational Integrity. In Srivastva, S. & Associates (Eds). *Executive Integrity.* San Francisco: Jossey-Bass Publishers.

Babbie, E. & Mouton J. (2001). *The practice of social research.* Cape Town: Oxford University Press.

Badaracco, J.L. & Ellsworth, R.R. (1991). *Leadership and the Quest for Integrity.* Boston: Harvard Business School Press.

Bass, B.M. (1997). *The Ethics of Transformational Leadership.* World Wide Web (http://www.cls.binghamton.edu).

Bass, B.M. (2001). *Transformational leadership.* World Wide Web (http://www.academy.umd.edu.)

Bass, B.M. & Avolio, B.J. (1994). Improving Organizational Effectiveness through Transformational Leadership. Thousand Oaks: SAGE Publications.

Bass, B.M. & Avolio, B.J. (1995). *The Multifactor Leadership Questionnaire (Form 5-45).* Palo Alto, CA: Consulting Psychologist Press.

Bass, B.M. & Steidlmeier, P. (1999). Ethics, Character, and Authentic Transformational Leadership Behaviour. *Leadership Quarterly, 10*(2), 181-217.

Berenson, M.L., Levine, D.M. & Goldstein, M. [1983]. *Intermediate statistical methods and applications; a computer package approach*. Englewood Cliffs, New Jersey: Prentice Hall.

Blanchard, K. & Peale, N.V. (1988). *The Power of Ethical Management.* New York: William Morrow & Company, Inc.

Blum, L.A. (1980). *Friendship, Altruism and Morality*. London: Routledge & Kegan Paul.

Bottorff, D.L. (1997). How Ethics Can Improve Business Success. *Quality Progress, 30*(2), 57-60.

Bougas, N. (2001, September). Leaders of Influence. *Today Magazine* No. 110, 16-18.

Bower, M. (1999). Developing Leaders in Business. In *Leadership Development: Information search.* Brussels: European Foundation for Quality Management.

Burns, J.M (1978). *Leadership.* New York: Harper & Row.

Carlson, D.S. & Perrewe, P.L. (1995). Institutionalisation of organisational ethics through transformational leadership. *Journal of Business Ethics, 14*(10), 828-838.

Ciulla, J.B. (1996). *Ethics, the Heart of Leadership*. Westport, CT: Praeger Publishers.

Ciulla, J.B. (1998). *Ethics, the Heart of Leadership.* Westport, CT: Praeger Publishers.

Cloete, B.E. (1998). *'n Ontleding van 'n suksesvolle toesighouer-ondergeskikte vertrouensverhouding.* Unpublished Masters Thesis, University of Stellenbosch.

Cohen, D.V. (1993). Creating and Maintaining Ethical Work Climates: Anomie in the Workplace and Implications for Managing Change. *Business Ethics Quarterly,3*(4), 343-358.

Conlin, M. (1999, November, 1). Religion in the Workplace. *Businessweek Online* World Wide Web (http://www.lead-edge.com).

Covey, S. (1992). *Principle Centred Leadership.* Upper Saddle River, NJ: Simon & Schuster.

Craig, S.B. & Gustafson, S.B. (1998). Perceived Leader Integrity Scale: an instrument for assessing employee perceptions of leader integrity. *Leadership Quarterly, 9*(2), 127-145.

Dickson, M.W., Smith, D.B., Grojean, M.W., Ehrhart, M. (2001). An organisational climate regarding ethics: the outcome of leader values and the practices that reflect them. *Leadership Quarterly, 12*(2), 197-218.

Diamantopoulos, A. & Siguaw, J.A. (2000). *Introducing LISREL: A Guide for the Uninitiated.* London: SAGE Publications.

Dubrin, A.J. (2001). *Leadership: Research Findings, Practice, and Skills.* Boston: Houghton Mifflin Company.

Du Rand, J. (2001). *The Feasibility of Transformational Leadership Training and Development in South Africa.* Unpublished Master's Thesis, University of Stellenbosch.

Engelbrecht, A.S. & Cloete, B.E. (2000). An analysis of a supervisor-subordinate trust relationship. *Journal of Industrial Psychology,26* (1), 24-28.

Engelbrecht, A.S. (2001). Core Values Underlying Transformational and Transactional Leadership. *Management Dynamics, 10*(3), 56 – 80.

Engelbrecht, A.S. (2002). The Effect of Organisational Leadership on Value Congruence and Effectiveness: an Integrated Model. *South African Journal of Economic & Management Sciences,5*(3), 589-606.

Frederick, W.C. & Preston, L.E. (1987) (Eds). *Research in Corporate Social Performance and Policy.* Greenwich: Jai Press Inc.

Gardner, H. (1995). *Leading Minds – An Anatomy of Leadership.* London: Harper Collins.

Gini, A. (1997). Moral Leadership: An Overview. *Journal of Business Ethics,16*, 323-330.

Hartog, D.N.D, & Van Muijen, J.J. (1997). Transactional versus transformational leadership: An analysis of the MLQ. *Journal of Occupational & Organisational Psychology*, *70* (1), 19-35.

Hawkins, J. (1997*). Principled Leadership in an age of cynicism.* World Wide Web (http://www.lead-edge.com): Leadership Edge Incorporated.

Hawkins, J. (2000). *What exactly does ethical leadership mean these days?* World Wide Web (http://www.lead-edge.com): Leadership Edge Incorporated.

Hawkins, J. (2001). *Honor Knows its Boundaries.* World Wide Web (http://www.lead-edge.com): Leadership Edge Incorporated.

Henning, R., Theron, C. & Spangenberg,H. (2002) *An Investigation into the internal structure of the unit performance construct as measured by the performance index (PI).* Manuscript submitted to the Journal of Industrial Psychology.

Hesselbein, F., Goldsmith, M. & Beckhard, R (1996). (Eds) *The Leader of the Future.* San Francisco: Jossey-Bass Publishers.

Hollwitz, J.C. & Pawlowski, D.R. (1997). The Development of a Structured Ethical Integrity Interview for Pre-Employment Screening. *The Journal of Business Communication, 34*(2), 203-219.

Hunter, W.F.J.R (1999). *The measurement and Prediction of Integrity.* Unpublished doctorate research proposal, University of Stellenbosch.

Jöreskog, K. & Sörbom, D. (1996). *LISREL 8: User's Reference Guide.* Chicago, IL: Scientific Software International, Inc.

Jones, G.R. (2001). *Organizational Theory.* New Jersey: Prentice-Hall.

Kanungo, R.N. & Mendonca, M. (1996). *Ethical Dimensions of Leadership.* Thousand Oaks: SAGE Publications.

Kelloway, E.K. (1998). *Using LISREL for Structural Equation Modelling.* Thousand Oaks: Sage Publications.

Kerlinger, F.N. (1973). *Foundations of behavioural research.* (2nd ed.) New York: Holt, Rinehart and Winston, Inc.

Kouzes, J.M. & Posner, B.Z. (1992). Ethical Leaders: An essay about being in love. *Journal of Business Ethics, 11*(6), 479-484.

Kouzes, J.M. & Posner, B.Z. (1999). *Encouraging the Heart.* San Francisco: Jossey-Bass.

Krafft, P.(2002). *The influence of transformational and transactional leadership on interpersonal trust through perceptions of fairness.* Unpublished Masters Thesis, University of Stellenbosch.

Landman, W. (2000, July). Tackling S.A.'s Ethics Crisis. *Financial Mail*, 40.

Langley, R. (1992). *Values Scale.* South Africa: Human Science Research Council.

Malan, F & Smit, B (2001). *Ethics and Leadership in Business and Politics.* Cape Town: Juta & Co.

Matthews, M.C. (1987). Codes of Ethics: Organisational behaviour and misbehaviour. In Frederick, W.C. & Preston, L.E. (Eds) *Research in Corporate Social Performance and Policy.* Greenwich: Jai Press Inc.

Maxwell, J.C. (1998). *The 21 Irrefutable Laws of Leadership.* Nashville: Thomas Nelson Publishers.

McFall, L. (1987). Integrity. Ethics, 98 (1).

McHugh, F.P. (1990). *Ethics.* London: Oxford University Press.

Mileham, P. & Spacie, K. (1996). *Transforming Corporate Leadership* London: FT Pitman Publishing.

Montefiore, A. & Vines, D. (Eds) (1999). *Integrity in the Public and Private Domains.* London: Routledge.

Nanus, B. (1992). *Visionary Leadership: Creating a Compelling Sense of Direction for your Organisation.* San Francisco: Jossey-Bass.

Nunnally, R.C. & Marlowe, H.A. (1997). *Psychometric Theory.* New York: McGraw Hill.

Ones, D.Z. & Viswesveran, C. (2001). Integrity Tests and Other Criterion Focused Occupational Personality Scales (COPS) Used in Personnel Selection. *Journal of Psychology, 9*(1/2), 31-39.

Parry, K.W. & Proctor-Thomson, S.B. (2002). Perceived Integrity of Transformational Leaders in Organisational Settings. *Journal of Business Ethics, 35,* 75-96.

Peters, T.J. & Waterman, R.H. (1982). *In Search of Excellence.* New York: Harper & Row Publishers.

Pillai, R., & Schriesheim, C.A., & Williams, E.S. (1999). Fairness Perceptions and Trust for Transformational and Transactional Leadership: A Two-Sample Study. *Journal of Management, 25* (6), 897-933.

Plougmann, E.M.T. (2000). *Emerging Leadership: A study of leadership thinking and its implication for business leadership and practice in the 21st century.* Unpublished Doctoral thesis, University of Stellenbosch.

Raphaely, C. (1996, April). Getting High with Colin Hall. *Millennium Magazine*, 14-23.

Rossouw, G.J. (1997). Business Ethics in South Africa. *Journal of Business Ethics, 16,*1539-1547.

Rost, J.C. (1991). *Leadership for the twenty-first century.* Westport: Praeger.

Salopek, J.J. (2001). *Do the right thing.* World Wide Web: (http://www.astd.com).

Schminke, M. (1998). *Managerial Ethics.* New Jersey: Lawrence Erlbaum Associates, Publishers.

Schuitema, E. (1998). *Leadership: The care and growth model.* Cape Town: Ampersand Press.

Scott, J.J. (1998). *Ethical Theory and the Practice of Leadership.* World Wide Web (http://www.rmc.ca).

Senge, P.M. (1990). *The Fifth Discipline.* Random House: Great Britain.

Sethi, S.P. & Williams, O.F. (2000). *Economic imperatives and ethical values in global business: The South African Experience and International Codes Today.* Indiana: University of Notre Dame Press.

Sims, R.R. (1994). *Ethics and Organisational decision-making.* Connecticut: Quorum Books.

Solomon, R.C. (2001). *Ethical Leadership, Emotions, and Trust: Beyond "Charisma".* World Wide Web (http://www.academy.umd.edu).

SPSS (1990). *SPSS Reference Guide.* Chicago, Illinois: SPSS International.

Tichy, N.M. (1997). *The Leadership Engine: how winning companies build leaders at every level.* New York: Harper Business.

Tichy, N.M. & Devanna, M.A. (1990). *The transformational leader.* New York: Wiley.

Tredoux, C.T. & Durheim, K. (2002). *Numbers, hypotheses and conclusions; a course in statistics for the social sciences.* Cape Town: UCT Press.

Trevino, L.K, Hartman, L.P. & Brown, M. (2000). Moral Person and Moral Manager: How executives develop a reputation for ethical leadership. *California Management Review, 42*(4), 128-147.

Turner, N., Barling, J., Epitropaki, O., Butcher, V. & Milner, C. (2002). Transformational Leadership and Moral Reasoning. *Journal of Applied Psychology,87*(2), 304-311.

Vogl, F. (2001). *Corporate Integrity and Globalization: The Dawning of a New Era of Accountability & Transparency.* Word Wide Web: (http://www.erc.com): United States: Ethics Resource Center.

Victor, B. & Cullen, J.B. (1987). A theory and Measure of Ethical Climate in Organisations. In Frederick, W.C. & Preston, L.E.(Eds). *Research in Corporate Social Performance and Policy.* Greenwich: Jai Press Inc.

Victor, B. & Cullen, J.B. (1988). The organisational bases of ethical work climates. *Administrative Science Quarterly, 33*(1), 101-125.

Vos, H.D. (1998). *An industrial psychological study of the diversity phenomenon amongst managers in selected organisations.* Unpublished Doctorate dissertation, University of Stellenbosch.

Weber, J. (1995). Influences upon organisational ethical subclimates: a multi-departmental analysis of a single firm. *Organization Science, 6*(5), 509-523.

Yukl, G. (1998). *Leadership in Organisations.* Upper Saddle River, NJ: Prentice-Hall.

Yukl, G. (2002). *Leadership in Organisations.* Upper Saddle River, NJ: Prentice-Hall.

Zaleznik, A. (1993). *Learning Leadership.* Chicago: Bonus Books, Inc.

APPENDIX 1: Covering letter and questionnaire

INSTRUCTIONS

This questionnaire forms part of a Master's study conducted by Anja Scheps at the University of Stellenbosch. The aim of this study is to determine the influence of leadership on ethical climate in organizations. The management of this company has kindly agreed that all employees may partake in this research. The questionnaires are to be completed **anonymously.** The information will be kept **confidential** as the questionnaires will be handled and used by the researcher only.

For the research to yield valid results, it is important that you answer **all** the questions as **honestly** and **truthfully** as possible. The answers must reflect your own opinion and perception. **Confidentiality** is assured as some questions or statements are of a sensitive nature. The questionnaire consists of five sections (Section A – Section E). Please **answer all questions and statements.**

Thank you for your participation and contribution to this study – it is greatly appreciated.

SECTION A: DEMOGRAPHIC INFORMATION

			NO.	(For office use only)

Please answer the following general questions (or mark with a X).

YOUR SEX:

MALE	1
FEMALE	2

YOUR ETHNIC GROUP:

African	1
Asian	2
Coloured	3
White	4

YOUR JOB LEVEL:

Non-managerial	1
Lower level management	2
Middle level management	3
Upper level management	4

YOUR AGE (years):

YOUR TOTAL WORK EXPERIENCE (years):

.....End of Section A.....

Please turn to Section B

SECTION B: LEADERSHIP

This is a questionnaire aimed to provide a description of leadership. Please describe your direct supervisor/manager when answering **all** the questions.

Directions: Listed below are descriptive statements about your supervisor/manager. For each statement, please indicate **how frequently** the person you report to, displays the behaviour described.

For example: If you feel your supervisor is almost never absent when you need him/her, then cross the box with the number 1.

Almost never	Once in a while	Sometimes	Fairly often	Frequently	Almost always
1 X	2	3	4	5	6

Read each question carefully and choose only ONE answer!

The Person I report to…

Questions	Almost never	Once in a while	Sometimes	Fairly Often	Frequently	Almost always
1. Provides me with assistance in exchange for my efforts.	1	2	3	4	5	6
2. Re-examines critical assumptions to question whether they are appropriate.	1	2	3	4	5	6
3. Fails to interfere until problems become serious.	1	2	3	4	5	6
4. Focuses attention on irregularities, mistakes, exceptions and deviations from standards.	1	2	3	4	5	6
5. Talks about his/her most important values and beliefs.	1	2	3	4	5	6
6. Seeks differing perspectives when solving problems.	1	2	3	4	5	6
7. Talks optimistically about the future.	1	2	3	4	5	6

Question	Almost never	Once in a while	Sometimes	Fairly often	Frequently	Almost always
8. Instills pride in being associated with him/her.	1	2	3	4	5	6
9. Discusses in specific terms who is responsible for achieving performance targets.	1	2	3	4	5	6
10. Waits for things to go wrong before taking action.	1	2	3	4	5	6
11. Talks enthusiastically about what needs to be accomplished.	1	2	3	4	5	6
12. Specifies the importance of having a strong sense of purpose.	1	2	3	4	5	6
13. Spends time supporting and coaching.	1	2	3	4	5	6
14. Makes clear what one can expect to receive when performance goals are achieved.	1	2	3	4	5	6
15. Shows he/she is a firm believer in "if it isn't broken, don't fix it."	1	2	3	4	5	6
16. Goes beyond his/her self-interest for the good of the group.	1	2	3	4	5	6
17. Treats you as an individual rather than just a member of a group.	1	2	3	4	5	6
18. Demonstrates that problems must become chronic before he\she will take action.	1	2	3	4	5	6
19. Acts in ways that builds my respect.	1	2	3	4	5	6
20. Concentrates on correcting and anticipating mistakes, complaints and failures.	1	2	3	4	5	6
21. Considers the moral and ethical consequences of his/her decisions.	1	2	3	4	5	6
22. Keeps track of all mistakes.	1	2	3	4	5	6
23. Displays a sense of power and confidence.	1	2	3	4	5	6
24. Articulates a compelling vision of the future.	1	2	3	4	5	6
25. Directs his/her attention toward failures to meet standards.	1	2	3	4	5	6

Questions	Almost never	Once in a while	Sometimes	Fairly often	Frequently	Almost always
26. Considers me, as having different needs, abilities and aspirations from others.	1	2	3	4	5	6
27. Gets me to look at problems from many different angles.	1	2	3	4	5	6
28. Helps me to develop my strengths.	1	2	3	4	5	6
29. Suggests new ways of looking at how to complete assignments.	1	2	3	4	5	6
30. Emphasises the importance of having a collective sense of mission.	1	2	3	4	5	6
31. Expresses satisfaction when I meet expectations.	1	2	3	4	5	6
32. Expresses confidence that goals will be achieved.	1	2	3	4	5	6

…….. End of Section B ……

Please turn over to Section C

SECTION C: ETHICAL CLIMATE

We would like to ask you some questions about the general climate in your company. Please answer the following in terms of how it really is in your company, *not* how you would prefer it to be. Please be honest - remember, all your responses will remain *strictly* anonymous.

Indicate on the scale from 0 – 5 how accurately each of the items describe the climate in which you work. Use the following responses:

Question	Completely False 0	Mostly False 1	Somewhat False 2	Somewhat True 3	Mostly True 4	Completely True 5

Question	Completely False	Mostly False	Somewhat False	Somewhat True	Mostly True	Completly True
1. What is best for everyone in the company is the major consideration here.	0	1	2	3	4	5
2. The most important concern is the good of all the people in the company as a whole.	0	1	2	3	4	5
3. Our major concern is always what is best for the other person.	0	1	2	3	4	5
4. In this company, people look out for each other's good.	0	1	2	3	4	5
5. In this company, it is expected that you will always do what is right for the customers and public.	0	1	2	3	4	5
6. The most efficient way is always the right way in this company.	0	1	2	3	4	5
7. In this company, each person is expected above all to work efficiently.	0	1	2	3	4	5
8. People are expected to comply with the law and professional standards over and above other considerations.	0	1	2	3	4	5
9. In this company, the law or ethical code of their profession is the major consideration.	0	1	2	3	4	5
10. In this company, people are expected to strictly follow legal or professional standards.	0	1	2	3	4	5
11. In this company, the first consideration is whether a decision violates any law.	0	1	2	3	4	5
12. It is very important to follow the company's rules and procedures here.	0	1	2	3	4	5
13. Everyone is expected to stick by company rules and procedures.	0	1	2	3	4	5
14. Successful people in this company go by the book.	0	1	2	3	4	5
15. People in this company strictly obey the company policies.	0	1	2	3	4	5
16. In this company, people are expected to follow their own personal and moral beliefs.	0	1	2	3	4	5
17. Each person in this company decides for themselves what is right and wrong.	0	1	2	3	4	5
18. The most important concern in this company is each person's own sense of right and wrong.	0	1	2	3	4	5
19. In this company, people are guided by their own personal ethics.	0	1	2	3	4	5

.....End of Section C.....

Please turn to Section D

SECTION D

The aim of this questionnaire is to determine how important certain matters are to your direct supervisor/manager.

Read each statement carefully and select ONE of the six responses listed below to show how important the matter at hand is to the person you are rating.

Question	1 Of no importance	2 Of very little importance	3 Of little importance	4 Of some importance	5 Moderately important	6 Very important

It is now or will in the future be important to him/her to...

Question	1 Of no importance	2 Of very little importance	3 Of little impor-tance	4 Of some importance	5 Moder-ately important	6 Very impor-tant
1. help people with problems.	1	2	3	4	5	6
2. be involved in work (in which the goal is) helping people.	1	2	3	4	5	6
3. work in a way that makes the world a better place.	1	2	3	4	5	6
4. be a person who helps others in need of assistance.	1	2	3	4	5	6
5. help others, even if it means giving up some of his\her own comforts.	1	2	3	4	5	6

.....End of Section D.....

Please turn over to Section E

SECTION E

Below are statements that describe how you might feel about your supervisor/manager. Please indicate the degree of your agreement or disagreement with each statement by crossing **one** of the six options, which are as follows:

Question	1 Strongly disagree	2 Moderatel y disagree	3 Slightly disagree	4 Slightly agree	5 Moderatel y agree	6 Strongly agree

Question	1 Strongly disagree	2 Moderately disagree	3 Slightly disagree	4 Slightly agree	5 Moderately agree	6 Strongly agree
1. My superior does things consistently.	1	2	3	4	5	6
2. My superior acts the same way every time the situation is the same.	1	2	3	4	5	6
3. My superior behaves in a consistent manner.	1	2	3	4	5	6
4. I seldom know what my superior will do next.	1	2	3	4	5	6
5. My superior always tells me the truth.	1	2	3	4	5	6
6. My superior would not lie to me.	1	2	3	4	5	6
7. My superior deals honestly with me.	1	2	3	4	5	6
8. Sometimes my superior does dishonest things.	1	2	3	4	5	6
9. My superior keeps his\her promises made to me.	1	2	3	4	5	6
10. Keeping promises is a problem for my superior.	1	2	3	4	5	6
11. If my superior promises something to me, he/she will be true to it.	1	2	3	4	5	6
12. My superior does things that he/she has promised to do for me.	1	2	3	4	5	6

.....End of Questionnaire.....
Thank you for your time!

APPENDIX 2

Descriptive Statistics for Indicator Variable Items

Descriptive statistics for Intellectual Stimulation sub-scale items

		B2	B6	B27	B29
N	Valid	200	200	200	200
	Missing	0	0	0	0
Mean		3.7800	3.8150	3.7450	3.5950
Median		4.0000	4.0000	4.0000	4.0000
Mode		4.00	5.00	5.00	3.00
Std. Deviation		1.36415	1.38940	1.47337	1.43921
Skewness		-.219	-.266	-.256	-.110
Std. Error of Skewness		.172	.172	.172	.172
Kurtosis		-.594	-.706	-.919	-.742
Std. Error of Kurtosis		.342	.342	.342	.342
Minimum		1.00	1.00	1.00	1.00
Maximum		6.00	6.00	6.00	6.00

Descriptive statistics for Idealised Influence sub-scale items

		B5	B8	B12	B16	B19	B21	B23	B30
N	Valid	200	200	200	200	200	200	200	200
	Missing	0	0	0	0	0	0	0	0
Mean		3.2950	3.6250	3.8600	3.6750	3.9200	3.9350	4.1550	3.6400
Median		3.0000	4.0000	4.0000	4.0000	4.0000	4.0000	4.0000	4.0000
Mode		3.00	3.00	5.00	4.00	3.00	5.00	5.00	3.00
Std. Deviation		1.49639	1.50188	1.50390	1.51355	1.52816	1.52394	1.41100	1.40007
Skewness		.020	-.185	**-.466**	-.199	**-.359**	**-.371**	**-.528**	-.225
Std. Error of Skewness		.172	.172	.172	.172	.172	.172	.172	.172
Kurtosis		-.929	-.842	-.666	-.893	-.782	-.810	-.400	-.773
Std. Error of Kurtosis		.342	.342	.342	.342	.342	.342	.342	.342
Minimum		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Maximum		6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00

Descriptive statistics for Inspirational Motivation sub-scale items

		B7	B11	B24	B32
N	Valid	200	200	200	200
	Missing	0	0	0	0
Mean		3.9150	4.0000	3.5450	4.0450
Median		4.0000	4.0000	4.0000	4.0000
Mode		5.00	4.00	3.00	5.00
Std. Deviation		1.48621	1.41066	1.48289	1.40458
Skewness		-.261	**-.347**	-.117	**-.443**
Std. Error of Skewness		.172	.172	.172	.172
Kurtosis		-.952	-.550	-.957	-.507
Std. Error of Kurtosis		.342	.342	.342	.342
Minimum		1.00	1.00	1.00	1.00
Maximum		6.00	6.00	6.00	6.00

Descriptive statistics for Individualized Consideration sub-scale items

		C8	C9	C10	C11
N	Valid	200	200	200	200
	Missing	0	0	0	0
Mean		4.0100	3.6750	3.9900	3.6800
Median		4.0000	4.0000	4.0000	4.0000
Mode		5.00	4.00	5.00	4.00
Std. Deviation		1.04660	1.16885	1.07034	1.23500
Skewness		**-1.136**	**-.715**	**-1.023**	**-.954**
Std. Error of Skewness		.172	.172	.172	.172
Kurtosis		1.461	.067	.750	.628
Std. Error of Kurtosis		.342	.342	.342	.342
Minimum		.00	.00	.00	.00
Maximum		5.00	5.00	5.00	5.00

Descriptive statistics for Law & Code Climate sub-scale items

		C8	C9	C10	C11
N	Valid	200	200	200	200
	Missing	0	0	0	0
Mean		4.0100	3.6750	3.9900	3.6800
Median		4.0000	4.0000	4.0000	4.0000
Mode		5.00	4.00	5.00	4.00
Std. Deviation		1.04660	1.16885	1.07034	1.23500
Skewness		**-1.136**	**-.715**	**-1.023**	**-.954**
Std. Error of Skewness		.172	.172	.172	.172
Kurtosis		1.461	.067	.750	.628
Std. Error of Kurtosis		.342	.342	.342	.342
Minimum		.00	.00	.00	.00
Maximum		5.00	5.00	5.00	5.00

Descriptive statistics for Rules Climate sub-scale items

		C12	C13	C14	C15
N	Valid	200	200	200	200
	Missing	0	0	0	0
Mean		4.0350	4.0100	3.0450	3.1650
Median		4.0000	4.0000	3.0000	3.0000
Mode		5.00	5.00	3.00	3.00
Std. Deviation		.97392	1.02231	1.21257	1.07870
Skewness		**-.763**	**-1.103**	**-.394**	**-.479**
Std. Error of Skewness		.172	.172	.172	.172
Kurtosis		.011	1.511	-.050	.310
Std. Error of Kurtosis		.342	.342	.342	.342
Minimum		1.00	.00	.00	.00
Maximum		5.00	5.00	5.00	5.00

Descriptive statistics for Independence Climate sub-scale items

		C16	C17	C18	C19
N	Valid	200	200	200	200
	Missing	0	0	0	0
Mean		2.6300	2.0750	2.0900	2.3900
Median		3.0000	2.0000	2.0000	3.0000
Mode		3.00	2.00	2.00	3.00
Std. Deviation		1.34243	1.39251	1.30399	1.32919
Skewness		-.381	.102	.093	-.253
Std. Error of Skewness		.172	.172	.172	.172
Kurtosis		-.503	-.818	-.622	-.618
Std. Error of Kurtosis		.342	.342	.342	.342
Minimum		.00	.00	.00	.00
Maximum		5.00	5.00	5.00	5.00

Descriptive statistics for Caring sub-scale items

		C1	C2	C3	C4	C5	C6	C7
N	Valid	200	200	200	200	200	200	200
	Missing	0	0	0	0	0	0	0
Mean		2.6550	2.7350	2.3000	2.5750	4.0700	3.3000	3.8800
Median		3.0000	3.0000	2.0000	3.0000	4.0000	3.0000	4.0000
Mode		3.00	3.00	3.00	3.00	4.00	3.00	4.00
Std. Deviation		1.38766	1.29738	1.24408	1.29334	1.02487	1.18619	.98512
Skewness		-.285	-.304	-.270	-.364	-1.556	-.381	-.935
Std. Error of Skewness		.172	.172	.172	.172	.172	.172	.172
Kurtosis		-.656	-.377	-.518	-.355	3.302	-.138	.709
Std. Error of Kurtosis		.342	.342	.342	.342	.342	.342	.342
Minimum		.00	.00	.00	.00	.00	.00	1.00
Maximum		5.00	5.00	5.00	5.00	5.00	6.00	5.00

Descriptive statistics for Altruism scale items

		D1	D2	D3	D4	D5
N	Valid	200	200	200	200	200
	Missing	0	0	0	0	0
Mean		4.5650	4.4550	4.2250	4.5450	4.0650
Median		5.0000	5.0000	4.0000	5.0000	4.0000
Mode		4.00	4.00	4.00	5.00	4.00
Std. Deviation		1.24641	1.23108	1.33540	1.22699	1.41804
Skewness		-.747	-.597	-.471	-.690	-.404
Std. Error of Skewness		.172	.172	.172	.172	.172
Kurtosis		.269	-.125	-.311	.096	-.610
Std. Error of Kurtosis		.342	.342	.342	.342	.342
Minimum		1.00	1.00	1.00	1.00	1.00
Maximum		6.00	6.00	6.00	6.00	6.00

Descriptive statistics for Integrity scale items

	E1	E2	E3	E4	E5	E6	E7	E8	E9	E10	E11	E12
N	200	200	200	200	200	200	200	200	200	200	200	200
	0	0	0	0	0	0	0	0	0	0	0	0
Mean	4.3800	4.2200	4.3400	3.9250	4.4200	4.2300	4.4650	4.6650	4.3650	4.5350	4.3850	4.4700
Median	5.0000	5.0000	5.0000	4.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
Mode	5.00	5.00	5.00	5.00	5.00	6.00	6.00	6.00	5.00	6.00	5.00	5.00
Std. Deviation	1.43032	1.39331	1.41578	1.53006	1.56070	1.65857	1.53968	1.52130	1.38976	1.47977	1.45857	1.38879
Skewness	**-.911**	**-.805**	**-.824**	**-.315**	**-.931**	**-.599**	**-.897**	**-1.079**	**-.756**	**-.910**	**-.801**	**-.955**
Std. Error of Skewness	.172	.172	.172	.172	.172	.172	.172	.172	.172	.172	.172	.172
Kurtosis	-.045	-.192	-.152	-1.072	-.158	-.884	-.224	.233	-.181	-.039	-.165	.319
Std. Error of Kurtosis	.342	.342	.342	.342	.342	.342	.342	.342	.342	.342	.342	.342
Minimum	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Maximum	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00