

***EMOTIONAL
INTELLIGENCE AND
LEADERSHIP IN
CORPORATE
MANAGEMENT :

A FORTIGENIC
PERSPECTIVE***

by

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DECLARATIONS

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PART I

INTRODUCTION

Part 1 serves as an introduction to this investigation and consists of Chapter 1, which contains an introduction to the relevant literature, introduces the theory informing the current investigation and a problem statement ensuing from the literature. The goals of the investigation and a short review of the research design and constructs under investigation are also included in Chapter 1.

Chapter 1

INTRODUCTION AND PROBLEM STATEMENT

1.1 INTRODUCTION

People currently need to function in a world vastly different from that of previous generations. The new world order reflects an accelerated rate of change, industrialisation and globalisation (Prins & van Niekerk, 2001). “Change will be the byword of the next millennium, with its accompanying job insecurities, corporate culture clashes, and significantly different styles of managerial leadership – in other words, massive organizational change and inevitable stress” (Cartwright & Cooper, 1997, p.2). According to Van den Berg (2001), this predicts tempestuous conditions for workers worldwide. The accompanying changing world of work includes, inter alia, an increasingly diverse workforce with needs, aspirations, and attitudes different from those of their managers, necessitating creativity and ingenuity from leaders. Since employees represent many organisations’ only true competitive advantage, leaders need to manage and motivate their workforce to retain or enhance the organisation’s market share.

Elucidation of the background theory to the current investigation is necessary.

1.2 META-THEORETICAL PERSPECTIVE: POSITIVE PSYCHOLOGY

The current study niches within the emerging paradigm of positive psychology (Seligman, 1998c, 1999; Seligman & Csikszentmihalyi, 2000) as it reflects on both general and industrial psychology.

1.2.1 GENERAL PSYCHOLOGY

Traditionally, within the field of psychology, human behaviour and experience has been dealt with from a pathogenic meta-perspective. This paradigm orientates towards the abnormal with the fundamental aim of finding answers which bring about the prevention and treatment of illness. This has led to “an obsessive proclivity for ‘deficit detecting’ to the exclusion of acknowledging strengths and resources” (Barnard, 1994, p.136). ‘Ill-being’ rather than ‘well-being’, notes Ryff and Singer (1998), has traditionally served as the rule of thumb when evaluating a person’s [mental] health status.

Fifty years ago psychology’s recognised mission was both to help the mentally ill, and “... make the lives of people more productive and fulfilling and to identify and nurture talented, gifted, people” (Luthans, 2002, p.696). Seligman and Csikszentmihalyi (2000) argue that psychology aimed at nurturing exceptional talent or genius before World War II. Thereafter, driven by employment opportunities in clinical psychology for treating the mentally ill, much focus shifted to mental dysfunction. Henceforth, the pathogenic paradigm reigned, focussing on healing the ill. According to Seligman (2002), “pathos” or disease became the point of departure as within the medical model. In its focus on illness, positive aspects of human functioning took a back seat (Barnard, 1994).

A search in contemporary literature on psychology reveals “... approximately 200,00 published articles on the treatment of mental illness, 80,000 on depression, 65,000 on anxiety, 20,000 on fear, 10,000 on anger but only about 1,000 on positive concepts and capabilities of people” (Luthans, 2002, p.697). Against the background of a rapidly expanding interest in the field of emotion – context for the current study - there is also an imbalance toward the negative. “Investigations of zestful living are preciously few amid abundant inquiries on anger, fear, aggression, anxiety and depression” (Ryff & Singer, 1998, p.19). There exists, therefore, a more highly developed psychology of the abnormal than of the healthy.

Attention to more positive life realms including ‘positive states of mind’, experiences of wellness, psychological strengths, self esteem, effective coping strategies, and a preventative health orientation have thus typically been neglected and de-emphasised. (Van Niekerk, Van Eeden & Botha, 2001). According to Luthans (2002), current day psychologists are still largely trained in a reductionist tradition whilst positivity is viewed with doubt and suspicion as if representing wishful thinking, denial and hucksterism (Sheldon & King, 2001).

Despite the major influence of the pathogenic approach, calls for a 'positive' psychology can be traced back more than fifty years. In the late 1950's, the humanistic movement began to articulate strong dissatisfaction with pathogenic modes of thinking. Subsequently, schools of thought, including humanistic/existential theorists, formulated theories of optimal functioning, contributing to our understanding of mental well-being. However, the evolving positive psychology movement engendered much opposition, as is the case with the birth of a new theory.

(a) The birth of a new theory

James (1975) reflected on the birth of a new theory by claiming that, at first, it is seen as absurd and is vehemently attacked by adversaries, then it is acknowledged as true, although 'obvious and insignificant' (p.5). Finally, as it gains recognition and becomes important, its adversaries may claim that they, themselves, were instrumental in its discovery (Strümpfer, 2001). This neatly encapsulates the 'marching on' of the positive psychology movement together with the more recent theory of emotional intelligence, the central theme of this dissertation. According to Strümpfer, various elements and forms of the emerging positive psychology movement, or psychofortology (the study of human strengths), were initially regarded as absurd. However, interest escalated and culminated in the benchmark publication of the American Psychologist's January and March 2001 issues.

(b) Research supportive of the new paradigm

The new paradigm "makes a radically different, appreciative set of assumptions and attributions about health, motivation, capacities, potential, and social functioning" (Strümpfer, 2001, p.5). According to Seligman and Csikszentmihalyi (2000, pp. 6,8), the new paradigm focusses on a "science of strengths". Many researchers seem to have been thinking about and conducting parallel research in this area, labelling it differently. Anthony (1987) asserts that much overlap exists in the evolving ideas. The interested reader is referred to Strümpfer (2001), who was at pains to compile and provide a comprehensive chronological overview of research in support of the evolving paradigm. Another influential proponent of this emerging paradigm is Antonovsky (1979; 1984; 1987) who posed the salutogenic question: "How can we learn to live, and live well, with stressors, and even turn their existence to our advantage?" (cf. Antonovsky, 1990, p.74).

It seems that "Positive psychology is thus an attempt to urge psychologists to adopt a more open and appreciative perspective regarding human potentials, motives and capacities. However,

“psychology’s reductionist epistemological traditions, which train us to view positivity with suspicion” (Sheldon & King, 2001, p.216) has met this movement with opposition. Much the same pattern as exemplified in the parent discipline may be observed within the field of organisational psychology. The current study finds application in both general and organisational psychology and both are therefore important.

1.2.2 ORGANISATIONAL PSYCHOLOGY

Luthans (2002) proposes that organisational psychology has been less negative in its orientation than its parent discipline but still more concerned with what was wrong in organisations, teams, leaders and employees, than with what was right. Luthans argues that researchers interested in organisational behaviour stand to gain and learn much from the positive psychology movement which is theory and research-driven and seems to have considerable relevance and commonsense appeal in respect of the workplace. According to him the field needs a “proactive, positive approach emphasising strengths, rather than ... to fix weaknesses” (p.695). Sound theory and research should lead to the development of positive capacities and the effective management of performance improvement within organisations (Luthans, 2002).

In the same tradition, the sub-discipline of Occupational Health Psychology, despite its name, leans heavily in the direction of ill-health rather than on well-being at work. Schaufeli and Bakker (2001), for example, state that the Journal of Occupational Health published only 6% of articles reflecting positive aspects of health and well-being whilst the remaining 94% reflected pathology. Furthermore, management traditionally took on a deficit assumption in studying organisational behaviour. McGregor (1960) named such a theory, the ‘Theory X’, view of employees. This theory assumes that people dislike work and are inherently lazy, irresponsible, need to be coerced, threatened, and closely directed in pursuance of organisational goals. According to Strümpfer (2001), managers overtly condemn this approach, but it is both consciously and subliminally well and alive and surfaces in times of stress and economic decline. Theory Y, however, takes the positive stance that people enjoy work, and, when committed to goals, exercise self-direction and self-control. Employees both seek and accept responsibility, and exercise high degrees of imagination whilst creatively involved in problem-solving (Robbins, 2001).

Stemming from the current paradigm shift, a sea change occurred with a strong focus on a more positive approach, emphasising positive qualities, human strengths and optimal functioning

rather than malfunctioning and weakness (Seligman & Csikszentmihalyi, 2000; Storm & Rothman, 2003). However, together with the traditional paradigm, an equally influential line of thinking, namely the cognitive approach, influenced the study of human behaviour.

Attention accordingly turns to the influential cognitive paradigm within the field of both psychology and organisational psychology that - for an extended period - shaped the thinking and research within the field to the exclusion of a more pertinent focus on emotions.

(a) **The Cognitive Paradigm**

During the 1950's Whyte's (1956) classic book *The Organization Man* was published. It depicted effective business people as logical, rational and reasoned decision makers. Emotions were seen as subtracting from objectivity and were therefore an unwanted influence, to be controlled or sublimated since it reflected weakness and instability in the organisation man. This value system was long incubated by organisations and likewise adopted by researchers. Jobs, rather than people, became the main building blocks in understanding organisational structure. The concept of work, dissected into required knowledge, skills and abilities, became a series of passionless and emotionless statements. Whyte's line of thinking held centre stage and was followed approximately thirty years later by the cognitive explanation of human behaviour within psychology. Consequently, cognitive explanations were also developed for traditional organisational topics such as leadership, motivation and performance appraisal.

Slowly, however, opposition began to mount against the marginalisation of emotion in the explanation of behaviour and, whilst not formally entering the domain of emotion, organisational behaviour researchers were involved in constructs saturated with emotion, such as job satisfaction. According to Locke (1976), up to 3000 articles had, at the time, been written on job satisfaction and job stress. Job satisfaction conjures up a perception of positive, and job stress of negative, emotions. Research on job stress, for example, reflects feelings such as frustration, irritation, anger and despair, and not only cognitions. Researchers were, accordingly, placed squarely into the arena of workplace emotions. However, researchers still "felt compelled to deflect our understanding of these emotions, qua emotions, into something which more readily fit with the prevailing literature base which most certainly did not place emotions at the centre" (Muchinsky, 2000, p.803). According to Muchinsky, the time has now come for organisational behaviour scientists to acknowledge emotions as a "legitimate domain of scientific inquiry" (p.803). He argues that feelings bring into awareness implicit judgement of significant events, revealing our needs, concerns, and motives.

(b) The emergence of emotions as an explanatory model for work behaviour

Lewis (1993), in the seminal work *Handbook of Emotions* (Lewis & Haviland, 1993) argues that, in order to understand human behaviour, emotions need to be understood. Since new techniques have been developed to study emotions, it no longer takes a back seat to learning, cognition and perception that have so long dominated the field. According to Muchinsky (2000), emotions are at the very core of human experience and, since we spend most of our time engaged in working rather than in other activities, Industrial Organisational (I/O) psychology should take the lead in explaining the role of emotions at work, since emotions in the workplace are real, and individuals both feel and think. After a decade of recognising the complexity of cognitive processes, the next decade may witness the recognition of emotional processes in personnel selection and job performance. “The specialised field of industrial organizational (I/O) psychology has generally followed the path of its parent discipline of psychology in its neglect of emotions” (Muchinsky, 2000, p. 801).

Currently though, the topic of emotions is recognised - in management thought and practice - as one of the principal areas of development for the next decade. Ashkanasy, Härtel and Daus (2002) concur that the organisational domain of emotions in the workplace is worthy of study in its own right. Organisational behaviour scholars reason that affective states underlie much of the way workers think and behave. Current research on mood goes beyond mood as a simple antecedent or outcome, and appropriately establishes it as an intervening construct (e.g. mediator) between antecedents and outcomes, or as a variable that impacts the relationship between them (e.g. moderator). In this regard, the Affective Events Theory of Weiss and Cropanzano (1996) will be applied as the primary explanatory model within the current research. The Broaden-and-Build Theory is applied as a secondary and complementary explanatory model.

1.2.3 EXPLANATORY MODELS

(a) Affective Events Theory (AET)

Weiss and Cropanzano’s (1996) Affective Events Theory (AET) reflects both causes and consequences of mood and emotions at work and how they influence job attitudes and behaviour. AET claims that workplace conditions determine discrete affective events that lead to affective responses (moods and emotions) in workers. Such moods and emotions are considered mechanisms mediating stable features of the work environment (such as job design) and influence job attitudes and behaviour. Weiss and Cropanzano (1996) argue that affective

experiences may contribute to spontaneous affectively-driven behaviour. A judgement-driven behaviour such as a decision to quit a job may, for example, flow from the aggregate of affective experiences and contribute to attitudes such as job dissatisfaction. Weiss (2002) says one needs to distinguish between three different types of reactions to the job: affective reactions, cognitive beliefs, and overall evaluative judgements. AET represents a useful framework for conceptualising the role of affect at work and will be further explained in Chapter 3.

Furthermore, and against the background of the positive paradigm in psychology, the Broaden-and-Build Theory of Fredrickson (1998; 2001), emerged which is applied as a secondary and complementary explanatory model in regard to the role of positive (and negative) emotion.

(b) The Broaden-and-Build Theory

The Broaden-and-Build Theory (Fredrickson, 1998; 2001) has recently gained much recognition and links closely with the work of Isen (1987;1990) on positive and negative affect. Fredrickson carefully studied the role of positive and negative emotions and the gains that flow forth from experiencing positive emotions. Since the current study focuses on the emotional intelligence construct and whether leaders' levels of emotional intelligence positively influence affect and related variables experienced at work, the researcher is of the opinion that cognisance should be taken of this theory that complements the Affective Events Theory. The Broaden-and-Build Theory will be discussed in more depth in the following chapter.

The recent upsurge of interest in affective experiences at work coincided with the emergence of the emotional intelligence (EI) construct. Attention now turns to emotional intelligence (EI) as the central construct within the current research.

1.2.4 EMOTIONAL INTELLIGENCE (EI)

Discussions of EI proliferate and the EI model seems to be emerging as an influential framework in (organisational) psychology (Goleman, 2001). The internal environment of an organisation includes a social setting that requires continued and substantial interpersonal interaction among the employees and it is here that emotions form a core ingredient. It is therefore assumed that an individual's ability to accurately perceive his/her emotions, being able to effectively control and regulate such emotions and interact effectively with others, will, to a large extent, influence the individual's workplace effectiveness (Bosman, 2003). The same assumption applies to leadership in organisations in which the volatility, spiralling change and

diverse organisational environment require leaders to effectively interact with their subordinates and followers. EI competencies influence organisational effectiveness in areas such as employee recruitment and retention, development of talent, employee commitment, morale, and health (Bar-On, 1997). Research has shown that managers with high emotional intelligence obtain results from employees that are beyond expectations, developing and using talent crucial for organisational effectiveness. Effective leaders manage and steer their own feelings, acknowledge subordinates' feelings about their work situation, and intervene effectively to enhance morale (Cherniss, 2001). According to Goleman (2001), the higher the position in an organisation, the more EI matters. He emphasises the importance of the link between EI strengths in a leader and the organisational climate for EI theory. He believes that emotional intelligence may be the long-sought missing link that will unite the ability and motivational or dispositional determinants of job performance. According to him, it is plausible that emotional intelligence assessment "could become a staple of a personnel selection battery" (p.804).

Another important facet includes leadership.

1.2.5 LEADERSHIP

Leadership may be regarded as the single most important factor in organisational success or failure (Bass, 1990) and much research has been devoted to identify the determinants of effective leadership (Yukl, 1998). Despite this, much disagreement still exists among researchers regarding the definition of leadership, since leadership is a complex phenomenon "involving a complex interaction among the leader, the followers and the situation" (Bosman, 2003). Avery and Baker define leadership as the "process of influence between a leader and his follower to attain group, organizational and societal goods" (1990, p.453). Many approaches exist to studying leadership, but for purposes of the current investigation accent falls on the Transformational Leadership theories which focus on the importance of leader behaviour within the framework of organisational change and development (Skogstadt & Einarsen, 1999). This line of thinking represents the most recent approach in the development of leadership theory. In this approach, followers transcend their own self-interest for the good of the organisation. Leaders activate followers' higher order needs and promote trust leading to emotional identification with these leaders, inspirational motivation, and intellectual stimulation (Yukl, 1989; Bass & Avolio, 1994). According to Robbins (2001), an important component of the transformational theories of leadership is the emotionally appealing aspect of leader behaviour. George (2000) argues that the majority of research still needs to identify the effect of leaders'

emotions on their subordinates. Cacioppe (1997) holds the opinion that successful leaders have the ability to manage their own emotions while being responsive to others' emotions. He believes leaders who are capable of regulating their own emotions may be more able to create an environment of fairness and trust. Emotional intelligence has been shown to have a strong link with Transformational Leadership. However, according to Palmer, Walls, Burgess and Stough (2001), the amount which emotional intelligence contributes to effective leadership is unknown, despite much interest in this relationship. The current study is therefore interested in investigating the influence of leader emotional intelligence on indices of well-being in their subordinates.

1.3 IMPETUS FOR THE CURRENT RESEARCH

Burke, Brief, George, Roberson, and Webster (1989) conclude that the influence of the work context on affective experience is largely unexplored. Fisher (2000) agrees that there are relatively few studies regarding emotions experienced at work, while Weiss and Cropanzano (1996) indicate that meaningfully distinct affective experiences at work have, in general, been ignored by researchers. Potential dysfunctions rather than functions of everyday emotions have been more salient to both managers and researchers (Ashforth & Humphrey, 1995). These researchers argue that this pejorative view of emotion has blinded many scholars and practitioners to the value of emotions. For example, business schools and organisations would rather emphasise technical than social skills.

Furthermore, Dulewicz and Higgs (2000, p. 346) hold that, although organisations have been the main growth area of the interest in the EI concept, "... the research which underpins this is extremely limited, with most of the claims being based on anecdotal case histories, derivative models and, in some cases, pure rhetoric". Furthermore, Turner, Barling and Zacharatos (2002) conclude that little research has highlighted the extent to which leadership may influence subordinate well-being. A paucity of information exists regarding the emerging EI construct and processes whereby it mediates its proposed effects.

It is against this backdrop that the researcher is interested in investigating whether manager EI is indeed an influential factor in subordinate well-being.

1.4 PURPOSE AND AIM OF THE RESEARCH

The researcher wishes to contribute knowledge to the positive psychology paradigm and the emerging field of emotional intelligence. The study finds specific application in the domain of positive organisational behaviour.

1.4.1 THE OVERARCHING PURPOSE

The main purpose of the research is to investigate whether managers' emotional intelligence are related to psychological climate, affective experiences, and indices of work-related well-being in their subordinates.

1.4.2 SPECIFIC AIMS

Firstly, the researcher wishes to investigate whether managers' emotional intelligence mediates psychological climate, job affect, and indices of work-related well-being in their subordinates. These indices include work engagement, burnout, contemplated quitting, and health.

Secondly, the researcher wishes to investigate the process by which the proposed effect takes place.

Thirdly, the researcher is interested in investigating the extent to which these processes are mediated by the subordinates' own levels of emotional intelligence.

Fourthly, measuring instruments will be revalidated to ascertain their applicability in the particular South African population.

A short overview of the research design used to investigate the above constructs now follows.

1.5 RESEARCH DESIGN

1.5.1 PROCEDURES AND MEASURES

A cross sectional correlational design was used.

1.5.2 RESEARCH SAMPLE

A number of organisations were contacted to determine their interest in the current investigation. A group of private healthcare institutions was definitive in its interest, and the study was therefore conducted among their employees. Participants were subsequently drawn from six of the participating Medi-Clinic Private Hospital Group, constituting both rural and urban areas in South Africa, who granted permission in this regard. A total number of 229 members of these private hospitals participated in the study. This constitutes an overall response rate of 86% considering that 265 questionnaires were distributed. After statistical control for missing data, 198 participants remained in the study. Senior managers, nursing sisters in management positions, senior sisters, and group leaders of work teams were included as managers/leaders. Senior management identified the person who would directly influence the psychological work climate of any particular employee. Each manager/leader, was subsequently coupled with (an) employee(s) for whom he/she acted as direct manager/team leader and main contributor to psychological work climate. Employee and manager/leader then formed dyads for the purpose of the research and the procedure therefore yielded a sample of dyads.

Both managers and subordinates completed all questionnaires and evaluated both their own and their direct manager's emotional quotient (EQ), as well as their own work-related well-being.

1.5.3 MEASURING INSTRUMENTS

The following measuring instruments were administered to the respondents:

A biographical questionnaire was compiled to obtain information on gender, language, age, hospital section, type of career, management level, years of service with current employer, service period under current manager and educational level of respondent.

The Swinburne University Emotional Intelligence Test (SUEIT) by Palmer and Stough (2001), was applied as follows: The SUEIT 360-degree version was used by employees to evaluate their direct supervisor's emotional intelligence. The SUEIT self-report version was applied to evaluate employees' own levels of emotional intelligence.

The self-report Psychological Climate Inventory (Brown & Leigh, 1996), was used to measure the first-order factors of psychological safety and psychological meaningfulness, with psychological climate as the second-order factor.

The self-report Job Affect Scale (JAS) by Brief, Burke, George, Robinson and Webster (1988), was used to measure positive and negative job affect.

The self-report Utrecht Work Engagement Scale (Schaufeli et al., 2002), was used to measure employees' levels of work engagement, reflecting vigour, dedication and absorption.

The self-report Maslach Burnout Inventory for workers in the human services by Maslach and Jackson (1986), was used to measure emotional exhaustion, depersonalisation, and lack of personal accomplishment.

With regard to contemplated quitting, a self-developed Guttman scale in accordance with that suggested by Cohen (1993), was used.

A self-compiled Health Questionnaire was constructed to probe the general physical and mental health of the respondent.

The shortened self-report, M-C SDS (Marlow-Crowne social desirability scale) M-C 2 (10) (Strahan & Gerbasi, 1972), was used to measure social desirability.

1.5.4 STATISTICAL ANALYSIS

All of the major instruments were revalidated on the current South African sample. To uncover the underlying latent variables, Exploratory Factor Analyses were performed using SPSS (ver.11). A principal-axis factoring extraction method was used, employing direct obliment rotation. This method was used since it is more rigorous than the Principal Components extraction method (Schlecker & Boshoff, 2003). After identifying latent variable structures, Confirmatory Factor Analyses were performed using Lisrel 8.53, to examine the goodness-of-fit between the hypothesised models and the obtained data that comprised the observed measurements.

Structural equation modelling (SEM), was used to test the goodness-of-fit indexes (GFI's) of the hypothesised models on the empirical data. The subscales of the questionnaires served as the manifest variables.

A tentative causal process was investigated via hypothesised structural equation models (SEM). According to Hoyle and Smith (1994), SEM is well placed to test mediating hypotheses.

1.5.5 MODELS TESTED

This study aimed at investigating whether emotionally intelligent managers (MEQ) influence psychological (work) climate (PC), subordinate job affect (JA), work engagement (WE), burnout (B), contemplated quitting (CQ) and health (H). The study set out to investigate a tentative causal process via four hypothesized structural equation models (SEM).

Model 1: Manager emotional intelligence influences experienced psychological (work) climate, which, in turn, influences job affective states, predicting work engagement, health, burnout, and contemplated quitting.

Model 2: Manager emotional intelligence influences experienced psychological (work) climate to predict job affect, work engagement, health, burnout, and contemplated quitting.

Model 3: Reflects the relationship between manager emotional intelligence, psychological (work) climate and job affect, to predict work engagement, health, burnout and contemplated quitting.

Model 4 Reflects the relative contribution of manager- and employee emotional intelligence in regard to psychological (work) climate and job affect, to predict work engagement, health, burnout and contemplated quitting. Please view Chapter 5 for a visual representation of the models.

Concepts and definitions forming the basis of the current study are now shortly explained or defined.

1.5.6 CONSTRUCTS / DEFINITIONS

The following constructs and their definitions form the basis of the current study.

1.5.6.1 EMOTIONAL INTELLIGENCE (EI)

For purposes of this study EI is conceptualised according to the five dimensions (Emotional Recognition and Expression, Understanding Emotions External, Emotions Direct Cognition, Emotional Management and Emotional Control) identified by Gardner and Stough (2002), and will be explained in more detail in Chapter 4.

1.5.6.2 LEADERSHIP

In the current study the emotionally appealing aspect of leader behaviour (or leader emotional intelligence that forms an important component of the Transformational Theories of leadership), is investigated.

1.5.6.3 PSYCHOLOGICAL CLIMATE

Brown and Leigh (1996) define psychological climate as “the extent to which employees perceive the organization to be a psychologically safe and meaningful work environment” (p.358).

1.5.6.4 JOB AFFECT

According to Weiss and Cropanzo (1996) and Frijda (1986), job affect is the net appraisal of the relevance of job events for personal well-being and their beneficial or harmful effects on the pursuit of personal goals.

1.5.6.5 INDICES OF EMPLOYEE WELL-BEING

(a) Positive indicators

- **Work engagement**

Schutte, Toppinen, Kalimo and Schaufeli (2000) defines work engagement as an energetic state in which the employee is both dedicated to excellent performance at work and feels confident of his/her effectiveness.

- **Health (Physical and Mental Wellness)**

Health is defined as a “state of complete physical, mental, and social well-being and not merely, the absence of disease or infirmity”, by the World Health Organisation (Prins & Van Niekerk, 2001, p.21).

(b) Negative indicators

- **Burnout**

Schaufeli and Enzmann (1998, p.36) define burnout as a “persistent, negative, work-related state of mind in ‘normal’ individuals that is primarily characterized by exhaustion, which is

accompanied by distress, a sense of reduced effectiveness, decreased motivation, and the development of dysfunctional attitudes and behaviour at work”.

- **Contemplated quitting**

Elangovan (2001) defines intention to quit as the strength of an individual’s conviction that he or she will stay with or leave the organisation at which he or she is currently employed.

1.6 RESEARCH OUTLINE

The research questions and aims will be addressed as follows:

PART 1 INTRODUCTION

Chapter 1 contextualises the current research, outlines the theory that informs the current investigation, argues its necessity, outlines its purposes and aims, introduces the constructs to be investigated and briefly reflects on the research design.

PART II LITERATURE REVIEW

Chapter 2 constitutes a review of the emerging role of affective experiences and emotions as explanatory model both within general and organisational psychology. It will reflect on neurological underpinnings in support of the role of emotions in understanding human behaviour and provide support for an argument in favour of the existence of emotional intelligence. It will further elucidate the rise of interest in and the role of affective experiences at work.

Chapter 3 introduces and reflects on the concept of emotional intelligence as a possible predictor of the criterion variables and accordingly reviews the possible influence of manager and employee EI on indices of subordinate well-being. It furthermore provides an overview of more recent views of leadership, highlighting the increased interest in the role of the affective in leadership and thereby provides a link with the possible role of emotional intelligence in leadership.

Chapter 4 reflects on perceived psychological climate and job affect as possible mediators between EI and subordinate well-being; as well as on the dependent variables of the study, namely (a) positive (work engagement and health) and negative (burnout and contemplated quitting) indices of employee well-being.

PART III

EMPIRICAL RESEARCH

Chapter 5 provides an overview of the methodology used.

Chapter 6 presents the research results and includes the findings of the revalidation of the major measuring instruments applied to measure the dependent variables in the current study. The results reflect and isolate the possible influence of manager and employee EI on indices of employee well-being.

The final chapter (Chapter 7) will provide a summary of findings, highlight the contributions and limitations of the study, and provide recommendations with regard to future research and practice.

PART II

LITERATURE REVIEW

Part II of this investigation provides for theoretical discussion of the emotional intelligence construct and the independent variables representing wellness. By reflecting on affect in the workplace in Chapter 2, an argument is advanced in favour of the existence of the emotional intelligence construct. Chapter 3 discusses the emotional intelligence construct and leadership. Chapter 4 looks at psychological climate and job affect as possible mediators of employee well-being at work, together with the dependent variables of the study, namely a number of indices reflecting employee well-being, including (a) Positive indicators (Work Engagement and Health); (b) Negative indicators (Burnout and Contemplated Quitting).

Chapter 2

THE AFFECTIVE DOMAIN IN HUMAN FUNCTIONING WITH SPECIFIC REFERENCE TO THE WORK CONTEXT

2.1 INTRODUCTION

According to Pirola-Merlo, Härtel, Mann and Hirst (2002), the past decade has witnessed an increased interest in the role of affect in psychology (both mood and emotion), punctuated by a number of important theoretical advances including the conceptualisation of emotional intelligence. The current investigation niches within the affective domain of human functioning, and more specifically focuses on affect in the work context and the influence of

such affect within said context. In an attempt to substantiate the possible validity of EI, the researcher ventured into the minefield of information related to the affective domain to explore whether there are scientific grounds that may support the validity of the emotional intelligence construct.

The chapter first focuses on the nature and structure of emotions and moods and briefly highlights some of the more traditional theories of emotions. Neurological and chemical substrates of emotions then receive attention together with a description of a more recent theory of emotion, namely the Broaden-and-Build Theory. Attention then turns to highlight affect in the workplace; the upsurge of interest therein, and an overview of related research aspects. The chapter concludes with a review of the Affective Events Theory that was chosen as an explanatory model for the current investigation.

2.2 THE AFFECTIVE DOMAIN IN HUMAN

FUNCTIONING

The study of emotion has a long and fragmented history (Plutchik, 1994) and the scientific study of emotion indeed predates “the formal birth of psychology with the writings of Charles Darwin (1872/1965)” (Weiss & Cropanzano, 1996, p.17). Emotion also presented itself in the writings of the so-called fathers of psychology, namely William James and Wilhelm Wundt, at its inception. However, objectivity and reason have been the designated rulers of Western philosophy, religion and science since the days of Socrates (Solomon, 1993a, 1993b), whilst passions and emotions have been viewed with some contempt. Solomon challenges this stance by pleading that our passions are the very soul of our existence, the source of our interests, our purpose, enticing us, drawing us forward. In addition, Ellsworth (1994) argues that the study of emotion has again become a topic pursued with vigour.

According to LeDoux (1998), emotions ‘happen’ to us, rather than us willing them to occur. Hence, we have little direct control over our emotional reaction. Conscious control over our emotions is weak and emotions readily flood consciousness states (LeDoux, 1998). This ensues because owing to evolution, the human brain is wired so that connections from the emotional to the cognitive system are stronger than from the cognitive to the emotional system (Bennett-Goleman, 2001). Once activated, emotions become powerful motivators with regard

to future behaviour. Emotion assists with decision-making, significantly influences learning and memory, and motivates for critical action when called for by environmental cues. It is, therefore, important to consider the role of emotions in the workplace if organisational behaviour is to be better understood.

Related to the theme of this research, Davidson, Jackson and Kalin (2000) state “Research on plasticity has revealed new information about and realistic hope for ways to shape the circuitry of emotion to promote increased well-being and positive affect” (p.904). This statement neatly links with both:

- the aim of positive psychology (outlined in Chapter 1) and its focus on wellness, and
- the Broaden-and-Build Theory calling for a more prominent role for positive emotions (in the light of its many gains as will be discussed later on in this chapter).

This introductory overview serves to highlight the importance that has - more recently – been awarded emotions and its central role in human functioning.

The current chapter will firstly highlight differences between emotions and mood. Traditional theories of emotion will then receive brief attention before focus shifts to current knowledge regarding neurological substrates of emotion and the chemical brain - in support of a more recent theory of emotions - the Broaden-and-Build theory of emotions (Fredrickson, 1998). The second part of the chapter focuses on the role of the affective in the work context and introduces the Affective Events Theory that will be used as the primary explanatory model in the current investigation.

2.2.1 THE NATURE OF EMOTIONS AND MOODS

Emotions and moods are both affective states. According to Weiss and Cropanzano (1996), the research tradition relating to emotions is both long and varied whereas research on moods is shorter and more focused.

2.2.1.1 DEFINING EMOTIONS

The construct of emotions is difficult to define since an emotional reaction, rather than being a single reaction, constitutes a constellation of reactions to an event. Frijda (1993) includes the following essential components, namely

- an experiential component – feelings have an emotional, non-cognitive element, resulting from the cognitive appraisal of an event,
- it is characterised as pleasant / unpleasant;
- physiological changes accompany the emotion; and
- an action tendency / increased arousal and a general readiness to deal with the environment ensues.

Emotions further have an event / object specificity, therefore an emotion arises in response to ‘something’ or ‘someone’.

2.2.1.2 DEFINING MOODS

Mood is most frequently distinguished from emotions along three lines, namely, (1) intensity, (2) duration and (3) diffuseness. According to Weiss and Cropanzano (1996), moods are less intense and longer in duration, whilst Frijda (1993) and Morris (1989) concur that the distinction lies in moods’ diffuseness in terms of both object and response. Lazarus (Weiss & Cropanzano, 1996, p.18) conclude that moods lack a clear eliciting stimulus “the phenomenal experience of the mood does not include the causal factor”. Therefore, Frijda (1993) suggests that emotion turns to mood when the focus on the precipitating factor becomes diffuse.

2.2.1.3 THE STRUCTURE OF EMOTIONS

Researchers interested in emotions distinguish between primary (basic/innately wired) and secondary (blended/following on cognitive appraisal of the stimulus) emotions (Damasio, 1994). Researchers’ theoretic points of departure inform their approach. Ekman (1992) and Izard (1977) follow a biological/physiological approach and propose basic emotions including anger, fear, sadness, enjoyment, disgust, surprise, interest, shame, contempt, distress and guilt. Plutchik (1994), taking an evolutionary stance, suggests eight basic emotions and adds acceptance and expectation to the above list. Researchers from the cognitive appraisal tradition such as Ortony, Clore and Collins (1988) have little interest in lists of basic emotions. They rather argue in favour of sets of relatively independent emotion categories derived from common appraisal processes.

To summarise, emotions can plausibly be organised into families; cognitive appraisal of particular events influence emotional states; and some emotions are more specific, others more basic.

2.2.1.4 *THE STRUCTURE OF MOOD*

In contrast, researchers of mood seem to be more interested in reducing mood to its underlying dimensions of pleasantness and intensity. Saavedra and Kwun (2000), for example, refer to the circumplex model of Larsen and Diener (1992), suggesting that all moods share two basic orthogonal dimensions. The first reflects hedonic valence (pleasant-unpleasant / good-bad). The second reflects behavioural readiness or arousal (high or low activation/important or unimportant). Moods are therefore typically categorised along the lines of pleasantness / unpleasantness and intensity (see Figure 4.2). According to Watson and Tellegen (1985), both state and trait mood can best be presented as either positive (PA) or negative affectivity (NA). In evaluating events, ‘goodness’ will lead to positive affective states and ‘badness’ to negative affective states (hedonic tone), whilst importance will modulate intensity (Weiss & Cropanzano, 1996).

Attention now turns to theories that have developed in respect of emotions.

2.2.2 THEORIES OF EMOTIONS

Traditional theories regarding emotions first receive attention. These theories were mostly conceptualised before technologically highly developed instruments and procedures could access neurological evidence in support of their argumentation. Theories can, however, not be divorced from their neuro-physiological workings.

2.2.2.1 *TRADITIONAL THEORIES OF EMOTIONS*

2.2.2.1.1 *James-Lange Theory of Emotion*

William James, American psychologist and philosopher, seems to be the first influential theorist seriously interested in tracing the biology of emotion (LeDoux, 1998). James believed that the particular quality of the emotional experience is a direct result of bodily feedback to the brain, based on the fact that bodily responses (increased heart rate, tense muscles, sweaty palms etc.) often accompany emotions. He asserts that emotions feel different from other states of mind, and feel different from one another, since they are accompanied by different bodily responses (Davidson *et al.*, 2000). James theorised that bodily changes follow directly on the perception of an exciting eliciting stimulus and that “our feeling of the same changes as they occur IS emotion” (James, 1884/1969, p. 247-248, emphasis in original). Ellsworth

(1994) states that, as the current interest in neurological substrates of emotion resurges, “many of us found that James anticipated our own ideas” (p.223). According to Davidson *et al.* (2000), a major weakness of the theory involves the failure to account for the fact that some events trigger emotion-relevant peripheral changes whilst others do not.

2.2.2.1.2 *Cannon and Bard*

Bard (1929) and Cannon (1927, 1929) hypothesised that cortical structures are involved in the *experience* of emotion and that diencephalic structures are involved in the *expression* of emotion. Cannon fiercely criticised the James-Lange theory, especially with regard to the stated absence of brain centres dedicated to emotion. Cannon believed that the brain provides the answer to understanding emotion. Emotional processes are completely contained in the brain, with the hypothalamus central to the process, activating the body with regard to bodily response and the brain to experience emotion. Therefore, emotional feelings and experience co-occur, rather than occurring sequentially. He proposed an “emergency reaction” (the fight and flight response) that is adaptive, occurring in anticipation of energy expenditure required by certain emotional states. Cannon argues that this response is mediated by the sympathetic nervous system (a division of the autonomic nervous system) that responds to commands by the brain. The physiological arousal, according to Cannon, is the same, regardless of the emotional state experienced and can therefore not account for differences in emotion.

According to Davidson *et al.* (2000), Cannon and Bard’s most notable contribution to the field was their supportive evidence of a neural circuitry underlying emotional experience, thereby directly contradicting James in this regard.

2.2.2.1.3 *MacLean*

One of the most influential and long-existing explanations of emotional life was the triune brain theory developed by MacLean (1949; 1952; 1970; 1990). He proposed that the limbic system had evolved to serve those functions necessary for survival and act as the primary stakeholder in experiencing emotion. He believed that the visceral brain integrates external sensations with visceral sensations from the body to produce emotional feelings. His theory is, like James’, a feedback theory. He argues that the emotional mechanism is basically one of communication in the nervous system, involving messages relayed by the travelling nerve impulses and *possibly humoral agents carried by the blood stream* (cf. Pert, 1999). In the process, highly integrated neurons sort, select and act on patterns of *bioelectrical* activity. MacLean (1949, 1952) proposed a hippocampal formation including the amygdala (currently

recognised as an important structure in emotion) as important in emotional experience. He proposed that the brain developed to include three ‘brains’, evolutionarily superimposed on one another. These are, he claims, the reptilian brain (brain stem and cerebellum) and the paleomammalian and neomammalian brains. MacLean dubbed the paleomammalian structure, the limbic system. LeDoux (1998) praises the inclusiveness and convenience of this theory (for its time and context). “However, while the limbic system remains the predominant explanation (both in neuroscience and in popular culture) of how the brain makes emotions, it is a flawed and inadequate theory of the emotional brain” (LeDoux, 2002).

Theorists such as Papez and MacLean triggered a renewed interest in finding and describing the neural pathways of emotion. (For an excellent review and critique please consult LeDoux, 1998; 2002).

2.2.2.1.4 *Schachter and Singer*

Schachter and Singer (1962) were social psychologists who also became involved in the study of emotions. They concurred that bodily arousal was important in experiencing emotion, but not as proposed by James (1884). In accordance with Cannon (1927;1929), they believed that physiological feedback lacks specificity. Being in the midst of the cognitive revolution, they proposed that thoughts or cognitions accounted for the gap between the specific felt experiences and the non-specific physiological feedback. Heightened physiological arousal is named depending on the social and physical context associated with its experience. Thus, “emotional feelings follow when we are able to cognitively explain ambiguous bodily states by using environmental cues” (LeDoux, 1998, p.48). Thus, both arousal and cognition are necessary to produce emotion.

Although Schachter and Singer (1962) received much criticism for both theory and method, their thinking was so influential that, even now, the psychology of emotion has mostly focussed on the role of cognition in emotion.

2.2.2.1.5 *Arnold*

At about the same time Arnold (1970) published her theory regarding appraisal. She believed that the stimulus (bear) is perceived and unconsciously appraised. An action tendency (Autonomic Nervous System /ANS activation) follows, after which we consciously experience fear as a result of the tendency to run. She believed that people have introspective access or conscious awareness of the inner workings of their mind, accessing causes of their emotions.



Others such as Lazarus (1966), also referred to the role of appraisal in, for example, stressful situations. He believed, for emotion to occur, cognition is both necessary and sufficient (Lazarus, 1991). According to LeDoux, appraisal forms the basis of cognitive approaches to cognition and “the evaluation of a stimulus is clearly the first step in the initiation of an emotional episode; appraisals occur unconsciously; emotion involves action tendencies and bodily responses, as well as conscious experiences” (1998, p.51). Despite this stance, he believes that too much emphasis on cognition causes unique aspects of emotion (distinguishing it from cognition), to be overlooked.

2.2.2.1.6 *Summary*

It seems as if none of the aforementioned theories adequately explain the evolving of emotions. However, new technologies have developed inviting us to enter into the previously unknown realms of the neurosciences and to explore emotion as it occurs, tracing neural pathways supporting emotion and, by doing so, gaining a deeper understanding of the complexities involved in the biological basis of emotion. LeDoux (1998) suggests that attempts to find an all-purpose emotion system have been unsuccessful, since it does not exist. He furthermore believes that feelings can only occur in a species with the capacity for consciousness.

Ideas related to the neurological substrates of emotion – one of the puzzle pieces within the larger picture related to the affective domain of human experience – are now entertained.

2.2.3 NEUROLOGICAL SUBSTRATES OF EMOTION

Space considerations allow for only some of the more salient developments linking neurological and chemical substrates to emotion. Such brief comment fails to do justice to the immensity of this new and growing field. Readers who require an in-depth coverage are referred to the citations in the body of the text.

The past decade has become known as the decade of the brain. Neuroscientists laboured incessantly to delineate the interaction between body and mind. Of late, modern methods of affective neuroscience allow for some understanding of the architecture of the brain together

with the neurological and chemical substrates of emotion. Architecturally, the brain is structured along a vertical axis and reflects a forebrain, midbrain and hindbrain. Psychological functions become more sophisticated as they ascend from the hindbrain to the forebrain with the hypothalamus forming the interface between the lower or primitive areas and the psychologically sophisticated forebrain. Focus now turns to the brain mechanisms involved in emotion.

2.2.3.1 *NEUROLOGICAL SUBSTRATES OF EMOTIONS*

Focus is on the central circuitry which forms part of the so-called limbic system, a hypothesised area in the brain intimately (but not exclusively) involved in the production of emotion. Two key components of the central circuitry, namely the pre-frontal cortex and the amygdala, first receives scrutiny

2.2.3.1.1 *The prefrontal cortex (PFC)*

Two different, partially separable circuits support the experiencing of emotion, namely a circuit for appetitive / approach behaviour typified by positive affect, and another for withdrawal behaviour and typified by negative affect (Davidson *et al.*, 2000; Davidson & Irvin, 1999). This seems to support of Fredrickson's 1998 argument that positive and negative emotions should be viewed as different subsystems, as will be discussed in paragraph 2.2.4.

A number of theoretical accounts (Frijda, 1994; Levenson, 1994) assign the PFC an important role in both *organising* and *guiding* behaviour toward acquiring motivationally significant goals. For this to proceed, the organism needs to have an *affective working memory* to represent affect when rewards and punishments (or other affective incentives) are not immediately available. Therefore, if parts of the PFC are impaired, this may hamper an individual's ability to anticipate future affective consequences, sustain motivation, and adaptively guide behaviour in pursuance of the goal (Watanabe, 1996). In practical terms it may impede a person's ability to sustain effort towards achieving a longer-term goal such as is required in work commitment.

2.2.3.1.2 *The amygdala*

Compelling evidence has implicated the amygdala in emotional processing. Information about the external world seemingly reaches the amygdala in two ways. First, a short and direct

pathway provides the amygdala with crude information from the sensory thalamus. This information is not filtered via cortical processing but is rather biased to evoke a response. This initial, crude response is therefore useful under life-threatening conditions, enabling the organism to respond to a stimulus even before it has been properly identified (Bennet-Goleman, 2002). However, continuously unchecked amygdala responses (impulsive behaviour) may violate convention and result in social sanction (for example in the workplace). The second and longer route entails information travelling from the thalamus to the cortex (where the information is encoded with more detail) and then back to the amygdala to curb inappropriate responding (LeDoux, 1998).

Below please find sketches indicating the location of the limbic system.

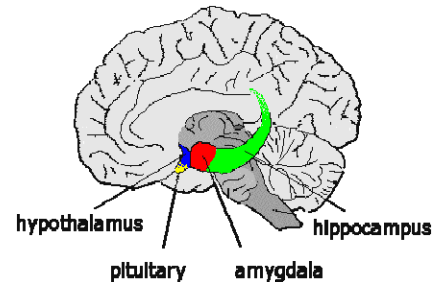
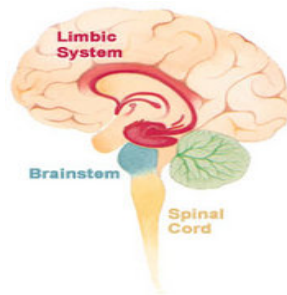


Figure 2.1 The limbic system Figure 2.2 Limbic system and its separate parts

(Wikipedia, The Free Encyclopedia, s.a., p.1).

2.2.3.2 MEMORY OF EMOTIONS

There seem to be two different memory systems in respect of emotional recall. One involves making emotional content conscious, whilst the other operates outside consciousness and controls behaviour without explicit awareness of previous learning: “we do not have control over its occurrence or conscious access to its workings” (LeDoux, 1998, p.182). In the workplace, for example, an employee who has been repeatedly shunned by a manager may, by merely seeing the manager, experience intense emotions and act inappropriately. According to LeDoux, explicit and implicit memory systems work simultaneously in the healthy brain, each forming their particular type of memory. He calls the implicit or unconscious memory the emotional memory, and the explicit or declarative memory, a memory of emotion.

- **The role of the hippocampus**

It is currently acknowledged that the hippocampus is exquisite in design, has sophisticated computational power and is a key link in the important temporal lobe memory system (McClelland, McNaughton & O'Reilly, 1995; Gluck & Meyers, 1995). The hippocampus receives highly processed information from a number of end stage sensory processing areas in the neocortex and is instrumental in creating more complex representations.

- **Emotional memories and memories of emotions**

According to LeDoux (1998), explicit and implicit memories meet in the working memory to create an immediate conscious (emotional) experience. When exposed to previously traumatic stimuli, both systems may be activated, so that an individual could re-experience where he/she was, with whom as well as the context (declarative memory). The implicit memory may simultaneously activate emotional memories and the autonomic nervous system is activated to tense muscles, increase heart rate, blood pressure, *etcetera*. This unified new experience including arousal and past memory, may convert into a new explicit long-term memory. Thus, since the amygdala's (unconscious) emotional memory can be activated by associated stimuli, one may become emotionally aroused without knowing why.

Next, the role of consciousness in emotion is briefly elucidated.

2.2.3.3 *THE ROLE OF CONSCIOUSNESS IN EMOTION*

LeDoux (1998) paints a picture of emotions that, for the most part, reflects automaticity.

- **Working Memory**

Thinking, according to LeDoux (1998), occurs “in a mental workspace that has limited capacity” (p.270), which he dubbed working memory. It is hypothesised that this general-purpose system consists of a workspace allowing for temporarily holding on to information from specialised buffers, whilst “a set of so-called *executive* functions control operations” in the working memory (LeDoux, 1998, p.271). It allows for several pieces of information to be simultaneously held in the mind for active processing, to compare, contrast, and interrelate during thinking and reasoning (Baddeley, 1982). The executive functions coordinate the activities of the working memory, deciding which information should be attended to at any one time *etcetera*. LeDoux explains that working memory signifies our current thoughts but

depends on and is matched with long-term memory and previous experiences to determine the meaning of our current experience.

Sensory buffers hold current information and the working memory “keeps track of the short-term buffers, retrieves information from long-term memory, and interprets the contents of the short-term buffers in terms of long-term memories” (LeDoux, 1998, p.296). This is supported by cortical arousal and bodily feedback (somatic and visceral) information that returns to the brain during emotional responding. According to LeDoux, when all these systems operate together, conscious emotional experience is the outcome. Furthermore, although feelings involve conscious content, we do not necessarily have conscious access to the processes producing that content.

Humans with damage to the pre-frontal cortex (orbital region), seem to be oblivious of social and emotional clues that help direct adaptive behaviour (Damasio, 1994).

2.2.3.4 DIFFERENCES BETWEEN THOUGHTS AND FEELINGS

Thoughts and emotions are generated by different sub-symbolic systems and emotions involve more brain systems than do thoughts. The whole self is absorbed in emotion since emotions mobilise and synchronise the brain’s activities (Scherer, 1984). Language, common only to humans, seems to be a key to consciousness together with the enlarged pre-frontal cortex providing a gateway to consciousness via working memory. “Human consciousness is the way it is because of the way the brain is” (LeDoux, 1998, p.302). Consciousness is not the same as the ability to think and reason. “Emotional feelings result when we become consciously aware that an emotion system of the brain is active” (p.302) and language allows us to differentiate between feelings. (Please see Chapter 3 in this regard).

Affective style and differences presenting with regard to dispositional mood and affective reactivity, now follow.

2.2.3.5 AFFECTIVE STYLE

The PFC and the amygdala are the two key players involved in the experience of positive and negative affect (Davidson *et al.*, 2000). For both, greater right-sided activation coincides with dispositional negative affect and vice versa. Asymmetries in the PFC are linked to approach and withdrawal systems. The left PFC is primarily associated with some forms of positive

affect and the approach system, whilst the right PFC is associated with negative affect and the withdrawal system, as evidenced by MRI's (Magnetic resonance imagery) and PET (Positron emission topography). In adults, individual differences in these measures predict both dispositional mood (Tomarken, Davidson, Wheeler, & Doss, 1992), and repressive defensiveness (Tomarken & Davidson, 1994).

- **The right PFC**

Research seems to support a negative emotional bias in regard to right pre-frontal activation as already manifested at infancy (Davidson & Fox, 1989), and in toddlers and young children (Davidson & Rickman, 1999). Hendriques and Davidson (1990/1991) found that those presenting with a history of depression (compared with never – depressed controls), exhibited less left prefrontal activation. Individuals with relative increased right prefrontal activation seem to exhibit more negative dispositional affect.

- **Left PFC**

Individuals who demonstrate relative left-sided prefrontal activation were found to recover more quickly from a negative startle response (cf. Fredrickson, 1998). This may be interpreted as their enhanced ability to recover from negative affect and stress in comparison with those individuals with a relatively increased right PFC activation.

Research by Amaral, Price, Pitkänen and Carmichael (1992) and Davidson *et al.* (2000), states that a *descending pathway* exists between the medial PFC and the amygdala that seems to be inhibitory and involved in the dampening and extinction of negative affect, as is evident in those individuals who seem more resilient.

In the context of the present study, this holds the implication that individuals' affective style will also be evident in the work context, influencing their habitual mode of perceiving their manager, work climate, and experienced job affect.

2.2.3.6 PLASTICITY IN THE NEURAL CIRCUITRY OF EMOTION

Davidson *et al.* (2000) contend that the amygdala has proved itself to be a pronounced site of plasticity, involved in emotional learning. According to these authors, affective neuroscience will - over the next few years - increasingly turn its attention to understanding *environmental forces* that shape this circuitry. These authors found, for example, that in both humans and

animals, offspring exposed to environments abundantly positively influenced by maternal care, presented with “biological changes that shape the central circuitry of emotion and consequently alter the animal’s behaviour and biological responsiveness to stress” (p.900). The research indicated that such offspring were to some extent *shielded* against stress later in life and returned to baseline more quickly after exposure to stress (Liu *et al.*, 1997; Meany *et al.*, 1988). Davidson *et al.* (2000, p.901) state: “The role of context in the regulation of affective reactivity is relatively understudied,” and more specifically, at the human level.

The cited research indicates a possible neurological explanation for results found in experimentation with aspects of the Broaden-and-Build Theory as proposed by Fredrickson (1998, 2001) and to be discussed in paragraph 2.2.4. The theory implicitly draws on the notion of bringing about neural changes in the circuitry of emotion in humans, via the promotion of positive emotional states and the building of more enduring physical, psychological, intellectual, and social resources (Fredrickson, 2001). Structures that seem to form part of the neural circuitry and are open to change (sites where plasticity occur) include, inter alia, the PFC, amygdala and hippocampus. It was recently demonstrated that neurogenesis (growth of new neurons) *can indeed* occur in the adult hippocampus (Erikson *et al.*, 1998). Neurogenesis in the adult hippocampus indicates that plasticity continues throughout life, *opening up windows of opportunity* to influence these very structures. Furthermore, prolonged exposure to stressors has been shown to cause cell death and /or decreases in hippocampal neurogenesis. This is of great significance since it teaches us that the environment, stressful or salubrious, may influence hippocampal changes with concomitant affective consequences (cf. Davidson *et al.*, 2000). This highlights the probability that the environment may influence or even shape emotional reactivity, also in adulthood, as is proposed by those propagating the salubrious effect of EI within the organisational domain.

Lastly, attention turns to the chemical substrates of emotion.

2.2.3.7 CHEMICAL SUBSTRATES OF EMOTION

According to Pert (1999), a neuroscientist, the mind is not contained in the brain only, but also manifests in the body. Pert proposes a secondary system parallel to the conventional model of synaptic neural circuitry in which chemical information substances travel in the extra-cellular fluids circulating throughout the body to reach their specific target cells. She contends that the mind and body communicate with each other via the chemistry of emotion. These chemicals,

she has demonstrated, are the molecules or biochemical correlates of emotion and include neuro-peptides and their receptors. All locations (nodal points) through which information from any of the senses enters into the nervous system, and a great deal of information converges, abound with neuro-peptide receptors. The information carried by neurons is accessed and modulated by neuro-peptides as they process information, prioritising, and biasing it to create unique, neurophysiologic changes. Emotions are therefore bi-directional and delicately interwoven in a network in which both systems influence the other, creating the potential for biochemical change and growth. Neuro-peptides are found throughout the body, and are instrumental in conveying messages throughout the body by binding to receptors where they transmit their data/messages. Pert's pioneering and provocative research demonstrates how the chemicals inside our bodies provide for a dynamic information network to link mind and body. Her research does not serve to repudiate existing knowledge on the working of the so-called electrical brain, but complements existing knowledge. Her work provides for "a new scientific understanding of the power of our minds and our feelings to affect our health and well-being" (Grodzki, s.a.).

2.2.3.8 SUMMARY

To summarise, we have specialised emotional systems receiving sensory input and subsequently producing behavioural, autonomic and hormonal responses (LeDoux, 1998). The cited information underlines the many intricacies and finely tuned balances involved in intact emotional experience that all have a bearing on any particular emotional experience.

Research at the animal level has provided clear cues about "the profound impact of environmental events in shaping the neural circuitry of emotion" (Davidson *et al.*, 2000, p.904). Furthermore, affect regulation involves both automatic and effortful processing. Davidson *et al.* (2000) believe it likely that, when trait like strategies occur over an extended period, it will produce plastic changes in the central circuitry producing emotion.

Attention now turns to a more recent theory of emotion, namely the Broaden-and-Build Theory of emotions referred to a number of times in the first part of the chapter.

2.2.4 A MODERN THEORY OF EMOTIONS: THE BROADEN-AND-BUILD THEORY

2.2.4.1 INTRODUCTION

Linked with the meta-theory informing the current study, this section of the chapter concludes with an overview of a recent theory of emotions, the Broaden-and-Build Theory of Fredrickson (1998, 2001). Fredrickson provides substantive evidence in relation to positive emotions and the advances that it holds for well-being. However, since much human suffering and loss stem from excessive and inappropriately expressed *negative* emotions, pressure was exerted to understand and treat them and, therefore, psychology gravitated toward problems and how to solve them (Nolen-Hoeksema, Morrow & Fredrickson, 1993). By contrast, *positive* emotions contribute to, and affect only a few problems, for example mania, in bipolar disorder.

2.2.4.2 MODELS BUILT ON PROTOTYPES

Traditionally, theorists attempted to explain emotions in general, whilst *models* attempt to explain prototypic emotions. Pressure to understand negative emotions led to explanatory models for these emotions and were, as such, applied in the explanation of positive emotions. However, negative emotions are associated with urges to act in certain ways, or *specific action tendencies*, whilst positive emotions seem to reflect *non-specific action tendencies* (Levenson *et al.*, 1990), are few and less differentiated than negative emotions (De Rivera, Possell, Verette & Weiner, 1989; Ellsworth & Smith, 1988), and reflect a greater degree of blending than do negative emotions (Ellsworth & Smith, 1988). Fredrickson (1998) therefore argues in favour of models that are more specific, for example, theories for distinct emotions such as fear (also supported by LeDoux, 1998), or for different models applied in explaining positive and negative emotions. Rather than specific *action* tendencies, positive emotions spark *thought-action tendencies*.

2.2.4.3 MOMENTARY THOUGHT-ACTION REPERTOIRES

Fredrickson (1998) argues that negative emotions *narrow* an individual's momentary thought-action repertoire in calling forth specific survival action tendencies. Situations associated with positive emotions are, however, typically not life-threatening and therefore do not require

immediate action. Positive emotions rather *broaden* a person's momentary thought-action repertoire whilst automatic behavioural scripts are discarded in favour of novel, creative and even unscripted paths of thought and action. Analysis of a range of phenomenologically distinct positive emotions seems to support this claim. **Interest**, for example, creates an urge to explore, absorb new information and experiences and thereby expands the self (Csikszentmihalyi, 1990; Izard, 1977; Ryan & Deci, 2000), whilst **pride** contributes to an urge to share news of achievements and envision even greater future achievements (Lewis, 1993).

2.2.4.4 POSITIVE EMOTIONS BROADEN AND BUILD

According to Fredrickson, the above brief outline encapsulates how positive emotions function to “broaden habitual modes of thinking or acting” (Fredrickson, 2001, p.3). However, positive emotions appear also to share the feature of incrementally **building** a “variety of enduring personal resources” (Fredrickson, Mancuso, Branigan, Tugade (2000) 2000, p.239). Examples quoted include, inter alia, the building of intellectual resources by increasing creativity (Sherrod & Singer, 1989), developing a theory of mind (Leslie, 1987), and by promoting brain development (Panksepp, 1998). Fredrickson *et al*, (2000) furthermore proposes that the adaptive value of positive emotions is distinct from those of negative emotions. “Positive emotions may promote survival over the long run by incrementing the resources that could be drawn on when facing later, inevitable threats” (p.239). Fredrickson (1998; 2001) accordingly formulated a new theoretical model to encapsulate and reflect the unique effects of positive emotions. She named it the *Broaden-and-Build* theory of positive emotions. She proposes that certain *discrete* positive emotions including “joy, interest, contentment, pride and love - although phenomenologically distinct - all share the ability to broaden people's momentary thought-action repertoires” (2001, p.2). This, according to her, contributes to building enduring personal resources ranging to include physical, intellectual and psychological resources.

For a review of empirical evidence supporting key propositions of the Broaden-and-Build theory, please see Fredrickson (1998). The evidence provided is drawn from sub-disciplines including attachment styles, intrinsic motivation and cognition. Much of the evidence provides indirect support for the theory since the research was conducted prior to the model being conceptualised. However, a large number of “hypotheses flowing directly from the broaden-and-build theory” have subsequently been put to the test by Fredrickson and her colleagues (2001, p.3). What follows is a short overview of preliminary findings.

2.2.4.4.1 *The broadening effect of positive emotions*

- **Positive emotions broaden thought-action repertoires**

Fredrickson (2001) proposes that two distinct types of positive emotions may be observed, namely, those that provide for a high activation state (joy) and those that cause a low activation state (contentment), both of which provide for a broader thought-action repertoire than neutral states. Also, two distinct negative emotions, namely fear and anger, were found to produce a narrower thought-action repertoire than does a neutral state.

- **Positive emotions broaden the scope of attention**

Negative emotional states, especially those high in arousal such as anxiety and fear, tend to narrow a person's attention span (Derryberry & Tucker, 1994). Adding to the argument, Basso, Scheff, Ris and Dember (1996) demonstrated that anxiety and depression (negative emotional traits), predict a local bias that is consistent with a narrowed attentional focus. By contrast, Derryberry and Tucker (1994) proposed that positive emotions demonstrate the opposite effect and expand the attentional focus. Subjective well-being and optimism (positive emotional traits) were found to predict a global bias consistent with a broader attentional focus. Fredrickson and Branigan (2002) have found that – relative to neutral states – positive emotions contribute to expand the scope of people's visual attention together with their momentary thought-action repertoires. This holds true for both high and low activation states.

- **Positive emotions broaden the scope of cognition**

Isen (2000) provides an overview of two decades of experimental work in this regard. Research documented that people experiencing positive affect exhibit thought patterns that are: unusual (Isen, Johnson, Mertz & Robinson, 1985); flexible (Isen & Daubman & Nowicki, 1987), integrative (Isen, Rosenzweig & Young, 1991), open to information (Estrada, Isen & Young, 1997), and efficient (Isen & Means, 1983; Isen et al., 1991).

- **Positive emotions broaden the scope of action**

Studies demonstrating that positive emotions broaden the scope of thinking may indirectly point to a broadened scope of action (Kahn & Isen, 1993).

2.2.4.4.2 *The building effect of positive emotions*

- **Positive emotions build physical resources**

Positive emotions eliciting playfulness may, for example, contribute to building specific gross motor skills that may be drawn on in later (emergency) situations (Boulton & Smith, 1992).

- **Positive emotions build intellectual resources**

Securely attached children are on average more persistent, enthusiastic, and effective problem solvers (Matas, Arend & Sroufe, 1978). Also for adults, interest, by creating an urge to explore and accumulate new information and experiences, serves to expand the self in the process (Csikszentmihalyi, 1990; Izard, 1997; Ryan & Deci, 2000).

- **Positive emotions build social resources**

Lasting social relationships are crucial to human well-being. According to Fredrickson (1998), shared positive social experiences, such as mutual play and smiling contribute both to momentary enjoyment and enduring relationships that may be accessed in times of need. Isen (1987) established that individuals who have experienced positive affect are more likely to help others. This may contribute to reciprocal positive interchanges, that, in the long run, may provide for enhanced support systems.

The above overview leads us to examine the possible implications of the broaden-and-build model of positive emotions.

2.2.4.5 IMPLICATIONS OF THE BROADEN-AND-BUILD MODEL OF POSITIVE EMOTIONS

- **Positive emotions may undo the effects of negative emotions**

Positive emotions may indeed *undo* the lingering effects of negative emotions that narrow one's thought-action repertoires. Fredrickson and her co-researchers had named it the *undoing hypothesis* (Fredrickson & Levenson, 1998). More recent research tends to support the notion that positive emotions may indeed act as a coping resource during periods of experienced stress and threat. (Aspinwall, 1998; Folkman, 1997; Folkman & Moskowitz, 2000; Reed & Aspinwall, 1998; Trope & Pomerantz, 1998). The undoing hypothesis predicts that positive emotions will restore autonomic quiescence (physiological undoing) following negative emotional arousal, as well as restore flexible thinking following negative emotional experiences. This should contribute to higher levels of efficiency and may in turn build ego-strength and resilience.

- **Positive emotions may protect health**

Fredrickson (1998) predicts that, in the event of positive emotions undoing the lingering consequences of negative emotions, they may shorten the damaging impact of such reactivity

on the cardiovascular system. Recent studies that investigated the relationship between positive affective states and health also found correlations between positive mood and immune functioning (Stone, Cox, Valdimarsdottir & Jandorf, 1987; Stone, Neale, Cox & Napoli, 1994). This creates the possibility of greater control over well-being and physical health via the purposeful cultivation of positive experiences.

- **Positive emotions fuel psychological resilience**

Fredrickson and Joiner (2002) argue that people may improve both physical health and psychological well-being by cultivating experiences of positive emotions in a bid to cope with negative emotional experiences. Data provided suggests positive emotions not only **reflect** but indeed **build** psychological resilience and trigger upward spirals toward improved emotional well-being (Fredrickson, 2001). The theory proposes that whilst positive emotions broaden the scope of attention and contribute to more flexible and creative thinking, they may simultaneously augment individuals' coping resources (Aspinwall, 1998; 2001; Isen, 1990). This reciprocal influence may contribute to a spiralling effect in regard to psychological well-being. It furthermore seems as if resilient individuals expertly access and apply the undoing effect of positive emotions. In this regard, Folkman and Moskowitz (2000) identified several kinds of coping that may generate positive affect when stressful situations are encountered. These include infusing ordinary events with positive meaning; problem-focussed coping, and positive reappraisal of the stressful encounter. This strongly reminds one of principles applied during rational emotive therapy (Ellis, 1969). Since the theory is relatively new, many questions for refutation or support exist, such as whether resilient individuals' broadened thinking assists them to find positive meaning in adversity. Experiences of positive emotions appear to be critical and active ingredients that buffer resilient people from depression in the aftermath of crises (Fredrickson, Tugade, Waughn & Larkin, in press). Fredrickson and Joiner (2002) found evidence for an upward spiral, in that individuals experiencing more positive emotions became more resilient to adversity over time and made use of more broad-minded coping. This in turn, predicted increments in positive emotions with the passage of time and it seems then as if "positive emotions and broad minded coping mutually build on one another" (p.172) and "also build their coping arsenal for handling future adversities" (p.175). By contrast, Peterson and Seligman (1984) documented a downward spiral in which negative/depressed mood and a pessimistic, narrowed thinking reciprocally influence one another to induce a worsening mood and depression (cf. Aspinwall, 1998; 2001). For a reflection on resilience and positive emotions please see Fredrickson (2001).

To sum up, Fredrickson's (2001) Broaden-and-Build Theory advocates and provides substantive evidence for the role of positive emotions and the advances that it holds for well-being. Although only fleeting, positive emotions may produce long-lasting effects and may indeed provide a vehicle for growth and development. This argumentation renders support to claims made on behalf of the emotional intelligence construct assumed to promote a positive affective climate in organisations (Bennet-Goleman, 2002). Therefore, in the light of the hypothesised broaden-and-build effect of positive emotions, the researcher wishes to examine the possible effect of emotional intelligence in creating a context for the experiencing of more positive affect, and whether this indeed contributes to the work well-being of employees.

2.2.4.6 CONCLUDING REMARKS

This part of the chapter dealt with the nature and structure of emotions and moods and highlighted some of the more well-known traditional theories attempting to explain emotions. The researcher traced recent advances in support of the neurological substrates of emotions, including the most prominent brain mechanisms and the central circuitry involved in the formation of emotion. Brief attention was given to memories of emotions, differences between thoughts and feelings, affective style and the role of consciousness in experiencing emotions. The researcher next focussed on plasticity in the neural circuitry of emotion together with the context regulation of emotions. Neural plasticity is central to the current thesis that wishes to examine the possible effect of emotional intelligence and the contribution thereof in creating a salubrious work environment with its concomitant effect on employee well-being. If such plasticity cannot compellingly be argued for at the level of neurology where all learning takes place, no amount of emotional intelligence could either develop within an individual or influence environments for the betterment of its employees' well-being. This part also dealt with the intricacies of the so-called chemical brain or the 'molecules of emotion' in relation to the evolving and experiencing of emotion. This further adds to our understanding of the immense complexity constituting the formation of our (evasive) emotions and how the exchange of information on different levels integrates to 'fine-tune' what we unconsciously and consciously experience as emotions. Cybernetics and intact feedback loops, according to Pert (1999), constitute a healthy mind and may essentially represent emotional intelligence. This section concluded with an overview of a recent theory of emotions, namely the Broaden-and-Build Theory of emotions highlighting the advantages of seeking to promote positive emotions with its concomitant value within organisations.

In the second part of the chapter, the researcher reviews affect at work in preparation for the central thesis of the research, namely emotional intelligence and its effect on the well-being of employees. Argumentation will provide for a review of some indicators of wellness in the workplace, possible mediators thereof and the role of emotional intelligence (of both the manager and the subordinate) and its impact on psychological work climate.

2.3 AFFECT IN THE WORK CONTEXT

2.3.1 INTRODUCTION

Of late, there has been an “outpouring of literature dealing with emotions in organizational settings” (Ashkanasy & Daus, 2005, p.449) luring and compelling the researcher to venture into the affective domain within organisations. This section of the chapter will reflect on emotions and work life, provide for a short historical review of how interest in affect at work evolved, and highlight some insights gained from research in the affective domain within organisations. The latter section will highlight theories that have come about in response to the emerging insights in the field and theorists’ resulting attempts to coherently explain and synthesise information into theories. The Affective Events Theory that informs the current study will be discussed together with a short introduction to the emotional intelligence construct that will be discussed in more detail in the following chapter.

2.3.2 THE NEGLECT OF EMOTIONS IN THE WORKPLACE

The organisation by which people are employed offers opportunities for experiencing numerous emotions affecting employees’ thoughts, feelings, and actions, both in the workplace and when they are away from it (Brief & Weiss, 2002). The centrality of these emotions to work life have, however, largely been ignored and not openly discussed (Weiss & Cropanzano, 1996). Burke, Brief, George, Roberson, and Webster (1989) and Fisher (2000) concur that there are relatively few studies on emotions experienced at work and that the influence of the work context on affective experience is largely unexplored. Traditionally, potential *dysfunctions* rather than *functions* of everyday emotions received more attention from managers and researchers (Ashforth & Humphrey, 1995). This pejorative view of emotion has

blinded many scholars and practitioners to the *value* of emotions. When research was conducted on emotion, it mostly related to strong emotions at work focussing on relatively dramatic occupations such as health care, police and rescue workers, rather than on the applicability of emotions and emotional regulation to the broader organisational setting.

Pirola-Merlo, Härtel, Mann and Hirst (2002) argue that progress in the understanding of organisational behaviour is hampered by a failure to consider the bounded emotionality aspects of human behaviour in addition to bounded rationality aspects. On a theoretical level Muchinsky (2000, p. 801) purports: “The specialised field of industrial organizational (IO) psychology has generally followed the path of its parent discipline psychology in its neglect of emotions”. This short overview mirrors business practices since business schools and organisations emphasise technical rather than social skills. Emotions are at the very core of human experience and - since we spend most of our time engaged in working rather than in other activities - IO psychology should take the lead in explaining the role of emotions at work (Muchinsky, 2000). Emotions in the workplace are real - individuals both *feel* and *think* - and since new techniques have been developed to study emotions, they are no longer subservient to learning, cognition, and perception that have long dominated the field. However, affective experiences seem to have slowly come into their own and the last few years of the past decade reflects widespread interest in the role of emotion at work, as represented in numerous workshops and conferences on the topic.

2.3.3 THE UPSURGE OF ACADEMIC INTEREST IN AFFECTIVE EXPERIENCES AT WORK

According to Fisher and Ashkanasy (2000), interest in emotions in the workplace has rapidly accelerated during the past decade and holds the potential to further our understanding of behaviour in the workplace. Isen and Baron’s (1991) review of mood effects on behaviour; Ashforth and Humphrey’s (1995) analysis of reasons why scholars in the organisational sciences refrain to tackle the emotional dimensions of behaviour in the workplace; and the popularisation of the concept of emotional intelligence, acted as stimuli to scholars in this area. The interest culminated in a Special Edition on Emotions in Organisations (Journal of Organizational Behavior, 2000, 21) documenting how little is *really* known about emotions in the workplace (Fisher & Ashkanasy, 2000).

Muchinsky (2000) believes that the time has now come for organisational behaviour researchers to acknowledge emotions as a “legitimate domain of scientific inquiry” (p.803). Feelings reveal our needs, concerns and motives by bringing into awareness, implicit judgement of significant events. Flowing from and in opposition to the historical approach, Muchinsky believes understanding our emotions is important since they represent a major factor in understanding job performance.

Academic research on emotions in the workplace, however, is relatively recent (Ashkanasy, Charmine & Daus, 2002). The upsurge of the academic interest in mood and affect within social psychology is mainly attributed to Isen and her colleagues’ work (e.g. Isen & Means, 1983). This interest flowed over to the organisational and workplace setting where examining affect and mood also became important. Scholars recorded its significance, both in the late 1980’s and 1990’s (c.f. Ashkanasy, *et al.*, 2002). It gave rise to researchers working at developing explanatory models and theories to describe and explain these phenomena. The increased academic interest coincided and resonates with the evolving of the positive paradigm as outlined in Chapter 1 and new technology that facilitates the study of affect (both mood and emotion) as presented earlier on in this chapter. The study of affect has come into its own with hard evidence in support of many of the claims made with regard to the suggested advantages for individuals with increased levels of emotional intelligence. The latter will be discussed more fully in Chapter 3. Focus now turns to insights generated via research into affect in the workplace.

2.3.4 RESEARCH INTO AFFECT IN THE WORKPLACE

Research historically viewed affect as an unconscious moderator of cognitive judgement-making processes, rather than viewing it as an outcome in its own right. This gave rise to affect being viewed as a mediator or distracter of the *really important processes* (Zerbe & Härtel, 2000).

2.3.4.1 THE NARROWNESS OF ORGANISATIONAL RESEARCH

In opposition to the wide-ranging basic research into affect within psychology, the study thereof within organisations is narrow in its problems and methods. According to Brief and Weiss (2002), an example is the overemphasis of mood and mood states at the expense of

discrete emotions. Researchers have, for example, investigated the way mood is affected by leaders, work environments and stressors, and how (positive) affect influences helping behaviour and creativity.

Isen's (1987) groundbreaking and influential work focussing on mood effects may have contributed to this skewed research focus. Results provide compelling evidence of the consequences of positive mood-states on performance within organisations. Furthermore, measurement instruments of affect including the PANAS (Watson, Clark & Tellegen, 1988), is readily available. The skewed emphasis on mood is unfortunate since much work on emotions exists that holds clear implications for work settings. Brief and Weiss (2002) suggest that a shift in emphasis should occur to balance the interest in mood with that of discrete emotions. These implications are now highlighted.

Discrete emotions have proved to be an important part of everyday work experiences. Research relating to discrete emotions is flavoured by researchers' theoretical preference. Psychologists with an evolutionary bias, for example, research the universality of basic emotions (Cosmides & Tooby, 2000; Izard, 1997; Keltner & Ekman, 2000). This focus includes aspects such as emotional contagion, group affective tone and the behavioural consequences of emotional states. Cognitively orientated psychologists, in turn, examine appraisal processes that generate emotional states (Lazarus, 1991) and, for example, study emotions' roles in generating particular working conditions and emotional climates. Positive and negative affect have - to a large extent - dominated dispositional research in organisations. Despite this emphasis, very little empirical research has been reported on the *processes* whereby dispositional affect influences various outcomes, which are, inter alia, of interest in the present study (please see Model 4 paragraph 6.2). Likewise, very few researchers have attempted to link organisational research on dispositional affect and the developing body of research on the physiology of affective systems as has Davidson (1992), and as is highlighted in the current literature review.

2.3.4.2 A PROCESS ORIENTATION

According to Brief and Weiss (2002), a broader focus on affect *processes* rather than only on the performance dimensions, is called for. These researchers contend that research in the area of affect is in its infancy but already demonstrates considerable promise, as is the case with leaders and their influence on the affective experiences of their followers and the concomitant

influence on group affective tone. Important questions relating to the production and consequences of affect require further exploration to understand the worker and the groups he belongs to, as people who both think and feel. Creating a work context for employees to manage their emotions in more healthy ways may contribute to the overall healthiness of their work environment by, for example, improving the quality of their interpersonal relationships (Schaubroeck & Jones, 2000).

2.3.4.3 *THE PRODUCTION OF MOODS AND EMOTIONS IN THE WORKPLACE*

Moods and emotions are produced by a variety of factors including those exogenous and endogenous to the workplace as will now be highlighted.

2.3.4.3.1 *Factors exogenous to the workplaces*

Systemic as well as interpersonal and intrapersonal causes influence feelings in the workplace. A few examples serve to illustrate. Feelings induced by factors exogenous to the workplace, including the socio-economic climate and family life, may of course spill over into the workplace (Brief & Weiss, 2002). Feeling cycles may occur in relation to factors such as lifestyle, socio-cultural aspects and elements endogenous to the individual (Watson, 2000). In similar vein Weiss, Nicholas and Daus (1999) report that mood cycles (pleasantness and activation) were noted whilst observing 24 middle managers. In addition, much research has confirmed the multiple role of personality as a determinant of workplace moods (c.f. Brief & Weiss, 2002). Affective style as discussed under paragraph 2.2.3.5 serves as an exemplar in this regard. Personality is to an extent subsumed under the rubric of emotional intelligence. The following chapter elaborates.

2.3.4.3.2 *Factors endogenous to the workplace*

Threats to psychological well-being (such as conflict due to poor conflict management skills of leaders), as a source of negative moods and emotions, are beginning to draw the required attention (Brief & Weiss, 2002). Mood and emotion producing factors - endogenous to the workplace - have, typically, been placed in categories that are not necessarily mutually exclusive (George, 1996; Weiss & Cropanzano, 1996). Such categories include, for example, stressful events, leaders, organisational climate, workgroup characteristic, and perceived organisational support (POS).

(a) Stressful events / conditions at work

SAPA (2005), for example, reports that work-related stress poses a huge health problem in Europe. It claims that, within the European Union (EU), 31% of all sick leave may be attributed to psychological illnesses in comparison with 29% brought about by physical illnesses. Time pressures and the pressure to be successful, are on the increase. Job tasks continually increase whilst, simultaneously, respectful and friendly interaction is on the decline (Perner, the head of the stress preventative institute in Europe, SAPA, 2005). Only 44% of accidents are due to physical problems whilst the rest are attributed to psychological problems. In the EU stress is the complaint that presents second most frequently after back pain. In Austria, stress accounts for two million days sick leave per year.

According to Hart, Wearing and Headey (1995), the most important negative job experiences seem to be organisationally related (administration and supervision), rather than operationally related (such as dealing with victims and danger). Evidence exists that factors such as work load and control in regard to the job influence stress levels, together with physical and psychological health, job attitudes, organisational commitment (Michie & West, 2004; Williams & Anderson, 1991). Discrete emotions, together with economic events/conditions, have not yet taken up their rightful place among social and physical stress inducing factors (Brief & Weiss, 2002).

(b) Work context

The context of an organisation includes its culture and climate, thus the employees' perception of their organisation, as will be discussed in more depth in Chapter 4. According to Michie and West (2004), the way a job is designed and people are managed, influences an employees' emotional and physical well-being, their attitude to their job and the organisation, as well as their performance and behaviour at work. People and their performance are basic to an organisation's effectiveness, as is well illustrated by health care organisations in which employee well-being and organisational factors have been recognised as central to high-quality patient care in the UK's NHS strategic planning (Michie & West, 2004). They contend that health care organisations should not be seen as unique but that knowledge developed in other sectors should be applied within the health care sector as well.

The current study was conducted within a health care context, namely in six private hospitals across South Africa that form part of the Medi-Clinic Private Hospital Group. The research

was primarily conducted among nurses although a small number of other employees was also involved. For purposes of fluidity in reading, a brief overview of the public and private health care sectors in South Africa is provided for the interested reader in Appendix A as the contextual backdrop against which the study was conducted.

(c) Leaders

Most leadership and organisational theory deal only tangentially with emotion and many organisations operate under the belief that emotion and emotional expression is the antithesis of rationality. According to Goleman (2002), managers have, for too long, seen emotions at work as “cluttering the rational operation of organizations” (p.xi). Therefore, organisations have traditionally attempted to control member behaviour to promote rationality over the expression of emotion. On contrast, Yukl (1998) states that charismatic and transformational theories of leadership emphasise the importance of the leaders’ emotions, values and behaviour in making events meaningful to followers. Brief and Weiss (2002) and Lewis (2000) concur that the emotional tone of a CEO considerably impacts follower affect. The leader acts as an emotional guide to the group “driving the collective emotions in a positive direction and clearing the smog created by toxic emotions” (Goleman, 2002, p.5). Furthermore, according to Goleman, the true quality of work life reflects in the emotions employees experience at work, as subsumed by job satisfaction. Positive mood at top management level leads to greater cooperativity and better business results, and “peppy, confident, and optimistic”, managers’s “moods rubbed off on staff” (p.16). Important leadership traits have been found to include emotional balance and control (Bass, 1990) and emotional intelligence (Goleman, 1998). Leaders’ ability to respond both appropriately and in an effective way in a given context, significantly impacts individuals, groups, and organisational outcomes (Bass, 1990). Leaders who are more in tune with their own and others’ emotions (such as signified by high EI) communicate more effectively and perform at a higher level (Goleman, 1998). Despite the fact that research into leaders’ influence on their followers, is embryonic, it already “exhibits tremendous promise on theoretical grounds” (Brief & Weiss, 2002, p.292). Leadership will be further elaborated on in Chapter 3, paragraph 3.8.

(d) Work group characteristics

According to Brief and Weiss (2002), the most exciting new area of affective research pertains to group affective tone. “Available theory is provocative, and the few empirical results now available generally are supportive of the ideas that have been advanced to explain how group

members come to share their feelings” (p.292). Work group members tend to share moods and emotions (Bartel & Saavedra, 2000) and this may be due to a number of factors, including characteristic personality traits within groups - due to the attraction-selection-attrition processes (Schneider, 1987; George, 1990). However, common socialisation processes, social influences, similarity of tasks and high task interdependence, membership stability, rules regarding emotional labour, as well as emotional contagion – to be discussed later - are also influential (Brief & Weiss, 2002). Furthermore, employers may engage particular factors to mediate affective experiences at work. An important factor in this regard is perceived organisational support.

(e) Perceived organisational support (POS)

According to Rhoades and Eisenberger (2002) it is common for employers to value employee dedication and loyalty. Emotionally committed employees tend to exhibit higher levels of commitment; more positive job affect (mood and satisfaction); increased job involvement; increased performance standards (going beyond assigned responsibilities); reduced psychosomatic reactions to stressors, and less withdrawal behaviour with a desire to remain with the company. Social exchange theorists have reasoned that employment is a trade-off between effort and loyalty, and tangible and social rewards (Bateman & Organ, 1983; Brief & Motowild, 1986; Organ & Konovsky, 1989). In addition, employees tend to personify the organisation (Eisenberger, *et al.*, 1986). Since supervisors (in the minds of many employees) represent organisations, favourable treatment by the supervisor may contribute to POS, pending the extent to which the employee identifies the supervisor with the organisation.

Antecedents of perceived organisational support include, *inter alia*, *fairness* (i.e. with regard to the distribution of resources and organisational politics); *supervisor support* (valuing of individual / team contributions and caring about employee well-being); *organisational rewards*, and *job conditions* (including recognition; pay and promotions; job security; autonomy; role stressors; training; and organisation size), and *employee characteristics* (such as personality and demographic features of the individual).

(f) Conclusion

To sum up it thus seems that much research was conducted on the effect of affective experiences at work but less so on processes that may influence such affect and how it may be effectively managed to the advantage of both the organisation and the individual employee. Furthermore, it seems as if organisational researchers have, over the past ten years, raised

more questions regarding the production of moods than have been answered (Brief & Weiss, 2002).

We now turn our attention to mood effects in organisations.

2.3.4.4 MOOD EFFECTS IN THE WORKPLACE

Attention now turns to mood effects that are potentially generated in the workplace, including mood contagion, emotional labour and consequences of emotions and mood at work.

2.3.4.4.1 Mood contagion

(a) Within teams

Totterdell, Kellett, Teuchmann and Briner (1998) reason that people's moods are often, either consciously or unconsciously, affected by the moods of those surrounding them, so that their mood becomes linked or coupled. This seems to be especially true in close, enduring and interactive relationships, such as in working teams. Mood linkage may also reflect a more general process known as mutual entrainment, where one rhythmic process oscillates with the same frequency as another (McGrath & Kelley, 1986). Thus, team-members are inclined to feel happy when their team-mates feel happy. Totterdell *et al.*'s (1998) research targeted this area since little is known about shared affect in groups. Much more research was conducted in relation to dyads reflecting that one person's mood can induce a similar mood in the other via conscious and non-conscious contagion, and that two people's mood changes may become synchronised over time. These authors, for example, found that sixty-four community nurses (consisting of thirteen teams) "displayed a significant concurrent association between their own daily moods and the collective daily moods of the rest of their work team over a 3-week period" (p.1509). These nurses' moods displayed a greater relation with the moods of the nurses in their own team and more so if they were older, more committed to their team, perceived team climate more positively, or experienced fewer hassles with their team-mates (p.1509). Furthermore, the amount of time spent with their team did not seem to affect the association between their mood and the mood of the rest of the team. This was also confirmed in an experiment with a group of accountants.

Barsade (1997) concluded that positive affect is more contagious and this has since been confirmed by Totterdell (2000) who found a correspondence between individuals' own mood and the mood of the team-mates only when the individual was happier than usual. This opens

up an opportunity to actively enhance positive mood, since it is more contagious than negative mood, and consequently enjoy the gains thereof. Mood linkage was also found greater when team-mates engaged in coordinated efforts rather than in activities dependent on individual efforts.

(b) Between leaders and followers

Hatfield *et al.* (1994) affirm that followers observing the emotional expression of the leader may be emotionally influenced via emotional contagion. Barsade (1997) demonstrated that the mood of a group changed toward the mood of a manager (confederate), and that positive emotional contagion led to greater cooperation and task performance within work groups. Individuals with higher status in the groups or those who are emotionally more expressive seem to be more influential with regard to influencing interpersonal mood processes. Contagion may be constructive or destructive and may submerge followers in a ‘group mind’ whereby emotions may be mobilised, such as in transformational leadership that is associated with higher effort and performance by subordinates (Ashforth & Humphrey, 1995).

(c) The process of contagion

Individuals may “catch” another’s emotions in three ways, namely via conscious cognitive processes, conditioned or unconditioned emotional responses, and mimicry/feedback (Lewis, 2000). Followers may, for example, empathise with a leader who expresses an emotion they cognitively interpret as appropriate; respond emotionally (conditioned or unconditioned) based on previous emotional experiences, or mimic the leader’s emotional expression. Experienced emotion reflects physiological (Lange & James, 1922), behavioural (Izard, 1977) and cognitive processes (Arnold, 1970; Izard *et al.*, 1984, and Schachter, 1970). When we observe others expressing themselves emotionally and process this information, emotional contagion may result (Frijda, 1986; Hatfield *et al.*, 1994).

2.3.4.4.2 Emotional labour

Emotional labour reflects institutionally sanctioned scripts, for example, flight attendants are trained to appear cheerful, bill collectors to convey urgency, and salespeople to be courteous and helpful (Ashforth & Humphrey, 1995). In the context of the current study, nursing staff are also obliged to be friendly and helpful. Emotion is also *prescribed* where role occupants are socialised to mask felt emotions and to appear calm when assumed acceptable. At hospitals patients causing an emotional scene will be taught to ‘be good’; executives to appear calm and rational, and policemen to suppress fear. Socialisation practices typically reinforce qualities of

the head rather than those of the heart. However, Schaubroeck and Jones (2000) established that if individuals were assisted in their attempts to manage their emotions in healthy ways, it was likely that their emotional displays would be more authentic and that this may enhance the overall healthfulness of the work environment by improving the quality of interpersonal relationships.

The focus presently shifts to some reported consequences of emotions at work.

2.3.4.5 CONSEQUENCES OF EMOTIONS AND MOOD AT WORK

According to Saavedra and Kwun (2000), perceived job characteristics and affective reactions reflect a reciprocal relationship with the *primary* direction appearing from job characteristics to affective reaction. Affect resulting from the job can influence many well-studied outcomes, including commitment, job satisfaction, cooperation, extra-role or risky behaviour (Isen & Baron, 1991; Weiss & Cropanzano, 1996). The current investigation is, however, interested in the influence of affective experiences at work on the general well-being of employees including affective, behavioural and physical outcomes, as these are mediated by the psychological climate and/or experienced job affect (to be discussed in Chapter 4).

Against the background of so much information accumulating on the influence of affect in the work place, a number of explanatory theories have come about in a quest to synthesise and explain the available evidence. Fredrickson's (1998) Broaden-and-Build Theory, discussed earlier on in the chapter, served to highlight the advantages of promoting positive affect – also in the workplace – and to challenge the existing viewpoint that a 'one model fits all' approach may be applied in explaining both positive and negative emotions. In the latter section of this chapter, other explanatory theories are highlighted. The first of these is Weiss and Cropanzano's (1996) Affective Events Theory (the primary explanatory model within the current investigation) that attempts to provide some coherence in viewing the important effect of affective events in the workplace. Furthermore, the construct / theory of Emotional Intelligence will receive brief attention since it will be further elaborated on in Chapter 3.

2.3.5 EXPLANATORY MODELS OF AFFECT IN THE WORKPLACE

First, the Affective Events Theory finds broad articulation. Second, the construct of Emotional Intelligence is briefly alluded to for purposes of introduction before it finds in-depth amplification in the chapter that follows.

2.3.5.1 *THE AFFECTIVE EVENTS THEORY (AET)*

Weiss and Cropanzano's (1996), Affective Events Theory provides a useful framework for conceptualising the role of affect at work. AET reflects both causes and consequences of mood and emotions at work and how they impact job attitudes and behaviour. Moods and emotions are considered mechanisms that mediate stable features of the work environment (such as job design) thereby influencing job attitudes and behaviour. AET proposes that both mood and emotions flow from discrete affective events and occurrences. A judgement-driven behaviour such a decision to quit a job may, for example, flow from the aggregate of affective experiences as they accumulate and contribute to attitudes such as job satisfaction. Brief and Weiss (2002) contend that one needs to distinguish between three different types of reactions to the job: affective reactions, cognitive beliefs, and overall evaluative judgements. In short, AET attempts to describe how certain types of events give rise to affect and then, in turn, influence both an individual's behaviour and attitude. Life is punctuated by exogenous events that interfere with endogenous patterns of affect. Such events are cognitively appraised for both importance and relevance to well-being (Pirola-Merlo, Härtel, Mann & Hirst, 2002). Below please find *Figure 2.3*, the Affective Events Theory.

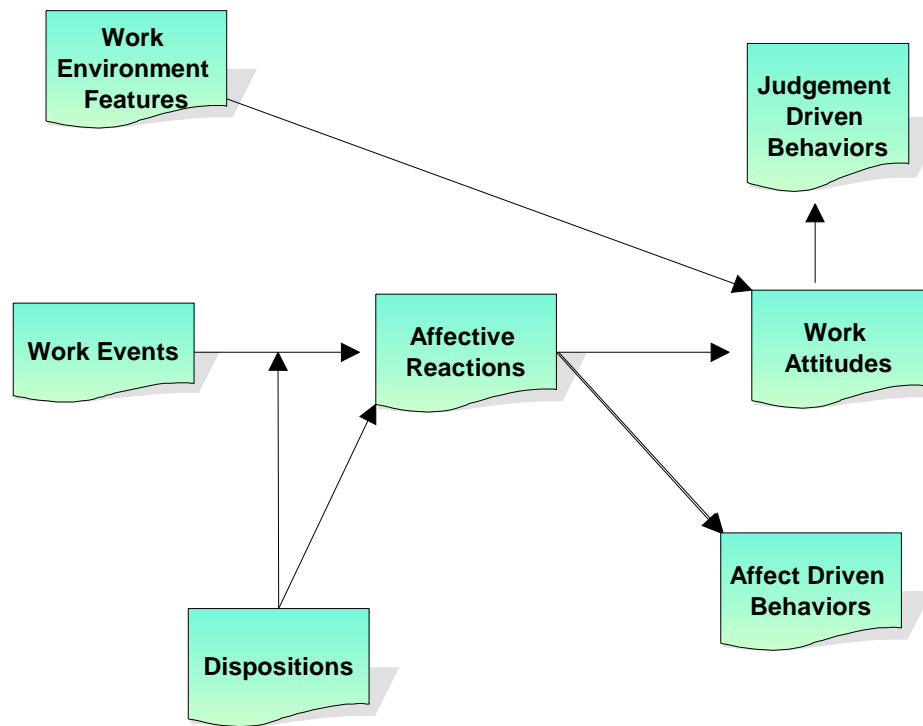


Figure 2.3 The Affective Events Theory: Macro Structure

(Adapted from Weiss & Cropanzano, 1996, p.12)

Below follows a description of the model.

2.3.5.1.1 The impact of events on emotion and mood

(a) Emotion generating events

Weiss and Cropanzano's (1996) theory places primary emphasis on the role of (work) events as proximal causes of affective reactions and, via affective mediation, distal causes of behaviours and attitudes. Some, but not all events, hold affective significance since they generate emotional reaction or mood changes in people. Of importance, firstly, is the *type* of changes that hold affective significance and, secondly, *how* the specific representations of events give rise to the experience of certain emotions. According to Plutchik (1994), all theories of emotional reactions assume that such reactions result from the appraisal of an event. According to the cognitive theories, it seems as if a common thread runs through the emotion eliciting process as will be discussed shortly.

- **Primary appraisal**

An event is initially evaluated for relevance to well-being (either positive or negative), as well as for level of intensity. The initial appraisal is tightly linked to the individual's values and personal set of goals (Lazarus, 1991a), and whether the perceived stimuli are experienced as facilitating or inhibiting personal goal achievement. Furthermore, it was found that negative stimuli are associated with more intense reactions (physiological responses and subjective feeling of affect), than are positive stimuli. In this regard LeDoux (1998) purports that, at a neurological level, a quick first appraisal is conducted by the amygdala and hypothalamus in an evolutionary bid for survival.

- **Secondary appraisal**

The secondary / cognitive appraisal follows whereby the amygdala and its unconscious appraisal and accompanying instinctive behaviour are kept in check by the working of the cortex, more specifically the pre-frontal cortex and associated areas, as discussed earlier on. The secondary appraisal, contend cognitive appraisal theorists, follows on the primary appraisal and represents an 'interpretive meaning analysis' (Colombetti, 2003; Smith & Pope, 1992) that constitutes a more specific appraisal, including context, consequences, attribution, potential to cope, *etcetera*. The evaluation leads to the eliciting of discrete emotions such as anger, sadness and joy. According to Smith and Ellsworth (1985), emotional eliciting events are evaluated along five dimensions, namely pleasantness; certainty; self versus other agency; toward or away from (the direction of attention); as well as the perceived effort to cope with the event.

(b) **Mood generating events**

Theoretical discussions on the antecedents of mood (see paragraph 2.2.1.2) are less frequent than those relating to emotions (Weiss & Cropanzano, 1996). However, it seems as if four positions related to experienced mood have evolved (Morris, 1989). Firstly, it is likely that moods are generated by mildly positive or negative events; secondly, that mood results and evolves from the emotional reactions; thirdly, mood states may follow on the cognitive recall of affective events, and, fourthly, residual mood may result from the inhibition of a full-blown emotional response. Other causes of affect levels at work are now reflected on.

2.3.5.1.2 *Other causes of affect levels at work*

- **Dispositional influence**

Affective traits have an obvious influence on affect levels at work. These traits have a genetic basis and are rooted in the biology of the person. According to Weiss and Cropanzano (1996, p.37) “Affective traits appear to act as latent predispositions that help set the stage for individuals to have more or less intense bouts of emotion”. Affective traits seem to be triggered by particular stimuli forthcoming from the environment. For example, a person with high trait negativity will not necessarily go through life feeling chronically discontent. Such an individual seems, however, predisposed to react more strongly to events eliciting negative affect (Werner & Pervin, 1986), take longer to recover (Marco & Suls, 1993), and experience more negative responses to daily hassles (Bolger & Schilling, 1991). In the absence of events triggering emotion, individuals, whether high or low in trait affectivity, report similar levels of affect. Larsen and Ketelaar (1991) demonstrated that individuals predisposed to higher levels of neuroticism are more vulnerable and reactive to negative stimuli than are individuals inclined to higher levels of extraversion who are more reactive to positive stimuli. Therefore, it may be assumed that affective traits serve as predispositions to respond differentially within a given context. However, it is important to note that individuals both influence and are influenced by their environments rather than being passive recipients of environmental pressures. For example, individuals with high trait negative affectivity are “more likely to engage in contentious interpersonal tactics” by being, for example, argumentative or obstinate (Weiss & Cropanzano, 1996, p.39). In addition, Bolger and Schilling (1991) found that individuals high in neuroticism are more inclined to be argumentative and quarrelsome with colleagues at work. Their behaviour thus contributes to their experiencing of negative mood. By being contentious in their interactions, they indeed elicit hostility from others, and this contributes to their further experiencing of negative emotions.

- **Environmental causes**

It is well documented that numerous physical environmental conditions negatively affect mood, including noise levels, temperature and the like (Weiss & Cropanzano, 1996).

2.3.5.1.3 *Emotion episodes: The ebb and flow of emotional experience*

When requested to describe an emotional experience, individuals usually do not limit such a description to a single event or emotion. They are much more likely to report a “series of emotional transactions with the environment, all coherently organized around a single underlying theme” (Weiss & Cropanzano, 1996, p.41). Frijda (1993) refers to an emotion episode as a single event with particular emotional significance that gives rise to a series of

sub-events holding affective significance. Lazarus (1991) proposes that such an episode is driven by a core *relational* theme. In the current study – with regard to employees’ evaluation of manager EI - the psychological climate or “theme” created by their manager is apt to influence how they perceive their manager and the forthcoming job affect.

According to Weiss and Cropanzano (1996), it is likely that, whilst an individual’s attention focuses on the underlying theme during the emotional episode, fewer resources are available to commit, for example, to job involvement and performance. This is especially true for the experiencing of negative affect. In addition, the increase in arousal may more readily produce an overreaction to or misinterpretation of other unrelated emotional stimuli. Thus, when already in an aroused state, additional or superimposed emotional experiences may be felt more intensely. A case in point may be rumours of downsizing at work. The individual may evaluate the implication thereof for his/her own well-being; discuss the possibility with superiors and co-workers and, depending on the type of feedback and perception of his/her ability to cope with the situation, may experience numerous mood swings, drawing attention away from job activities, thereby reducing job performance. It therefore seems as if affect may serve as a mediating factor with regard to job outcomes.

2.3.5.1.4 Affective cycles: exogenous and endogenous causes

According to Weiss and Cropanzano (1996), individuals’ primary affective states vary over time, resulting from both endogenous (affective disposition, established mood cycles and chronic situational circumstances bearing affective significance), and exogenous factors (affective producing stimuli that elicit a ‘shock’ or upset the average underlying affect patterns). Such shocks would constitute events that elicit an affective reaction inducing both a primary and secondary appraisal of the event. Affective shocks tend to produce after shocks or emotion episodes. Affective disposition and emotive provoking events may serve as both predictive and criterion variables in organisational analysis, to be examined in relation to traditional organisational criteria. In the current study, both serve as independent variables. Weiss and Cropanzano argue that, whilst cycles may signify endogenous components of mood trends, exogenous components signify deviations from such cycles.

2.3.5.1.5 Affect and satisfaction judgements

Affective experiences at work influence overall judgements of job satisfaction (Fisher, 2000; Goleman, 2002). A number of studies have indicated that affect better predicts behaviour than do beliefs (Breckler & Wiggins, 1989; Weiss & Cropanzano, 1996). The affective aspect of

job satisfaction constitutes the recalling of previous job related affective episodes/events whilst the belief system reflects evaluations in regard to job features. Of importance in the current study is the position taken by Weiss and Cropanzano (1996, p. 50) “that attitudes formed on the basis of personal experience would be less influenced by contextual factors such as current mood”. Therefore, a subordinate judging a manager’s EI would be assumed less influenced by his/her current mood state than by the personal experience of the manager that had been formed over an extended period. Furthermore, Diener, Sandvick and Pavot (1990) illustrated that subjective well-being is more influenced by the frequency of positive events than by the strength thereof. Fisher (2000) suggests that organisations increase events that cause positive emotions. If the manager is able to create a work environment that is, on average, more positive than negative, psychological work climate and job affect should reflect this. It is suggested “that major but infrequently affectively meaningful events such as recognition ceremonies or bonuses will be less important determinants of overall satisfaction than will working in an environment which provides daily, if only minor, positive experiences” (Weiss & Cropanzano, 1996, p.50). Therefore, the manager whose emotional intelligence is more highly developed may be able to contribute to a more salubrious psychological work environment.

2.3.5.1.6 *Affect versus attitude driven behaviours*

A distinction needs to be drawn between affect and attitude driven behaviours. Some work behaviours flow directly from *affective* experiences, including helping behaviours, probability judgements and information processing strategies (Morris, 1989). According to Lazarus (1991a, 1991b), certain negative emotional experiences may give rise to particular coping responses. Since affect levels vary, one may expect affect induced behaviours to fluctuate and be short in duration. Other job related behaviours are driven by individuals’ *attitudes* and *overall judgements* of the job. This type of behaviour may include withdrawal behaviour, such as being late, absenteeism, quitting and retirement (Weiss & Cropanzano, 1996). According to these authors, the difference between judgement and affect driven behaviour lies with the assumption that “affect levels have direct behavioural consequences” (p.54).

(a) **Affect driven behaviours: Emotions**

Previously, emotional reactions were, on average, viewed as disorganising and dysfunctional. Together with Lazarus (1991), Weiss and Cropanzano (1996) believe this to be a misconception. This viewpoint is furthermore supported by information gained from more recent studies on the neurology of emotions as discussed earlier on in this chapter. Emotional

responses are, indeed, generally quite functional. Rather than to *disorganise* behaviour, emotions function to *reorganise* or redirect behaviour. People in a particular emotional state tend to be preoccupied by such a state and there seems to be a persistence of behaviours applied to deal with the emotion. Furthermore, Weiss and Cropanzano predict that there would be a larger decrement in performance accompanying negative emotional states than in the case of positive states.

(b) Affect driven behaviours: Moods

Mood effects on memory, judgements and behaviour is well studied but complex since effects are more often inconsistent. This has led to reduced efforts by researchers to investigate moderators and theoretical explanations leading to the coherent organisation of such inconsistencies (Weiss & Cropanzano, 1996). However, mood effects are generally organised into four categories, namely, mood effects on memory, evaluative judgements, processing strategies, and social behaviours, all of which are important in regard to job performance. For example, mood congruence has been demonstrated in regard to memory (Clore, Schwarz & Conway, 1994) where mood indeed ‘clouds’ memory. Mood informs evaluative judgements since it links with mood congruent memory effects (Morris, 1989). In terms of processing, individuals in positive moods make use of simple, heuristic processing to make judgement (since they wish to prolong the positive mood) whilst those experiencing negative moods are inclined to process stimuli more systematically and with more effort (in an attempt to help eliminate negative mood) (cf. Weiss & Cropanzano, p.61). Furthermore, social behaviour is also influenced by mood. Isen and Baron (1991) report, for example, that positive mood links with helping behaviour and cooperation whilst simultaneously reducing aggression.

2.3.5.2 SUMMATIVE PERSPECTIVES RELATED TO AET

According to Weiss and Cropanzano (1996), affective experiences, both mood and emotion, independently, influence job satisfaction and performance. “People react to events of their work lives. These events drive their immediate affective states and these states can vary over time” (Weiss & Cropanzano, 1996, p.66). Such fluctuation and the performance implication thereof are dependent on the employee’s affective state at any particular time. Some job events are perceived as positive, others as negative; some work environment features are more likely to generate positive and others negative events. These represent the basic assumptions by Herzberg, as referred to by Weiss and Cropanzano (1996, p.16). Herzberg theorised that features operate by making certain events more or less likely.

Against the sketched background, the affective events theory was chosen as an explanatory model for the current study since it seems the most appropriate, albeit not a perfect, explanatory model to conceptualise affective experiences at work. The value of the theory lies in its explanatory power that focuses on work events that generate affective reactions in an employee to mediate attitudes together with judgement and affect driven behaviours. The role of disposition is conceded as influential in the experience of affective reactions, whilst particular features of the work environment may also directly influence work attitudes. Although the model does not focus on employee well-being, the same process may hold true to mediate such well-being and this forms the central thesis of the current investigation. This theme will again be considered at the end of Chapter 4.

Against the backdrop of an ever-increasing interest in emotions and the role they play in human behaviour, another related and recent construct or theory has evolved as an explanatory model, namely the emotional intelligence construct.

2.3.5.3 EMOTIONAL INTELLIGENCE

The term ‘emotional’ in emotional intelligence refers to both mood and emotion. Scholars have long recognised the relevance of cognition to problem solving and leadership, whilst the relevance of emotion was traditionally discounted (Salovey *et al.*, 2000). Since researchers studying the brain have more recently determined that emotion precedes or at least accompanies cognition, affect (both mood and emotion) has been recognised as a ***unique form of information that improves cognition*** (Dickman & Stanford-Blair, 2002; Zajonc, 1998). Individuals vary in their ability to take in and understand affective information. Strength in this ability has been labelled emotional intelligence (Salovey *et al.*, 2000). The key difference between emotional intelligence and cognitive skills involves the integration of emotion with thoughts, enabling an individual to understand what others are feeling, while cognitive skills involve the integration, organisation and ordering of thoughts (Goleman, 2001). Therefore, emotional intelligence essentially describes the ability to effectively join emotions and reasoning; using emotions to facilitate reasoning, and reasoning intelligently about emotions (Mayer & Salovey, 1997). Emotional intelligence, therefore, influences the extent to which people’s cognitive capabilities are informed by emotions and the extent to which emotions are cognitively managed. Furthermore, emotions are distinct from predispositions to experience certain kinds of emotions captured by the personality traits of positive and negative affectivity (George, 1996; Tellegen, 1985).

Empathy is seen as fundamental to emotional intelligence and has been defined by Mayer and Salovey (1997, p.5) as “ the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth”. Wolff, Pescosolido and Druskat (2002) view empathy as a seminal emotional intelligence ability and propose that it improves leader ability to perceive and understand both member and team emotion. It precedes and enables cognitive processes and skills by providing an accurate understanding of team and team member emotions and needs. They further propose that this emotional understanding improves cognitive skills, pattern recognition, and perspective taking. Perspective taking is defined as analysing, discerning and considering the merits of another’s point of view (Boland & Tenkasi, 1995) – to step into another’s shoes, and consider the merits from his point of view. Emergent leaders were, for example, noted to be socially perceptive and skilled at recognising and understanding the feelings and emotions of their teams. This understanding augments a leader’s cognitive analysis and prioritisation of issues facing the team. The high quality cognitive analysis underlies and leads to skilled behaviour (Wolff, Pescosolido and Druskat, 2002). These authors’ research supported the basic premise, namely, that empathy serves as a foundation for cognitions and behaviours that support leader emergence. Empathy also formed the foundation for the analytic skills of pattern recognition and perspective taking.

Since the belief exists that positive emotions link with employee performance, organisations have paid attention to aspects such as positive reinforcement, positive affect, emotion, and even humour. In general, however, as discussed previously, organisational behaviour focussed much more on the negative than on the positive, as did its parent discipline (Luthans, 2002). Examples include attention to stress and burnout rather than to eustress; resistance to change rather than celebrating change; managers’ deficiencies, dysfunctions and problems rather than their strengths, and psychological capacities to develop and improve performance. Luthans then argues that a positive approach to organisational behaviour be taken against the background of the changing world and work environment. He argues that Positive Organisational Behaviour (POB) capacities represent states and consequently – via training - open to learning, development, change, and management in the workplace, workshops, or self-development. He states that psychological capabilities that meet such POB criteria may be represented by the acronym CHOSE, namely, confidence, hope, optimism, subjective well-being/happiness and emotional intelligence.

Muchinsky (2000) believes that emotional intelligence may provide the long-sought missing link that will unite the ability and motivational or dispositional determinants of job performance. Accordingly, it is plausible that emotional intelligence assessment "... could become a staple of a personnel selection battery" (p.804). After a decade of recognising the complexity of cognitive processes, the next decade may witness the recognition of emotional processes in personnel selection and job performance. The study of emotions and cognitions is important and should receive equal attention. The construct of emotional intelligence is further expanded on in Chapter 3.

2.4 CONCLUSION

The researcher is interested in emotional experience since positive and negative moods or emotions at work have been demonstrated to influence important employee outcomes, for example job satisfaction and absenteeism (George, 1989; George & Jones, 1997; Staw *et al.*, 1994).

With this in mind, the chapter reflects on the affective domain in human functioning. In the first section of the chapter, moods and emotions were defined and their structure briefly considered. Traditional theories of emotion were highlighted to demonstrate that some of the intuitive ideas propagated at the time indeed resonate with what is presently understood about the complex and important arena of affective experience. Present day knowledge results from technologically advanced methodologies and apparatus that probe and document thoughts and affect as they evolve. The researcher proceeded to provide evidence of present day knowledge on the neurological substrates of emotion; demonstrating the intricate interwovenness of affect and cognition, and the notion of the brain's inherent plasticity that provides a neurological basis for change and learning, also in the affective domain. The complexity of affective experience was further confirmed by reflecting on the groundbreaking work relating to the chemical substrates of emotion that clearly reveal the so-called body intelligence where neurology and molecules orchestrate in a finely tuned balance to make man uniquely humane. The researcher then proceeded to illustrate a modern theory of emotions, namely the Broaden-and-Build Theory that demonstrates the advantages, also within the workplace, of promoting positive emotions as a precursor to pursuing emotional intelligence within organisations.

Flowing from the first section, the second part of the chapter focussed on affect in the work context and the upsurge of interest in the topic. The chapter reviewed related research

including mood and emotion producing factors; characteristic mood effects as they present in the workplace, and consequences of emotions and mood at work. Next, the researcher elucidated the Affective Events Theory that provides a conceptual framework for viewing affective events in the workplace. In an attempt to build theory, the researcher proceeded to adapt the model to include predictor and mediating variables in line with the current investigation, and that are further empirically investigated in Chapters 6 and 7. The chapter concluded with a brief introduction to the construct of emotional intelligence.

Against the backdrop of the many claims put forward by those who propagate the emotional intelligence (EI) construct (and its proposed advantages within the organisational context) and those who vehemently oppose and seriously doubt the validity of the construct (putting down the claims as unscientific), the researcher wishes to investigate the construct and whether it relates to indices of employee well-being. Theories explaining specific kinds of work conditions, how they influence organisational climate and its effect on affective states, are called for. Therefore, emotional intelligence - the central thesis of this dissertation – can this construct contribute knowledge to this field in any meaningful way?

The next chapter will further expand on this topic.

Chapter 3

EMOTIONAL INTELLIGENCE AND EMOTIONALLY INTELLIGENT LEADERSHIP

3.1 INTRODUCTION

Distinct stages present in the evolution of scientific theories (Goleman in Bar-On & Parker, 2000). The maturation of a theory typically includes the seminal conception and hypothesis testing, followed by the further refinement of the theory. In the case of emotional intelligence (EI) this process was, according to Goleman, remarkably rapid. Bar-On was the first to use the abbreviation for emotional quotient (EQ) in the 1980's. In 1990 Salovey and Mayer followed and published their so-called landmark conceptualisation of emotional intelligence. Goleman followed in 1995 with his widely published and popularised book on emotional intelligence. Although some may argue that the concept of emotional intelligence is new, its origin is indeed well-imbedded in psychological thought over the past century. "But", says Goleman, "the recent rash of attention seems to have catalysed a ferment of interest in this way of conceiving human abilities" (Bar-On & Parker, 2000, p.vii). The publication of *The Handbook of Emotional Intelligence* (Bar-On & Parker, 2000), continues Goleman, may push the theory of emotional intelligence into its next stage of refinement, namely the development of grounded theory since – as for any emerging theory – the first round of theorising extrapolated findings rather than directly testing hypotheses. Of late, however, researchers conduct research

guided by the developing body of knowledge in the area of emotional intelligence including tracing the historical roots of EI; investigating the normal and abnormal development of the construct; relating EI to other psychological theories such as social and practical intelligence, related competency constructs and a variety of outcome variables such as mental and physical health, the quality of interpersonal relations *etcetera*. Furthermore, new insights from neuroscience, such as those referred to in Chapter 2, offer insight into the workings of emotions and bear implications for the emotional intelligence construct, whilst studies on particular psychological disorders highlight deficits in emotional intelligence abilities.

The current chapter serves to review important perspectives and more recent models of the emotional intelligence construct; bind it to the work environment and leadership; and review criticism that has been levelled in this regard.

3.2 HISTORICAL ROOTS OF EMOTIONAL INTELLIGENCE

The term “intelligence” first presented in literature during the twentieth century (Spearman, 1927). Prior to that period, even books of good standing on psychology did not mention the word. Psychologists have ever since tried to successfully define intelligence. Sadock and Sadock (2000, p. 684) defines intelligence as the: “capacity for learning and ability to recall, integrate constructively and apply what one has learned; the capacity to understand and think rationally”. This capacity was, traditionally measured and expressed as an “IQ” or intelligence quotient. However, as early as 1920, Thorndike (as quoted by Hedlund & Sternberg, 2000) already argued in favour of social ability as an important component of intelligence. He defined social intelligence as the ability to act or behave wisely in relation to others and distinguished social intelligence from the mechanical and abstract forms of intelligence.

The study of emotional intelligence really originates with the writings of Wechsler (1940) who referred to the non-cognitive intellectual aspects of general intelligence. He subsequently defined intelligence as “the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his (or her) environment” (Wechsler, 1958, p.7). This concept clearly involves more than mere cognitive intelligence and implicates those abilities required to adapt to new situations and cope successfully with life. He held the

opinion that these factors, undeniably, contribute to intelligent behaviour. He argued that “we cannot expect to measure total intelligence until our tests also include some measures of the non-intellective factors (Wechsler, 1943, p.103).

These early thoughts were succeeded by the ideas of Gardner (1983, 1993, 1999) half a century later. He proposed a theory of multiple intelligences that included, in addition to the recognised cognitive intelligences, kinesthetic, practical, musical and personal intelligences, thereby expanding on Wechsler’s concept of general intelligence. He conceptualised the personal intelligences as an intrapsychic capacity and an interpersonal skill. According to Gardner, intrapersonal intelligence constitutes the ability to understand oneself, including knowing how one feels about things and understanding one’s range of emotions, as well as having insight into the way one acts. Intrapersonal intelligence assists one to act in ways that are appropriate to one’s needs, goals and abilities. Interpersonal intelligence, conversely, includes the ability to read moods, desires and intentions of others and to act on this knowledge. Theorists thus began to challenge traditional IQ-based views of intelligence (e.g. Bar-On, 1997; Mayer & Salovey, 1993, 1995).

Of late, the concept of EI emerged, adding depth to the concept of human intelligence in an attempt to expand the ability to evaluate overall intelligence (Bar-On, 1997). He contends that general intelligence may be conceived of as including both cognitive *and* emotional intelligence and views the personal intelligences as the precursors of emotional intelligence. EI speaks to the emotional, social, personal, and survival dimensions of intelligence, rated by some as more important for daily functioning than the renowned aspects of cognitive intelligence. Stemming from earlier conceptions, emotional intelligence aims at understanding and relating to the self and others and coping successfully with the immediate context. According to Bar-On, emotional intelligence is tactical and aimed at immediate functioning, whilst cognitive intelligence is more strategic, with long-term capacity. Emotional intelligence reflects one’s ability to manage the immediate situation successfully by applying available knowledge. EI thus measures a person’s “common sense” and ability to adapt to the world’s demands.

3.3 DEFINING EMOTIONAL INTELLIGENCE

As was the case with cognitive intelligence referred to earlier on, the term “emotional intelligence” does not yet feature in most dictionaries. Its definition and boundaries are still

evolving and even disputed. Operational definitions for concepts such as emotional intelligence are sought to make them tangible, easier to understand, apply and measure.

A number of attempts at definitions have been made. Bar-On defines it as “an array of non-cognitive capabilities, competencies, and skills that influence one’s ability to succeed in coping with environmental demands and pressures” (1997, p. 14). He argues that emotional intelligence is an important predictor of success in life and directly influences an individual’s general psychological well-being and health. Bar-On conceptualises emotional intelligence in combination with other important determinants as a basis for success in life. These include an individual’s biomedical predisposition and conditions, cognitive intellectual capacity and the limitations and realities of the changing context in which he/she lives. Goleman (2001, p.27) defines EI as “a learned capability based on emotional intelligence that results in outstanding performance at work”. Mayer, Salovey and Caruso (2000) again argue that emotional intelligence represents a set of mental abilities, including the ability to perceive emotions, access and generate emotion to assist thought, understand and reason about emotion, and reflectively regulate emotions to promote emotional and intellectual growth.

Before EI is discussed in more depth, related competency constructs and the non-intellective intelligences should receive scrutiny.

3.4 CONCEPTS RELATED TO EMOTIONAL INTELLIGENCE COMPETENCIES

3.4.1 SOCIAL COMPETENCE

According to Topping, Bremner and Holmes (2000, p.32), social competence is “the possession and use of the ability to integrate thinking, feeling, and behaviour to achieve social tasks and outcomes valued in the host context and culture”. Socially competent people select and control which behaviours to apply in pursuit of any given objective either set by them, or prescribed by others, and within a given context. Thus, within the work context, such an individual may be self-assertive without being aggressive, thereby regulating the environment to his advantage. Social competence is important since it is a factor in resilience and the

socially competent and integrated individual seems more likely to withstand life stressors, and temptations such as involvement in self-damaging behaviours including drug taking.

3.4.2 EMOTIONAL COMPETENCE

According to Saarni (2000, p.68), “emotional competence is the demonstration of self-efficacy in emotion-eliciting social transactions” and “Mature emotional competence, as defined here, assumes that moral character and ethical values influence one’s emotional responses in ways that promote personal integrity” (p.69). However, all individuals will at some stage experience *some* emotional incompetence when unprepared for or overextended within a particular social context.

3.4.2.1 CONTRIBUTORS TO EMOTIONAL COMPETENCE

- **The role of the self**

According to Saarni (2000), the most important contributor to the development of emotional competence is the self (or ego identity), the moral disposition, and a person’s developmental history - all situated in a particular cultural context and time. The self mostly becomes automated by adulthood. Neisser developed a taxonomy of the self that fits well with the construct of emotional competence (Neisser 1988, 1992, Neisser & Fivush, 1994). The taxonomy firstly consists of the **ecological** self (that allows for a bi-directional engagement with the physical and social environment). Behaviour largely depends on what the environment allows and how the individual shapes / responds to this environment. The second component of the taxonomy is the **extended** self that taps into previous experience (schemas) helping the individual to adapt in a novel context. The third component, the **evaluative** self, accentuates feelings and values, and is important in relation to goal directed behaviour. Individuals manoeuvre their interactions in order to seek out advantages for the self whilst attempting to avoid disadvantages. The ecological, extended, and evaluative self-taxonomy promotes our understanding of functional interactions between individuals and their social and physical environments. This complex set of interactions to some extent explains why two people in the same environment tend to interpret events distinctly differently. Another powerful motivator of behaviour is feedback from others. Such feedback is internalised and contributes to self-beliefs and assists in the development of the capacity for self-evaluation. This helps regulate or monitor behaviour according to others’ expectations of appropriate behaviour (Harter, 1998; Kopp, 1992). Developmentally delayed children typically

demonstrate a deficit in such self regulatory capacity (Kopp & Wyer, 1994). Emotional competence flows from how regularly (and under which set of conditions) the multi-faceted self experiences self-efficacy. Therefore an individual may feel emotionally competent in many situations but incompetent in other areas, since he /she is ill-prepared for that particular situation and has not yet developed the skills to cope within the particular context. Furthermore, individuals tend to deceive themselves rather than to deal directly with their emotional incompetence. Self-deception seems to be an important mediator between affective dispositions or mood and individuals' well-being (Erez, Johnson & Judge, 1995).

- **The role of moral disposition and developmental history**

Goleman (2002) equates emotional intelligence to character. In support, Saarni argues that "Personal integrity comes with a life lived in accord with one's moral sense or disposition" (2000, p.72). People who function adaptively and competently on the emotional level invariably also live in accord with their moral disposition and therefore in accordance with concepts such as sympathy, self-control, fairness, and a sense of obligation. Being a social constructivist, Saarni views individuals' emotional experiences as highly individualised. Emotional experience is dependent on the exposure to particular social environments, an individualised social history and the level of current cognitive development. Culture is also influential since individuals immerse themselves in their cultural beliefs, attitudes and assumptions, most often communicated by means of narrative and discourse. Emotional experience is "saturated with nuance and context-dependent meaning, including the social roles we occupy, such as age and gender roles" (Saarni, 2000, p.73). She believes one is instrumental in creating one's own emotional experience, but that this process is intertwined with one's cognitive functioning and social experience.

3.4.2.2 CONSEQUENCES OF EMOTIONAL COMPETENCE

According to Saarni (2000), the consequences of emotional competence include an effective skill to manage one's emotions (critical in negotiating one's way within interpersonal exchanges); a sense of subjective well-being, together with adaptive resilience when faced by stressful circumstances. When individuals acquire the skill of emotional competence, their behaviour will mirror it.

- **Management of Emotion**

Coping strategies are critical in managing emotions effectively. Children acquire socially desirable emotion scripts at the young age of six to seven years. They learn ‘script knowledge’ for managing emotional expressive behaviour when faced with challenging situations (Saarni, Mumme & Campos, 1998).

- **Subjective well-being**

Diener *et al.* (1999) contend that well-being includes a positive temperament; the ability to embrace optimism and likewise minimise negative, and to enjoy mutually supportive relationships. In this regard, Saarni (2000) asserts that emotional competence or the capacity for emotional self-efficacy facilitates well-being, since it justifies one’s emotional experience as worthy. Research has suggested that self-worth mediates both emotional and motivational systems so that positive self-beliefs are associated with positive affect and the pursuit of goals important to the self (Harter, 1999). High self-esteem thus functions as an optimistic buffer when things are going badly for a person since he / she can contextualise the event in time and space. Research has also demonstrated a link between self-control and basic skills of emotional competence. These include awareness and understanding of own emotions; the understanding and empathising with others’ emotions; the access of and skill at using emotion words and emotion scripts, and the ability to cope with negative circumstances and negative emotions (Gottman, Katz & Hooven, 1997; Saarni, 1999). These competencies also form part of the emotional intelligence competencies.

- **Resilience**

According to Saarni (2000), an individual’s ability to act with emotional competence across a number of stressful experiences, demonstrates resilience. Resilience relates to the ability to recover quickly after having experienced some or other trauma. The construct is not unidimensional and some research has shown that repeated debilitating experiences can indeed erode protective influences and competent functioning in particular contexts (Luther, Doernberger, & Zigler, 1993). Children exposed to stressors in line with their coping capacity and pushed a little to meet emotional challenges, may demonstrate improved coping skills when confronted with future stressors. However, children chronically exposed to trauma and who experienced little or inconsistent social support from significant others will demonstrate vulnerability across many domains (Luther, *et al.* 1993). Resilience therefore relates to emotional competence and grounded social relationships that provide support.

3.4.2.3 FINAL REFLECTIONS ON EMOTIONAL COMPETENCE

From a developmental perspective, Saarni (2000) proposes that the powerful roles played by both context and the self within an individual's emotional functioning need to be acknowledged. Emotional competence, according to her definition, implies acknowledging the individual's motivation for engaging in some emotion-eliciting interaction; the uniqueness of the context specific demands; the support available to that individual, together with the values and beliefs the individual takes into the emotional experience. Therefore, any given measure or instrument could not *possibly* produce a definitive outcome indicating that person A is more emotionally competent than person B. The number of variables involved in social transactions are intertwined in a dynamic and complex web of constant change. "A constructivist perspective suggests considerable fluidity in a moment-to-moment experience of people, and those who are concerned with narrative construction, meaning-making, or the process by which we create "storied selves" (McAdams, 1996) would probably say that emotional competence is much more of an ebb and flow process, not a trait that resides in the person" (Saarni, 2000, p. 85). Both social and emotional competence seem to feature in the broader EI construct / competencies and the problem with definitively measuring these two constructs seem to resonate with what was found in the establishing of psychometric measures for emotional intelligence.

The non-intellective intelligences will now receive scrutiny.

3.5 THE NON-INTELLECTIVE INTELLIGENCES

According to Sternberg (1985, 1997), emotional, social, practical intelligence and the likes are referred to as the non-academic or non-cognitive intelligences (Bar-On, 1997); or the non-intellective intelligences (Wechsler, 1940). These are attempts at distinguishing less traditional views from the more recognised and researched abstract, or academic, intelligence (with at its centre alleged to be 'g' or general ability), typically measured by IQ-type tests. Legitimising alternative forms of intelligence seems dependent on two fundamental questions, namely, do these constitute cognitive abilities, and can reliable and valid measures for these "nontraditional" intelligences be developed? Furthermore, do they constitute distinct, independent constructs or do they overlap? In this regard, social and practical intelligences will be discussed with the focus first turning to highlight social intelligence.

3.5.1 SOCIAL INTELLIGENCE

Thorndike's (1905) "law of effect" was influential in regard to the social intelligence perspective. For him, the focus fell less on the behaviour itself than on the effect it was designed to create. Kelly (1955), Rogers (1961), Rotter (1966, 1975) and the "new look" movement of the 1950's (see Bruner, 1990) seem to form an important backdrop to the social intelligence concept. Kelly (1955) proposed that people's anticipation of events, or expectations, are central to determining their behaviour. His model is essentially cognitive and emphasises expectations, interpretations, and "personal constructs" or schemas that inform people's understanding of how the world works. Rotter (1966, 1975) emphasised people's perception of opportunities offered by their *umwelt*. Individuals both influence and are influenced by their environment. Social intelligence therefore assumes people are knowledgeable about themselves and the social world in which they live. They apply this knowledge in order to manage their emotions and direct their behaviour toward desired outcomes.

Researchers interested in the topic of social intelligence view it as a distinct repertoire of knowledge that is tapped into in solving social problems. Cantor and Kihlstrom (1987) initially proposed that social intelligence forms the cognitive basis of personality and comprises the cognitive processes distinguishing individuals' approaches to problem solving in their everyday lives. In addition, Cantor and Harlow (1994) hold the opinion that intelligent behaviour displays insight into the consequences of actions for successful and flexible pursuit of goals. Cantor and her colleagues (1987; 1994) provide a number of arguments against psychometric approaches to studying social intelligence on the grounds of the difficulty of constructing psychometric instruments that allow for: (1) individualised and varied types of problems that tap social intelligence, (2) difficulty in identifying the particular knowledge tapped into, (3) the (inappropriate) treatment of social intelligence as a trait by which individuals can be compared and, (4) an overemphasis in measurement of the amount rather than of the type of social intelligence. This position reflects some agreement with the position that Saarni (2000) takes in regard to the difficulty with the psychometric evaluation of emotional competence.

Kihlstrom and Cantor (2000) studied the role of social intelligence as applied to managing life tasks including, *inter alia*, making friends, finding a spouse, establishing a career, and achieving good grades. They discovered that socially intelligent people tend to develop

specific action plans; they monitor their progress, and then evaluate the outcomes of their actions. The socially intelligent are flexible and alter their plans when obstacles hamper their attainment of their goals.

Up to the present, researchers have not determined with certainty that social intelligence is distinct from academic intelligence. This may, in part, be attributed to the variety of ways in which social intelligence has been defined and measured, a problem that seems to repeat in the EI literature. Social intelligence has been characterised as social perception, social knowledge, social insight, empathy, social memory, social adaptation, and social-behavioural effectiveness. More than 40 different instruments have been developed to date and researchers agree that a definitive instrument is yet to be found (Zirkel, 2000). Next, practical intelligence receives attention.

3.5.2 PRACTICAL INTELLIGENCE

Sternberg (1985, 1997) argues that practical intelligence is key to successful intelligence. Successfully intelligent people recognise and capitalise on their strengths to solve practical problems whilst compensating for weaknesses. Practical intelligence allows for adapting to the environment; shaping (or changing) it; or even for selecting a new environment in an attempt to attain personally valued goals. A number of researchers have demonstrated practical intelligence to be distinct from academic intelligence (Sternberg, Wagner & Okagaki, 1993; Sternberg, Wagner, Williams & Horvath, 1995; Sternberg *et al.*, 2000). Research on both practical and emotional intelligence has a more limited history than has social intelligence.

Wagner and Sternberg (1986) argue that individuals adept at solving academic problems are not necessarily equally adept at solving practical problems. Below follows a brief overview of the difference between academic and practical everyday problems.

Table 3.1 Academic versus practical problems

	Academic problems tend to be	Practical everyday problems tend to be
1	formulated by others,	Unformulated
2	well defined,	poorly defined
3	complete in the information they provide	lacking in information necessary for a solution
4	characterised by having only one correct answer, and	characterised by multiple “correct” solutions, each with liabilities and assets

5	characterised by having only one method of obtaining the correct answer	characterised by multiple methods for picking a problem solution
6	disembedded from ordinary experience	related to everyday experience
7	Of little or no intrinsic interest	of personal interest

Of these three referred to non-academic intelligences, practical intelligence, or practical problem-solving ability, has arguably, received the most attention from contemporary researchers (Berg, 2000; Sternberg *et al.*, 2000; Wagner, 2000). Grigorenko and Sternberg (2000) established that practical intelligence consistently predicts a range of self-reported adaptive functioning skills with higher practical intelligence associated with better physical and mental health. The procedural (passive/tacit) knowledge one acquires in everyday life (usually not taught and often not even verbalised) typically includes three features. Generally, it

- is acquired on one's own with little support from the environment (through personal experience rather than through instruction);
- is procedural in nature (associated with particular uses in particular situations), and
- has value in assisting one to pursue one's personal goals.

Tacit knowledge also appears to be distinct from personality variables.

Furthermore, research on age-related patterns of intellectual development suggests a distinction between practical and academic abilities. Age-related changes in intellectual performance are, typically, distinguished via fluid and crystallised abilities (Horn, 1994; Horn & Cattell, 1966). Fluid abilities are those required to deal with novelty whilst crystallised abilities represent accumulated knowledge. With an increase in age, Denney and Palmer (1981) found that performance in traditional academic tasks declined almost linearly from the age of twenty onward, whilst performance in practical tasks increased to peak in the forty- to fifty-year-old person, before starting to decline.

According to Grigorenko and Sternberg (2000), one of the limitations of existing research on social and emotional intelligence is that few researchers have attempted to establish the incremental validity of their measures relative to other existing measures in the prediction of performance criteria. However, it does seem from the previous discussion that non-intellective aspects of intelligence need to be considered in seeking to understand intelligent human behaviour and how it reflects in different contexts. Interest in these two types of non-intellective intelligences precedes the interest in emotional intelligence, another form of non-intellective intelligence.

3.5.3 SUMMATIVE PERSPECTIVES ON CONCEPTS RELATED TO EMOTIONAL INTELLIGENCE COMPETENCIES AND THE NON-INTELLECTIVE INTELLIGENCES

A number of concepts related to EI, including social and emotional competence, and the non-intellective intelligences such as social and practical intelligence, were discussed together with the consequences they hold in regard to the developing of emotional competencies. This reflects an attempt by researchers to definitively define and understand competencies that relate to successful everyday living and to discern their contribution relative to that of the so-called academic intelligences. As reflected in the definition of emotional intelligence, its boundaries are still evolving and are even disputed. This study is a further attempt at contributing to knowledge in this domain and to refine further what is known about the concept and whether it may indeed be viewed as a distinct construct.

Against this backdrop, a number of EI models have since come to occupy centre stage.

3.6 MODELS OF EMOTIONAL INTELLIGENCE

EI may be broadly defined as the ability to use emotional information in a constructive and adaptive manner. For a more detailed definition please see 3.3.

3.6.1 INTRODUCTORY PERSPECTIVES

Emotional intelligence has become a much debated topic. The sustained interest in the concept was initiated by two 1990 articles in academic journals (Mayer, DiPaolo & Salovey, 1990; Salovey & Mayer, 1990). This was followed by the popularised best-selling book entitled *Emotional Intelligence* by Goleman (1995). The concept of emotional intelligence even made it to the covers of *Time* and *Newsweek* magazines (Gibbs, 1995). Despite these articles presenting a mixture of sensationalism and science, the concept had great appeal. Since its inception, opposing views with different definitions and models of EI have come into being. One view, for example, holds that emotional intelligence includes almost everything related to success that is not measured by IQ (Bar-On, 1997; Goleman, 1995, 1998), whereas the other

(Mayer *et al.*, 2000), argues for a more restrictive view with emotional intelligence being the ability to perceive and understand emotional information. Another, more extreme, position is held by Davies *et al.* (1998) who suggest that emotional intelligence may represent a very limited construct after personality and general cognitive ability factors have been accounted for. Consensus, however, seems to exist that an awareness of own emotions is particularly important for emotional intelligence. It provides the foundation for the successful implementation of the other components of emotional intelligence (Lane, 2000). Goleman (1995) furthermore links EI abilities to aspects of overt behaviour within a given social context. Such behaviours reflect impulse control, persistence, zeal and self-motivation, empathy, and social deftness. Despite the fact that this broader conception of emotional intelligence extends beyond the concept of mental abilities, Mayer, Salovey and Caruso (2000) concur that the behaviours in question may indeed be based on a capacity to be consciously aware of emotional information. The mentioned emotionally intelligent forms of behaviour may be viewed as the promotion / suppression of approach / avoidant behaviour that flows from an awareness of the current / anticipated subjective emotional state of the self or another (Lane, 2000). He provides the following insights into such approach and avoidance behaviours:

- **Emotionally intelligent approach and avoidance behaviours**

Impulse control, for example, involves refraining from taking particular action that provides short-term gratification in an attempt to avoid possible negative long-term consequences. In order to manage such an impulse, a mental representation anticipating possible negative future consequences for self or others, needs to be held in the working memory to prevent the action from occurring. Impulse control thus involves suppression of approach behaviour. Research using the Levels of Emotional Awareness Scale (LEAS) (Lane, Quinlan, Schwartz, Walker & Zeitlin, 1990), for example, demonstrated in independent samples that higher levels of emotional awareness correlate with higher levels of self-reported impulse control. By contrast, ***persistence*** is about managing negative emotional reactions when obstacles present whilst one pursues one's goals. Persistence assumes an awareness of negative emotions, and refraining from acting on them. Persistence therefore involves the suppression of avoidance responses.

Zeal and self-motivation, on the other hand, have to do with consciously creating positive affect in order to motivate oneself to achieve one's personal goals. A prerequisite is to recognise the absence of positive affect, initiate positive affect, monitor and sustain it. This action entails the enhancement of approach behaviour.

Finally, *social deftness* implies the ability to negotiate skilfully in social interactions in pursuit of achieving one's goals within a particular social context. Successful negotiation is effected when one can carefully monitor the self together with others' interests and concerns and integrate them for suitable action. Important in this regard is to avoid creating negative responses and rather enhancing positive responses in others (Lane, 2000).

Accurate empathy forms another cornerstone in anticipating whether a particular behaviour will evoke positive or negative responses in others (Lane, 2000).

Against the background of differing definitions of emotional intelligence, a number of competing models have evolved and are now discussed.

3.6.2 COMPETING MODELS OF EI

The three most prominent models of EI will now be discussed, namely the Zeitgeist approach, Mixed Models and EI as an ability. In this regard the researcher chooses to go with the approach as depicted by Mayer, Salovey and Caruso (2000), the originators of the concept and, in the view of the researcher, the academically most sound in their argumentation.

3.6.2.1 EMOTIONAL INTELLIGENCE AS ZEITGEIST

The phenomenal interest the concept of emotional intelligence engendered, occurred against the longstanding tension in Western thought between emotion and reason. Emotional intelligence glued these two terms, (considered an oxymoron by some), since emotions were traditionally viewed as *unreasonable* (Salovey & Mayer, 1990). A second tension in Western thought comprised egalitarianism and elitism. Concomitant with the popularisation of emotional intelligence, *The Bell Curve* (Herrnstein & Murray, 1994) was published, arguing the importance of IQ for attaining particular levels of social class (and therefore success) in American and other societies. Whilst Herrnstein and Murray's arguments were widely opposed as elitist, opponents viewed Goleman's 'Emotional Intelligence' as an egalitarian rebuttal of the assumptions in *The Bell Curve* (Mayer, Salovey & Caruso, 2000). These two approaches are briefly considered.

- **Emotion versus reason**

Respect for or denial of emotions has an extended history in Western thought. Within Stoic philosophy the wise did not admit to emotion or feeling but willed it away via self-control to

retain only rationality and logic, an heirloom of Western civilisation and Christianity (Payne, 1986). However, this view slowly came under scrutiny and by 1960 North America and Europe began to rebel against the forces of rationalism. This coincided with the coming of age of many current-day research on emotion and intellect. Against the rise of humanistic psychology, longstanding psychological truths were confronted and contradicted and emotionality became tied to personal growth. The Humanistic movement in psychology propagated, for example, that a basic human need is “to feel good about oneself, experience one’s emotions directly, and grow emotionally” (Herman, 1992, p.88). In contrast to the prevailing traditional paradigm where the more emotionally inclined individual was frequently regarded as mentally ill, the emotional intelligence construct attempts to *integrate* emotion and thought. As stated previously, recent research clearly indicates that the cognitive and emotional systems in the brain are much more interrelated than previously believed (Damasio, 1995; LeDoux, 1994).

- **Egalitarianism and elitism**

Goleman (1995) argued that emotional intelligence may well exceed IQ as a success tool and that emotional competencies can indeed be learned. Therefore, since EI is by nature egalitarian and therefore different from IQ, it has zeitgeist value since it reflects something of the spirit of the present time.

Before attention turns to examining the so-called mixed models of EI, personality and EI are briefly reflected on as a precursor to examining the mixed models of EI.

3.6.2.2 PERSONALITY AND EMOTIONAL INTELLIGENCE

According to Mayer (1998), McAdams (1996), McCrae and Costa (1999), emotional intelligence should not be equated to personality since it does not fit in with current perspectives on personality psychology. Despite this, typical personality terminology such as motivation, emotion, cognition and consciousness presents when the topic is discussed. In accordance, please find a model of personality by Mayer, Salovey and Caruso (2000, p.100) in *Figure 3.1* below.

Level 3:	Self-Relevant traits	General traits *
Mental Traits	Examples: self-esteem, self-consciousness, personal intelligence, ego strength	Examples: extroversion, verbal intelligence, conscientiousness, dogmatism, friendliness

Level 2: Mental Maps	Models of the Self Examples: self-concept, ideal self, identity, life story	Models of the self-in-world Examples: roles, attachments, identifications, rules of conduct	Models of the World Examples: knowing how to spell, expert knowledge of dinosaurs	
Level 1: Mental Mechanisms	Basic Motivations Examples: urges to eat, drink, sleep, join others, defend self	Basic Emotions Examples: feeling joy, sadness, anger, and fear, related psychophysiology	Basic Cognitive Operations Examples: learning, remembering, judging, comparing	Basic Consciousness Examples: awareness, attention, stream of consciousness

Figure 3.1 A schematic outline of personality

(Mayer, Salovey & Caruso, 2000, p.100)

- **Emotional Intelligence**

According to these authors, the most basic level of personality consists of basic motivations and emotions, basic cognitive operations and basic consciousness. The next level of personality (that incorporates aspects of the first level) includes models of the self, and coherent maps of the world and the self in the world, constructed via learning. The last level culminates in traits or themes when given aspects of personality repeatedly present in the models of the self and the world. According to Mayer *et al.* (2000), such traits differ from simple motives, emotions and cognition since they result from interactions between the levels indicated. Emotion, contend Mayer *et al.* (2000), constitutes only one basic aspect of personality. According to these authors, one may view EI as a general ability trait (such as verbal intelligence). In this sense, emotional intelligence “employs cognitive and emotional mechanisms in processing the emotional aspects of the self, the world, and the self-in-world, as well as in processing any purely expert knowledge of emotion” (p.101).

Against the background of the model of personality provided above, attention now turns to mixed or more inclusive models of EI.

3.6.2.3 MIXED-PERSONALITY AND SOCIO-EMOTIONAL MODELS OF EMOTIONAL INTELLIGENCE

According to Mayer, Salovey and Caruso (2000) some researchers apply the term emotional intelligence to a long list of attributes or abilities apparently drawn from certain aspects of personality. One such approach is presented in the popular book *Emotional Intelligence* by Goleman (1995b).

3.6.2.3.1 Goleman's Competency Model of EI

Goleman (2001, p.27) defines EI as “a learned capability based on emotional intelligence that results in outstanding performance at work”. Boyatzis, Goleman and Rhee (2000) demonstrate a longstanding interest in the workplace and what supports exceptional leadership, management and effectiveness in the work context. These authors base their model of EI on those competencies enabling individuals to demonstrate intelligent use of their emotions in effectively managing both themselves and others at work. They view EI as a convenient phrase to focus attention on human talent and to anchor the consequences of the individual's behaviour; and more specifically, success or effectiveness at work.

The **competency** approach aims at identifying and validating specific capabilities against effectiveness measures. Capabilities are, however, also discovered inductively and consequently articulated as competencies. Much research has focussed on explaining and predicting effectiveness in various occupations with a particular focus on managers and leaders (Boyatzis, 1982, Luthans, Hodgetts & Rosenkrantz, 1988; McClelland, 1973; Spencer & Spencer, 1993). Goleman's (1995) interest lies with linking emotional intelligence to a theory of action and job performance.

According to Boyatzis, Goleman and Rhee (2000), research in the field of EI assists understanding of characteristics that predict better performance in a quest for greater effectiveness at work whilst simultaneously striving for more fulfilling and balanced lives. Clusters of behavioural groups constitute desired competencies, defined by a theory, often linked conceptually, and provide a convenient way to describe which competencies are associated with or related to others.

According to Goleman (2001), the most parsimonious definition suggests that EI includes the abilities to recognise and regulate emotions in oneself and in others. Four domains, namely

Self-Awareness, Self-Management, Social Awareness and Relationship Management are included. Self-Awareness and Self-Management relate to what Gardner (1983) labels as intra-personal intelligence, whilst Social Awareness and Relationship Management fit into his definition of inter-personal intelligence. Boyatzis *et al.* (2000) hold that “emotional intelligence is observed when a person demonstrates the competencies that constitute self-awareness, self-management, social awareness, and social skills at appropriate times and in sufficient frequency to be effective in the situation” (p.344). Personal Competence includes the abilities to manage oneself, whilst Social Competencies determine how an individual manages his/her relationships with others. “Twenty competencies nest in four clusters of general EI abilities” (Goleman, 2001, p.28). According to Goleman we cannot, for example, demonstrate competencies of Trustworthiness and Conscientiousness if we have not yet mastered the fundamental ability of Self-Management. This most recent model was confirmed by statistical analyses conducted by Richard Boyatzis.

Goleman (2001) maintains that EI underscores our potential for learning those practical skills that underlie the four EI clusters. Competence depicts to what extent we have realised this potential by learning and mastering skills to translate intelligence to “on-the-job capabilities” (p.28). *Figure 3.4* provides the framework of emotional competencies as conceptualised by Goleman (2001). Each of these contains a number of sub-competencies as illustrated in *Figure 3.2*.

	Self (Personal Competence)	Other (Social Competence)
Recognition	Self-Awareness <ul style="list-style-type: none"> • Emotional self-awareness • Accurate self-assessment • Self-confidence 	Social Awareness <ul style="list-style-type: none"> • Empathy • Service orientation • Organizational awareness
Regulation	Self-Management <ul style="list-style-type: none"> • Emotional self-control • Trustworthiness • Conscientiousness • Adaptability • Achievement drive • Initiative 	Relationship Management <ul style="list-style-type: none"> • Developing others • Influence • Communication • Conflict management • Visionary leadership • Catalyzing change • Building bonds • Teamwork and collaboration

Figure 3.2 A Framework of Emotional Competencies

Goleman (2001, p.28).

The above conceptualisation of emotional competencies forms the basis of the accompanying assessment instrument.

- **Assessment Instrument: Emotional Competence Inventory (ECI)**

Goleman (1995, 2002), citing empirical support for his claims, developed the Emotional Competence Inventory (ECI) together with Richard Boyatzis. The ECI is a 360-degree instrument that gathers information from the self, subordinate, peer and supervisor on twenty social and emotional competencies (Gowing, 2001). The earlier instrument (Self-Assessment Questionnaire, SAQ), was developed from competencies validated against performance in numerous competency studies of managers. The specific questionnaire had also been validated against performance for a variety of job families in dozens of industrial organisations in Italy and one large financial institution in Brazil (Boyatzis & Berlinger, 1992; Valenca, 1996; Vitale, 1998; Boyatzis, Wheeler & Wright, forthcoming). Furthermore, reliabilities for self-assessment varies from .618 for Adaptability to .866 for Change Catalyst; for composite others' assessments the range includes from .798 for Emotional Self-Awareness to .948 for Empathy. As far as validity is concerned, the ECI was supported by construct validity evidence, and validity generalisation evidence from its predecessor, the SAQ. There was, at the time, no convergent or discriminant validity with measures of different or similar constructs (Gowing, 2001). According to Conte (2005) until discriminant and predictive validity evidence is provided for the ECI and it has been empirically peer-reviewed, the scale does not deserve serious consideration.

- **Critique**

Mayer *et al.* (2000) reason that Goleman, in attempting to capture almost everything but IQ under the term emotional intelligence, stretches the definition of intelligence beyond acceptable limits. Therefore it is likely that much of the residual variance beyond IQ would be accounted for by emotional intelligence. Goleman (1998, pp.26-27) includes emotional awareness, accurate self-assessment, self-confidence, self-control, trustworthiness, conscientiousness, adaptability, innovation, achievement drive, commitment, initiative, optimism, understanding others, influence, communication, cooperation, *etcetera*, in his conceptualisation of EI. Mayer *et al.* (2000) state that Goleman has yet to present any hard validity evidence substantiating that what he has defined as emotional intelligence, does

indeed account for any of the variance in educational or job performance beyond IQ. According to these authors, Goleman bases his work primarily on anecdotal evidence and furthermore (questionably) extrapolates from past research. In addition, Goleman redefined and re-described EI frequently through his 1995 book, “each time including a somewhat different set of personality attributes” (Mayer *et al.*, 2000 p.101), finally covering almost all of personality. Such claims include, inter alia, Goleman’s (1995, p.34) claim that emotional intelligence can be acquired through learning. This is in opposition to the traditional researched view that personality traits (largely determined by genetic or biological factors and early-learning contributions), are extraordinarily persistent in adulthood (Riemann, Angleitner & Strelau, in McCrae, 2000). This, according to McCrae, is likely to be viewed as unwelcome news by those proponents of emotional intelligence who claim that emotional intelligence – due to its malleability - is easily acquired as opposed to the relative fixity of traditional IQ. Goleman, (Toms, 1998-99, p.15) is quoted as saying that “people can change from being pessimists to being optimists in a matter of weeks”. This type of claim would be disputed by most psychotherapists and personality psychologists since deep pervasive and lasting changes in personality are far more difficult to achieve (Costa & McCrae, 1992).

Goleman’s approach to EI includes different traits based on, for example, motivation, emotion and behaviour to include the complete model of how one operates in the world (Mayer, 1998). Please refer to *Figure 3.2*. Goleman (1995) indeed actually equated emotional intelligence to character.

The next mixed model to receive attention is that of Bar-On.

3.6.2.3.2 *Bar-on’s multi-factorial model*

Bar-On (1997) was intrigued by the fact that some people seemingly enjoy better emotional well-being and are more successful in life than others. He argued that many highly intelligent individuals are unsuccessful despite their obvious cognitive intelligence, whilst others with less cognitive intelligence are indeed highly successful. Therefore, according to him, cognitive intelligence does not singularly account for success. Bar-On subsequently investigated social and emotional competencies as underlying constructs for emotional and social intelligence (2000). He sketched emotional intelligence as “an array of noncognitive capabilities, competencies, and skills that influence one’s ability to succeed in coping with environmental demands and pressures” (1997, p.14). He adopted the term “emotional intelligence” since it reflects an aggregate of abilities, competencies and skills necessary to cope successfully with

life's demands (similar to Wechsler's, 1940 term intelligence), whilst the adjective *emotional* differentiates it from cognitive intelligence.

Bar-On's (1997), multi-factorial model reflects the *potential* to succeed rather than the success itself, therefore it is process rather than outcomes orientated. Due to its comprehensiveness he maintains that his model of emotional intelligence encompasses other existing models. Bar-On, favouring a multi-factorial approach, broadened the view of the factors or emotional skills involved in emotional intelligence. He furthermore holds the opinion that the factorial components of emotional intelligence resemble personality and are open to change throughout life. He refers to Wechsler (1958, p.vii) who stated that he was "convinced that intelligence is most usefully interpreted as an aspect of the total personality".

According to Bar-On the ***Intrapersonal Component*** reflects an individual's understanding, expression and development of the inner self. Individuals who are on average well-developed in this area are in touch with their inner feelings, feel good about themselves and are positive about their lives. Well-developed individuals are competent at expressing their feelings, independent, strong and confident in expressing their ideas and beliefs. The ***Interpersonal Component*** reflects interpersonal skills and functioning. Individuals who are well-developed in this area are responsible, dependable and have well-developed social skills so that they interact and relate well with others. The ***Adaptability Component*** reflects how competently an individual copes with environmental demands by being able to size up situations realistically and to deal with problematic situations. Individuals well-developed in this sphere are on average flexible, realistic, effective at understanding problematic situations and more competent at creating adequate solutions. The ***Stress Management Component*** relates to the ability to withstand stressors without losing control or falling apart. Individuals with more highly developed skills in this sphere tend to be calmer, are rarely impulsive, and tend to work well under pressure. The last component namely, ***General Mood***, reflects the individual's ability to enjoy life and general level of contentment. Individuals who are well-developed in regard to this component tend to be positive, cheerful, hopeful and know how to enjoy life. Each of the components are made up of a number of sub-components as are reflected in *Table 3.2* below (Bar-On, 1997).

Table 3.2 The components of emotional intelligence measured by the Bar-On EQ-i

<i>Intrapersonal Components</i>	<i>Adaptability Components</i>
• Emotional Self-awareness (ES)	• Problem Solving (PS)

• Assertiveness (AS)	• Reality Testing (RT)
• Self-Regard (SR)	• Flexibility (FL)
• Self-Actualisation (SA)	
• Independence (IN)	<i>Stress Managements</i>
	• Stress Tolerance (ST)
<i>Interpersonal Components</i>	• Impulse Control (IC)
• Empathy (EM)	
• Interpersonal Relationship (IR)	<i>General Mood Components</i>
• Social Responsibility (RE)	• Happiness (H)
	• Optimism (OP)

(Bar-On, 1997 p.6)

According to Bar-On, his line of thinking, argumentation and research builds and expands on a number of theorists' work such as that of Wechsler, Doll, Leeper, Maslow, Gardner, Mayer and Salovey and others (cf Bar-On, 1997). Despite his working independently of them, the theory he developed and the resulting research has much in common with their research findings. According to Bar-On, emotional intelligence may be conceptualised from two different perspectives: systemic and topographic. The systemic view holds that similar types of factors logically and statistically go together as is depicted in *Table 3.2*, for example, *Interpersonal Components* that include empathy, interpersonal relationship and social responsibility. In the topographic view, factorial components are grouped according to *Core* factors (e.g. emotional self-awareness, empathy, assertiveness, etc); *Supporting* Factors (e.g. Self-regard, independence, optimism etc.), and *Resultant* factors (e.g. problem solving, interpersonal relationship etc). The most important core factors are emotional self-awareness, assertiveness and empathy (Bar-On, 1997). Furthermore, both resultant and core factors are dependent upon supportive factors. Emotional awareness, for example, is dependent on self-regard. In accordance with the described conceptualisation of emotional intelligence, Bar-On developed an assessment tool that he named the Emotional Quotient Inventory.

- **Assessment: Emotional Quotient Inventory (EQ-i)**

Since Bar-On's (1997) definition of emotional intelligence - similar to that of Goleman - includes a broad array of factors, he finds it virtually impossible to distinguish between the various forms of "noncognitive" intelligences (such as social and practical intelligence) and includes most factors associated with these forms of intelligence. He constructed the Emotional Quotient Inventory (EQ-i) to measure competencies and skills constituting this multi-factorial construct of emotional intelligence, by way of 15 factorial components. Bar-On reports on research conducted over a twelve-year period (with more than 6,300 respondents) in

regard to the reliability and validity of the EQ-i. Internal consistency for the fifteen subscales ranges from .69 (social responsibility) to .86 (self-regard) across samples (Bar-On, 2002). The instrument has been translated into 22 languages, normative data has been gathered in more than 15 countries whilst numerous reliability studies have been conducted to date (Bar-On, 2002). It is not known whether the overall EQ-i exhibits the same level of internal consistency. Given how many factors comprise the EQ-i, this information would be valuable to know. Exploratory and confirmatory factor analyses indicate that a fifteen-factor solution provides a good fit to the EQ-i, with results generally supportive of the Bar-On model. Furthermore, the EQ-i has been validated in relation to more than fifteen different measures (primarily personality inventories) (Bar-On, 1997). The expected pattern of correlations with the other measures was confirmed. For example, self-regard correlates positively with measures of ego strength, self-satisfaction, self-fulfilment *etcetera*, whilst self-confidence correlates negatively with measures of depression and hopelessness. However, some of these correlations are quite high ($r > .70$), and that may indicate the redundancy of some of the subscales.

Critics suggest that the EQ-i may, at best, be characterised as a kind of personality inventory (with the attendant difficulties of such inventories, such as social-desirability effects and susceptibility to faking). However, a correction factor to adjust for response bias is included in the inventory (Bar-On, 2002). According to Conte (2005), it is not clear how the composite scales are conceptually related to EI, and Matthews *et al.* (2002) note that the theory behind the measure is vague so that EI boils down to what the test measures. A need exists for supportive research to be published in available peer-reviewed scientific journals. Models such as Bar-On's are viewed as mixed models because they combine skills that can be characterised as mental abilities (such as problem solving) and other aspects that can be considered as personality traits (such as optimism (Mayer *et al.*, 2000).

- **Critique leveraged at mixed models**

If emotional intelligence does not refer exclusively to emotion or intelligence, it is unclear what it really does refer to (Mayer *et al.*, 2000). McCrae (2000) concurs that any beneficial noncognitive trait seems to be construed as emotional intelligence and that the construct was soon inflated to include corporate and group emotional intelligence. The term soon constituted a panacea promising anything from profitability to a better immune response. Theories that define emotional intelligence in terms of a diverse list of qualities expand the concept with little regard to convention. Furthermore, according to McCrae (2000), most of the traits identified as constituting a part of emotional intelligence may be located within a

comprehensive taxonomy of personality traits, or the five-factor model (FFM). Qualities such as political awareness, service orientation, interpersonal relationships, intuition and self-actualisation, struggle to retain their status against the backdrop of merging quite different facets of personality. This approach allows for the creation of a theory disconnected from similar theories and the process may disappoint when reality and imagination meet. According to Mayer (1998), political awareness is a type of consciousness; service orientation is a role, and self-confidence is a model-of-the-self (or self-schema), and these aspects of personality often conflict with one another (see Figure 3.2). A high achievement drive may, for example, inhibit the conscientious completion of tasks or adherence to rules (McClelland & Koestner, 1992). It would, according to Mayer *et al.* (2000), be impossible or highly unlikely to meet all twenty-five criteria at any given time, or for an extended period. The long process involving empirical studies with regard to discriminant and convergent validity have only more recently begun. These studies will help ascertain if the EQ-i is a mere reinvention of earlier personality tests, or really represents a new construct.

A ‘one variable fits all’ approach constitutes an oversimplification in the field of personality psychology where a number of variables are frequently grouped together to predict future outcomes according to carefully developed standards. Such research is intricate and a body of knowledge is put together over an extended period. Claims such as Goleman’s predicting that EI twice outweighs IQ in terms of successful living (Goleman, 1998, p.34) appear implausible and in strong contradiction to scientifically accumulated literature (Davies, Stankov & Roberts, 1998; Epstein, 1998; Mayer & Cobb, 2000; Mayer *et al.*, 2000). In designing tests with acceptable psychometric properties, a high level of correspondence should be apparent between the concept to be measured, in this case EI, and any test applied to measure its properties. Furthermore, any new test should distinctively measure something above and beyond what prior tests have measured – thus constituting incremental validity.

A more restrictive approach to viewing EI, namely an ability approach, is now highlighted.

3.6.2.4 EMOTIONAL INTELLIGENCE AS A COGNITIVE ABILITY

The distinction between the abilities referred to above and personality traits is sometimes subtle, but it can be drawn. Mayer *et al.* (2000) question portraying multiple aspects of personality such as assertiveness, Bar-On (1997), or service orientation, (Goleman, 1998), as a

fair application of the mental ability concept. Scarr (1989), for example, expressed serious concern about the approach of collating all types of human virtues under the banner of different intelligences, since such an approach may constitute a threat to both the area of intelligence and other scientific areas of research. A typical example may be to view sociable people as being socially intelligent since social interaction cannot plausibly be equated to social problem solving. Social intelligence would, *inter alia*, involve the ability to engage others to do certain things, the know-how of power relations, the building of group cohesiveness, *etcetera*. By contrast, “personality traits such as sociability, conscientiousness or optimism do not, by themselves, indicate an intelligence is present, because none of them *centrally* concern problem solving” (Mayer *et al.*, 2000, p.107). Social intelligence, however, may influence the level of sophistication whereby sociability is carried out. These authors prefer to apply the term “intelligence” to mental traits of which the *primary* purpose is to problemsolve in a particular content domain. “Emotions, in other words, satisfy a complex, coherent and consistent symbol system that can be puzzled over, understood, and planned for in abstract thought” (Mayer *et al.*, 2000, p.107) . Furthermore, emotions convey particular meanings such as anger, often indicating the presence of real or perceived injustice, frustration indicating the blockage of a desired goal, *etcetera*.

The personality system functions by mingling motivation, emotion, cognition and consciousness (see Figure 3.2). Therefore, cognition, emotion and motivation saturate all personality (Mayer *et al.*, 2000), and, as stated previously, it is important to note that the mere presence of *some* cognitive mental ability does not necessary indicate an intelligence. Intelligence rather consists of a *group* of mental abilities, and is characterised by an individual’s ability to successfully complete a task of defined difficulty, against the background of favourable testing conditions (Carroll, 1993). Therefore, mental ability (involving thinking abstractly and solving mental problems) may be equated to mental capacity, or mental skill (indicative of something learned), or mental competence (that indicates the ability to meet a specific standard).

Mayer *et al.* (2000) hold the opinion that the term “emotional intelligence” should rather be considered as a more focused portion of personality constituting mental abilities, skills, or capacities. For them the term represents “the concept of an intelligence that processes and benefits from emotions” (p.105). Their interest lies with conceptualising the abilities constituting such emotional intelligence, determining if emotional intelligence does indeed qualify as a standard intelligence (distinct from previously described intelligences and other

parts of personality), and to construct a measurement instrument that can accurately measure this ability according to preset standards. Against this background we move on to review Mayer *et al.*'s 2000 ability theory of emotional intelligence.

3.6.2.4.1 Mayer *et al.*'s (2000) ability theory of emotional intelligence

Although theories of intelligence vary, growing consensus is evolving in regard to the central parts that constitute an intelligence system. According to Mayer and Mitchell (1998), an intelligence system has a capacity for identifying (or inputting) information together with the capacity to process information (via the manipulation of symbols) and the association with expert knowledge. Mayer and Salovey (1997) believe that emotional intelligence operates across both the cognitive and emotional systems. These authors' thinking gradually moved from a more inclusive model of emotional intelligence to a more restrictive model. For example, Salovey and Mayer (1990) initially related emotional intelligence to personality factors such as warmth and outgoingness. In time, they argued for emotional intelligence to be distinguished from personality variables and to be defined more strictly as an ability (to recognise the meanings of emotions and to use that knowledge to reason and solve problems). They developed a framework to succinctly represent emotional intelligence in terms of the various abilities they conceptualise to be involved in the adaptive processing of emotionally relevant information. These abilities, despite mostly operating in a unitary fashion, are subdivisible into four branches as depicted in *Table 3.3*.

Table 3.3 *Emotional intelligence as mental ability*

BRANCHES	EMOTIONAL INTELLIGENCE AS MENTAL ABILITY
1	Emotional perception and identification
2	Emotional facilitation of thought.
3	Emotional understanding
4	Emotional management

(Mayer, Caruso & Salovey, 2000, Salovey & Mayer, 1994)

The first component refers to the accurate perception and identification of emotions in oneself and in others; the second to the applying of emotional experiences in cognition; the third to the recognition; understanding and reasoning about emotions, and the fourth to the adaptive regulation of emotions in oneself and in others.

The first of the branches relates to inputting information from the emotion system; the second and third components relate to the processing of emotional information aimed at problem solving and improving cognitive processes; whilst emotional understanding involves cognitive processing of emotion. The fourth component namely emotion management, relates to management of emotion in the self and in other people.

It is now apparent why management must begin with perception. Only if one has good emotional perception in the first place can one make use of mood changes and understand emotions. And only with such understanding will one have the breadth of knowledge necessary to manage and cope with feelings fully. In fact, the emotionally intelligent individual must regularly cope with states of mood instability, and this requires considerable understanding of moods.

(Salovey, Bedell, Detweiler & Mayer in Mayer et al., 2000, p 110).

Against the background of emotions, being complex and even fuzzy, superior emotional management requires flexibility in approach whilst considering and choosing from various different emotional paths. Emotional management thus involves flexibility in permitting an individual to continue the way he or she thinks best, taking cognisance of emotional, spiritual, pragmatic and other information. Thus, a decision regarding appropriate behaviour in a particular context will result from an interaction between personality and emotional intelligence. Mayer *et al* (2000), argue that a growing body of knowledge supports emotional intelligence being conceptualised as a unitary intelligence or a mental ability, and measured by means of objective tasks. These authors accordingly attempt to capture the essence of their conceptualisation of the emotional intelligence construct in an accompanying assessment tool to be described below.

- **Assessment: Mayer, Salovey and Caruso Emotional Intelligence Test (MSCEIT)**

Mayer *et al.* (2000) developed a test of emotional intelligence, called the MSCEIT and its precursor the MEIS, that measures the four branches as conceptualised by them and depicted in *Table 3.3*. This test aims at measuring emotional intelligence as ability and, according to these authors, an ability test should reflect predictive validity. According to them, if EI is considered a standard intelligence, it should meet applicable criteria whilst being reliable. The tasks applied in measuring the intelligence should correlate and be related to, but independent of other existing intelligences. The intelligence should furthermore develop with age. In the

MSCEIT testees are given a variety of creative tasks and, since it is a test of ability, it is difficult to fake a good performance. The MSCEIT has wide applicability and may be used in corporate, educational, research and therapeutic settings. According to Mayer, Salovey, Caruso and Sitarenios (2003), reliabilities for the total scale and branch levels all exceed 0.75. For all scales, the average internal consistency reliability was 0.68 for consensus scoring and 0.71 for expert scoring. Matthews *et al.* (2002) reason that this is far from optimal for an ability scale. Furthermore, in terms of validity, the authors rely on evidence gathered from the previous version, the MEIS. According to Conte (2005), researchers are concerned about the absence of scientific standards whereby accuracy of consensus and expert scores are determined.

- **Critique**

According to Saarni (2000), one needs to distinguish between emotional competence and the construct of emotional intelligence. Being a developmental psychologist, she questions Mayer *et al.* (2000) and other researchers who continue to call this particular group of abilities intelligence. According to her, the Western notion of intelligence (traitlike and located inside a person) that characterises an individual according to some consistent quality, represents an oversimplification of a much more complex system of behaviour that is, *inter alia*, influenced by ethical values and the individual's developmental history both of which have typically received scant attention in the EI literature.

Intelligence is traditionally used in a pragmatic fashion to indicate relative rankings of individuals in terms of being more or less endowed with intelligence. Saarni (2000) argues, however, that the interaction between an individual and the eliciting context should be scrutinised when emotional competence is evaluated. She emphasises skills rather than ability and places more weight on learning and development. In her view, the role of exposure to affordant environments when learning about emotion, emotion related processes and scripts need to be carefully considered (Saarni, 1999). She further argues that emotional competence is better described as a transaction, rather than constituting a characteristic of a person (see 3.4.2). Emotional competence may be equated to being emotionally skilled. The performance of the skill, however, depends on an affordant environment and the incentives involved. The individual brings to each emotion-eliciting transaction efficacy motivations and a unique set of values and beliefs that interact with the particular contextual demands and affordances. Sternberg and Grigorenko (2000) also subscribe to the notion that context is central to understanding practical problem solving in a particular context. The so-called contextual

perspective (Dixon, 1994; Wertsch & Kanner, 1994; Sternberg & Grigorenko, 2000) argues that life takes on a series of changing events and contexts and this perspective assumes that:

- demands presented by a particular context vary across development,
- effective adaptive strategies differ across such contexts,
- strategies differ across individuals, and
- “the effectiveness of everyday problem solving is determined by the interaction of the individual and the context” (Berg & Calderone, 1994; Sternberg & Grigorenko, 2000, p. 224).

Within the ambit of the current study the work context is seen as important in shaping the adult’s practical abilities where the immediate conditions and demands of the workplace are indeed very influential (Kohn & Schooler, 1983). Substantive complexity within the work environment may - over time – contribute to incremental gains in intellectual performance. No measure, according to Saarni (2000), is therefore reliably able to produce an outcome indicating one person to be emotionally more competent than another due to the momentary fluidity, whilst meaning-making takes place within a particular context. Both context and the self are influential in an individual’s emotional functioning. Cantor and Kihlstrom (1987) and Cantor and Harlow (1994) seem in support of the notion that psychometric approaches to studying social intelligence are problematic due to the intricacies involved (see 3.5.1).

According to McCrae and Costa (McCrae, 2000, p.268), many of the features included in the emotional intelligence construct are substantively related to openness. “The peculiar status of emotional intelligence as a variable on the boundary between personality and cognition is shared in some respects by one of the five basic personality factors: openness to experience.” McCrae therefore argues that measures of openness should indeed routinely be included in studies pertaining to emotional intelligence in order to provide information on convergent, discriminant and incremental validity. Openness is characterised by an intense interest in variety, novelty, and experience for its own sake. Open people typically present with imagination, sensitivity, flexibility, curiosity and independence. By contrast, closed people tend to be down-to-earth, businesslike, and traditional. Humanistic psychologists view openness as a way to self-actualise (although openness is not seen as an unmixed blessing). Some researchers are of the opinion that openness may be related to intelligence in ways not tapped by IQ tests. However, openness and verbal intelligence may well be correlated since inquisitive people also tend to present with larger vocabularies. Furthermore, it seems

plausible that openness relates especially well to emotional intelligence (whether viewed as a personality trait or as an ability).

A few other approaches to emotional intelligence have also evolved and will be briefly reflected on.

3.6.3 OTHER APPROACHES TO EMOTIONAL INTELLIGENCE

Although other approaches to and measures of EI have been developed, it seems as if these measures have not as yet risen to the same status as the previously discussed tests of emotional intelligence. Other tests include those of Schutte, Malouff, Hall, Haggerty, Cooper, Golden, & Dornheim (1998) and Cooper and Sawaf's EQ Map (1996/1997).

Against the background of much uncertainty and conflict in regard to the definition and the psychometric measurement of the EI construct, it seems as if the problem is to develop a psychometric measure to unequivocally test the construct of emotional intelligence. Since the current study focuses on EI in the workplace, the researcher decided to make use of the Swinburne University Emotional Intelligence Test or SUEIT (Palmer & Stough, 2001) that had been developed with the specific purpose of measuring emotional intelligence in the workplace in mind. Thus, against the backdrop of no consensual definition of the term 'emotional intelligence' and given that the boundaries of the construct had yet to be established (Bar-On, 1997), Palmer and Stough (2001) set out to develop a measure of emotional intelligence that assesses its most definitive or common elements and is designed specifically for organisational applications. The instrument is further described in Chapter 6.

Interest now turns to what is currently known about the development of EI.

3.7 THE DEVELOPMENT OF EMOTIONAL INTELLIGENCE

According to Lane (2000, p.182), "Healthy individuals spontaneously model and respond to the mental states of other people (their knowledge, intentions, beliefs, and desires) to guide their own interpersonal behaviour. The ability to make inferences about what is going on in

another person's mind is a cognitive skill called *theory of mind*". This ability is therefore essential for any form of EI. Attention now turns to aspects supportive of the normal development of EI before the abnormal development of EI is highlighted.

3.7.1 HEALTHY DEVELOPMENT OF EI

Neurological substrates in support of EI first receive attention, since research in the emerging field of affective neuroscience (Davidson, Jackson, & Kalin, 2000) offers an interesting view of neural substrates supportive of an EI-based range of behaviour.

3.7.1.1 NEUROLOGICAL UNDERPINNINGS OF EI

Emotional intelligence is indeed essentially about emotions and the concept of emotional intelligence finds its foundations in "**the modern understanding of the role of emotional circuits in the brain**" (Mayer, 2000; Ashkanasy & Daus, 2005, p.445). It is grounded in theories of emotion and is distinct from social and spiritual intelligence. According to Goleman (2001), an understanding of the neurological substrates underlying EI competencies has critical implications for how people can best acquire and develop strengths within the EI range of competencies. He posits that EI competencies may be conceived of as constituting four domains, two with a 'self' or personal competence focus and two with an 'other' or social competence focus. He argues that each of the four domains of EI derives from "distinct neurological mechanisms that distinguish each domain from the others and all four from purely cognitive domains of ability" (p.29).

Affective neuroscience seems to indicate that, "the defining boundary in brain activity between emotional intelligence and cognitive intelligence is the distinction between capacities that are purely (or largely) neocortical and those that *integrate* neocortical and limbic circuitry" (Goleman, 2001, p.30). Traditional IQ abilities (verbal fluency, spatial logic, and abstract reasoning) are primarily based in specific areas of the neocortex. Damage to these areas influences the corresponding intellectual ability. In the case of emotional intelligence, the underlying neurological circuitry primarily links the limbic areas for emotion (including the amygdala and its extended networks throughout the brain) to areas in the prefrontal cortex or the brain's executive centre as discussed under 2.2.3. Davidson, Jackson, and Kalin (2000) indicate key components of this circuitry as the dorsolateral, ventromedial, and orbitofrontal sectors of the prefrontal cortex. According to Goleman (2001), this circuitry is essential for the

development of skills in each of the four main domains of emotional intelligence. It was found that lesions in these areas produce deficits in the hallmark abilities of emotion intelligence, namely Self-Awareness, Self-Management (including motivation), Social Awareness skills such as Empathy and Relationship Management, similar to lesions in discrete areas of the neocortex selectively impairing aspects of purely cognitive abilities such as verbal fluency or spatial reasoning (Damasio, 1994, 1999). The interested reader is referred to Goleman (2001) for further elaboration. Next, attention turns to the neurology of decisionmaking since what we observe in individuals' behaviour is frequently a demonstration of decisions that influence their behaviour.

- **The neurology of decision making**

Bechara, Tranel and Damasio (2000) define this as a bioregulatory response that aims to maintain homeostasis and ensure survival. Patients with ventromedial prefrontal lesions were found to develop serious impairments in personal and social decision making, despite otherwise largely preserved intellectual abilities. These patients were premorbid, intelligent and creative but the choices they made after sustaining these lesions were remarkably different, much less advantageous and repetitively against their best interest than before the brain injuries. Damasio (1994), in developing the somatic marker hypothesis, posits that the neural basis of the decision-making impairment characteristic of these patients is defective activation of somatic states or emotional signals that attach *value* to particular options and scenarios that function as covert, or overt, biases in guiding decisions. Emotions help influence decisions via memories of past events eliciting positive or negative emotions, reward or punishment, pleasure or pain, happiness or sadness. "Whether these emotions remain unconscious or are perceived consciously in the form of feelings, they provide the go, stop and turn signals needed for making advantageous decisions" (Bechara *et al.*, 2000, p.195). Activation of somatic states therefore provides *biasing* signals that assist in the selection of advantageous responses from among an array of available options. "Deprived of these biases or somatic markers, response options become more or less equalized and decisions become dependent on a slow reasoned cost-benefit analysis of numerous and often conflicting options" (p.195). The ventromedial prefrontal cortex directly or indirectly receives projections from all sensory modalities. In addition, it has extensive bi-directional connections with the amygdala, important for emotion, and with the somatosensory insular cortices. Thus, when a person is confronted with a decision, different chains of physiological events take place informing the decision making process (cf. Bechara *et al.*, 2000). If not intact, the individual cannot make well informed decisions that may bias behaviour in an emotionally intelligent manner.

Bechara *et al.*'s (2000) research provides consistent and strong support for the main concept of emotional intelligence, namely, a collection of emotional abilities that constitute a form of intelligence that is different from cognitive intelligence or IQ. Of importance is that these researchers draw from research on patients with neurological defects whereas emotional intelligence research focuses on more sophisticated, complex and psychological forms of emotionality, such as described by Bar-On (1997). However, Bechara *et al.* (2000) believe that defects in the simple mechanisms of emotions they identified may manifest at a higher level as defects in the emotional factors that constitute EI. Overall, it appears that the neural network involved in the activation of somatic states provides a substrate for what is known as emotional intelligence. The next component discussed in the normal development of EI is the role of the primary caregiver.

3.7.1.2 THE ROLE OF THE PRIMARY CAREGIVER

The infant's healthy emotional development is strongly dependent on the emotional state of the mother/caregiver (Goldberg, MacKay-Soroka, & Rochester, 1994). Of equal importance is the ability of the caregiver for reflective self-awareness and the ability to transmit this capacity to the infant. Fonagy *et al.* (Taylor & Bagby, 2000), for example, found that both fathers and mothers exhibiting a self-reflective capacity had a three to four times greater chance of having securely attached children.

Whilst the caregiver's emotional interactions influence the development of certain mental capacities in the infant, evidence is mounting that the caregiver also exerts "a regulatory influence on the maturation of parts of the brain that are involved in emotional awareness and emotion regulation" (Taylor & Bagby, 2000, p.57). According to Schore (1994), it is possible to reliably identify an infant's attachment style at approximately one year of age. This corresponds with a critical time in the maturation of the prefrontal cortex and more specifically the orbital area of the prefrontal cortex. Maturation of this area occurs in phases and "depends on high levels of neurotransmitters that are released in the infant's forebrain by the emotion-laden interaction with caregivers" (Pally & Schore in Taylor & Bagby, 2000, p.58). Schore (1994, 1996) suggests that the failure to regulate excessively high (negative) or low emotional arousal may contribute to permanent alterations in the morphological development of the orbito-frontal cortex. This includes, for example, the pruning of descending neural pathways reducing the ability of the cortex to regulate excitatory processes in the amygdala and related structures. The orbito-frontal area is intimately connected with the amygdala and other parts

of the limbic system involved in affect regulation, appraisal, directed attention, and the processing of nonverbal emotional signals, a prerequisite for initiating attachment behaviours (Schore, 1996). Attachment behaviour is of importance in regard to establishing significant interpersonal relationships in adulthood. (In this regard, please cross-refer to 2.2.3).

Next, the role of emotional awareness in support of the normal development of EI is examined.

3.7.1.3 DEVELOPMENT OF EMOTIONAL AWARENESS

The ability to be aware of one's own emotional states constitutes a skill fundamental to the key features of emotional intelligence and relates to impulse control, persistence, zeal and self-motivation, empathy and social deftness. "Emotional awareness is conceptualised as a domain of cognitive development that unfolds in a manner parallel to that of intelligence in the usual cognitive sense" (Lane, 2000, p.186). Lane and Schwartz (1987) proposed that this developmental process is similar to that which Piaget described for cognition in general. A fundamental principle of this approach is that variations (in the degree of differentiation and integration of the schemata applied to process emotional information), will be reflected in individual differences in levels of emotional awareness. These authors proposed that there are five levels of emotional awareness and that they share the structural characteristics of Piaget's stages of cognitive development. In ascending order, these represent physical sensations; action tendencies; single emotions; blends of emotions, and blends of blends of emotional experience. These levels influence the ability to recognise complexity in the experiences of the self and others and to use this information as a guide in order to act adaptively.

Another influential aspect in the normal development of EI is language.

3.7.1.4 THE ROLE OF LANGUAGE IN EMOTIONS

Taylor and Bagby (2000), Piaget (1981), Krystal (1974), and Lane and Schwartz (1987), in attempting to conceptualise stages in the normal development of representations of emotions, proposed that the acquiring of progressively complex language skills link with the developing of increasingly complex cognitive schemata. These schemata "gradually elevate the conscious experience of emotions from an awareness of peripheral manifestations of emotional arousal only (namely, undifferentiated bodily sensations and/or a tendency to action) to an awareness

of blends of feelings, an ability to make subtle distinctions between nuances of emotions, and a capacity to appreciate the emotional experience of others” (p.52). See *Fig. 3.3* below.

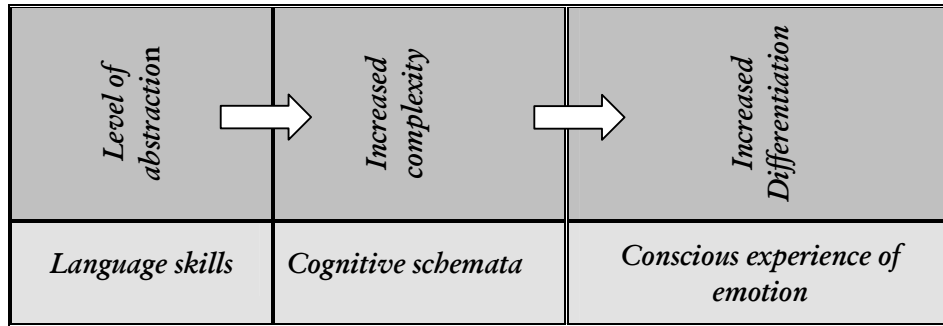


Figure 3.3 Stages in the normal development of representations of emotions.

This perspective is informed by the work on symbol formation by Werner and Kaplan (1963). They aver that things in the world become known to an observer by virtue of the way in which they are represented symbolically. This perspective is consistent with Karmiloff-Smith’s (Lane, 2000) - successor of Piaget - who propagates that cognitive development (in different domains of knowledge) develops through a process she named representational redescription. This assumes the transformation of knowledge from implicit (procedural, sensorimotor) to explicit (conscious thought) representations by means of the use of language or another symbolic mode. This renders thought more flexible, adaptable and creative. “Higher levels of representations of emotions in the working memory and associative memory systems not only enhance the conscious appraisal and self-regulation of states of emotional arousal (the latter via neural pathways from the prefrontal cortex and hippocampus to the amygdala) but also enable the person to intentionally communicate feelings to others via language and images” (Taylor & Bagby, p.52). Furthermore, symbolic imagery representing affective other-self interactions contributes to the development of memories, fantasies, and dreams that help in containing and modulating states of emotional arousal (Brown, 1993; Mayes & Cohen, 1992). Symbolic representation such as language is therefore a prerequisite for the normal development of EI.

Next, another component important in acquiring normal levels of EI is reflected on.

3.7.1.5 THE ROLE OF EMOTIONAL AWARENESS IN SOCIAL INTERACTIONS

According to Baddeley and colleagues (Lane, 2000), successful social adaptation requires a dual task ability, namely to simultaneously consider one's own and others' needs. Optimal social adaptation requires an appreciation of the differentiated feelings of the self and others and to integrate this information into action that allows for attainment of personal goals in harmony with the social context (Lane, 2000). Emotional awareness has the potential to influence social interaction by means of modulating emotional expressions. Creating harmony between the changing demands of the social context and one's emotional expression requires a high level of differentiation and complexity in expressive behaviour. To access one's own emotional life, monitor and modulate how it may be outwardly expressed and consider how a given display may be experienced by others, influences how emotion will be expressed. It is therefore predicted that higher levels of emotional awareness would potentially co-vary with greater appropriateness of emotional expression in social interactions. Higher levels of emotional awareness would underscore learning from the modelling of appropriate behaviour or in emotional skills training.

Selman (Lane, 2000), predicating a cognitive-development approach, proposes five levels of interpersonal negotiation strategies. These five levels of interpersonal negotiation strategies (in ascending order), may be described as negotiation through:

- physical force,
- implicit power (threat or will power),
- psychological power (persuasion),
- interpersonal collaboration, and
- integration and synthesis.

Each successive level is indicative of an increase in the degree to which the other individual is seen as separate, autonomous - yet interdependent – having needs, feelings, and rights that are as legitimate as the individual's own.

To summarise, it is therefore important that a number of factors effectively interface to orchestrate the normal development of EI. These include an intact neurological system, an emotionally effective caregiver, appropriate levels of emotional awareness and language

abstraction, together with the dual task ability of simultaneously considering own and others' needs.

Attention now turns to factors impeding the healthy development of EI.

3.7.2 ABNORMAL DEVELOPMENT OF EI

In discussing the abnormal development of EI, two aspects receive attention, namely early childhood trauma and alexithymia.

3.7.2.1 CHILDHOOD TRAUMA

Evidence demonstrates that the development of parts of the neocortex may be impeded by emotional trauma. Teicher, Ito, Glod, Schiffer and Gelbard (1996), investigating school-age children with histories of psychological, physical, or sexual abuse, found evidence of a greater prevalence of left-sided fronto-temporal electroencephalogram (EEG) abnormalities if than in non-abused children, whilst a higher prevalence of right-left hemispheric asymmetries were also prevalent. Atypical development affecting cortical maturation and laterality was again demonstrated in children having experienced severe physical or psychological abuse (Ito, Teicher, Glod, and Ackerman, 1998). (Children having suffered head trauma were excluded from the study). Further studies using PET scans indicate possible abnormalities of the corpus callosum for traumatised children. It is therefore apparent that early childhood trauma may impede the normal development of EI.

3.7.2.2 ALEXITHYMIA

This construct is conceptually similar and overlaps to some extent, albeit inversely, with the emotional intelligence construct. Alexithymia (inversely) relates and exhibits considerable overlap with Gardner's (1983) conception of personal intelligences and more specifically the intrapersonal intelligence, particularly the ability to identify, label and discriminate among feelings and to represent them symbolically. According to Gardner (1983), the core capacity of intrapersonal intelligence involves the accessing of one's emotional life – one's range of affect or emotions: "the capacity to instantly effect discrimination among these feelings and, eventually, to label them, to enmesh them in symbolic codes, to draw upon them as a means of understanding and guiding one's behavior" (p. 239). Conversely, the interpersonal intelligence

ability to pick up on others' feelings and to act sensitively in accordance is known as *empathy*. These two forms of intelligence flow from attending to one's subjective emotional experience.

Interest in the alexithymia construct emerged against the backdrop of a number of researchers and psychotherapists (Horney, 1952; Kelman, 1952; Maclean, 1949 & Ruesch, 1948) noticing that a large number of patients, experiencing psychosomatic illnesses, responded poorly to insight-orientated psychotherapy; struggled to verbalise feeling; experienced a paucity of inner experience; had no interest in dreams; were unimaginative; concrete, and indulged in physical action to express emotion. Maclean and Ruesch attributed this behaviour to a deficit in representing emotions symbolically (see Figure 3.1). The patients furthermore often engaged in binge eating, alcohol abuse and other compulsive behaviours. In addition, Wurmser (1974) asserted that individuals addicted to drugs frequently have a deficit in verbal affective expression and imaginal capacity. He named this *hyposymbolisation* (please crossrefer to 3.7.1.4). According to Taylor and Bagby (2000), Sifneos (1973) coined the term "alexithymia" from the Greek *a* meaning *lack*, *lexis* meaning word, and *thymos*, meaning emotion, to denote this cluster of cognitive characteristics.

Salient features of alexithymia include:

- ❖ difficulty in identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal,
- ❖ difficulty in describing feelings to other people,
- ❖ constricted emotional processes as evidenced in a paucity of fantasy, and
- ❖ a stimulus-bound, externally orientated cognitive style (Taylor & Bagby, 2000).

- **The psychology and neurobiology of alexithymia**

According to Taylor and Bagby (2000), theories attempting to describe individual variation in alexithymia or emotional intelligence have to consider variations in the level of complexity of symbolic representations of emotional states (see 3.7.1.4) together with neural organisation associated with working memory (see 2.2.3.3). Cognitive scientists and neuroscientists tend to consider working memory as "the basis of all conscious experience and part of an essential information-processing system that allows behaviour to be guided by ideas, thoughts and other symbolic representations rather than by immediate emotional reactions to stimuli" (p.51). Language is instrumental in helping individuals discriminate between different emotional states, as well as in considering the meaning of these subjective experiences. The ability to

think about one's thoughts and other mental experiences (meta-cognition) is possible via linguistic processing (Rolls, in Taylor & Bagby, 2000).

Goldman-Rakic (1994, p.354) contends that individuals with alexithymia are subject to the "tyranny of external [and internal] stimuli" since they cannot access imaginative fantasies and subjective feelings to guide behaviour. They are frequently prone to an activated amygdala that goes unchecked by feedback from the consciously and unconsciously operating cognitive systems (LeDoux, 1986, 1998). Empirical studies (Taylor & Bagby, 2000) indicate that those experiencing alexithymia are more prone to both medical illnesses and psychiatric disorders in that emotions, including panic disorder, post traumatic disorder, substance use disorders, essential hypertension and functional gastrointestinal disorders, are poorly regulated. These researchers propose a model of alexithymia in which an inter-hemispheric transfer deficit reduces coordination and integration of the specialised functions of the two hemispheres so that individuals predisposed to the disease may, for example, react to the literal rather than the metaphorical meaning of words. They propose that emotional arousal (evoked by activation of the amygdala) probably goes unregulated for two reasons: "First, the unconscious inhibitory feedback from the orbitofrontal cortex to the amygdala is reduced because of an impoverished representational world that limits the ability of this part of the prefrontal cortex to perform a more detailed cognitive appraisal of complex emotional stimuli. Second, the limited ability to represent and contain emotions with words and fantasies and to reflect on their meaning, restricts the use of conscious cognitive processes to modulate arousal by way of corticoamygdala pathways" (Taylor & Bagby, 2000, p.55). These individuals, being unable to experience differentiated subjective feelings, will (when the amygdala is activated by emotional stimuli) be aware of uni-dimensional feelings or elementary and unorganised representations of bodily sensations together with impulses for action.

Findings from developmental psychology, neurobiology and cognitive science, together with studies of attachment, seem to imply that individual differences in alexithymia (and presumably in emotional intelligence) may be found in early environmental influences such as the caregiver's capacity for attunement, self-reflection, and the ability to contribute to secure attachment behaviour of the child (see 3.7.1.2). Evidence is furthermore accumulating suggesting that extreme degrees of alexithymia may result from early trauma and emotional deprivation or neglect as discussed. These environmental influences appear to stunt the maturation of particular brain structures and mental capacities associated with emotional processing and emotional intelligence.

It is furthermore important to note that repetitive, maladaptive behaviours (associated with a lack of emotional intelligence) represent explicit automated emotional reactions that are not associated with conscious emotional experience. If the emotional experiences associated with such behaviour patterns could be brought into consciousness, it may be possible to identify the motivational origins of the behaviour and to then apply conscious cognitive mechanisms to change the behaviour patterns (Clyman, 1991).

It is therefore apparent that the bi-directional influence of environment and neurobiology determines the individual's level of EI. Early environmental influences include the adequacy of the primary caregiver and other formative relationships, whilst later influences may include the adequacy of peer, hetero-/homosexual, marital, family and work relationships. In addition, adequate language ability was demonstrated to be a powerful influence in the establishing of EI. When an individual is exposed to a climate supportive of the development of EI, it is indeed possible (given the plasticity inherent in our neurology) for changes to take place in the individual's level of EI. It is, however, important to consider early trauma that might have had an irreversible influence on the level of EI sensitivity.

A general critique on the construct of EI now follows.

3.8 CRITIQUING THE EI CONSTRUCT

3.8.1 Introduction

Against the backdrop of the paradigm shift in psychology, researchers started to look for characteristics that predict successful living and, in the context of the current study, characteristics in support of successful coping in the workplace. This coincided with an escalation in interest in the role of emotions at work (Ashkanasy & Daus, 2005) and the construct of emotional intelligence with the many different claims made in regard to its virtue. Whilst emotional intelligence grew exponentially in terms of its popularity, it has been criticised as lacking empirical validity (Barrett, 2000; Davies *et al.*, 1998). Of late, management science scholars have taken a more serious academic interest in the emotional intelligence construct (Dasborough & Ashkanasy, 2002).

- **Problems related to a definitive definition of the construct**

Initially, researchers were optimistic that it would be possible to clearly differentiate emotional intelligence from academic intelligence (Mayer & Salovey, 1993). However, it seems that EI hinges on both ability and personality and accordingly a number of divergent definitions have since evolved to explain the construct. This has led some researchers, including Davies *et al.* (1998), to question whether emotional intelligence is indeed anything more than a set of personality variables (for which adequate measures already exist). These researchers, for example, argued that emotional intelligence is to be considered a cognitive ability, it should distinguish itself from both traditional intelligence and personality variables. In systematically administering various tests of emotional intelligence, personality, and general cognitive ability (over three independent studies), they found that:

- with self-report measures of emotional intelligence, factors tended to load on personality variables, including neuroticism, extraversion and agreeableness, or on measures of verbal ability.
- Measures of social intelligence primarily loaded on an extroversion factor. (This suggests that social intelligence may not be clearly distinguished from personality).
- An emotion perception factor was indeed the only factor to emerge as distinctive from cognitive abilities and personality factors. Davies *et al.* therefore suggested a more restrictive definition of emotional intelligence, namely “the ability to perceive emotional information in visual and auditory stimuli” (1998, p.1001).

For further critiques of claims in which personality and emotional intelligence are equated, the interested reader is referred to Mayer and Cobb (2000) and Mayer, Salovey and Caruso (2000).

- **Academic versus commercial support for the construct**

According to Landy (2005), there are, historically, scientifically, conceptually and psychometrically, many substantial questions relating to the emotional intelligence construct. He argues that the construct is rooted in the discredited concept of social intelligence. Furthermore, a lack of scientific scrutiny of measures of EI is evident. He believes that EI research is, on average, characterised by weak designs that are yet to demonstrate incremental validity over and beyond traditional measures of personality in relation to social and

organisational behaviour. His views are strongly opposed by Ashkanasy and Daus (2005), who assert that his view represents an outdated mode of thinking and that he bases his criticism on relatively dated sources. Landy furthermore asserts that few articles on the EI construct have been published in accredited journals and that relatively small numbers of subjects have been involved, making predictions questionable and premature. At the same time the commercialised leg of EI, represented by Multi-Health Systems (MHS) and Hay Associates, claim large studies with 60,000 cases, the content and process of which are not open to scrutiny by the scientific community, whilst making unchecked claims of the worth of the construct. Landy (2005) does, however, admit that “good science makes for good commerce”(p.412). Ashkansy and Daus (2005) again refute these arguments by referring to a steady increase in publications (PsychINFO 1985-present) which resulted in 545 hits with a restricted keyword search of “emotional intelligence”. In defence of the commercialised operations, they acknowledge the right to protection of archival data, but contend that commercial test distributors such as MHS should work cooperatively with researchers in the field to draw the body of research data into the “ambit of scientific research” (p.444). Landy furthermore states that both the construct and its operational definitions are moving targets, therefore, by implication, not grounded in good scientific theory. By contrast, Ashkanasy and Daus (2005) contend that EI is “an exciting and developing area of research in organizational settings” (p.442), forming part of what they call the burgeoning interest in emotions in the field.

- **Playing to the politics or ignorance related to contemporary knowledge of the role of emotions?**

Locke (2005) also argues that EI is an invalid concept, representing, *inter alia*, a political rather than a scientific agenda with the ultimate motivation of egalitarianism, “redefining what it means to be intelligent so that everyone will, in some form, be equal in intelligence to everyone else” (p.426). He refutes the notion of multiple intelligences as proposed by Gardner, as well as the concept of ‘reasoning with emotion’ that he views as a contradiction in terms. In his view emotions cannot be assumed valid assessments of reality and are not tools of knowledge, but need to be kept in check by cognitions. Ashkanasy and Daus (2005) hold the opinion that Locke “fails to acknowledge more recent trends and research in emotions” (p.446), this being reflective of the reluctance of organisational scholars to engage with emotions prior to the 1990’s (as was discussed in detail in Chapter 2, 2.3). Emotions were seen as an illegitimate area of research, and viewed through a cognitive lens, according to the so-

called norms of rationality. Recent trends in neuroscience, however, provide much support for the role of emotion in reasoning (Lane, 2000).

- **Deficiencies in psychometric measures versus overlapping of constructs**

Conte (2005) notes that interest in EI has increased greatly over the last decade. In reviewing psychometric properties of EI measures and reflecting on the low relationships between different measures, he contends that one is left with serious questions as to whether they are indeed measuring the same construct. Validity evidence for EI measures are also lagging behind reliability evidence. Content validity is also lacking due to the vague theoretical development underpinning many of the measures. Construct validity evidence, namely convergent and discriminant validity, is lacking since “EI measures have failed to converge on a common construct” (p.437). Self-report measures seem to assess existing personality characteristics or even emotional competencies, but not intelligence.

Van Rooy and Viswesvaran (2004), in their meta-analysis, determined that EI and the Big Five personality characteristics correlated from 0.23 to 0.34 (after correction for reliability), suggesting that the EI measures lack discriminant validity. In examining criterion-related and incremental validity, they found that the percentage variance in performance explained by EI was 5%, much lower than propagated by, for example, Goleman (1995), who had argued it to be more important than general mental ability.

- **Making sense of the evolving EI construct**

Ashkanasy and Daus (2005) - who view themselves essentially as scholars of emotion, its antecedents and consequences with a special focus on emotions in work life – state EI is an exciting and developing research area relating to organisational behaviour. EI is an important element in the burgeoning interest in emotions within organisations, with research proceeding vigorously. They see EI as a tool to be applied by I/O psychologists and scholars of organisational behaviour in understanding and predicting behaviour. They warn, however, that researchers should not make unsubstantiated claims but rather follow rigorous research practices; take time to read the emotions literature to gain a full understanding of theory that underpins EI, and study the role that emotions play in organisational settings. Criterion variables should also be selected with discretion. The measure of debate EI has initiated reflects a healthy process in scientific research (Jordan, Ashkanasy & Härtel, 2003). Construct development has four critical stages. At first, the construct is proposed (as was done by Salovey & Mayer, 1990). This stage is followed by the second stage in which initial

measurements take place accessing extant, related literature. The third stage follows with reliability and validity being further tested and published, including both good and bad results for other academics/psychometricians to scrutinise and evaluate. Stage four follows with revisions and further scrutiny of measures before stability ensues (Ashkanasy & Daus, 2005). The researcher is, in accordance with the views of Ashkanasy and Daus and after having extensively reviewed the literature, supportive of the important and leading role of emotions with regard to human functioning, and the neural plasticity that allows for lifelong learning and adaptation, also in the affective realm. However, clearly, the divergent definitions and psychometric instruments forthcoming from these approaches pose a serious threat to the coming of age of the EI construct and much theoretical work is still required to support or refute the validity of the construct.

The discussion now moves to the following important construct in the current investigation namely leadership, with a specific emphasis on emotionally intelligent leadership.

3.9 LEADERSHIP

3.9.1 INTRODUCTION

There is little doubt that leadership is often regarded as the single most important factor in the success or failure of organisations (Bass, 1990). Since research on leadership had commenced formally in the 20th century, researchers have applied their minds to define and clarify the associated complexities, whilst much attention has focussed on determinants of effective leadership (Yukl, 1998).

3.9.2 DEFINING LEADERSHIP

Much disparity presents in definitions on leadership and this stems from the fact that leadership is a complex phenomenon reflecting a complex interaction between leader, follower and environment (Bosman, 2003). According to Yukl (1994), researchers define leadership to reflect their particular interest in the subject and thus according to their perspective. Most definitions, however, include assumptions on the social process involved whereby an individual intentionally exerts influence over others in order to structure both relationships and activities within groups or organisations. Avery and Baker (1990, p. 453), for example, view

leadership as “the process of influence between a leader and his followers to attain group, organizational and societal goals”. Covey (2004) views leadership as an “enabling art” (p.100) and, at its most elemental and practical level, “communicating to people their worth and potential so clearly that they come to see it in themselves” (p.98).

In order to achieve organisational goals, leaders strive to mobilise their workforce and to maximise the performance of their subordinates (Yukl, 1998). The leader’s *style* is considered particularly important in achieving organisational goals. Research consistently demonstrates the benefits of transformational leadership over more traditional forms (such as transactional leadership) in a quest to reach organisational goals.

3.9.3 TYPES OF LEADERSHIP

Leadership is well described elsewhere (Robbins, 2001; Bosman, 2003). Since the focus in this thesis is on the emotional intelligence of leadership *cum* management on employee well-being, brief attention is given the neo-charismatic theories of leadership, and more specifically, transformational leadership, widely acknowledged as aligned to emotional intelligence. Yukl (1998) contends that leaders’ behaviour is frequently evaluated in terms of its consequences for their followers. Transformational leaders help followers look at old problems in new ways and can excite, arouse and inspire followers to walk the extra mile in pursuit of success (Robbins, 2001).

Other aspects of leadership that have come to occupy centre stage include team, cross-cultural and change leadership. Leadership increasingly features in team contexts since teams have taken on heightened importance in more recent times (as is the case with the present research conducted in a hospital setting). The challenge for managers is therefore how to become effective team leaders. Prat *et al.* (Ashkanasy & Daus, 2005) argue that EI skills are critical to effective team leadership and its outcomes. Leaders, for example, need to acquire skills such as trusting others, giving up authority, the patience to share information together with knowledge on when to intervene (Pirola-Merlo, Härtel, Mann & Hirst, 2002). Furthermore, cross-cultural leadership has become salient, also in the South African context. Leaders need to be sensitive to the cultural preferences and taboos in working with divergent followers (Van den Berg, 2001). Change-centred leadership relates to leaders who are involved in organisational renewal, increased organisational efficiency, growth and the continued survival

of the organisation. They initiate new projects, create new ideas and ways of doing things, are willing to take risks and are future orientated (Ekvall & Arvonen, 1991; Robbins, 2001).

3.9.3.1 TRANSFORMATIONAL LEADERSHIP THEORIES (NEO-CHARISMATIC LEADERSHIP)

During the late 1970's leadership research started to focus on the behaviour of leaders within organisational change and development or *Transformational Leadership* (Skogstad & Einarsen, 1999). This represents the latest phase in the evolutionary development of leadership theory and projects the follower as reaching beyond own self-interest, and focussing on goals that undergird team or organizational good (Bosman, 2003). Yukl (1998) ascribed its evolving to a rising interest in the emotional and symbolic aspects of leadership influence. This development coincided with the rise of interest in the role of emotions, as described in paragraph 2.3.3. In accordance, George and Brief (1992) assert: "Leaders who feel excited, enthusiastic, and energetic themselves are likely to similarly energize their followers, as are leaders who feel distressed and hostile likely to negatively activate their followers" (p.84). This idea features prominently in the transformational leadership literature. Transformational leaders apply emotion in motivating employees in respect of the organisational vision (Conger & Kanungo, 1998; Kanungo & Mendonca, 1996). These leaders may use strong emotions to influence employees. Bass (1990) and Conger and Kanungo (1998) argue that a leader's expression of positive emotion may have both motivational and inspirational consequence via emotional contagion (Hatfield, Cacioppo & Rapson, 1994).

Interest consequently turned to leader behaviour that influences employee values and aspirations, activating higher-order needs where followers transcend their own self-interest in favour of the organisation (Bass, 1998; Yukl, 1989). According to Robbins (2001), inherent in these theories are three common themes. These themes stress symbolic and emotionally appealing leader behaviour; attempt to explain how leaders achieve extra-ordinary follower commitment, and de-emphasise theoretical complexity in favour of viewing leadership as the average person would. Such leaders are adept at articulating a vision for the organisation's future; fostering acceptable group goals; providing individualised support and change, and aligning the basic values, beliefs and attitudes of their followers with the organisational vision (Podsakoff, MacKenzie, Moorman, & Fetter, 1990).

The first of these types of leadership constitutes charismatic leadership.

- **Charismatic leadership**

Weber (1946) was the first to introduced the concept of charismatic leadership. He argued that charisma is both a trait and an interactive process between actors. Charismatic leadership is intimately tied to the leader's ability to model and redefine emotion and emotional responses. Wasielewski (1985) says that leaders' ability to identify, empathise with and model emotions and emotional behaviour, is critical to the success of charismatic leadership. They gain, *inter alia*, legitimacy by modelling emotions for their followers. Ashkanasy and Tse (2000) concur that the power of charismatic leaders over their members is ascribed to their control over their own, and members' emotions. Cherulnik, Donley, Wiewel and Miller (2001) studied the effect of leader behaviour on member affect, and provide evidence that the charismatic leader who displays truly charismatic behaviour has an effect on subordinates via emotional contagion and evokes corresponding responses in these members.

- **Transactional leadership**

Transactional leaders are those that guide or motivate followers in the direction of established goals. They do so by clarifying both role and task requirements and by exchanging rewards for compliance (Bass, 1985; Burns, 1978). Followers are motivated, by appealing to their self-interest, in contrast to transformational leadership, by which followers are assisted to transcend their own self-interests (Burns, 1978). The primary style involved is contingent reward via ongoing positive reinforcement between leader and follower. According to Bosman (2003, p.83), "transactional leadership seems more dependent on a subordinate's cognitions and tends to follow a rational model of motivation". Transformational leadership, by contrast, appears more dependent on "the evocation, framing and mobilisation of emotions." Transactional and transformational leadership styles share certain elements, such as providing clarity of desired outcomes, recognising accomplishments, and rewarding high performance. Burns viewed leaders to be either transactional or transformational. However, Bass (1985) challenged this view and contends that transformational leadership augments transactional leadership effects. Transformational leadership "is built on top of transactional leadership" (Robbins, 2001, p.329). It indeed produces more effort and higher levels of performance than is typical of transactional leadership. Follower motivation and performance is enhanced more by transformational leadership than by transactional leadership (Yukl, 1998). According to Robbins (2001), research evidence in support of the superiority of transformational leadership over transactional leadership, is overwhelming.

- **Transformational leadership**

In search of world-class leaders, Burns (1978) developed the concept of transformational leadership. Ashkanasy and Tse (2000) believe transformational leadership is intrinsically an effective style. According to Conger and Kanungo (1998), and Yukl (2002), there are five elements of effective leadership, namely:

- developing collective goals and objectives and indicating ways to achieve them;
- instilling knowledge and appreciation of work activities and behaviours;
- generating and maintaining excitement, enthusiasm, confidence, optimism and cooperation in organisations;
- encouraging flexibility in decision making and change, and
- maintaining meaningful organisational identity.

Transformational leadership entails the empowering of employees to participate in transforming the institution by means of major changes. The concept was further developed by Bass (1990) and enjoys world wide theoretical and practical acceptance (Avioli, 1999; Tichy & Devanna, 1986). Transformational leadership has been described as guidance through individualised consideration, intellectual stimulation, inspirational motivation, and idealised influence (Bass, 1997). Individualised consideration emphasises personal attention, whilst intellectual stimulation encourages use of reasoning, rationality and evidence. Transformational leadership includes charisma, and follower identification with the leader. Transformational leaders motivate their followers to perform beyond what is expected by activating their higher order needs and promoting a climate of trust where employees transcend their self-interest for the sake of the organisation (Bass & Avolio, 1994). According to McAllister (1995), trust in a leader develops when followers experience their interaction as caring and helpful. In addition, Fitness (2000) reported that employees are most angered by what they perceive as unjust treatment by higher – power workers or leaders.

Transformational leaders have the ability to align employees and systems so that integrity is promoted throughout the organisation (Hughes, Ginnett & Curphy, 1994). This style has been studied in relation to a wide range of consequences. Transformational leadership involves creating changes in values, goals and aspirations that are consistent with the values of followers. Change, is implemented via the articulation of a vision, fostering acceptance of group goals, providing individualised support and intellectual stimulation and by clarifying performance expectations. Performance is considered indirectly influenced by the effect on subordinates' affective commitment (as is the contention of the Affective Events Theory). The

results of their study suggest that organisations should seek to attract transformational leaders and encourage a transformational leadership style in current leaders. Such efforts should increase optimism, decrease subordinate frustration and increase performance.

To summarise, Dasborough and Ashkanasy (2002) propose that leadership is, firstly and intrinsically, an emotional process in that leaders display emotion and attempt to arouse emotion in their followers and influence their behaviour to achieve a vision (Yukl, 2002). Secondly, they propose that leadership is a process of social interaction and should therefore be defined according to the lines of social, psychological theories such as the attribution theory. According to Bass (1998), transformational leaders – in his view a superior form of leadership - inspire their followers to achieve a vision since members are highly motivated and committed to the leader. Both motivation and inspiration stem from the leader's displayed confidence and enthusiasm together with his sensitivity to member needs. George (2000) also supports the notion that transformational leadership is essentially based on emotional processes.

In evaluating transformational leadership, it was demonstrated that the transformational leader's behaviour positively relates to employee satisfaction, effort and performance (Bryman, 1992; Conger & Kanungo, 1987; Avolio & Bass, 1988). According to Sivanathan, Arnold, Turner and Barling (2004), transformational leadership may have important and positive effects on both follower and leader well-being. Bass (1985) maintains that transformational leadership will reduce the inclination of employees to quit their jobs. The transformational leadership style, however, is not without pitfalls and has been criticised for lacking clear parameters and being treated as a disposition rather than a learnt behaviour. Conger (1991) warns that transformational leadership also has a darker side, namely an ability to influence followers to achieve undesirable aims.

Focus now turns to EI and leadership.

3.9.3.2 EMOTIONAL INTELLIGENCE (EI) AND LEADERSHIP

Trait research demonstrated that leaders require both basic intelligence and job relevant knowledge that are viewed as 'threshold' capabilities, necessary but not sufficient for leadership. It is rather having the capabilities of emotional intelligence that allows one to become a top performer. According to Robbins (2001, p.332), "... a person can have outstanding training, a highly analytical mind, a long-term vision, and an endless supply of

terrific ideas but still not make a great leader.” This, seemingly, becomes especially true as a person progresses in the organisational hierarchy. It seems that the higher a person climbs up the hierarchical ladder, the more EI abilities account for the individual’s effectiveness. It was found, for example, that when so-called ‘star performers’ were compared with average individuals in senior management, nearly 90% of the difference could be attributed to EI rather than to basic intelligence (Robbins, 2001).

- **Leader traits**

Pirola-Merlo, Härtel, Mann and Hirst (2002) advance the opinion that leaders should concentrate on developing emotion management skills and demonstrate emotional awareness, regulation, and intelligence, to extract superior performance from their teams. Other-centredness leadership development is therefore essential. House and Podsakoff (1994), for example, observed that outstanding leaders differ from less effective leaders in their higher consideration of and sensitivity to the needs of their followers. It is more than an intellectual exercise and includes personal involvement and imagination (Kellett, Humphrey & Sleeth, 2002). According to Yukl (1998), empathic abilities may underlie relations-orientated leader behaviour such as showing consideration (Stogdill, 1965), and presenting a friendly, supportive and concerned approach to employees. Empathy “... is particularly important today as a component of leadership for at least three reasons: the increasing use of teams, the rapid pace of globalization, and the growing need to retain talent” (Goleman, 1998, p.100). It includes “thoughtfully considering employees’ feelings – along with other factors – in the process of making intelligent decisions”. McColl-Kennedy and Anderson (2002) also attest to the importance of empathy and view it as important for an emergent leader to manage the emotional state of the group. This is so since empathy allows the leader to read, interpret, and understand the emotional reactions of individual group members and, in accordance, craft an appropriate response (Eisenberg & Miller, 1987). Cooper and Sawaf (1997) maintain that relationships are the life-blood of organisations and that subordinates like leaders because of the way they make them feel. Furthermore, emotionally intelligent leaders were found to be happier and more committed to their organisations; they were better performers and achieved higher levels of success in the workplace (Abraham, 2000; Goleman, 2000; Miller, 1999). Goleman (2002) insists: “The emotional intelligence competencies’ so crucial for leadership, hinge on the smooth operation of the prefrontal-limbic circuitry” (p.29).

- **How leaders are perceived / attributions made about leaders**

According to Dasborough and Ashkanasy (2002), people make sense of others' behaviour via their perceptions of others' intentions, thus, by means of particular attributions. Leaders high in emotional intelligence – since they are more in control of their emotions – will be more likely to behave in a manner that employees will recognise as truly transformational, than those who are low in emotional intelligence (Barling *et al.*, 2000). These authors believe that the mood of the leader positively contributes to the attribution made of leader behaviour. However, they also contend that the emotional intelligence of employees will influence their perceptions of leader behaviour and motives. In addition, Dasborough and Ashkanasy (2002) believe that, in making any attribution about a leader, the member's mood prior to the formation of an attribution and his level of emotional intelligence are critical components influencing the formation of such attributions. Therefore, Dasborough and Ashkanasy propose that the positive or negative mood of the member observing leader behaviour will influence how the member initially perceives the behaviour. Positive mood will mostly be associated with a positive evaluation / interpretation of the leader's behaviour and vice versa. Furthermore, members high in emotional intelligence will most probably more accurately perceive leader behaviour. In the current study, employee experienced job affect and level of emotional intelligence, is therefore evaluated alongside leader EI.

- **The process by which leaders influence their followers**

According to Goleman, Boyatzis and McKee (2002), a fundamental task of leaders is to foster positive feelings in their subordinates and to unlock the gains thereof in the workplace, as has been explained in Chapter 2 via the Broaden-and-Build Theory. They use positive emotions to advance major improvements; apply emotions to enhance their decision making, and enthuse their employees with trust and cooperation by means of their interpersonal relationships (George, 2000).

- **Consequences of transformational leadership**

EI seems to be related to performance at all levels, but more particularly in jobs demanding a high degree of social interaction. Abraham (1999) demonstrated that EI directly relates to work-group cohesion by enhancing harmonious relationships among employees, and that 15% of the variance in organisational commitment may be explained by leaders' EI. Furthermore, Goleman (2002) maintains that emotionally intelligent leadership is important in creating a working climate that nurtures employees and encourages them to deliver their best. He further suggests that the relationship between EI strengths in a leader and the concomitant performance of his/her unit, appears to be mediated by the climate the leader creates, setting

the tone for employee morale. He asserts that “50%-70% of how employees perceive their organizations’ climate can be traced to the actions of one person: the leader” (p.18) and that the leader is therefore the major creator of conditions that determine employees’ ability to work well. Williams (1994), again, found a significant relationship between the EI abilities of the leader and organisational climate. Leadership style seems to be instrumental in the chain from leader to climate to business success.

- **EI and transformational leadership**

Ashkanasy and Daus (2002) believe an intuitive connection exists between EI and leadership, and research has since substantiated this intuition (Ashkanasy & Daus, 2005b). For example, overall transformational leadership - together with all the dimensions of transformational leadership - was found to correlate significantly with understanding of the emotions branch of EI (Daus & Harris, 2003; Goleman, 2002). Coetzee and Schaap (2004) found similar results among managers in South Africa and also established a relationship between EI, transformational and transactional leadership. Gardner and Stough (2002) however, believe these links are mostly theoretical or speculative.

- **Necessity for empirical research on EI and leadership**

Lourens (2001) and Downing (1997) state that EI and its application are increasingly popular in the Organisation Behaviour field, and this may relate to the spiralling organisational change and volatility that goes along with both emotional and interpretative conflict that organisations seek answers to. The utility of EI in predicting effective leadership is gaining momentum in Industrial Psychology (George, 2000; Palmer *et al.*, 2001). Organisational structures are, of late, changing from hierarchical to flat structures enhancing the need for individuals to be interpersonally more effective (Blackman, 2001). Dulewicz and Higgs (2000) are of the opinion that research demonstrating the impact of EI on employee performance and success in organisations is relatively uncommon. George (2000) adds that the majority of research has still to identify conclusively the effect of leaders’ emotions on their work, subordinates and, in general, the role emotions play in leadership. Furthermore, with regard to EI and leadership, Palmer *et al.* (2001) contend that the extent to which EI accounts for effective leadership is still unknown. Little research has been published explicating this relationship, despite much rhetoric, case studies and derivative arguments (Cooper & Sawaf, 1997). Popular claims, especially from the commercialised component of EI, may indeed be misleading (Palmer *et al.*, 2001). As discussed previously, empirical research in leadership, following the trend in general psychology as discussed previously, has largely disregarded the role of emotions in

favour of cognition. Luthans (2002) argues the need for considerably more theory-building and research, for example, theory development that combines positivity into core leadership concepts. He states that not much research has been done on EI in the workplace.

It is thus clear that despite the growing interest in the EI concept, the amount to which it accounts for effective leadership is still unknown. The chapter concludes with a few final remarks.

3.10 CONCLUSION

In the current chapter, the evolving construct of emotional intelligence was introduced. The researcher reviewed its historical roots, current definitions and related constructs together with the non-intellective intelligences. A bird's eye view was taken of the development of EI and associated factors. Prevailing models of EI were introduced along the lines of the current *Zeitgeist* or cultural movement, as entwined with or as synonymous with personality or the so-called mixed models, as well as the ability model. These three approaches to and the forthcoming definitions of emotional intelligence are clearly divergent in approach, and do not constitute an exhaustive overview of the existing approaches.

Concerning the *zeitgeist* definition, it is yet to be established whether emotional intelligence is “simply a passing fad or could conceivably qualify as some sort of historical movement” (Mayer *et al.* 2000, p.111). According to these authors, the future alone will tell if emotional intelligence will unequivocally belong to a class constituting historical movements such as the stoic, classical and romantic movements.

Furthermore, the term “emotional intelligence” is applied to broad areas of *personality*, and everything that may contribute to successful living seems - at times - to be encapsulated under this umbrella term. Since scientific inquiry traditionally takes on a circumscribed and narrow approach to studying phenomena, this approach comes over as vague and not subscribing sufficiently to the rigours of scientific enquiry. The problem created by this approach is that the reconstitution of personality traits under the emotional intelligence banner takes them away from the substantial body of personality research. It follows that, when emotional intelligence is referred to as a broad constellation of traits, rather than restricting it to either the emotion or intelligence sphere of inquiry, it is difficult to delineate which traits coherently belong with the

term. This is currently experienced, as different theorists' definitions continue to diverge from one another resulting in a set of often competing constructs.

The same holds true when defining emotional intelligence as an ability, since the construct of intelligence also competes with a number of constructs or concepts including emotional competence, intrapersonal and social intelligence, referred to earlier on in the chapter, and emotional creativity (Averill & Nunley, 1992).

The three views on emotional intelligence presented in this chapter include the broadest, the popular and the most restricted approaches to emotional intelligence. Furthermore, a general critique, as evidenced in recent literature, was provided constituting the two divergent viewpoints on EI as an upcoming and evolving scientific enterprise, or conversely, a fad.

The chapter further illuminated leadership with specific focus on the transformational leadership theories and its link with emotional intelligence - since this forms the central theme of the current investigation - against the broader background of the effect of affective experiences in the workplace as delineated by the AET model.

To summarise, it then seems as if many divergent, opposing claims are made on behalf of the evolving construct of emotional intelligence. Despite new insights from the field of neuroscience that provide convincing arguments in favour of the existence of EI, it seems as if psychological explanations of the construct struggle to succinctly conceptualise and define the construct which, in turn, inhibits the development of psychometric measures to definitively measure the construct. The researcher therefore decided to apply the SUEIT, as argued for in 5.6.2, to investigate whether this instrument may provide for a measure of consequence in the workplace.

In view of the shortcomings identified in the literature, the current research aims at investigating whether emotionally intelligent leaders / managers influence the organisational climate to the extent of creating a positive influence on employees regarding indices of well-being including job affect, work engagement, health, burnout and contemplated quitting.

Attention in the next chapter turns to psychological (work climate) and indices of well-being.

Chapter 4

WELL-BEING AT WORK

4.1 INTRODUCTION

Firstly, the researcher briefly recaps on the theoretical backdrop for well-being at work by aligning the positive psychology paradigm, as discussed in Chapter 1, with organisational psychology (I/O psychology). Next, light falls on the a priori mediator variables of well-being, namely psychological climate and job affect. Thereafter focus turns to selected indices of well-being at work constituting the dependant variables of the study. Work engagement and health constitute two positive indicators of well-being, and burnout and contemplated quitting, two negative indicators of well-being. In an attempt to build theory, the researcher concludes with an adaptation of the AET model to provide a model fit to apply as an explanatory model in the current investigation.

4.2 SALUTOGENIC AND FORTIGENIC

FUNCTIONING IN THE WORKPLACE

The positive psychology paradigm provides a context for I/O psychology to align knowledge about optimal individual functioning with organisational effectiveness and outcomes. Many long held beliefs, at different levels of interpretation, are currently questioned, including at the individual, group and meta-theoretical levels (Snyder & Lopez, 2002; Naudé & Rothman, 2003). Research results support the notion of a relationship between salutogenic and fortigenic functioning, on the one hand, and various individual and work related behavioural constructs on the other (Strümpfer, 2002). In this regard, Turner, Barling and Zacharatos (2002), for example, “firmly believe that a healthy and positive work focus is available” (p.715), and that work provides many benefits to the individual. They purport that researchers need to investigate how different work practices and processes contribute in creating more positive

workplaces. Healthy work may indeed contribute to the building of the positive psychology ethic and researchers are therefore encouraged to keep positive psychology in mind when planning research, in order to promote employee well-being and effectiveness.

In line with the above, attention first turns to psychological climate as a possible mediator of employee well-being. Important to note is that employee perception of the work environment does not necessarily equal independent assessments of work conditions or events. Rather, their perceptions of such work environments are influenced by their affective states. These affective states would then constitute the independent variable of interest. Furthermore, some aspects of emotions and affect are non-consciously processed (LeDoux, 1998) and therefore not subject to (conscious) self-report, but they still influence how workers think and act.

4.3 MEDIATORS OF EMPLOYEE WELL-BEING AT WORK

4.3.1 PSYCHOLOGICAL CLIMATE (PC)

4.3.1.1 INTRODUCTION

Sempane, Rieger and Roodt (2002) argue that organisations - due to their dynamic nature - represent the most complex social structures currently known. Herein, employees are ultimately important since their commitment and involvement contribute to organisations' competitiveness. It will now be argued that a salubrious work climate should be promoted to facilitate the achievement of job satisfaction and organisational goals whilst simultaneously promoting wellness.

The study of climates in organisations is challenging since it constitutes a complex, multi-level phenomenon (Glick, in Koys & De Cotiis, 1991). Over the past thirty years, much research has been published concerning organisational climate, with at least 11 reviews of the climate literature since the mid-1960's (Tustin, 1993). Considerable progress has, however, been made in conceptualising climate and literature now acknowledges two kinds of climate, namely psychological and organisational climate.

Psychological climate reflects how organisational environments are perceived and interpreted by its employees (James, James, & Ashe, 1990). Employees create cognitive representations of the environmental features against the backdrop of their values and interpret the possible significance of these features for their organisational well-being. The organisational environment takes on a personal meaning together with emotional or motivational significance. James, Hater, Gent and Bruni (1978) and Koys and De Cotiis (1991) also hold the opinion that psychological climate should be viewed as an individual (since it represents perceptions psychologically meaningful to the individual) rather than an organisational attribute. It is therefore distinct from organisational climate that includes concrete organisational features.

4.3.1.2 DEFINITION OF PSYCHOLOGICAL CLIMATE

Psychological climate theory was developed primarily to study employees' cognitive perceptions of proximal work environments (James & Jones, 1974; James & Sells, 1981). However, controversy developed over time relating to the distinction between psychological and organisational climate; on the one hand, and organisational culture, on the other. Of late, however, it seems that the demarcation between psychological and organisational climate has gained general acceptance. Naylor, Pritchard and Ilgen (1980) state that climate can be conceived of as including both an organisational and individual element, with the individual element taking on greater prominence.

James and Jones (1974) and James *et al.* (1978) hold that psychological climate constitutes employees' *perceptions* and *valuations* of the environment that mediate attitudinal and behavioural responses, rather than the environment itself. Koys and DeCotiis (1991) define psychological climate as "an experiential-based, multi-dimensional, and enduring perceptual phenomenon which is widely shared by the members of a given organizational unit" (p.266). Brown and Leigh (1996), building on ethnographic research conducted by Kahn (1990), provide the following operational definition of psychological climate: "the extent to which employees perceive the organization to be a psychologically safe and meaningful work environment" (p.358). According to Gavin and Howe (1975, p.228), "psychological climate becomes organizational climate when there is significant consensus on climate perceptions among organizational members". Organisational climate refers (on the meta-level) to psychological atmosphere, and on the operational level to organisational, interpersonal and individual dimensions (Cilliers & Kossuth, 2002). Inherent in most definitions of climate is the

notion that climate influences member behaviour and that psychological climate, more specifically, would be expected to exert a potent influence on individual performance (Day & Bedeian, 1991). Therefore, the researcher decided that, within the ambit of the current investigation, psychological climate is the appropriate construct to measure as mediator of employee behaviour. Organisational culture, another related concept, is defined as the reigning “patterns of values, attitudes, beliefs, assumptions, norms, and sentiments in an organization” (Van der Post, De Coning & Smit, 1997). Culture may also be seen to represent the behaviour patterns and standards that bind the organisation together and should not be confused with climate that measures the short-term mood of the organisation (White, 1991). Culture subsumes the sum of organisational behaviours built up over many years.

According to James and James (1989), psychological climate provides the most readily identifiable set of variables in Industrial / Organisational psychology for appraising work environments in terms of schemas based on the latent values as proposed by Locke (1976). Locke feels that work relevant values serve as standards for individuals to assess their organisational well-being. A work relevant value is defined as that which an employee desires or seeks to attain (within an organisation) since it represents what the employee regards as conducive to his/her sense of organisational well-being. In this regard, Locke proposes a non-exhaustive but important set of latent values, including the desire for 1) clarity, harmony, justice; 2) challenge, independence, and responsibility; 3) work facilitation, support, and recognition, and 4) warm and friendly relations. The employee’s global appraisal of whether the work environment is personally beneficial or detrimental, is hypothesised to be the primary cause of organisational well-being and may be characterised by a single, higher-order schema or general factor (PC_g) (James *et al.*, 1990). Organisational well-being is accordingly defined as the degree to which positive affect exceeds negative affect concerning an employee’s overall work experience (James & James, 1989).

In the current study, the effect of both the manager’s and the employee’s emotional intelligence in regard to perceived psychological climate and the further effect thereof on indices of employee well-being, are investigated.

4.3.1.3 ASSUMPTIONS UNDERLYING PSYCHOLOGICAL CLIMATE

A number of assumptions underlie psychological climate. James and Sells (1981) describe these as follows:

1) PC perceptions reflect an individual's perceptually based and psychologically processed description of the meaning of the work environment for him/her. This environment is "a product of cognitive constructions, reflecting various forms of filtering, abstraction, generalization, and interpretation" (p.276). This process is believed to stem from higher-order cognitive schemata (HOS) or beliefs about situations (James & Jones; 1974, James *et al.*, 1978). Individuals, themselves, are active agents in constructing and reshaping cognitive environments.

2) PC is historical; HOS's are learned and the product of continuously interacting cognitive processes, including perceptions, learning, memory and recall. Therefore, individuals will interpret situations differently and in line with their developmental experiences. It is, furthermore, assumed that "the primary situational events that affect PC are those that are proximal to the experiences of the individual in a particular environment" (James *et al.*, 1978, p.805). In the current study, whilst the issue under investigation is how the manager's EI (influencer of proximal work events) may influence psychological climate as perceived by employees, the individual's own emotional intelligence and its possible influence within the equation, will also be investigated. According to Cilliers and Kossuth (2002), the high level salutogenic person (presumably high on emotional intelligence) will most probably perceive organisational climate in a more optimistic and positive manner, exerting a positive influence on the other indices of well-being.

3) PC perceptions are a function of both person and situation variables. Environmental attributes that appear to exert a major influence on PC perceptions are those that have more immediacy or are proximal with regard to the individual's environment. Such, in the case of this study, is assumed to be the influence of immediate levels of leadership on the perceived PC of the employee. In this regard, Van Zyl (1998) maintains that the psychological climate within an organisation is determined, established and reinforced at the top level of any organisation. Brown and Leigh (1996) argue that different managerial styles may relate to a variation in psychological climate, and Cilliers and Kossuth (2002) contend that the quality of

the manager's leadership style is influential in this regard. They furthermore maintain that a positive climate exerts a strengthening effect on an individual's view of the environment as meaningful. Feldt, Kinnunen and Mauno (2000), for example, found that SOC (sense of coherence) diminished when the work climate deteriorated. On the other hand, the high level salutogenic employee (in the current study represented by means of self-reported levels of emotional intelligence) perceives and assesses organisational climate more positively, makes sense thereof and takes responsibility for the contribution of his/her own behaviour to climate issues.

Furthermore, in the current study, it is deemed more appropriate to measure PC than measuring organisational climate or culture, since both of these include more distal aspects (e.g. size of organisation, leave, pay and punitive measures) that also influence work environments. Organisational climate or culture reflects a more pervasive evaluation of the organisation by its employees (Verwey, 1990). The accent here, however, is on the immediacy / proximal affect of the direct leader on the perceived environment of the individual employee. Participants are therefore paired in dyads of direct leaders and employees to investigate the possible influence of manager EI on the perceived PC of employees.

4) According to Bandura (1978) and others (James & Sells, 1981), the underlying causal model that links PC to attitudes, behaviours and environments is one of reciprocal causation. In this process, there seems to be a continuing reciprocal interaction between psychologically meaningful and significant perceptions of the environment; emotional / affective responses, and behaviour in relation to the environment. In the present study, PC is hypothesised to influence job affect and work behaviour or indices of well-being such as work engagement, burnout, contemplated quitting and health. "The causal flow from PC perceptions to emotions and behaviors, is based on the widespread belief that individuals respond primarily to cognitive representations of environments rather than to the environments per se" (James & Sells, 1981, p.279). This reasoning fits in well with Weiss and Cropanzano's (1996) AET model that is interested in the effect of proximal events on affect and behaviour in the workplace and is applied as an explanatory model in this study (please see 2.3.5.1. in this regard).

4.3.1.4 PSYCHOLOGICAL CLIMATE AND ITS RELATION TO JOB INVOLVEMENT

Tapping into human potential in the workplace through the creation of an involving and motivating organisational environment is, according to Lawler (1992) and Pfeffer (1994), a key source of competitive advantage for business organisations. At the most basic level an employee has two resources namely, time and energy, to devote to the organisations, which employ them (Brown & Leigh, 1996). These resources are, ultimately, under volitional control and these researchers aver that employees' efforts are likely to be sensitive to their perceptions of psychological climate. According to Brown and Leigh, literature suggests that employees engage themselves more completely in the organisation's work when they perceive the potential for satisfying their psychological needs in the workplace. If employees perceive the organisational environment as favourable and consistent with their own values and interests, they are more likely to align their personal goals with those of the organisation and then invest greater effort in pursuing them. Information on psychological climate may well contribute to a better understanding of the relationship between employee and organisation.

It stands to reason that perceptual biases and other individual factors may lead to different perceptions of the same environment by individuals (as was depicted in assumption 2 paragraph 4.3.1.3.). Individual differences among employees; differences in situations or features of the organisational environment, and the differential interaction between the individual and the situation, will contribute to variations in both the perceptions and valuations that constitute psychological climate (Dansereau, Graen & Haga, 1975; James *et al.*, 1990). This was clearly demonstrated in research on leader-member interaction where considerable variation presented in the perception of the organisational environment among employees reporting to the same manager. This results from managers' differential treatment of subordinates, constituting fundamental differences in the dyadic relations between them, and flowing from differences in ability levels and willingness to contribute to the organisation's goals (Dansereau *et al.*, 1975; Dienesch & Liden, 1986). Furthermore, additional variation in the perceived psychological climate may indeed stem from different managerial styles within an organisation (the focus of this research) and the different cultures reigning in different organisations.

Kahn (1990)'s ethnographic research also revealed that climate factors influence employees' tendency to either engage or psychologically disengage from their work (work engagement is one of the dependent variables in the current study).

4.3.1.5 LEADER, CLIMATE AND ORGANISATIONAL BEHAVIOUR

Despite the acknowledgement of the leadership-affect link by influential leadership researchers (please see 3.9.3), there is a dearth of research examining, inter alia, the relations between leadership, team climate and team performance (Pirola-Merlo, Härtel, Mann & Hirst, 2002). Their results indicated that team climate indeed mediated the relationship between leadership and team performance. Smith-Jentsch, Salas and Brannick (2001) concur, in their study, that effect of leadership was mediated by team climate. Härtel, Gough and Härtel (in press) suggest that affective climate may indeed act as a *primary incubator* from when excellence emerges. Furthermore, effective leaders may influence the team's initial appraisal of an event and thereby help prevent team members from experiencing an affective reaction to a negative event in the first place. Bartel and Saavedra (2000) also support the notion that shared affect at work group level has been demonstrated as a meaningful construct, and suggest that the causative conditions and processes of such affect should be better understood.

Wilson-Evered, Härtel, and Neale (2001), in a longitudinal study of workgroups within a large teaching hospital, found that morale – an aspect of team climate – mediated the effect of transformational leadership on team performance. According to Goleman (2002), emotionally intelligent leadership is important in creating a work climate that may nurture employees and encourage them to deliver their best. He further suggests that the relationship between EI strengths in a leader and the concomitant performance of his/her unit, appears to be mediated by the climate the leader creates, setting the tone for employee morale. Williams (1994) found a significant relationship between the EI abilities of the leader and organisational climate. Leadership style seems to be instrumental in the chain from leader to climate to business success.

4.3.1.6 DIMENSIONS OF PSYCHOLOGICAL CLIMATE

James and Sells (1981) argue that the measurement of psychological climate focuses on assessing interpretative, abstract, generalised and inferential constructs such as ambiguity, autonomy, challenge, conflict, equity, friendliness, influence, support, trust, and interpersonal warmth. Psychological climate perceptions are believed to be cognitive schemata reflecting idiosyncratic learning experiences.

Brown and Leigh (1996) predicated that psychological climate is multidimensional. They refer to James and James (1989) who argued that a limited number of second order factors might succinctly account for the variation in numerous specific features of the organisational environment. In their research, these authors derived four second-order valuation factors (representing seventeen first order factors) and named them:

- role stress and lack of harmony
- job challenge and autonomy
- leadership facilitation and support, and
- work group cooperation, friendliness and warmth.

This pattern was found to be reliable across four diverse samples and the data reliably loaded on a single General Psychological Factor named PC_g. James *et al.* (1990, p.53) argue that the PC_g factor represents the employee's total interpretation of "the degree to which the environment is personally beneficial versus personally detrimental to one's sense of well-being".

Brown and Leigh (1996), basing their work on Kahn (1990), operationalised six first order dimensions of psychological climate. These include:

- the extent to which management is perceived as supportive and flexible
- role clarity
- freedom of self-expression
- the employees' perceived contribution towards organisational goals
- adequacy of recognition received from the organisation, and
- job challenge.

They posit that the evaluation of these dimensions by the employee indicates how psychologically safe and meaningful the organisational climate is perceived to be. Their operational definition incorporates dimensions of climate conceptually similar to James *et al.*'s (1990) first three higher order factors. These include, for example, clarity, supportive management, and challenge. Their definition furthermore includes potentially important aspects of climate such as self-expression, perceived contribution, and recognition which are likely to significantly relate to job involvement and performance. However, these factors have not previously been considered elements of psychological climate. Their operational definition attempts to capture the psychological safety and meaningfulness (second order) dimensions

that enhance employee involvement as described by Kahn (1990). The dimensions and their indicators are now briefly described.

A. Psychological Safety

Kahn (1990) provides the following definition regarding the psychological safety of employees, namely "... a sense of being able to show and employ one's self without fear of negative consequences to self-image, status or career" (p.708). Dimensions of climate likely to indicate psychological safety include:

- **Supportive management**

The level of flexibility versus rigidity of management concerning task accomplishment is important. Managers have different styles of communicating organisational demands, supervising and reinforcing subordinates' behaviour. Managers assuming a supportive stance allow for subordinate failures without them fearing reprisals. Employees are allowed more control over how they work and the methods they apply to pursue organisational goals. Close supervision frequently signals a lack of trust in employees' ability to perform their duties. Supportive management - providing for control, freedom of choice, and sense of security – is likely to enhance motivation and greater job involvement (Argyris, 1964; Deci & Ryan, 1985; Kahn, 1990).

- **Clarity**

According to House and Rizzo (1972) and Kahn (1990), consistency and predictability of work norms and clear expectations contribute to a psychologically safe environment and promote job involvement. By contrast, unclear role expectations and work situations that are inconsistent and difficult to predict, undermine psychological safety.

- **Self-expression**

Psychological disengagement from work roles may result when employees experience organisational sanctions for expressing individuality in their work roles. Thus, in a work environment lacking psychological safety, employees tend to perform their duties in a scripted and perfunctory manner. However, if employees feel psychologically safe in their work roles, they tend to "infuse their personalities, creativity, feelings, and self-concepts into their work roles" (Brown & Leigh, 1996). This line of thinking finds support in Fredrickson's (1998, 2001) Broaden-and-Build theory that highlights the contribution of positive affect on human functioning (see 2.2.5.2.1). Under such conditions, employees tend to internalise and

personalise their work roles, and treat them as an expression of core aspects of their self-concepts. According to Argyris (1964), Kahn (1990) and Schlenker (1986), employees will be more involved in their jobs when they feel safe in expressing core aspects of their self-concepts. The current thesis wishes (inter alia) to investigate whether perceived work climate does indeed relate to job engagement.

B. Psychological Meaningfulness

Psychological meaningfulness was described by Kahn (1990) as feeling that one receives a return on an investment of one's self. Work is also perceived as meaningful when the individual experiences it as challenging and rewarding. Dimensions of psychological climate that indicate psychological meaningfulness are now briefly described.

- **Perceived meaningfulness of contribution**

According to Kahn (1990) and White (1959), employees who perceive their work as significantly contributing to and affecting organisational processes and outcomes, experience meaningfulness in their work that enhances identification with work roles and job involvement.

- **Recognition**

Meaningfulness of work is likely to be enhanced when the employee experiences that the organisation recognises and appreciates his/her efforts. According to Kahn (1990), employees who feel that they are appreciated and that their contributions are appropriately recognised, tend to identify with their jobs and become more involved.

- **Challenge**

Personal growth and challenge in the work role can only occur when the job is challenging and requires both creativity and a variety of skills (Hackman & Oldman, 1980; Kahn, 1990). Meaningfulness is likely to be enhanced under circumstances in which a challenging job entices the employee to invest more physical, emotional and cognitive resources in his/her work.

To summarise, psychological climate reflects how employees perceive organisational environments (James, James & Ashe, 1990). Viewing a work environment as psychologically safe and meaningful has been argued to co-vary with job involvement or work engagement. Furthermore, superior and colleague support is instrumental in employee well-being (Cilliers

and Kossuth, 2002) with a salubrious climate strengthening employees' views that the environment as meaningful.

According to Brief and Weiss (2002), it is obvious "that we know less than we should about the features of the work environments that are likely to produce particular (positive and negative) moods and emotions among those who spend perhaps the majority of their working hours in them" (p.299). It therefore seems likely that the study of psychological climate may contribute knowledge about features of the work environment likely to influence employees' affective experience. The measuring instrument applied in this regard is the Psychological Climate questionnaire developed by Leigh and Brown (1996), which will be further elaborated on in Chapter 5.

Attention now turns to Job Affect.

4.3.2 JOB AFFECT

4.3.2.1 INTRODUCTION

The trend of an increased focus on affect within psychology and a renewed interest in the importance thereof as a driving force in human behaviour within the parent discipline, simultaneously ignited interest in Industrial/Organisational psychology. According to Watson and Tellegen (1985, p.219), "Psychology has rediscovered affect," and Tomkins (1981, p.314) declared that, "the next decade or so belongs to affect". Examining affect and mood also became important in the organisational and workplace setting, and scholars recorded its significance both in the late 1980's and 1990's (cf. Ashkanasy, Charmine & Daus, 2002). Over the past decades, cognitive psychologists accumulated an impressive body of evidence regarding affect. This accumulated literature serves as an important platform for developing explanatory models and theories to describe and explain these phenomena. Examples of these include AIM by Forgas (1995), that describes how affect may influence decisions and behaviour (see 4.3.2.2); the Affective Events Theory (Weiss & Cropanzano, 1996) and the Broaden-and-Build theory (Fredrickson, 1998) that received attention in Chapter 2 in paragraphs 2.3.5.1 and 2.2.4 respectively.

- **Mood**

Current research on mood, for example, goes beyond mood as a simple antecedent or outcome, and appropriately establishes it as an intervening construct (e.g. mediator) between antecedents and outcomes, or as a variable that impacts the relationship between them (e.g. moderator). Scholars refer to the latter perspective as “affect-centric” in contrast to “judgement-centric”, the perspective ubiquitous to cognitive psychology (Pirola-Merlo, Härtel, Mann & Hirst, 2002). As stated in paragraph 1.5.6.4, Forgas and George (2001) suggest that moods provide the underlying affective context for most of our behaviours and ongoing thought processes. Evolutionary, negative moods signal that something is wrong whilst positive moods suggest the opposite (Ashkanasy, Härtel & Daus, 2002; Fredrickson, 1998; 2001). In the organisational context positive mood is, for example, associated with job satisfaction (Conolly & Viswesvaran, 2000). Research demonstrated that mood states impact a range of processes including motivation, performance, satisfaction, commitment and other organisational outcomes: perception, reasoning, memory, task motivation, information processing, social behaviour, analytical reasoning, problem solving, decision-making and creativity, all of which may be involved in determining performance outcomes (George, 1989; George & Jones, 1997; Isen & Baron, 1991; Forgas, 1992; George & Brief, 1992; Totterdell, 2000, Parkinson, Totterdell, Briner, & Reynolds, 1996, Staw & Barsade, 1993, Staw *et al.*, 1994).

- **Emotions**

As alluded to in 1.2.2 (b), the topic of emotions is now recognised as one of the *principal* areas of development for the next decade. Employees who are emotionally committed to the organisation, for example, demonstrate heightened performance, reduced absenteeism, and are less likely to quit their job (Rhoades & Eisenberger, 2002). This area was further elaborated on in paragraph 2.3.1.

As affect in organisational research has been dealt with in Chapter 2, only a few salient points are highlighted here.

4.3.2.2 AFFECT IN THE WORKPLACE

Saavedra and Kwun (2000) and Burke *et al.* (1989) note that little is known about the possible causes and influence of work context on Job Affect (JA) in the workplace. The researcher is interested in the possible causal and mediating effects of experienced JA on other variables constituting aspects of employee well-being. As stated previously, the AET model (Weiss & Cropanzano, 1996) provides for a theoretical approach to study workplace events as proximal

causes of affective experiences in the workplace. Affective experiences in the workplace lead to consequences that are both attitudinal and behavioural. “Work attitudes are influenced by affective experiences, which in turn, influence cognitive judgement-driven behaviors. Affective experiences also result in affect-driven behaviors that follow directly from affective experiences” (Saavedra & Kwun, 2000, p.21). According to Frijda (1986), cognitive appraisal theories suggest that events are initially evaluated for relevance to the individual’s well-being. In the work context, relevance may relate to whether the events are congruent/beneficial or incongruent/harmful with reference to personal goals (Weiss & Cropanzano, 1996). The intensity of the affective reaction will flow from the estimated importance of the event for the individual. Pleasant affective reactions will stem from appraised benefits (goal facilitation) and unpleasant affective states from impediments (goal obstruction). Important events would elevate intensity whilst unimportant ones would elicit less reaction. Whilst a reciprocal relationship may be argued between affective reactions and perceived task characteristics (in this instance the proximal events and psychological environment), the primary direction appears to be from the perceived characteristics to affective reactions (James & Tetrick, 1986). Affect in response to the job can, in turn, influence several well-studied outcomes including job satisfaction, commitment, etc. (Isen & Baron, 1991; Weiss & Cropanzano, 1996). In the light of the potential consequences of affective experiences in the work context, the current research is interested in investigating whether perceived psychological climate does indeed influence affect at work, and whether such affect, in turn, influences identified indices of well-being at work. The researcher will also investigate whether emotional intelligence (both of the leader/manager and employee) influence job affect directly.

A short overview of mood affects in organisations follows.

- **Mood effects in organisations**

According to Frijda (1986; Schwarz, 1990), moods have a direct informational role, informing us about our *umwelt* and sensitising us to aspects that may require further monitoring and processing. Positive states / activated pleasant mood are indicative of an unproblematic situation, whilst negative states indicate a problematic situation such as threat or disappointment. According to Bless, Schwarz, Clore, Golisano and Rabe (1996), individuals experiencing negative states tend to focus on the (risky) specifics of the situation – default routines are suspect - whilst those experiencing positive moods view the situation as uncomplicated and are confident that routine habits will suffice to manage the presenting situation.

Much related background research may be traced to the domain of social psychology (Forgas, 1992; Isen, 1999). However, in the organisational context, George and Brief (1992, 1996a) provide for groundwork on affect within organisations. Their research led them to studies on both trait and state moods and possible predictors of these phenomena. Positive and negative moods, were for the most part, studied separately. These studies provide consistent findings that hold practical importance for organisational science and practice, paving the way for future conceptual endeavours on emotion in the workplace.

Forgas's (1995) affect infusion theory (AIM) and how it may be applied in organisational settings, is an example in place. Some of the findings include:

❖ *Positive mood*

Positive affect promotes creativity, cognitive flexibility and the application of heuristic cognitive processing strategies (Isen & Means, 1983; Schwarz, Bless & Bohner, 1991). Forgas's (1995) affect infusion theory provides conceptual depth by suggesting that affect influences cognitive judgement via two mechanisms:

Affect may directly inform employees' judgements via quick heuristic judgements applying their "affective state as a short-cut to infer their evaluative reactions to a target" (Forgas, 1995 p.40). This is similar to the mood congruent paradigm that states that people in a more positive mood evaluate things more positively and vice versa (Forgas & George, 2001).

Affect can also prime judgements through the selective influence of attention and retrieval that influences the role of mood on memory (Forgas, 1995). According to Isen and Baron (1991), positive mood generally leads to positive outcomes at work including more reported job satisfaction (Conolly & Viswesvaran, 2000); less turnover (Shaw, 1999); pro-social organisational behaviour (Williams & Shaw, 1999), and even improved performance (Wright & Staw, 1999). Positive mood also seems to influence behaviour such as positive evaluations of interviews, performance appraisals and negotiations (Kraiger, Billings & Isen, 1989). According to Ashkanasy *et al.* (2002), it seems as if positive mood states within organisations are desirable. This, however, does not always hold water, especially in relation to performance. Whilst positive mood facilitates certain types of performance, it does not hold true for all tasks (George & Brief, 1996).

❖ *Negative mood*

According to George and Brief (1996b), the construct of negative mood is less straightforward in its effect than positive mood is. This is true because people in a negative mood often want to rid themselves of this negative mood (Clark & Isen, 1982; Rusting & De Hart, 2000). They therefore do not always act in a mood congruent way. They may, for example, exhibit more helping behaviour than expected since they wish to feel better. In general, however, people in a negative mood are less satisfied with their jobs and tend to demonstrate more withdrawal behaviour (George & Brief, 1996b). Furthermore, Daus (2001) and Kingsbury and Daus (2001) assert that people experiencing negative moods may, for example, rate subordinates' performance lower.

Nonetheless, people in a negative mood tend to process cognitive information more realistically and systematically (Sinclair & Mark, 1992). They may therefore be more accurate in their perception, thereby actually enhancing performance (Alloy & Abramson, 1982). The experiencing of positive mood, therefore, is not *always* linked to higher performance in comparison with those experiencing negative mood.

4.3.2.3 MEASURING AFFECTIVE STATES AT WORK

According to Saavedra and Kwun (2000) and Frijda (1993), moods are most often distinguished from emotions by intensity, duration and diffuseness. Moods are more often mild, diffuse and enduring affective states experienced in the work context and flow forth from work events that have influenced such mood / emotions.

Much mood measurement includes the well-known positive and negative affect described by Watson and Tellegen (1985) and often equated to pleasant/unpleasant affect. These authors demonstrated that “a basic two-dimensional structure of affect emerges across a number of different lines of research and a very large number of analyses” (p.234). The two major factors that emerge are Positive and Negative Affect and they represent “the major dimensions of emotional experience” (p.234). These two were found to account for common variance in one half to three quarters of all emotional experience. They view the two-dimensional structure as complementary rather than in opposition to a multifactorial structure. They argue that Positive and Negative Affect are hierarchically related to more circumscribed discrete mood states and emotion factors as postulated in multifactorial theories of emotion, including anger, fear, joy

and so on (Izard, 1972). *Figure 4.1* depicts Watson and Tellegen's two-factor structure of affect.

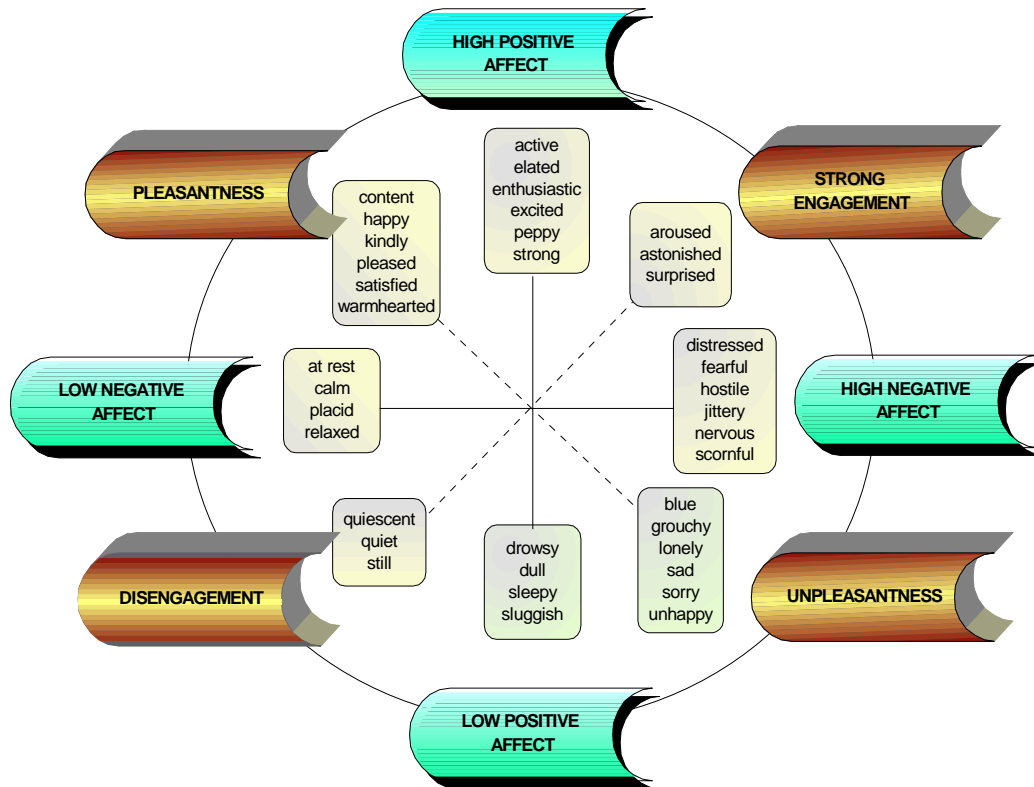


Figure 4.1 The two-factor structure of affect

Watson and Tellegen (1985, p. 221)

The axes displayed as solid lines emerged as the first two Varimax factors of the self-report studies analysed by Watson and Tellegen (1985). The two factors were depicted as descriptively bipolar, but affectively, unipolar dimensions. Positive and Negative Affect also emerged as the second-order dimensions when oblique rotation was employed. An alternative rotational scheme is indicated by means of the dotted lines appearing in the figure. Pleasant-Unpleasantness appears as the first principal component in the self-report measures investigated. The second factor, using the same statistical procedure, is the Arousal factor (Strong Engagement-Disengagement).

On the basis of factor analyses of self-reported mood, Watson and Tellegen (1985) found that positive and negative affect consistently emerged as the first two orthogonal dimensions of self-rated mood (or as the first two second-order factors derived from oblique solutions) and that clear markers of each dimension could be identified. They believe that their results present

strong supportive evidence for the robustness of Positive and Negative Affect in self-reported affect. These affective states demonstrate an association with personality in that NA is associated with neuroticism and PA with extraversion (Costa & McCrae, 1992); and with hemispheres, since the left hemisphere seems more important in regulating PA and the right hemisphere in regulating NA (see Chapter 2 for further elaboration).

Adding to the two-factor structure of affect (*Figure 4.1*), affect may further be described using the circumplex model of affect (Larsen & Diener, 1992) or the JAS (Brief *et al.*, 1988). In the current investigation, the Job Affect Scale (JAS), developed by Brief *et al.* (1988), was applied to measure such affective states at work and will be further elaborated on in Chapter 5. The circumplex model of affect is applied as an organising framework for the JAS. Please see *Figure 4.2* below.

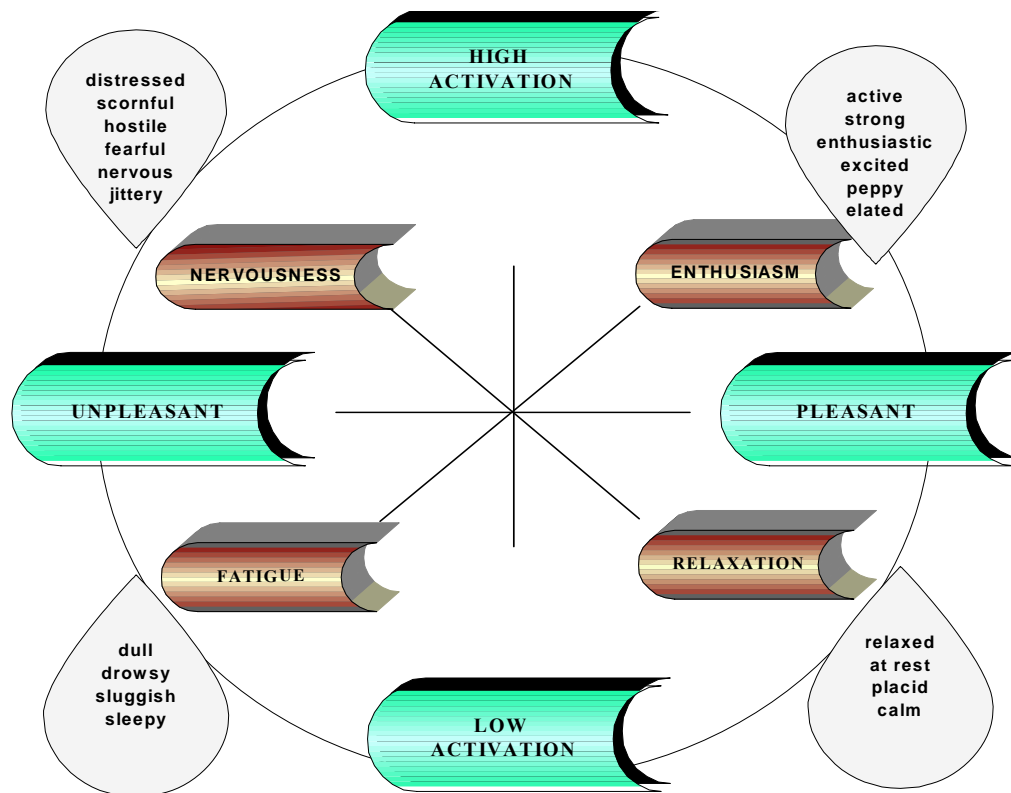


Figure 4.2 The circumplex model of affect

The location of the Job Affect Scale in the circumplex space defined by the self-report Affect Circumplex (adapted from Larsen and Diener, 1992). (Saavera & Kwun, 2000, p. 21)

Within the circumplex, mood is presented as symmetric categories that are fully dimensional and reflect mood content. According to Larsen and Diener (1992), and Weiss and Copranzano

(1996), the dimensional structure of the circumplex has received strong empirical support. The model accounts for most of the variance in mood measures applied in current research and has labelled mood both logically and clearly (Saavedra & Kwun, 2000). According to Larsen and Diener (1992), all moods share two basic orthogonal dimensions. One refers to hedonic valence, namely pleasant / unpleasant or good / bad, and the other to behavioural readiness or arousal (high or low activation; important / unimportant). Mood adjectives are plotted in a circular structure to reflect these dimensions. Two additional dimensions divide the circumplex further to add two bipolar orthogonal dimensions reflecting a composite of activation and hedonic valence, namely activated–pleasant versus unactivated–unpleasant, and activated-unpleasant versus unactivated-pleasant.

To summarise, job affect is important since “real-time affective experiences may be one of the mechanisms by which work context features (such as job design or superior’s leadership style) and individual differences (such as negative affectivity) eventually influence cognitions about the job and subsequent judgement-driven behaviors such as quitting” (Fisher, 2000, p.199). If organisations seek to improve the quality of work life, job affect as an important contributor to job satisfaction and attitudes require serious consideration since affect influences overall judgement independent of beliefs (Weiss & Cropanzano, 1996). Efforts to improve mood and emotions at work may result in better job attitudes and a resultant ripple effect. It is important to note that, whilst it may be difficult to control mood as such due to its decidedly vague and diffuse causes, events that provoke specific positive and negative emotions may be more readily “amendable to organizational intervention” (Fisher, 2000, p.200). The author concludes that the net positive affect at work is more influential than the intensity of affect in influencing satisfaction. Organisations should thus attempt to free the work environment of the many minor irritations and hassles that tip the scale to more frequent, (even minor) negative affect. Employers should seek to build in more frequent positive reinforcements or ‘uplifts’ rather than infrequent but more intense formal promotions, awards, public celebrations, *etcetera*, if they wish to enhance job attitudes.

4.3.3 CONCLUDING REMARKS

Against the background of the role of psychological climate (PC) and job affect (JA) as influential factors in employee perception, job attitudes and satisfaction, the current research wishes to investigate the possible influence of a salubrious work environment (assumed mitigated by the emotional intelligence of the leader/manager) on indices of well-being. In this

regard, PC and JA are seen as *mediators* in relation to other indices of well-being in the current study, namely work engagement and health as positive indicators, and burnout and contemplated quitting as negative indicators of well-being. JA may, however, also be viewed as a dependent variable or indicator of well-being in its own right. Any cross influence between PC and JA will also receive attention in the empirical part of the investigation.

In the second part of this chapter, the indices of well-being will be further elaborated on.

4.4 INDICES OF EMPLOYEE WELL-BEING

4.4.1 INTRODUCTION

Quality exchange between leader and member can have a profound effect on effectiveness, work motivation and the mobilising of emotional energies of employees (Ashkanasy & Tse, 2000). Against this background, the researcher chose to investigate whether a salubrious environment would indeed affect motivation and mobilise the energy of employees as indicated by Job Engagement or, conversely, by what has traditionally been viewed as its antipode, namely Burnout. According to Storm and Rothmann (2003), burnout and engagement may be considered two prototypes of employee well-being. The wellness literature furthermore abounds with references to Health (in opposition to ill health) as a positive outcome and Contemplated Quitting as a negative judgement driven outcome. The indices therefore include two positive and two negative indicators of well-being at work. These indices, were investigated and are now discussed.

4.4.2 POSITIVE INDICATORS OF WELL-BEING

4.4.2.1 WORK ENGAGEMENT

4.4.2.1.1 Introduction

Strümpfer (2003) believes the workplace offers employees both opportunities and challenges. In describing competency models of wellness and reflecting on a number of psychological constructs involved, he includes engagement - antipode of burnout - as a fortigenic construct. The fortigenic paradigm has been applied in an attempt to shift thinking about burnout (a pathogenic construct), to help understand alternatives to this construct and move in the

opposite direction. (For an elaboration on other psychological constructs underpinning fortigenesis, please consult Strümpfer, 2003).

According to Kahn (1990), people can use “varying degrees of their selves, physically, cognitively, and emotionally, in work role performances” (p.692) and this has implications for both their work and life experiences, *inter alia*, whether to engage or to disengage and defend their personal selves. He believes that the psychological experiences at work drive people’s attitudes and behaviours. This line of thinking is subsumed in Lewin’s classic position, that behaviour is a function of the psychological environment. Abraham (2004) contends that employers are best advised to create work environments in which the positive effects of emotional competencies flourish. “Companies are charged with providing psychologically safe and meaningful work environments that promote engagement and work involvement” (p.137). As discussed in the previous chapter, Kahn proposes that three psychological conditions – meaningfulness, safety and availability – will influence the level of engagement. People vary in terms of their level of engagement according to how they perceive the benefits, meaningfulness, safety and guarantees within a situation. Engagement also co-varies with the resources that individuals perceive to be at their disposal to leverage their situation. Psychological safety implies the trust that they will not suffer due to their personal engagement. Engaged, people “employ and express themselves physically, cognitively, and emotionally during role performances” (p.694). Disengagement implies the uncoupling of the self from work roles as individuals withdraw and defend themselves physically, cognitively and emotionally. According to Kahn (1990), people need, as a matter of course, both to self-express and self-employ in their work lives.

Schaufeli and Bakker (2001), taking into account the two basic factors as depicted by the two-factor model (*Figure 4.1*) and the circumplex model (*Figure 4.2*), developed a model of well-being at work that also makes it possible to focus on burnout and engagement. The model is illustrated in *Figure 4.3* below.

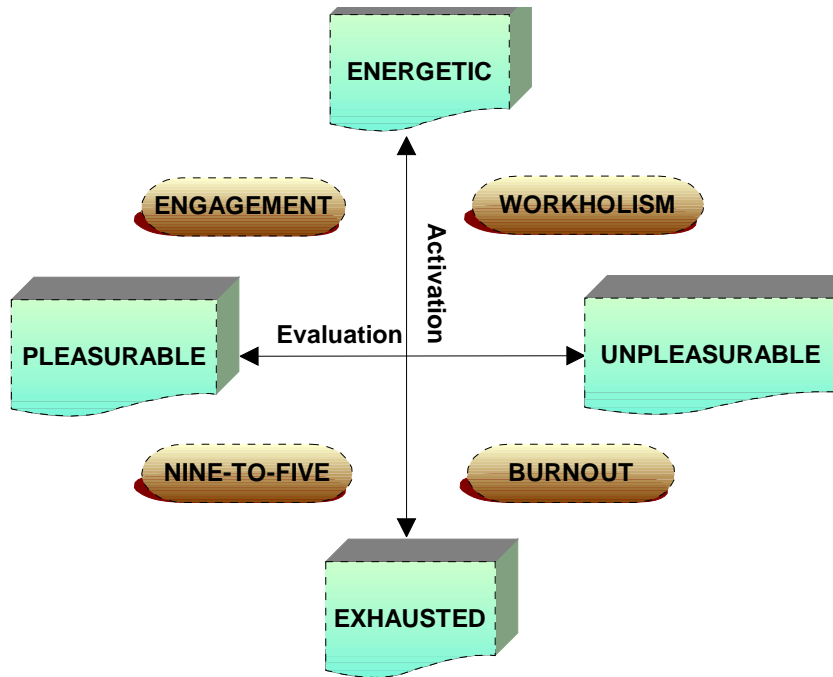


Figure 4.3 A taxonomy of well-being at work

Schaufeli and Bakker (2001)

Schaufeli and Bakker (2001) propose a model that helps distinguish between two dimensions that may be applied to classify four types of well-being at work. The vertical axis represents the mobilisation of energy, ranging from energetic to exhausted; and the horizontal axis, the extent of pleasure derived at work, ranging from pleasurable to unpleasurable. This taxonomy allows for a distinction between burnout and engagement and workholism, versus the work experience called “nine-to-five”.

Weiss and Cropanzano’s (1996) AET model discussed in Chapter 2, proposes that people use their moods to focus attention on specific motivational agendas at work. If focused on job performance, the employee experiencing a positive mood produces greater effort on work tasks resulting from mood-congruent effects on judgement, recall, and attributions. Positive mood also enhances persistence on work tasks via mood-congruent effects on evaluation and goal- setting. In contrast, negative mood shifts attention away from job performance (to the source of the disturbance), reducing resources available for producing high performance. In this regard please cross refer to Chapter 2 for Fredrickson’s (1998, 2001) Broaden-and-Build Theory.

Consequently, individuals who experience high personal engagement (Kahn, 1990, 1992) and “flow” (Csikszentmihaly, 1990) become emotionally, physically and cognitively immersed in the experience of the activity and the pursuit of a goal. Flow is typified by the individual “who forgets to have dinner and works late into the night, lost in the thrill of her work” (p.110). It is for this very reason that employers would wish to enhance worker engagement with the job. However, the concept of work engagement finds its origins in the work on burnout. Engagement can be distinguished but not divorced from burnout in terms of its structure and operationalisation.

4.4.2.1.2 *Engagement versus burnout*

The positive paradigm approach also influenced research on burnout and focus slowly turned to include the opposite pole, namely work engagement, theoretically seen as the antithesis of the burnout construct (Naudé & Rothmann, 2003). Researchers thus extended their interest to include this positive pole of worker well-being (Schaufeli *et al.*, 2002). Some employees were found to weather job strains well and rather than developing burnout, seemed to enjoy dealing with hard work and high demands in the work situation.

The important question emerged as to why some workers are able to accomplish large amounts of work with pleasure and enthusiasm without becoming burnt out, whilst others do burn out (Storm & Rothman, 2003). The answer may be found in research on work engagement. Research relating to the work engagement concept took on two related but different paths. Burnout was rephrased by Maslach and Leiter (1997) as the erosion of engagement with the job. Work, previously perceived as important, meaningful and challenging, becomes unpleasant, unfulfilling and meaningless (Naudé & Rothmann, 2003). Maslach and Leiter (1997) view work engagement as characterised by energy, involvement and efficacy, which they consider direct opposites of the three burnout dimensions, viz exhaustion, cynicism and lack of professional efficacy. Engaged employees project a sense of energetic, effective connection with their job activities and experience themselves as capable of coping with their job demands. Theoretically, engagement can be assessed by the opposite pattern of scores on the three Maslach Burnout Inventory (MBI) dimensions. Therefore, low scores on exhaustion and cynicism, and high scores on efficacy would indicate engagement.

Schaufeli *et al.* (2002) only partly agree with Maslach and Leiter’s (1997) description of engagement. They take a different view, and define and operationalise work engagement in its own right. Schaufeli *et al.* consider burnout and work engagement to be opposing concepts

that should, therefore, be measured independently, and with different instruments. According to Storm and Rothmann (2003), burnout and engagement may be considered two prototypes of employee well-being. They form part of a more comprehensive taxonomy constituted by two independent dimensions - pleasure and activation – according to Watson and Tellegen (1985). In this regard see *Figure 4.1*. Activation ranges on a continuum from exhaustion to vigour, whilst the identification continuum ranges from cynicism to dedication. Using this explanatory framework, burnout is perceived as a combination of exhaustion/low activation and cynicism/low identification, whilst engagement is characterised by vigour/high activation and dedication/high identification.

4.4.2.1.3 *Defining engagement*

Schutte, Toppinen, Kalimo and Schaufeli (2000) define work engagement as an energetic state in which the employee is both dedicated to excellent performance at work and feels confident of his/her effectiveness. Later on, Schaufeli *et al.* (2002) defined engagement as a positive, fulfilling, work-related state of mind characterised by vigour, dedication, and absorption. Rather than depicting a momentary and specific state, engagement is viewed as a more persistent and pervasive affective-cognitive state that does not focus on any particular object, event, individual or behaviour. Work engagement consists of three dimensions that are described below.

4.4.2.1.4 *Dimensions of engagement*

The following dimensions of work engagement have been proposed:

Vigour, characterised by high levels of energy and mental resilience whilst working; the willingness to invest effort in the work; not fatiguing easily, and persisting even in the face of difficulties.

Dedication, characterised by finding one's work significant; feeling enthusiastic and proud about one's job, and by experiencing both challenge and inspiration in the work.

Absorption, characterised by being happily and totally immersed in one's work whilst finding it difficult to detach oneself from it. Time passes quickly and one becomes oblivious of one's surroundings.

Schaufeli, Taris, *et al.* (2001) furthermore described the following eight characteristics of engaged workers: they take initiative, and self-direct their lives; they generate their own

positive feedback, and so self-encourage; they are also engaged outside of their employment; their values and norms are in agreement with those of the organisation they work for; they do become fatigued, but the fatigue speaks of satisfaction; they may also become burnt out but get themselves out of the situation; they are not enslaved to their job, and do sometimes wish to do something other than work.

Cant (2000), working on the related theme of proactive behaviour in organisations, assumes that proactive behaviour entails challenging and improving current circumstances rather than passively adapting to reigning conditions. Another of the fortigenic constructs entails the need for existential meaning. According to Strümpfer (2003), individuals need to believe they are significant in the broader 'cosmic scene of things'. With the decline in the role of religion in the lives of many individuals, work has – for many – become the alternative source of meaning. When they work hard to achieve existential meaning and fail, burnout may occur.

A number of related constructs have found their way into the literature.

4.4.2.1.5 *Related constructs*

Work engagement has established itself as distinct from other known constructs in organisational psychology, including organisational commitment, job satisfaction or job involvement (Maslach, Schaufeli & Leiter, 2001). *Organisational commitment*, for example, depicts an employee's allegiance to the organisation to which he/she belongs. Engagement focuses on the work itself rather than on the organisation per se. *Job satisfaction* is viewed as the extent to which work is a source of need fulfilment and contentment. It does not encompass the person's relationship with the work itself. *Job involvement* is similar to the involvement aspect of engagement with work, but does not include the energy and effectiveness dimensions (Maslach *et al.*, 2001). Lastly, engagement, and especially absorption, is closely related to Csikszentmihalyi's (1990) concept of "*flow*" which represents a state of optimal experience characterised by focused attention, a clear mind and body unison, effortless concentration, complete control, loss of self-consciousness, distortion of time and intrinsic enjoyment. However, flow is seen to be more complex and refers to rather particular, short-term *peak* experiences instead of a more pervasive and persistent state of mind, as is the case with engagement (Schaufeli *et al.*, 2001).

4.4.2.1.6 *Emotional intelligence and work engagement*

A literature search in this regard has delivered no results, and indicates that this area is yet to be explored in research. However, Abraham (2004) prepared a proposition yet to be tested using structural equations in which Motivation, Psychological Safety, Psychological Meaningfulness are regressed on job involvement as criterion, as will essentially be done in regard to work engagement in this investigation.

4.4.2.1.7 *The measurement of work engagement*

As stated, Schaufeli *et al.* (2002) disagree with Maslach and Leiter (1997) and do not believe that engagement can adequately be measured by the opposite profile of MBI scores. Although they concur that engagement is – conceptually speaking – the positive antithesis of burnout, they are of the opinion that the measurement of the two concepts and its structure differs, and that engagement should be operationalised in its own right. Schaufeli *et al.* (2002) argue that, by using the MBI for measuring work engagement, it is impossible to study its relationship with burnout empirically, since both concepts are considered to be opposite poles of a continuum that is covered by one single instrument (the MBI). Schaufeli *et al.* (2002) developed the Utrecht work engagement scale (UWES) and this scale was applied in order to assess this dimension of well-being in the current study. The instrument and its development will be further discussed in the next chapter.

4.4.2.2 *HEALTH INDICATORS*

4.4.2.2.1 *Introduction*

Health and wellness have only recently become the subject of scientific enquiry. According to Ryff and Singer (1998), “human wellness is at once about the mind and the body and their interconnections” (p.2). Therefore, according to them, a comprehensive assessment of positive health should include both physical and mental aspects and how they influence each other. The World Health Organisation (WHO) views health not merely as the absence of disease but as physical, mental, and social well-being (Van Niekerk, 2005). Engel (1980), in turn, suggests that health be viewed as including a broad range of human dimensions such as the physical, intellectual, emotional, social and behavioural dimensions, naming it the biopsychosocial approach. Of late, Winiarsky (1997) added spiritual well-being to the model to reflect an individual as a biopsychosocial/spiritual unit. Whilst the biomedical approach still tends to emphasise the separation of mind and body and the physical causation of disease, the

biopsychosocial/spiritual approach is a systems approach to health and illness emphasising the interconnectedness between mind and body and the importance of understanding health at the psychological as well as at the social, spiritual and physical levels. Furthermore, Hatfield and Hatfield (1992) assert that health entails a conscious, deliberate process whereby individuals actively involve themselves in promoting their overall well-being.

Against the backdrop of the sketched interactivity of the different dimensions of human functioning, conditions at work may indeed influence any of the mentioned areas to impact wellness. Stress in the workplace is now briefly highlighted.

4.4.2.2.2 *Health and stress in the workplace*

Work-related stress is defined by the Health and Safety Executive (HSE) in McGuire (2002) as “the adverse reaction people have to excessive pressure or other types of demands placed on them” (p. 402). According to them stress is not primarily about *feeling* under pressure, but rather about the adverse elicited response. Pressure may result from working long hours, an excessive workload, insufficient support and feeling unappreciated for the work done. Work related stress is a huge health problem, as discussed in 2.3.4.3.2(a).

In the UK, reports McGuire (2002), an estimated 6.5 million workers are affected by work related stress. Work-related stress is very costly in terms of how it affects staff, companies and clients. Employees who can prove they have suffered work-related stress, may seek compensation from the employer since employers have a statutory duty to ensure that health is not harmed by work-related stress. William and Cooper (in McGuire) highlight the cost of loss of intellectual capacity and high rates of turnover for good staff. They furthermore argue that high turnover is a clear indicator of organisational stress.

Similar findings apply to South Africa (Van der Merwe, 2004) where the leading cause of death is heart disease resulting, inter alia, from hypertension, high cholesterol and diabetes, cancer and infectious diseases. In her view, “Employees who experience high levels of job strain, a combination of high demands at work and low levels of job control, have high stress levels and more than twice the risk of death from heart disease compared with employees who have low job strain” (p.51). Furthermore, high work-related stress has been found to correlate with an increase in total cholesterol.

Often, however, self-reported job stress is inflated, since self-report measures of both stress and strain are contaminated by Negative Affect (NA). NA is therefore a theoretic variable that

needs to be considered in job stress. In the current investigation employee EI is taken into account in this regard.

Lazarus and Folkman (1987), prominent theorists in the field of stress, stated that although they usually refer to stress and coping theory, they believe they should now rather speak less of stress and more of emotion. According to them stress frequently presents under the larger rubric of emotion as emotional response states including anger fear, guilt and shame. Stress symptoms presenting in the other domains are well described elsewhere and not a primary focus of the current investigation.

Contemporary theories, including the cybernetic theory (Edwards, 1998) and the equilibrium theory (Hart, Griffin, Wearing & Cooper, 1996), view emotions and self-regulation as taking centre stage in the dynamic process of stress. Emotions tend to focus resources on threatening issues such as those aiming at impeding individual integrity (physical, social or psychological). Likewise, emotions are considered adaptive, since they protect the individual from physical (and other) harm and guide him/her in the achievement of goals. Stress results from experiencing negative emotions triggered by “danger, threat or challenge and which signal to the body the need to prepare for actions of defence and protection” (Slaski & Cartwright, 2003, p.234). According to Oatley and Jenkins (1998), interaction with the environment holds emotional content since all actions hold survival consequences, one way or the other. Pivotal to all human behaviour is the goal to reduce threatening emotional experiences and stress and the drive to maintain a coherent and integrated sense of self (Damasio, 1994).

Brief *et al.* (1988) found a significant positive relationship between somatic complaints and job stress. Physical symptoms resulting from stress include, inter alia, tension headaches, migraines, nervous twitches, nausea, altered sleep patterns, backache, excessive sweating (McGuire, 2002). Psychological and behavioural symptoms may reflect reduced self-esteem and low self-worth, anxiety with poor decision making, depression and mood swings, feelings of helplessness, impeded concentration, anger or irritability.

4.4.2.2.3 *Mental health*

A healthy mind includes but is not limited to a “ state of successful performance of mental function, resulting in productive activities, fulfilling relationships with people, and the ability

to adapt to change and to cope with adversity” (U.S. Department of Health and Human Sciences (in Keyes & Lopez, 2002, p.55).

Hales and Hales (1996, p. 34) contend “Mental health is not the absence of distress or conflict, but rather the capacity to think rationally and logically, and to cope with transitions, stresses, traumas and losses that occur in all lives, in ways that allow emotional stability and growth. In general, mentally healthy individuals value themselves, perceive reality as it is, accept its limitations and possibilities, respond to its challenges, carry out their responsibilities, establish and maintain close relationships, deal reasonably with others, pursue work that suits their talent and training, and feel a sense of fulfilment that makes the efforts of daily living worthwhile”.

Mental well-being is a complex interplay of numerous factors (biological, psychological, social and spiritual) that begin at conception and are shaped by many forces throughout life. It is important to realise that health, including mental health, is not an end state but an ongoing process. This simply means that wellness needs change as we develop through the life cycle. Life is characterised by inevitable setbacks and disappointment, as may be the case at work. However, a healthy mind is able to mobilise its resources and execute resilience or the ability to bounce back (Van Niekerk, 2005).

Taylor, Kemeny, Reed, Bower and Gruenewald (2000) believe mental health is associated with finding meaning in life, experiencing optimism and a sense of personal control, all of which may resonate with well-being at work.

4.4.2.2.4 *Physical health*

Illness has mental consequences as well as causes. The mind-body connections run in both directions: the level of one’s physical health can influence one’s state of mind and vice versa. Ryff and Singer (1998) advocate that it is essential to understand the body during states of wellness (rather than only when ill). This represents a fundamental shift in thinking about health. The call is to study mind–body interactions in pursuit of understanding wellness as underscored by the promising new directions and scientific advances in the study of human health. In pursuing positive health Ryff and Singer postulate that practices and policies should shift toward the pursuit of positive human health (with an emphasis on the complex body-mind processes) that provides for a challenging biopsychosocial agenda.

The role of emotions in the physiology of health

According to Goleman (2000), research over the past 20 years has convincingly yielded evidence of the influence of emotions on physical health. A recent line of medical research, psychoneuroimmunology investigated established links between the immune and central nervous systems. Results suggest that emotions exert a powerful influence on the autonomic nervous system. Chemical messengers most salient to the immune system and the brain were indicated as those also most dense in neural substrates that regulate emotion. Many physical connections were established where the “autonomic nervous system communicates directly with the lymphocytes and macrophages in the immune system” (Goleman, 2000, p.461). A few examples in support of the role of emotions in physical illness may suffice. Firstly, research on heart patients reveals that anger significantly impacts heart function and that hostility puts the heart at risk. According to Goleman, proclivity for anger is a stronger predictor of dying at a younger age than are other risk factors, including smoking, hypertension and cholesterol. A growing body of evidence indicates that emotions indeed play a significant role in vulnerability to disease and recovery therefrom.

“How events are construed or interpreted and how individuals cope psychologically with them is seen to have a major influence on how physiological cascades unfold” (Ryff & Singer, 1998, p.13). Destructive emotions such as anxiety and anger are expected to ultimately compromise immunity. Experimental research has also demonstrated that negative self-evaluation alters the immune response. Melnechuk (1988) elaborated on how positive emotions modulate immune reactions.

According to Pelletier (1996), an individual’s body, experiencing chronic stress (for example when under constant deadline pressure), reacts with physical changes as if under acute stress. “Catecholamines trigger a cascade of physiological changes that marshal the body to readiness: Heart rate, blood pressure, and muscle tension all rise sharply; the stomach and intestines become less active; and the blood level of glucose or blood sugar, rises for quick energy” (p.23). The physical upheaval generally coincides with psychological responses including racing thoughts, anxiety and panic. Chronic long-term stress may contribute or lead to chronic disease. Under conditions of protracted stress, the immune system tends to be suppressed. Blood-cholesterol levels rise and calcium loss occurs. With chronic stress, short-term increases in blood pressure may lead to hypertension. Muscle tension may produce headaches and aggravate pain whilst changes in intestinal tract functioning may cause

diarrhoea, increased heart rate and increase the risk of arrhythmia. In addition, a decline in immunity enhances susceptibility to colds, flu and other diseases (cf. Chapter two).

There are a number of reasons supporting the notion that positive beliefs might influence the course of physical disease. Taylor, Kemeny, Reed, Bower and Gruenewald (2000) argue that positive beliefs influence emotional states that, in turn, affect the physiology and neuro-endocrine underpinnings of illness. Positive beliefs may also promote better physical health by promoting better health behaviours. As discussed in Chapter 2, Fredrickson (1998; 2000) has long argued that positive states of mind lead to both a meaningful and healthier life. Much past research related psychosocial factors to changes in the state of health by focussing on negative psychological states such as grief, stress and depression. It is therefore clear that a distinct link exists between the experience of both positive and negative emotions (such as which may be experienced at work) and general well-being.

4.4.2.2.5 *EI and health*

The link between EI and health rests on the belief that negative emotions and stress result from a dysfunctional relationship between the environment and aspects of the self. It is presumed that the EI ability to correctly perceive and adaptively manage emotions in the self and others, moderates this process. Salovey, Stroud, Woolery and Epel (2002) found that when moods are more clearly defined and an individual has some skill at mood regulation, stressors are viewed as less threatening; individuals make less use of state and trait passive coping strategies (thus more adaptive coping); and present with lower levels of depression and physiological responses to stress and health symptoms. Slaski and Cartwright (2002) found that managers measuring high in EI exhibited less subjective stress and better physical and psychological well-being according to both self-report and as rated by their managers. In a follow-up study Slaski and Cartwright (2003) trained 120 managers from a large UK retail store in EI. They found that the training increased the levels of EI and also had a positive and significant influence on health and well-being, as was substantiated by qualitative data and was reported by their line managers. In addition Gardner and Stough (2002) identified a negative relationship between individuals' abilities to control emotions and both physical and psychological health in a sample of employees. Oginska-Bulik (2005), in exploring EI in the workplace and its effects on occupational stress and health outcomes in human service workers found that those employees reporting higher levels of EI indeed perceived lower stress levels and experienced less negative health consequences. She found that EI played a buffering role, albeit weak, in preventing workers from experiencing adverse health outcomes and depression symptoms in particular.

She concludes that the ability to deal effectively with emotions and emotional information in the workplace may assist employees to maintain psychological well-being by managing their occupational stress better. Tsaousis and Nikolaou (2005) also found that increased EI has an important role in health functioning and contends that these findings may now be viewed as conclusive since “they have been replicated across different studies and cultures, using different EI instruments” (p.84).

In a study on workplace well-being Donaldson-Feilder and Bond (2004), however, found that, in regard to 290 United Kingdom workers, EI did not significantly predict well-being outcomes. Salovey *et al.* (2002) also warn that results from studies on EI and health, should be cautiously interpreted since many of the studies rely on self-report measures that represent beliefs about EI and not EI per se.

Against the background of conflicting evidence on EI and health, the current study wishes to investigate the possible link between experienced emotions – as mediated by working conditions and levels of EI – and wellness.

4.4.2.2.6 *Measurement*

A scale was developed to estimate the experienced physical and mental wellness of employees in the current study. The scale will be further elaborated on in the next chapter.

4.4.3 NEGATIVE INDICATORS OF WELL-BEING AT WORK

4.4.3.1 *BURNOUT*

4.4.3.1.1 *Introduction*

Of late, and resulting from the changing nature of work and changing economic times, burnout has become more widespread and is reaching epidemic proportions among North American workers (and globally) (Maslach & Leiter, 1997). The changing nature of work includes, *inter alia*, that the workplace has become increasingly unpredictable, with increased job insecurity as organisations expand and shrink in accordance with market demands which result in layoffs (Martin, 1997). People values have become increasingly subordinate to economic ones. Economic forces have become the primary driving force, with other values being regarded as

subsidiary. Profits are favoured over the welfare of people in the reengineering and downsizing of organisations in a quest to increase profits ('doing more with less') so that capable employees, rather than being rewarded for hard work, are set adrift (Turner *et al.*, 2002). Increased profit, pursued at the cost of subordinates' jobs, is eroding the concept of job security.

Against the background of global economics and the inherent competition involved, people are compelled to work longer hours, take work home and have less time for family and friends (Maslach & Leiter, 1997). Employees take on multiple careers with increased overtime, contingent and part-time employment, to make ends meet (Turner *et al.*, 2002). Workers increasingly experience diminished control and choice, and are forced into working arrangements that clash with their personal preferences. Many employees have become disheartened by the perceived decline in the quality and intensity of their work life and are seeking once again to find meaning in their efforts. Furthermore, multiple demands on the individual, including a career and family (single parenthood / reconstituted families), erode energy and enthusiasm. Enjoyment and the pleasure of achievement are more difficult to obtain, dedication and commitment to the job are fading whilst people are trying to survive better by keeping their distance, and not getting too involved.

According to Maslach and Leiter (1997), the workplace has become - both economically and psychologically - cold, hostile and demanding. This goes along with the eroding of the workplace character, supposedly a safe and healthy setting for people to fulfil their potential via intrinsically rewarding jobs (for which they receive fair compensation).

The concept of burnout was initially closely linked to the human services (such as health care, education and social work) where employees work with people, as is the context of the current study. Of late, two trends emerged in the burnout literature, broadening the traditional concept and scope thereof (Maslach, Schaufeli & Leiter, 2001). The concept has now been expanded to include all other professions and occupational groups whilst researchers also recently extended their interest to include the positive pole of burnout, namely work engagement.

4.4.3.1.2 *Definitions of burnout*

Schaufeli and Enzmann (1998, p.36) define burnout as a "persistent, negative, work-related state of mind in 'normal' individuals that is primarily characterized by exhaustion, which is accompanied by distress, a sense of reduced effectiveness, decreased motivation, and the

development of dysfunctional attitudes and behavior at work”. According to Maslach, Schaufeli and Leiter (2001, p. 397): “Burnout is a prolonged response to chronic emotional and interpersonal stressors on the job, and is defined by the three dimensions of exhaustion, cynicism, and inefficacy”. A short description of the burnout dimensions follow.

4.4.3.1.3 *Dimensions of burnout*

The following dimensions of burnout have been identified by a number of researchers (Maslach & Jackson, 1986; Maslach & Leiter, 1997; Schaufeli *et al.*, 2002):

The first dimension is emotional exhaustion - the draining of emotional resources resulting from demanding interpersonal contacts with others. Employees’ emotional resources are depleted and they no longer feel they can give of themselves at a psychological level. Employees feel overextended, both emotionally and physically. They struggle to unwind and recover. They are as tired when getting up as when they had gone to bed. They lack the energy to face another day.

The next dimension is depersonalisation/ cynicism - a negative, callous, and cynical attitude and feeling towards the recipients of the burnt out individual’s care or services. The person develops a dehumanised perception of others and may even feel that his/her clients/patients deserve their troubles. According to Wills (1978), the described negative attitude towards clients in human service workers is well documented. Burnt out individuals take on a cold, distant attitude to their work and people involved, attempting to minimize their job involvement, and give up their ideals. They thus try to protect themselves from further exhaustion and disillusionment.

The last dimension is a lack of personal accomplishment - the tendency to evaluate one’s work with clients/patients negatively. Workers feel unhappy about themselves and are dissatisfied with their work accomplishments They experience a growing sense of inadequacy. All new projects seem overwhelming. They lose confidence in the belief that they can make a difference.

4.4.3.1.4 *Symptoms of burnout*

According to Maslach and Leiter (1997), burnout may have a deadly impact on the individual “even beyond its erosion of the soul” (p.18) and is detrimental to health, coping ability, personal life style and job performance. Burnout is therefore negatively correlated with indices

of well-being (Maslach & Leiter, 1986). The burnout syndrome contributes to physical problems such as headaches, gastrointestinal illness, hypertension, muscle tension, and chronic fatigue, exhaustion and insomnia. In a bid to cope, some individuals turn to alcohol and drugs. Burnout also leads to mental distress, including anxiety, depression, and sleep disturbances. Burnout is not only about the presence of negative emotions, but also about the absence of positive emotions. Employees' exhaustion and negative feelings may also affect marital, family and friendship relations. With regard to the job, they lose energy, enthusiasm, are less able to cope, are absent, more often less involved, and do less well. Lastly, they may decide to quit (Jackson & Maslach, 1982; Maslach & Leiter, 1997).

4.4.3.1.5 *Factors influencing burnout*

According to Schaufeli and Greenglass (2001), much research has been devoted to the understanding of factors contributing to burnout. Work related factors are particularly significant (Leiter, 1990), and more specifically the intensity and chronicity of experienced job stress (Mills & Huebner, 1998). In this regard, work related and individual factors will be discussed.

4.4.3.1.5.1 Work related factors

Factors seemingly most influential in this regard, according to Maslach and Leiter (1997), include that:

- People feel *overloaded* and in many instances, have to take on a second job to meet financial pressures.
- Many employees experience a *lack of control* and a bracketed opportunity to take the initiative, make choices and decisions, solve problem, and substantially influence the outcomes they will be held accountable for. Many feel constrained by rigid policies and tight monitoring that sends the message that the employees and their judgement cannot be trusted, and that they are not capable when left to themselves. Mechanical management – experienced as demeaning - leads to mechanical performance.
- People experience a *lack of appropriate reward and recognition* making them feel devalued. More devastating, however, is when the individual loses pride in doing something that holds value for others, and doing his/her job well.

- Another influential aspect is a *lack of community* or positive connection with others in the workplace. “People thrive in community, and they function best when praise, comfort, happiness, and humor are shared with others they like and respect” (Maslach & Leiter, 1997, p.14). Most destructive is unresolved conflict that leads to frustration, anger, fear, anxiety, disrespect and suspicion. Mutual respect among people at work forms the centre of a sense of community.
- People also experience a *lack of fairness* in the workplace. This, inherently, means that people are not showing respect and their self-worth is not confirmed. Employees lose faith in the organisation that does not adhere to the principle of fairness and honesty. This is most evident during the process of evaluation for promotion.
- The work context is another influential factor. According to Maslach and Jackson (1986), staff members working in health and human service institutions deal directly with people about issues that tend to be problematic. They are often required to spend much time on intense involvement with their clients/patients. Interactions frequently involve clients/patients’ current problems and range from physical, social to psychological issues typically infused with feelings such as anger, embarrassment, fear or despair. Since solutions to the problems are often neither obvious nor easily addressed, the situation becomes frustrating and ambiguous. This may result in emotional draining and chronic stress for the caregiver and result in ‘burnout’.
- A last influential aspect when a conflict of values presents in the workplace and the employee is required to contravene his/her own ethical code of conduct.

4.4.3.1.5.2 Individual factors

- **Demographic Characteristics**

Age seems to be consistently related to burnout with the syndrome reported to be higher among those over 30 or 40 years. Gender differences present with men experiencing more cynicism and females more exhaustion. Furthermore, the unmarried (especially men) and the more educated individuals experience higher rates of burnout (Maslach *et al.*, 2001; Schaufeli & Enzman, 1998).

- **Personality characteristics**

Those with less hardiness experience more burnout, especially exhaustion. Individuals with an external locus of control and those with a passive personality style seem more inclined to burn out together with individuals who have a low self-esteem. The personality trait of neuroticism is also related to a higher incidence of burnout (Schaufeli & Enzman, 1998; Maslach *et al.*, 2001).

- **Job Attitudes**

Individuals who hold high expectations together with the expectation of success are at an increased risk of developing burnout (Maslach *et al.*, 2001; Stevens & O'Neil, 1983; Anderson & Iwanicki, 1984). Those with high expectations with regard to possible success work hard to achieve the expected success and become cynical when the reward is not forthcoming.

- **Coping resources**

The individual's burnout level does not singularly depend on stressful work events, but also on the availability of coping resources (Greenglass, Burke & Konarski, 1998). Folkman, Lazarus, Gruen and DeLongis (1986, p. 572) define coping as "the person's cognitive and behavioral efforts to manage (reduce, minimize or tolerate) the internal and external demands of the person-environment transaction that is appraised as exceeding the person's resources". According to Storm and Rothmann (2003), coping resources are factors that are in place before stressors occur and may lessen the impact thereof. It has been found, for example, that active coping strategies link with lower levels of burnout (Anderson, 2000; Schaufeli & Enzman, 1998); fewer feelings of cynicism, and increased professional efficacy. Furthermore, Folkman and Lazarus (1991) advocate the seeking of social support as a coping strategy in reducing the incidence of burnout. In contrast, inadequate coping resources and avoidance strategies, including escapist behaviour, are linked with increased burnout via avoidance and behavioural disengagement (Brill, 1984; Thornton, 1992; Storm & Rothmann, 2003). The same external factors may contribute to well-being if supported by appropriate performance capacities and the necessary coping resources within an individual (Demerouti, Bakker, Nachreiner & Schaufeli, 2001).

More recently, Bakker, Demerouti, & Schaufeli (2003) developed the job demands-resources model that they apply with regard to health and motivation. They contend that employees are influenced by two sets of working conditions, namely job demands and job resources. Job demands may evoke strain when they exceed the employees' adaptive capability. Such demands include physical, social and organisational conditions that require sustained physical

and psychological effort by the individual. Prolonged strain may become associated with psychological and physical cost to the individual. Job resources, conversely, refer to physical, social, psychological, and organisational conditions inherent to the job that either reduce job demands; are functional in achieving work goals; or stimulate individual development, learning and growth. Job demands that exhaust an employee's physical and mental resources may lead to a depletion of energy and resultant health impairment. Conversely, adequate resources that reduce demands and contribute to growth and development may contribute to greater levels of job involvement and motivation. Leiter (1991; 1993) found that job demands link more strongly with exhaustion and job resources with cynicism and professional efficacy.

It is against this background that EI may act as a coping resource to mitigate work events that influence the development of burnout. Aspects of EI that may be influential in this regard include stress management and the management of emotions as discussed previously.

Attention now turns to the consequences of burnout.

4.4.3.1.6 *Consequences of burnout*

The consequences of burnout could, potentially, be dangerous for the staff, their clients and the institutions for which they work. Maslach and Leiter (1997) argue that people experiencing burnout tend to perceive their work as neither meaningful nor worthwhile. Furthermore, burnout seems to be a factor in job turnover / quitting behaviour (Jackson & Maslach, 1982), absenteeism and low morale. By contrast, superior performance seems to be mediated by employee well-being (Bass, 1998).

4.4.3.1.7 *Addressing burnout improves the organisation*

Turner *et al.* (2002) argue for attention to a more positive work life against the backdrop of the current confusing occupational environment. Jobs need to be designed to promote psychological and physical well-being and leave employees in a positive mood so that they themselves, and the company, may reap the fruits thereof, for example, positive affective commitment to the organisation that links with better well-being (Begley & Czajka, 1993).

According to Schaufeli *et al.* (2002), burnout is an important barometer of major social dysfunction at work. Maslach and Leiter (1997) support this line of thinking that burnout is primarily a problem of the social environment in which people work. "The structure and functioning of the workplace shape how people interact with one another, and how they carry

out their jobs” (p.18). Therefore, burnout is better addressed at the organisational level than at an individual level. They argue that, when the workplace does not recognise the human side of work, the burnout risk increases and carries a high price with it since burnout is incompatible with effective work, including relating to others or generating creative ideas.

Schaufeli *et al.* (2002) propose that it is more advantageous to promote engagement with work than to attempt to reduce burnout. When engaged with one’s job, one’s work is enriched by one’s excitement about the job’s challenges, satisfaction with a job well done, enjoyment of the interrelationships and pride in acting according to one’s value system. For example, patients, when taken care of by energetic and involving nursing staff, respond well.

The researcher contends that promoting engagement starts with management. A company must offer an emotional climate that supports its staff in order to succeed in today’s competitive industry. Enhancing the quality of organisational life will prevent burnout in future. Organisational strategies that develop harmony between workers and their work are instrumental in preventing burnout. Promoting engagement at work does not only imply decreasing the negatives, but also increasing the positives. An example may be rather than taking a regimental, superficial view of an employee’s conduct, appreciate his/her effort and expertise. Organisations that take action to address burnout effectively in their work context will – in the long run – ensure a productive staff component.

4.4.3.1.8 *Emotional intelligence and burnout*

In this regard, a few studies will be highlighted. Reilly (1994), in a hospital context, identified a negative relationship between burnout and EI. Bar-On *et al.* (2000) showed that police officers scoring significantly higher on EI were less vulnerable to stress and coped with it better. Ricca (2003) established an inverse relationship between EI and burnout, whilst Gardner and Stough (2002) demonstrated a negative relationship between EI and occupational stress. In similar vein, a study conducted by Duran and Extremera (2004) found a significant relationship between burnout and EI in professionals employed in working with patients with intellectual disabilities. According to Oginska-Bulik (2005), this “clearly indicates that EI as expressed in the ability to recognize, express, and control emotions may have an impact on the perceived job stress and the consequences of experienced stress” (p.168). This strikes a chord with contemporary theories, including the cybernetic theory (Edwards, 1998); equilibrium theory (Hart, Griffin, Wearing & Cooper, 1996), and ethological theory (Schrbracq, Winnubst & Cooper, 1996) as quoted in Slaski and Cartwright (2003) who place “emotions and self

regulation at the centre of a dynamic process of stress” (p.234). It therefore seems that establishing an unequivocal link between burnout/stress and EI may be worth pursuing.

4.4.3.1.9 *Measurement*

Burnout is measured with the Maslach Burnout Inventory (MBI - Maslach and Jackson, 1986). The burnout inventory will be further discussed in Chapter 5.

Attention now turns to Contemplated Quitting, the last of the wellness indicators within the current investigation.

4.4.3.2 *CONTEMPLATED QUITTING*

4.4.3.2.1 *Introduction*

Employee turnover is a topic that has attracted much academic interest, with more than 1000 studies having seen the light during the 1900’s (Hom *et al.*, 1992).

4.4.3.2.2 *Theories*

Mobley *et al.*’s (1978) conceptual framework on turnover has attracted more interest than any other turnover theory. These researchers conceived that various withdrawal cognitions translate dissatisfaction into final resignation. This process occurs according to a particular causal flow, namely, job dissatisfaction leads to thoughts of quitting, search intention, quit intention and finally translates into turnover. Hom *et al.* (1992) decided to do a meta-analysis and structural equation modelling (SEM) to re-examine Mobley *et al.*’s model, after which they proposed that levels of unemployment condition the relationship between the decision to quit and implementing turnover.

More recently, AET (Weiss & Cropanzano, 1996) provides for an explanation of the role of proximal events, affective reactions and the resulting behaviour (for example judgement-driven behaviour that leads to quitting behaviour). It is argued that the affective context at work becomes instrumental in turnover. In support of this line of argumentation George (1989), for example, proposes that mood provides the affective context for thought processes and behaviours, and Clark and Isen (1982, p. 76) state that “feelings have an important effect on cognition and behaviour”. Attention therefore turns to mood and turnover intentions.

4.4.3.2.3 *Mood and turnover intentions*

Mood at work may best be conceptualised as determined by both situational factors and personality (Lewin, 1951). Individuals with higher levels of positive affectivity, are inclined to experience a sense of well-being and are more often pleasurably and effectively engaged at work (Tellegen, 1982). George (1989) suggests that situational factors may exert a greater influence on positive affect whilst negative affect seems more mediated by internal factors. Seligman and Schulman (1986), for example, found that pessimistic sales people were twice as likely as optimistic ones to quit by the end of their first year. People consciously strive to have their positive moods supersede the negative ones. Therefore, employees may attempt to avoid (where possible) situations in which they experience high negative affect. In this regard, George and Bettenhausen (1990) established a negative relation between turnover rates of work groups and leaders who experience positive moods. This opens up a window of opportunity to promote a positive climate at work in an attempt to reduce turnover. Work context may therefore promote either approach or withdrawal behaviour (George, 1989).

Organisational commitment reflects a general affective response to the organisation as a whole. The level of work commitment and involvement is considered the best single indicator of withdrawal intentions and turnover (Mowday *et al.*, 1982; Cohen, 1993) and is affected by the employees' attachment to the organisation. These authors indicate that withdrawal behaviour at work should be viewed as a multi-dimensional construct and questionnaires should allow for change alternatives within the same organisation to allow for such a change choice.

George and Jones (1997) developed a model (VAM) of work, depicting, it as a multi-dimensional construct including work values, work attitudes, work moods and their interactions. According to them, an attitude includes, *inter alia*, evaluative cognitions about the object of the attitude. An attitude includes the predisposition (of the employee) to behave in a particular way with respect to the object. These authors argue that, in several models of turnover, attitudes, including job satisfaction, are seen to trigger the turnover process. Such attitudes lead to the intention to quit, final quitting or the decision to remain. They argue in favour of the role of moods in this process. For example, being in a positive mood or possessing strong work values, may prevent an employee from quitting even if work satisfaction is low. Goleman (2002, p.14) maintains: "The percentage of time people feel positive emotions at work turns out to be one of the strongest predictors of satisfaction, and therefore, for instance, of how likely employees are to quit".

According to George (1989), workers who have significant problems to adjust are more likely to present with turnover behaviour. “Construed subjectively, adjustment is viewed in terms of turnover intention. To the extent that a worker intends to quit, this is indicative of faulty adjustment, for whatever reason” (p.318, 319). Day and Bedeian (1991) also argue that people select in and out of organisations due to the “fit” that they perceive between themselves or their personality, and organisational attributes such as psychological climate. Congruence between own and work values, as encapsulated in the psychological climate, is instrumental in the perceived “fit”.

4.4.3.2.4 *EI and turnover*

According to Fatt and Howe (2003), EI matters in staff turnover across all categories of jobs. The report on a large beverage firm that applied standard hiring practices to hire divisional presidents. Of these appointees 50% left within two years. However, when selection was based on emotional competencies including initiative, self-confidence, and leadership, turnover was reduced to 6% for an equal two-year period. They also quote a study on salespeople in which turnover was reduced by 63% in the first year when selection included emotional competencies.

To summarise, George (1989) contends that work “can be a fundamental source of well-being” (p.322). However, when some of the factors discussed above come into play, work is not experienced in such a positive manner, and leads to contemplated quitting. Cantor (2004) contends that some people actually quit by staying in their jobs. According to him, about 49% of Americans are indeed unhappy in their jobs.

4.4.3.2.5 *Measurement*

A Guttman self-constructed scale measuring contemplated quitting was applied. The scale will be discussed further in Chapter 6.

4.5 Conclusion

In this investigation, Psychological Climate and Job Affect serve both as mediators / predictor variables with regard to the other identified indices of well-being, as well as being criterion variables in their own right. Work engagement and Health are studied as the positive, and Burnout and Contemplated Quitting as the negative indicators of well-being at work.

WE is seen by some researchers as the antithesis of burnout (Maslach & Leiter, 1997), whilst Schaufeli *et al.* (2002) view it as a construct in its own right, epitomising fortigenesis at work. Work engagement essentially has to do with the extent to which an individual engages in the work context. Kahn (1990) reasons that WE links closely with whether an individual perceives the work environment as psychologically safe and meaningful. WE dimensions include vigour, dedication and absorption. In addition, the researcher included health indicators (both physical and mental health) as a further indicator of wellness. Health is opposed to the experiencing of symptoms ranging from headaches and nausea to more serious complaints, such as hypertension, cholesterol, and cardio-vascular disease. Mental wellness is opposed to mental ill health such as the inability to think and act rationally and to cope satisfactorily with stressors. Ill health leads to obvious impediments such as absenteeism and a resultant loss of continuity of work related matters.

Besides the positive indicators, the researcher also included negative indicators of wellness. Burnout was reflected on since an exponential rise in this phenomenon is observed globally, resulting, *inter alia*, from changing work conditions that place employees under increased pressure. Work frequently impedes the living of a balanced life-style and places individual coping resources under pressure. The three burnout dimensions include emotional exhaustion, depersonalisation and the lack of personal accomplishment. Contemplated quitting constitutes the next variable of interest and, as stated, has attracted much academic interest. Weiss and Cropanzano (1996) maintain that the affective context at work is instrumental in contemplated quitting and the resulting judgement-driven quitting behaviour. In support, Clark and Isen (1982) state that feelings are important in affecting cognition and behaviour. Quitting holds important implications for organisations in terms of both monetary and person capital. These indicators mostly present as a result of stress induced by work conditions perceived as aversive by employees.

Maintaining the well-being of employees, holds obvious positive consequences for organisations. This investigation therefore explores processes that may mediate such well-being.

4.6 FINAL CONCLUDING THOUGHTS

The upsurge of interest in the role of affect in the workplace, together with the emerging construct of emotional intelligence, and, in liaison with leadership and employee well-being,

have become increasingly important constructs in organisations. Emotional intelligence has more recently been the focus of much attention both in popular and academic circles. The relationship between emotional intelligence and workplace behaviour has received considerable attention but still definitive answers have yet to be found, since much contradictory results have been reported (as reflected on in Chapter 3).

According to Turner *et al.* (2002), effective leadership contributes to the positive health of an organisation. However, very little research has as yet focussed on whether leadership impacts subordinate well-being. They contend that transformational leadership holds the potential to contribute significantly to individual well-being. As discussed, much overlap presents between the emotionally intelligent and transformational leadership styles (Barling, Slater & Kelloway, 2000). Within the framework of positive psychology, the impact of leadership on performance is important, hypothesised to influence such performance indirectly; and demonstrated to be mediated by employee morale and affective commitment to the organisation. Barling, Moutinho and Kelloway (1999) demonstrated in their research that the only factor to directly influence group performance, was affective commitment. In addition, Bass (1998) found empirical support for the hypothesis that optimal levels of employee well-being serve as a precondition for superior performance. Turner *et al.* (2002) reason that transformational [and, by implication, emotionally intelligent] leadership benefits employee morale and mental health resulting from the personal attention and inspiration coming from these leaders. The current research is therefore interested not in the enhancement of performance of employees per se, but rather in their well-being that is documented to influence such performance.

Whether an emotionally intelligent leader has a definitive influence on work climate and employee well-being is still, to some extent, an enigma. Although some researchers claim that an intuitive relationship does exist between EI and leadership (Palmer, *et al.*, 2001), definitive answers are called for and the worth of the construct still remains a compelling question for research. However, the volatility in the current work environment, with change escalating and multiculturalism on the increase, requires enhanced behavioural patterns and skills from leaders, making this an important area for investigation. Many claims have been made of behalf of the EI construct, some of which are misleading (Bosman, 2003).

In addition to EI and leadership, work climate has received a fair amount of attention as a mediator of work outcomes. Clear distinction has now been drawn between culture and climate. In the current study, psychological climate gains centre stage since it is more directly

influenced by the employees' leader and is therefore assumed to be more influential to impact indicators of employee well-being. In the current investigation, mediating as well as positive and negative indicators of well-being are researched.

The relationship between emotionally intelligent leadership, psychological climate and indices of well-being require further exploration. Most of these constructs have been researched individually or in relation to one another. However, as far as it can be ascertained, these variables have not yet been investigated together in any single study in South Africa, or in any other part of the world, hence, the exploratory nature of this investigation (Nexus database of current and completed research projects – National Research Foundation, searched on 3/4/2006 and ProQuest Dissertation Abstracts, searched on 3/4/06).

Turner, Barling and Zacharatos (2002) purport that researchers need to investigate how different work practices and processes may contribute to creating more positive workplaces. According to them, healthy work may contribute to the building of the positive psychology ethic and researchers are encouraged to keep positive psychology in mind when planning research in order to promote employee well-being and effectiveness. Since organisations need to be healthy to enhance staff morale and motivate them to help retain their market share in the industry, indices of well-being and predictors thereof in the work context need clarification.

Against the sketched background and in an attempt to build theory, the researcher expands on and adapts the AET model (see Figure 2.1), by contending that manager EI may influence work events to create a more salubrious work context, thereby influencing affective experiences, and indices of well-being at work (see *Figure 4.4*). However, as had been argued earlier on, both exogenous and endogenous elements contribute to affective experiences and therefore both need to be considered. The researcher postulates that manager EI [3] (exogenous element) will impact work events [2] so that – overall – subordinates will experience positive events to supersede negative events; thereby eliciting, on average, more positive than negative job affect [6].

The researcher further expands on the theory by adding psychological climate [5] as a mediator alongside job affect [6] to investigate the extent to which climate may be influenced by both manager and employee EI. It is contended that those managers with a higher EI would create the platform for a more salubrious psychological climate [5]. The researcher is further interested in any cross influence between climate and job affect, and the resulting effect on the identified indices of employee well-being (7, 8, 9).

In the current study, the endogenous element (employee's disposition) is assumed captured by the individual employee's own level of emotional intelligence as reflected by the self-report measure of EI [4]. The relative contribution of both manager [3] and subordinate EI [4] on experienced psychological climate [5], job affect [6] and other indices of employee well-being, will be investigated against the dynamic and ongoing transaction between person and environment.

Furthermore, for purposes of clarity, the researcher added a heading to the model indicating possible causes, mediators and consequences. In this regard, please see *Figure 4.4*. The postulated process will be empirically investigated by the researcher. In this regard, please view Models 1-4 presented in Chapter 5, paragraph 5.2.1.

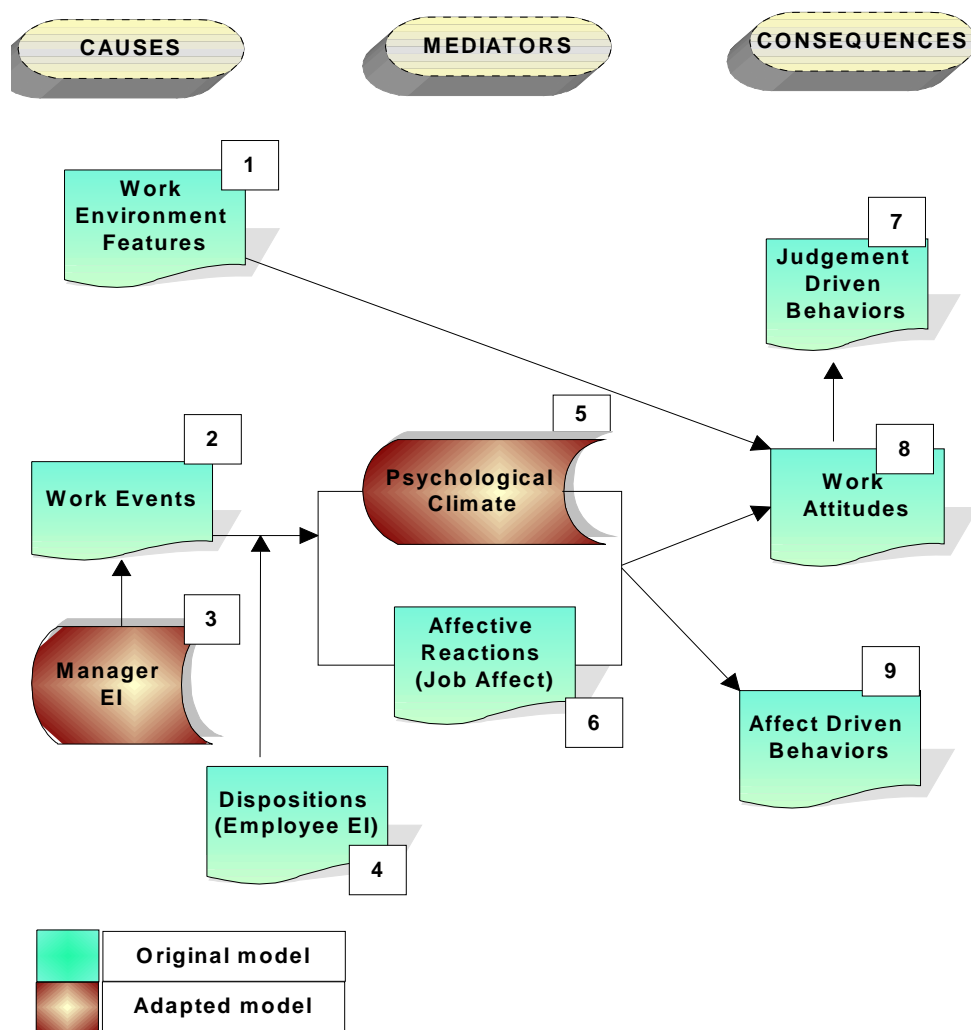


Figure 4.4 The Affective Events Theory: Macro Structure

(Adapted from Weiss & Cropanzano, 1996, p.12)

Chapter 5 provides an overview of the research methodology applied in this investigation to seek answers concerning the research questions of the current study.

PART III

EMPIRICAL

INVESTIGATION

In Part III the empirical investigation is discussed. It includes three chapters, namely 5, 6 and 7. Chapter 5 discusses the method of investigation while Chapter 6 includes the revalidation of the measuring instruments and provides an overview of the research results. Chapter 7 presents a summary and conclusions of this investigation.

Chapter 5

RESEARCH METHODOLOGY

5.1 INTRODUCTION

In this chapter, the methods applied in the current investigation, the research design and the participating respondents are discussed. The measuring instruments are presented together with the process followed to gather the research data, and the statistical procedures followed to process this data.

In proceeding from the concluding thoughts of Part 11, the goal and aims of the current research referred to in Chapter 1 (paragraph 1.4) will be expanded on and presented in more detail.

5.2 THE SPECIFIC AIMS AND RESEARCH MODELS

The goal of this study is to investigate emotional intelligence and its various correlates in the South African organisational context. More specifically, interest lies with establishing whether emotionally intelligent leaders/managers contribute to a more salubrious psychological work environment with concomitant effects on employee well-being.

Flowing from the above, the **primary** aim of the researcher is to investigate whether managers' emotional intelligence mediates psychological climate, job affect and indices of work-related well-being in their subordinates. These indices include work engagement, burnout, contemplated quitting and health.

Secondly, the researcher wishes to investigate the process by which the proposed effect takes place.

Thirdly, the researcher is interested in investigating the extent to which these processes are mediated by the subordinates' own level of emotional intelligence.

Fourthly, measuring instruments will be revalidated to ascertain their applicability in the particular South African population.

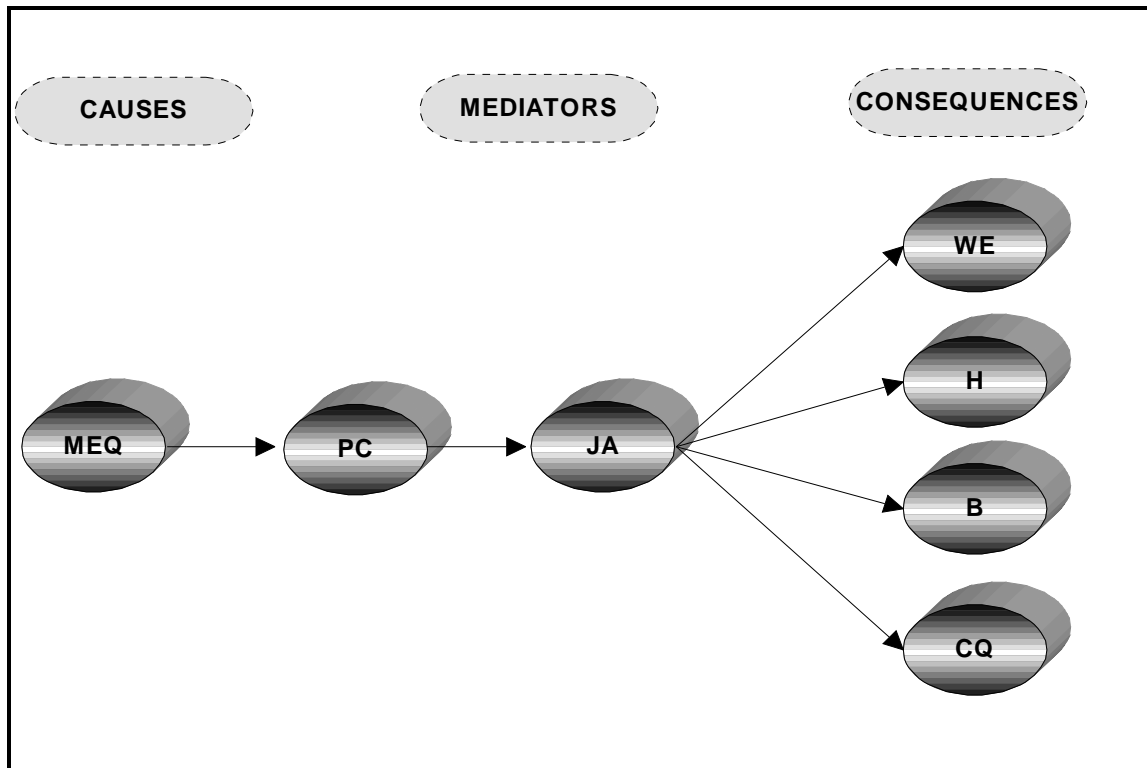
Predictor and criterion variables are, therefore, studied to determine their relationships as well as the strength of the prediction of emotional intelligence of both leader and employee on the identified indices of well-being.

From the objectives of this investigation and based on the existing literature, the following four models indicating potential causal relationships among the various constructs included in the investigation have been developed as hypothesised for this study.

5.3 THEORETICAL UNDERPINNINGS OF THE PROPOSED MODELS

All four models were formulated against the background of the Affective Events Theory of Weiss and Cropanzano (1996). These authors take the view that proximal work events drive affective states that, in turn, influence attitudinal and judgement driven behaviours (see 2.3.4.1). According to Frijda (1986), events are initially evaluated for relevance in regard to the individual's well-being. In addition, Ashkanasy and Tse (2000) argue that emotional intelligence is instrumental in moderating the effect of work events on work attitudes and behavioural outcomes. Short excerpts of theory that underpin the models are now extracted from the literature review to indicate the theoretical underpinnings of the models to be investigated.

Model 1: Manager emotional intelligence influences experienced psychological (work) climate, which, in turn, influences job affective states, predicting work engagement, health, burnout and contemplated quitting.



This model was formulated according to the following theoretical perspectives:

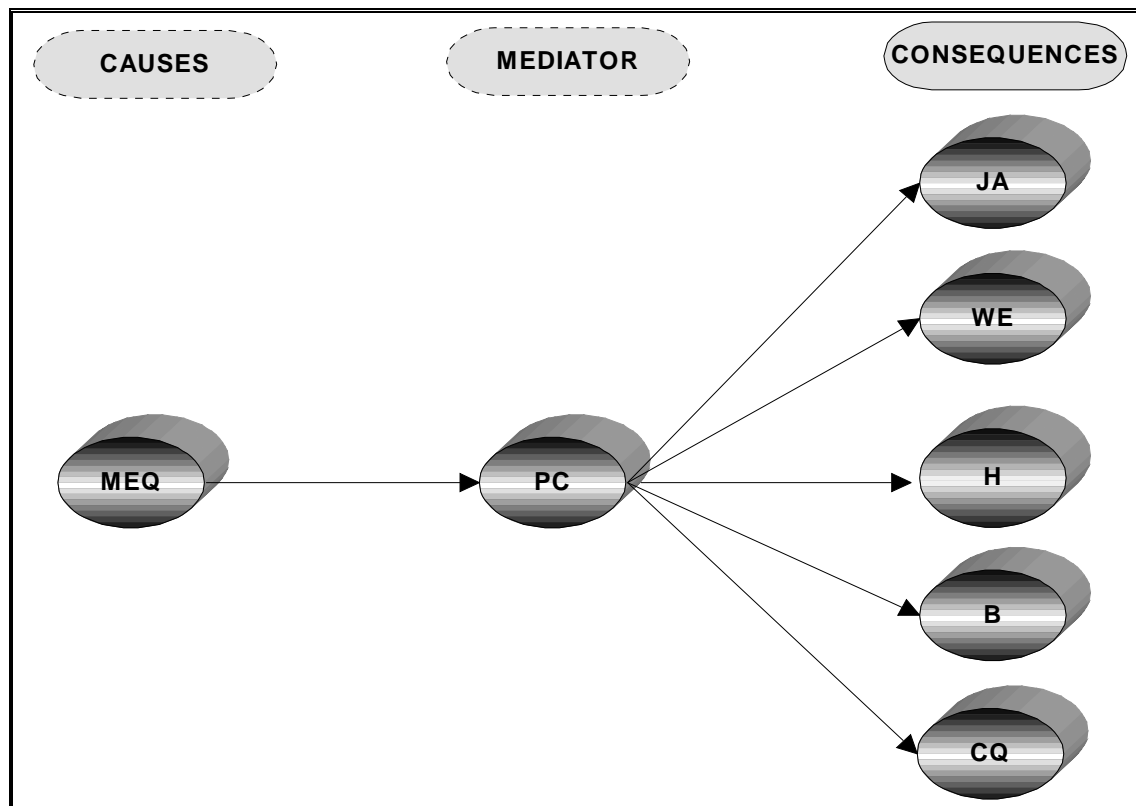
- **Leader/manager EI and Psychological Climate arc:** Goleman (2002) states that emotionally intelligent leadership is important in creating a work climate that nurtures employees to deliver their best. Van Zyl (1998) concurs that the psychological climate within an organisation is determined at the top level of any organisation, and Williams (1994) found a significant relationship between leader EI abilities and organisational climate. Brown and Leigh (1996) and Cilliers and Kossuth (2002) argue that different managerial styles and the quality thereof may relate to a variation in psychological climate.
- **Psychological Climate and Job Affect arc:** Goleman (2002) asserts that EI strengths in a leader mediates climate and thereby sets the tone for employee morale. Kahn (1990) believes psychological experiences at work drive people’s behaviour and attitudes. Individuals evaluate events in terms of congruence or benefit (or incongruent/harmful) with reference to the pursuance of personal goals. The intensity of the affective reaction is dependent on the importance of the event for the individual. James and Sells (1981) declare: “The causal flow from PC perceptions to emotions and behaviours is based on the widespread belief that individuals respond primarily to cognitive representations of environments rather than to the environments per se” (p.279). Härtel *et al.* (in press) suggest

that affective climate may indeed act as a *primary incubator* from in which excellence emerges.

- **Job Affect and indices of well-being arcs:** Cilliers and Kossuth (2002) hold the opinion that the support of superiors and colleagues is instrumental to the well-being of employees. According to Pirola-Merlo *et al.* (2002), mood may be seen as a mediator between antecedents and outcomes, or as a variable that influences the relationship between them, the so-called affect-centric perspective. Forgas and George (2001) maintain that mood provides the underlying affective context for most of our behaviours and ongoing thought processes. In regard to well-being, James and James (1989) assert that organisational well-being may be seen as the degree to which positive affect exceeds negative affect in regard to an employee's overall work experience. Storm and Rothman (2003) view burnout and work engagement as two prototypes of employee well-being.
 - ❖ **Job Affect and Work Engagement arc:** Maslach and Leiter (1997) contend that promoting work engagement starts with management and its creating of a supportive emotional climate. Promoting engagement at work is not only about decreasing the negatives, but also about increasing the positives. Begley and Czajka (1993) maintain that organisations should promote conditions in support of positive mood and have the company reap the benefits of positive affective commitment to the organisation. Conolly and Viswesvaran (2000) contend that positive mood is associated with job satisfaction and commitment. According to Weiss and Cropanzano (1996), people use their moods to focus attention on certain motivational agendas at work and they believe positive moods produce greater effort at work. Negative mood, by contrast, frequently shifts attention away from job performance to the source of disturbance.
 - ❖ **Job Affect and Health Indicators arc:** According to Goleman (2000), research over the past 20 years, has convincingly yielded evidence of the influence of emotions on physical health (see 5.4.4 for detail). Brief *et al.* (1998), for example, found a significant relationship between somatic complaints and job stress, and Hart *et al.* (1996) view emotions as taking centre stage in the dynamic process of stress. According to Lazarus and Folkman (1987), stress frequently presents under the larger rubric of emotional response states.

- ❖ **Job Affect and Burnout arc:** According to George and Brief (1996b), people in a negative mood are less satisfied with their jobs and tend to demonstrate more withdrawal behaviour. In addition, Maslach and Leiter (1997) assert that when the workplace does not recognise the human side of work, the risk of burnout increases.
- ❖ **Job Affect and Contemplated Quitting arc:** Weiss and Cropanzano's (1996) AET provides for an explanation of the role of proximal events, affective reactions and the resultant judgement-driven behaviour that leads to quitting. Goleman (2002) believes: "The percentage of time people feel positive emotions at work turns out to be one of the strongest predictors of satisfaction, and therefore, for instance, of how likely employees are to quit" (p.14). Rhoades and Eisenberger (2002) and Shaw (1999) add that employees committed to their organisation are less likely to quit their jobs. According to Mobley *et al.* (1978), job dissatisfaction leads to withdrawal cognitions and finally translates into final resignation.

Model 2: Manager emotional intelligence influences experienced psychological (work) climate to predict job affect, work engagement, health, burnout and contemplated quitting.

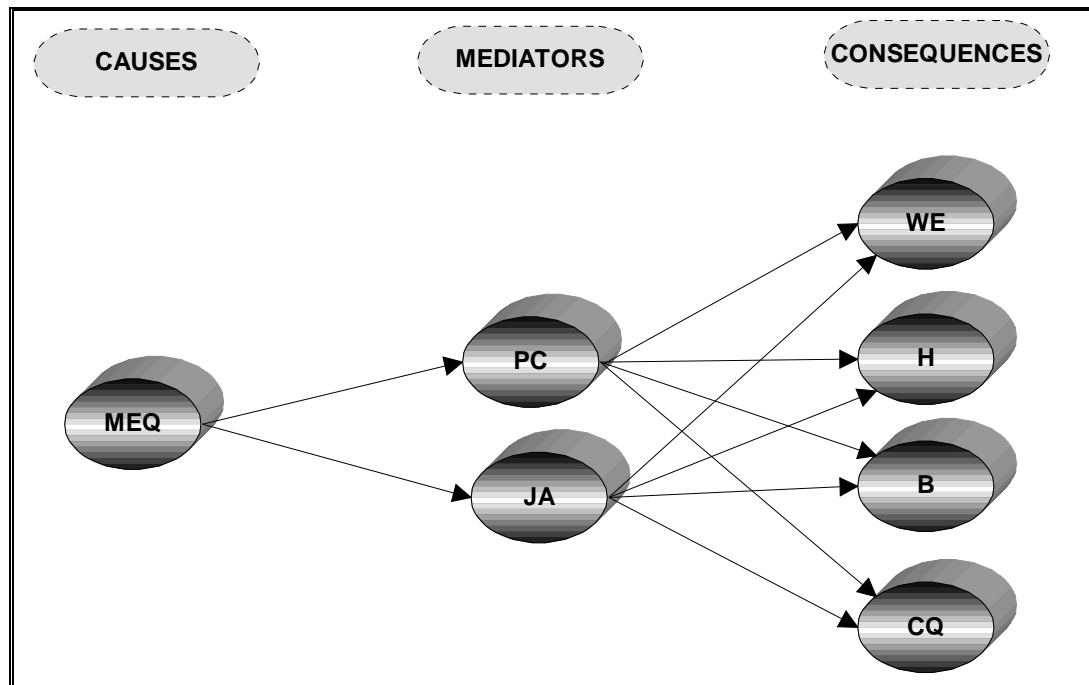


This model was conceptualised against the following theoretical argumentation in the literature:

- **Leader/manager EI and PC arc; PC and JA arc** as reasoned in Model 1. JA is seen as an outcome in itself.
- **PC and WE arc:** According to Brown and Leigh (1996); Lawler (1992), and Pfeffer (1994), employees have both energy and time to devote to organisations in a bid to be competitive. They maintain that effort is likely to be sensitive to employees' perception of climate and that employees engage themselves more completely in the organisation's work when they perceive that they may satisfy their psychological needs in the workplace. Abraham (2004) proposes that employers create work environments where the positive effects of emotional competencies flourish to promote work engagement.
- **PC and Burnout Arc:** According to Maslach and Leiter (1997), companies must offer organisational climates that support their staff to succeed in the current competitive environment and they contend that the quality of organisational life will prevent burnout in future. Harmony between workers and their work is instrumental in preventing burnout.

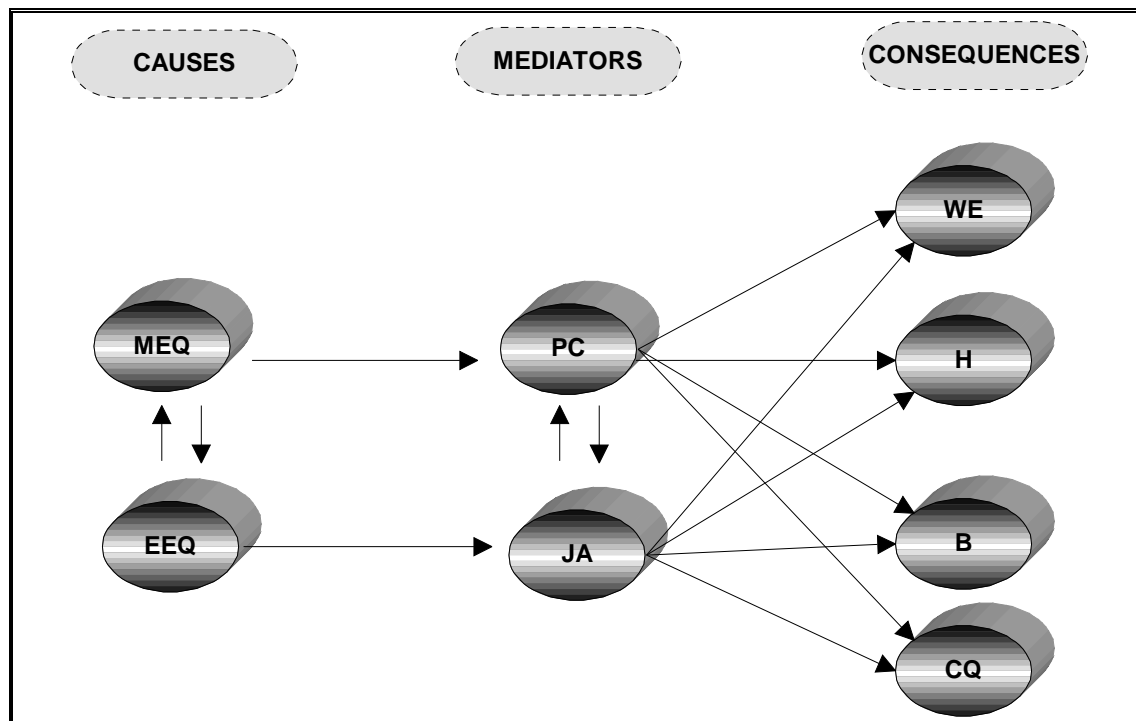
PC and Contemplated Quitting and Health Indicators arcs: no relationship could be found in the literature.

Model 3: Manager emotional intelligence influences experienced psychological (work) climate and job affect, to predict work engagement, health, burnout and contemplated quitting.



As described in Models 1 and 2, both PC and JA may be argued to function as mediators of indices of well-being. The researcher is therefore interested in viewing them alongside one another as possible mediators and predictors of the criterion variables, while controlling for any possible cross-influence between them.

Model 4 reflects the relative contribution of manager and employee emotional intelligence in regard to psychological (work) climate and job affect, to predict work engagement, health, burnout, and contemplated quitting.



This model was conceptualised in the light of the findings of Salovey *et al.* (2002) that individuals with an enhanced EI ability correctly perceive and adaptively manage emotions in the self and in others, moderating the relationship between the self and the environment.

- **Employee EI Manager arc:** Barling *et al.* (2000) and Dasborough and Ashkanasy (2002) contend that the emotional intelligence of employees will influence their perceptions and interpretation of leader behaviour and motives.
- **Employee EI and PC arc:** Danserau *et al.* (1975) and James *et al.* (1990) support the notion that individual differences among employees will contribute to variations in both perceptions and evaluations of features of the organisational environment.

- **Employee EI and JA arc:** According to Lewin (1951), mood may best be conceptualised as determined by both situational factors and personality. Individuals with higher levels of positive affectivity are inclined to experience a sense of well-being and are more often pleasurably and effectively engaged at work (Tellegen, 1982).
- **Employee EI and Health arc:** According to Taylor *et al.* (2000), positive beliefs influence emotional states that, in turn, affect the physiology and neuro-endocrine underpinnings of illness. Fredrickson (1998; 2000) argues that positive states of mind (such as assumed under the rubric of EI) lead to both a meaningful and healthier life. The link between EI and health rests on the belief that negative emotions and stress result from a dysfunctional relationship between the environment and aspects of the self. Slaski and Cartwright (2002), Oginska-Bulik (2005) and Tsaousis and Nikolaou (2005) found that individuals measuring high on EI experienced less stress and better physical and psychological well-being, whilst Donaldson-Feilder and Bond (2004) could not confirm such a relationship in their study among workers in the United Kingdom. For more detail, please refer to 5.4.5.
- **Employee EI and Burnout path:** Reilly (1994) and Ricca (2003) identified a negative relationship between burnout and EI in individuals. A large number of theorists argue that an individual's burnout level does not singularly depend on work events, but also on his coping resources (Folkman *et al.*, 1986; Greenglass *et al.*, 1998; Storm & Rothman, 2003).
- **Employee EI and CQ arc:** According to Fatt and Howe (2003), EI matters in turnover across all categories of jobs.

5.4 RESEARCH DESIGN

A cross sectional correlational design is used in this exploratory investigation. The effect of the predictor variables on the criterion variables, namely the emotional intelligence of both the leader/manager and the individual employee - as mediated by psychological climate and job affect - on indices of well-being including work engagement, health, burnout, and contemplated quitting, were ascertained in a single survey. In accordance with the research objectives, and in order to control for error variance, the psychometric properties of the main measuring instruments applied in the current investigation were examined prior to investigating the envisaged relationships between emotional intelligence and the researched constructs. The researcher also investigated potential causal relationships among the mentioned constructs.

5.5 THE RESEARCH PROCEDURE

A number of organisations were contacted to determine their interest in participating in the current investigation. The Medi-Clinic Private Hospital Group was definitive in its interest. After official informed consent was obtained, the study was carried out as a field survey at this group of private hospitals in South Africa.

A composite questionnaire was compiled. Since a significant portion of the sample were Afrikaans speakers with English their second language, the questionnaire was professionally translated into the dominant language, namely Afrikaans. The original English version was directly followed by the translated Afrikaans version.

The questionnaire included a biographical scale together with the instruments used to measure the emotional intelligence of the leader/line-manager and the employee; psychological climate; job affect; work engagement; health, burnout, and contemplated quitting.

After consent was obtained from the local management of the facilities involved, senior management was contacted and the procedure explained. Senior management assisted in identifying the respective subordinate's direct manager/line-leader assumed to influence the psychological work climate of the subordinate in order to form dyads. Respondents were, accordingly, grouped into pairs consisting of subordinate employees and the leader/line-manager they directly report to as identified by senior management. Lists were prepared reflecting the paired leader/line-manager and their subordinates. Questionnaires were distributed in envelopes, indicating the particular respondent and leader/manager to be evaluated so as to pair the identified dyads. Respondents, both leaders/line-managers and their identified subordinates, were requested to complete the questionnaires in privacy and return it in a sealed anonymous envelope (provided) to a person assigned by management to assist the researcher. The researcher collected the forms either personally or by means of an assistant or they were couriered to the researcher.

A total of 265 questionnaires were distributed at six hospitals. A number of follow-ups resulted in an overall response rate of 86% or a total of 229 returned questionnaires. See *Table 5.1*.

Table 5.1 Participants from Medi-Clinic Private Hospital Group

Hospital No	Questionnaires distributed	Questionnaires received	Percentage
1	63	57	90.4%
2	45	33	73%
3	25	17	68%
4	57	49	86%
5	21	21	100%
6	54	52	96%
TOTAL	165	229	86%

Thirteen of these were excluded from the data because the respondents had not completed one or more scales. The remaining scales were examined, and all missing data were imputed with LISREL's matching imputation (Jöreskog & Sörbom, 2001). This was done for each scale individually. All respondents who still had missing data after the imputation were also excluded from the data set, leaving a total of 198 respondents with complete data. The Maslach Burnout Inventory was incompletely answered by approximately half of the respondents and was returned in an attempt to improve the response rate, after which 189 completed Maslachs were received. A number of missing responses, also presented in the demographic variables, are noted in *Table 5.2*.

5.6 RESPONDENTS

The research focussed on nursing staff and their management system. No discrimination was made based on race, age or ethnic grouping.

Management was enlisted from the upper management structure (hospital manager) to the lowest identified leader/line-manager that exerts an influence on subordinates. All managers and their paired subordinates within the six hospitals were requested to participate in the research. Employees at the lowest level were randomly paired with their leader/line-manager by, for example, using the first subordinate on the duty list on the day on which the research was conducted.

Information on the following demographic variables of subjects were obtained, namely gender, language, age, type of career, post level, years of service with current employer, service period under current manager, highest educational level. The biographical detail of the participating

respondents is reflected on in the next section in order to provide a broad overview and to enhance understanding of the survey group. The demographic details are provided in *Table 5.2* below.

The sample, in terms of **gender**, consisted of 188 female, 8 males and 2 missing values. The **average age** of participants was 38.95 (SD=12.47) whilst the **language** distribution in the sample included English speakers (N=29), Afrikaans speakers (N=164), Non-Western/African speaking individuals (N=2) and Missing Values (N=3). The following spread was found in terms of the **type of career** as indicated by the participant: Hospital Manager (N=5), Nursing Manager (N=5), Assistant Nursing Manager (N=5), Unit Manager (N=45), Senior Registered Nursing Sisters (N=24), Registered Nurses (N=67), Team / Shift Leaders (N=28), Staff Nurse (N=9), Assistant Nurse (N=2) and Missing Value (N=8). The **educational level** of respondents is distributed as follows: participants having obtained grades lower than Matric (N=12), Matric (N=13), Diploma / Degree (N=149), Honours Level (N=19), Masters Level (N=4), Doctoral degree (N=1). A review of the **post level** indicated by respondents shows Top level management (N=16), Middle level management (N=49), Lower level management (N=39), Not on management level (N=74) and missing values (N=18). In viewing the **years of service with the current employer**, the following distribution was evident: 0-5 yrs (N=75), 6-10 yrs (N=101), 11-15 years (N=11), 16-20 yrs (N=3), more than 20 yrs (N=1) and missing value (N=7). Of the 185 respondents who reported the **length of service under the current manager** the mean period of service was 51 months (4 years and 2 months) with a minimum of 1 month and a maximum of 362 months (30 years and two months).

Table 5.2 Gender, Language, Age Demographics, Type of Career, Post Level, Years of service with current employer, Service period under Current Manager, Highest Educational Level

Demographic Variables	Sample (N= 198)		
Gender			
Male	8	4.00%	
Female	188	94.90%	
Missing Values	2	1.00%	
Language			
English	29	14.60%	
Afrikaans	164	82.8%	
Non-Western	2	1.00%	
Missing Values	3	1.50%	
Type of Career			
Hospital Managers	5	2.50%	
Nursing Managers	5	2.50%	
Assistant Nursing Managers	5	2.50%	
Unit Managers	45	22.70%	
Senior Registered Nursing Sisters	24	12.10%	
Registered Nurses	67	33.80%	
Team / Shift Leaders	28	14.10%	
Staff Nurses	9	4.50%	
Assistant nurses	2	1.00%	
Missing values	8	4.00%	
Post Level			
Top Level Management	16	8.1%	
Middle Level Management	49	24.7%	
Lower Level Management	39	19.7%	
Not on Management Level	74	37.4%	
Missing values	18	10.1%	
Years of service with current employer			
0-5 Years	75	37.9%	
6-10 Years	101	51.0%	
11-15 Years	11	5.6%	
16-20 Years	3	1.5%	
More than 20 Years	1	0.5%	
Missing values	7	3.5%	
Highest Educational Level			
Less than Matric	12	6.10%	
Matric	13	6.60%	
Diploma / Degree	149	75.30%	
Honours Level	19	9.60%	
Masters Level	4	2.00%	
Doctoral degree	1	0.50%	
Age	N	Mean	Std dev.
	198	38.95	12.470

Attention now turns to the measuring instruments used in the current investigation.

5.7 MEASURING INSTRUMENTS

The variables investigated in the current research were measured with the following measurement instruments:

5.7.1 BIOGRAPHICAL QUESTIONNAIRE

Information on a number of demographic variables of the respondents, as already reported on above, were obtained, namely gender, language, age, type of career, post level, years of service with current employer, service period under current manager, highest educational level.

5.7.2 EMOTIONAL INTELLIGENCE

In the present study, emotional intelligence was measured using the 64 item Swinburne University Emotional Intelligence Test (SUEIT) developed by Palmer and Stough (2001).

5.7.2.1 DEVELOPMENT OF THE SCALE

According to Palmer *et al.* (2003), the SUEIT was designed to measure emotional intelligence and the scale attempts to assess its most definitive or common elements. Their position was that extant measures were, either too narrow, for example the Trait Meta Mood Scale of Salovey *et al.* (1995), or too broad in its focus, for example BarOn EQ-I, Bar-On (1997) that assesses 15 different variables. They argue that this makes the instruments less practical for providing individual and group feedback.

In order to determine the most definitive common elements constituting the construct, Palmer *et al.* (2003) performed a large factor analytic study including the six more prominent measures of emotional intelligence at the time. These include the MSCEIT; Mayer *et al.* (1999); the BarOn Emotional Quotient Inventory (Bar-On, 1997); the Trait Meta Mood Scale (Salovey *et al.*, 1995); the twenty-item Toronto Alexithymia Scale-11 (TAS-30; Bagby, Taylor & Parker, 1994); the Schutte *et al.* (1998) scale; as well as the scale developed by Tett *et al.* (1997). This battery was highly representative of and covered all the measures of emotional intelligence available at the time. A lengthy process of statistical analyses (cf. Gardner and Stough, 2002), left them with the following factors, namely:

1. Emotional Recognition and Expression (in oneself), that is, the ability to recognise one's emotions and the ability to express those emotions appropriately to others;
2. Understanding Emotions External, that is, the ability to perceive and understand the emotions of others and those inherent in the workplace environments (e.g., staff meetings, boardrooms etc.);
3. Emotions Direct Cognition, that is, the extent to which emotions and emotional information are incorporated into reasoning and decision making;
4. Emotional Management, that is, the ability to manage both positive and negative moods within oneself and others; and
5. Emotional Control, that is the ability to effectively control strong, emotional states experienced at work such as anger, stress, anxiety, and frustration.

Palmer *et al.* (2003, p.92)

These five common dimensions describe their empirically based model of emotional intelligence and were applied to measure both manager (360-SUEIT), and employee emotional intelligence (self-report version) in the current research. A number of trials were run on a larger pool of test items and these were finally reduced to 64 items to reflect good internal consistency and reliability (Palmer *et al.*, 2003). The described version of the test represents its most recent form. The five sub-scale scores indicate individuals' capacities according to the five dimensions of the model. The measure also provides an overall score to assess the level of an individual's general workplace emotional intelligence. The test takes about 12-15 minutes to complete. The test includes a balanced number of items phrased positively and negatively to help determine both illogical responding and inconsistent response patterns. Test takers respond to the test items on a five-point scale that requests them to assess the extent to which the items (statements) are true of the way they typically think, feel and act at work (1=never, 2=seldom, 3=sometimes, 4=usually, 5=always). The SUEIT requires an eighth to ninth level of reading. The authors also developed two sets of normative data standardised on the Australian population for the SUEIT, including (1) General workplace normative data, and (2) Senior Executive Normative Data. According to these normative benchmarks, an individual's scores on the SUEIT are converted into percentile scores. Percentiles indicate individual participants' position relative to those of the normative benchmark (general or executive). Scores range from 1% (the lowest) to 99% (the highest) score. Thus, if a participant

obtains a particular score on a specific dimension of the SUEIT such as, for example, 65%, it means that 65% of the normative benchmark falls below it. Since the current study is conducted on a South African population, raw scores rather than norm scores are used.

Studies that have confirmed the emergence of five dimensions of EI have used principle components analysis.

5.7.2.2 RESEARCH FINDINGS WITH THE SELF-SUEIT (SELF-REPORT): BASIC PSYCHOMETRIC PROPERTIES

According to Gardner and Stough (2002) and Palmer and Stough (2001), research conducted with the SUEIT demonstrated good internal consistency and test retest reliability with coefficient alphas ranging from a low $\alpha = .70$ for the Emotions Direct Cognition subscale, to a high $\alpha = .91$ for the Emotional Recognition and Expression subscale. According to Palmer and Stough (2001), the SUEIT exhibited high test retest reliability high test retest reliability, over a one month period. Stability coefficients reported from a high of .92 for the Understanding Emotions subscale to a low of .82 for the Emotional Recognition and Expression subscale. The authors report a positive manifold of correlations among the SUEIT subscales (average $r = .32$, $p < .05$), including a range from a low of $r = .15$ between the Emotions Direct Cognition and Emotional Control subscales, to a high of $r = .56$ between the Emotional Management and Emotional Control subscales. The size of these correlations suggests that the sub-scales are related but distinct facets, and, furthermore, that the SUEIT assesses a uni-factorial construct of emotional intelligence. Thus, according to Palmer and Stough (2001, p.4), their instrument reflects one's "general level of emotional intelligence and competency in dealing with emotions in the workplace". Since the Emotional Management and Emotional Control subscales demonstrate that they share approximately 31% of common variance, it seems as if an individual's level of emotional control is to some extent dependent on his/her level of emotional management. Please see *Table 5.3* for an overview of psychometric qualities as supplied by Palmer and Stough (2001, p.8) in their Interim Technical Manual Version 2 with regard to the Self-Report version of the SUEIT.

Table 5.3 Means, standard deviations, and reliability coefficients for the workplace SUEIT (General norms)

SCALE	# ITEMS	Mean	Standard Deviation	α
Total EI	64	221.75	17.25	.88
Emotional Recognition & Expression	11	38.51	4.90	.73
Understanding of Emotions External	20	76.17	6.64	.83
Emotion Direct Cognition	12	39.05	5.00	.63
Emotional Management	12	41.35	4.72	.72
Emotional Control	9	31.66	3.94	.72

Full-scale reliability is high as are most sub-scales with the exception of the Emotions Direct Cognition sub-scale, as is depicted in *Table 5.3*. According to Nunnally and Bernstein (1994), coefficient alphas exceeding $\alpha = .70$ fall within the acceptable range.

Table 5.4 provides an overview of the means, standard deviations, and internal consistency reliability (coefficient alpha α) for each of the dimensions of the test as it pertains to the executive norms.

Table 5.4 Means, standard deviations, and reliability coefficients for the workplace SUEIT (Executive norms)

SCALE	# ITEMS	Mean	Standard Deviation	α
Total EI	64	234.6	20.05	.91
Emotional Recognition & Expression	11	39.72	4.80	.77
Understanding of Emotions External	20	78.8	7.51	.89
Emotions Direct Cognition	12	38.34	5.50	.70
Emotional Management	12	44.0	5.19	.83
Emotional Control	9	33.75	4.01	.77

Table 5.4 depicts full-scale reliability as well as reliabilities of each of the sub-scales. All were found to be high in respect to the executive sample.

One of the major issues with regard to the assessment of emotional intelligence by way of self-report measures, is the issue of discriminant validity from measures of personality. Palmer and Stough (2001, p. 10) investigated possible relationships between scores on the SUEIT and three of the five major dimensions of personality according to the NEO FFI of Costa and McCrae (1992). These included Neuroticism (N), Extraversion (E) and Openness (O). They found that the correlations between the scores of the SUEIT and N, E and O suggest that the SUEIT measures

“something new and unique” (p.10), and thus seems to have discriminant validity from at least the mentioned dimensions of personality.

A BiblioLine Africa-Wide Database search (4/4/2006) revealed no studies using the Self-SUEIT in South Africa.

5.7.2.3 RESEARCH FINDINGS WITH THE SUEIT 360-DEGREE

VERSION: BASIC PSYCHOMETRIC PROPERTIES

The 360-SUEIT includes both a self-report and a 360-degree rating form. Participants are requested to rate the extent to which the individual they are evaluating demonstrates - at work - emotionally intelligent behaviour according to the five facets of EI previously mentioned. In the present study employees were requested to respond to the 64 items of the test on a six point rating scale. Completion takes around 12-15 minutes. They had to indicate the extent to which the statements (or items) are indicative of the way their manager/leader **typically** thinks, feels or acts at work. There are six possible responses to each statement ranging from (1 = very seldom, 2 = seldom, 3 = sometimes, 4 = often, 5 = very often and 6 = not sure). There are a balanced number of positively and negatively phrased items that help determine inconsistent response patterns and illogical responding. In short, the test provides insight into cross-situational consistencies in emotionally intelligent behaviour in the workplace and hence one's underlying level of EI (Palmer & Stough, 2005).

Palmer and Stough (2005) conducted research to examine the internal consistency reliability of the 360-SUEIT rater form. Their sample consisted of 54 subjects and 406 raters. Participants were senior level Australian managers across a number of industries including both private and public sector organisations.

The means, standard deviations, and coefficient alpha α for each of the dimensions of the test for the above-mentioned sample, are presented in *Table 5.5*.

Table 5.5 Means, Standard Deviations, and Reliability Coefficients for the 360-SUEIT

SCALE	# ITEMS	Mean	Standard Deviation	α
Total EI	64	224.53	22.91	.94
Emotional Recognition & Expression	11	39.91	5.53	.79
Understanding of Emotions External	20	74.86	9.41	.93
Emotions Direct Cognition	12	31.57	6.63	.79
Emotional Management	12	43.61	6.12	.85
Emotional Control	9	34.56	4.47	.80

(Palmer & Stough, 2005, p.4)

As depicted in *Table 5.5*, both full-scale and sub-scale reliability is high for the rater sample.

Table 5.6 Means, Standard Deviations, and Reliability Coefficients for the normative population sample on the Self-SUEIT

SCALE	# ITEMS	Mean	Standard Deviation	α
Total EI	64	225.37	20.14	.91
Emotional Recognition & Expression	11	39.70	5.34	.78
Understanding of Emotions External	20	76.54	7.78	.86
Emotions Direct Cognition	12	35.19	6.14	.81
Emotional Management	12	42.24	5.69	.81
Emotional Control	9	32.71	4.66	.80

(Palmer & Stough, 2005, p.4)

In comparison, in a general sample consisting of 1522 individuals (mean age 40.43) and depicted in *Table 5.6*, both full-scale and sub-scale reliability is high for the self-SUEIT. When comparing the means, standard deviations and internal consistency reliability of the rater sample and the normative population shown in these two tables, it is evident that they are relatively comparative. This indicates a measure of consistency between how raters rate subjects' EI and how people rate themselves (Palmer & Stough, 2005).

Klem (2004) conducted a study with the 360-degree SUEIT in a South African clothing manufacturing plant with 297 participants. In a revalidation of the measuring instrument, the EFA yielded three factors renamed as follows: Factor 1 Perception and control over emotions, Factor 2 Displaying emotions, and Factor 3 Giving credence to emotions. The Cronbach alpha coefficient for the instrument was 0.87 and for the individual factors as follows, namely Factor 1 $\alpha = 0.87$, eigenvalue 10.12 explaining 20.65% of the variance; factor 2 $\alpha = 0.79$, eigenvalue 3.86 explaining 7.87% of the total variance; and factor 3 $\alpha = 0.70$, eigenvalue 1.97% explaining 4.01% of the total variance. Of the initial 64 items, only 38 remained in the final factor structure.

- **Motivation for the use of the scale in the current investigation**

The two forms of the SUEIT questionnaire discussed above were included to measure the emotional intelligence of both the leader/manager and the employee to ascertain whether emotional intelligence does indeed influence the well-being of the employee within an organisation, as noted by Bar-On (1997). The researcher decided to include the specific questionnaires since, as noted previously in paragraphs 3.3 and 3.7.1, the construct is at the centre of much debate and controversy, and at the time of the investigation, no definitive definition existed. Since the test constructors of the SUEIT factor analysed the six most prominent tests of emotional intelligence in an attempt to identify its most definitive common elements and constructed the test accordingly, the researcher believed that it might provide a reliable and valid measure of emotional intelligence in the workplace. The reported psychometric properties of the instrument increased the merit for its inclusion.

5.7.3 PSYCHOLOGICAL CLIMATE (PC)

5.7.3.1 DEVELOPMENT AND DESCRIPTION OF THE

PSYCHOLOGICAL CLIMATE QUESTIONNAIRE (BROWN & LEIGH, 1996)

In the present study, psychological climate was measured using the original measure of psychological climate by Brown and Leigh (1996). Based on Kahn's (1990) ethnographic study of organisational factors related to self-engagement in work, Brown and Leigh (1996) developed a 22 item measure of psychological climate. (Although a 22-item measure was developed, the published article contained only 21 items and the developers could, on request, not provide the 22nd item – the researcher thus used the measure as published).

The test constructors preferred a model with a simple single second-order factor to a model with two second-order factors. This single second-order factor seems to represent what James *et al.* (1990) referred to as PCg, or a general Psychological Climate factor. Fitting this model resulted in a $\chi^2(406, N = 121 \text{ and } N = 112) = 649.68$, GFI = 0.781, RMSR = 0.141, RMSEA = 0.083. The decrement in fit compared with the two-factor model; $\chi^2(2) = 5.84, p < .10$, did not quite reach statistical significance. The correlation between second-order Psychological Safety and Meaningfulness factors was very high in both samples (.888 and .965), although the marginally significant chi-square difference in fit between the one- and two-factor models suggested some

ability of the model to discriminate between them. It thus seemed as if a single higher order factor (PCg) represented the data parsimoniously and with reasonable accuracy, and this is similar to James *et al.*'s (1978) view of PCg as a “cognitive appraisal of the degree to which the work environment is personally beneficial versus personally detrimental to the organizational well-being of the individual” (pp. 53-54). The single factor that included the six composite psychological climate scales, was used in subsequent analyses. Parameter estimates for the single-factor CFA model for both samples are presented below in *Figure 5.1*

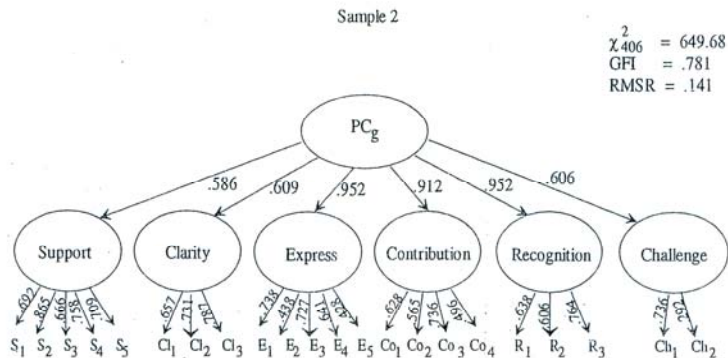


Figure 5.1 Single-factor, second-order confirmatory factor analysis for general Psychological Climate (PC_g)

(Figure A1 Brown & Leigh, 1996, Appendix, p. 368).

Composite measures of each of the six first – order dimensions were applied as the observed indicators constituting the global climate construct. Test items were measured by means of a 7-point likert scale anchored by *strongly agree to strongly disagree*.

5.7.3.2 RESEARCH FINDINGS WITH THE PSYCHOLOGICAL CLIMATE INVENTORY: BASIC PSYCHOMETRIC PROPERTIES

Alpha coefficients for the six subscales across two samples (Brown & Leigh, 1996) ranged from Supportive Management ($\alpha = 0.83$ and 0.85); Role Clarity ($\alpha = 0.78$ and 0.76); Contribution ($\alpha = 0.78$ and 0.71); Recognition ($\alpha = 0.76$ and 0.70); Self-expression ($\alpha = 0.83$ and 0.73), and Challenge ($\alpha =$ not specified in article).

A BiblioLine Africa-Wide Database search (4/4/2006) revealed no studies using this particular instrument in South Africa.

- **Motivation for the use of the scale in the current investigation**

According to James *et al.* (1990), psychological climate reflects how organisational environments are perceived by its employees and whether the climate is perceived as psychologically safe and meaningful (Kahn, 1990). The instrument was included in the current investigation since the style and quality of the the manager's leadership is believed to exert an immediate / proximal effect on psychological climate (Cilliers & Kossuth, 2002; Brown & Leigh, 1996). The researcher is of the opinion that psychological climate is the appropriate construct to measure (rather than climate or culture that includes more distal aspects of organisations) since interest lies with the influence exerted on the employee by his/her manager/leader. In the current study, psychological climate is argued to mediate the effect of the leader/manager on employee well-being. The acceptable reported psychometric properties of the instrument support its inclusion in the current study.

5.7.4 JOB AFFECT

5.7.4.1 DEVELOPMENT AND DESCRIPTION OF THE JOB AFFECT SCALE (BRIEF, A.P.; GEORGE, M.J.; ROBINSON, B.S., & WEBSTER, J., 1988)

Brief *et al.* (1988) derived the JAS items from the work of Watson and Tellegen (1985), as discussed in Chapter 4 paragraph 4.3.2.3. The JAS measures affective states by means of two orthogonal, bipolar mood dimensions that reflect both hedonic valence and activation (Saavedra & Kwun, 2000). It consists of a 20-item scale with 10 items measuring negative affect or mood at work and 10 items measuring positive affect or mood at work. For each item the respondent is asked to indicate how he or she felt at work during the past week, on a 5-point scale ranging from 1 (*very slightly or not at all*) to 5 (*very much*). The four poles of the two JAS dimensions are Enthusiasm and Fatigue, and Nervousness and Relaxation respectively. The adjectives of the four poles follow with their Cronbach alphas: Enthusiasm – active, strong, excited, enthusiastic, peppy, elated ($\alpha = 0.83$). Relaxation – calm, relaxed, at rest, placid ($\alpha = 0.85$). Nervousness – distressed, scornful, hostile, fearful, nervous, jittery ($\alpha = 0.83$). Fatigue – sleepy, dull, drowsy, sluggish ($\alpha = 0.88$) (Saavedra & Kwun, 2000).

5.7.4.2 RESEARCH FINDINGS WITH THE JOB AFFECT SCALE: BASIC PSYCHOMETRIC PROPERTIES

The JAS has been found to present with acceptable levels of reliability (e.g. Brief *et al.* 1988; Burke *et al.*, 1989). Brief and Roberson (1987) report reliabilities of .88 for positive affect and .84 for negative affect. Scores on the JAS have also been found to relate to other variables as hypothesised (George, 1989). Brief *et al.* (1988) found, for example, that the negative affect subscale of the JAS was significantly correlated with a number of indicators of job stress. For this particular study, the internal consistency reliabilities (Cronbach, 1951) were reported as .80 and .81 for the positive and negative subscales respectively. An exploratory factor analysis with varimax rotation of the data in this study, was found to be consistent with Watson and Tellegen's (1985) conclusions confirming positive and negative affect as the first two factors of self-reported mood. A BiblioLine Africa-Wide Database search (4/4/2006) revealed no studies using this particular instrument in the South African context.

- *Motivation for the use of the scale in the current investigation*

According to Rhoades and Eisenberger (2002), affective states underlie much of the way in which employees think and behave. Weiss and Cropanzano (1996) argue that proximal workplace events cause affective experiences in the workplace and lead to both attitudinal and behavioural consequences. Such events are initially evaluated in terms of their relevance for well-being (Frijda, 1986). To evaluate experienced job affect the JAS is well placed since it focuses specifically on experienced affect at work. Furthermore, the constructors of the instrument reported acceptable psychometric properties as described above and thereby merits its inclusion in the current study.

5.7.5 WORK ENGAGEMENT

5.7.5.1 DEVELOPMENT AND DESCRIPTION OF THE UTRECHT WORK ENGAGEMENT SCALE (UWES)

Schaufeli *et al.* (2002) developed a 17 item self-report questionnaire to assess work engagement (the Utrecht Work Engagement Scale – UWES). The instrument is assumed to reflect three underlying dimensions including Vigour (V1) (9 items) such as, "I am bursting with energy in my work"; Dedication (DE) (8 items), such as "My job inspires me", and Absorption (AB 7 items) such

as "I feel happy when I'm engrossed in my work". Items were measured on a 7-point likert scale ranging from never (0) to always (6).

5.7.5.2 RESEARCH FINDINGS WITH THE WORK ENGAGEMENT SCALE / BASIC PSYCHOMETRIC PROPERTIES

Recent confirmatory factor-analytic studies confirmed the factorial validity of the UWES (Schaufeli *et al.*, 2002a; Schaufeli, Bakker, Hoogduin, Schaap & Kladler, 2001). Regarding the psychometric qualities of the UWES, preliminary results show that the three engagement scales have sufficient internal consistencies after an iterative process was used to remove items that negatively influenced values or did not make a positive contribution, after which three subscales emerged with the minimum number of items and maximum consistency (Schaufeli *et al.*, 2002). For Sample 1 (314 undergraduate students from Spain) and Sample 2 (619 private and public company employees from Spain) respectively, the Cronbach α 's were as follows: Vigour (9 items), $\alpha = 0,68$ and $0,80$; Dedication (8 items), $\alpha = 0,91$ (both samples); Absorption (7 items), $\alpha = 0,73$ and $0,75$. In the student's sample, the value of α could be improved for Vigour when three items were eliminated ($\alpha = 0,78$). The three scales are moderately to strongly related (mean $r = 0,63$ in Sample 1 and mean $r = 0,70$ in Sample 2). In addition, the fit of the hypothesised three-factor model to the data was found superior to a one-factor solution (Maslach *et al.*, 2001; Schaufeli *et al.*, 2002).

In a South African study Storm and Rothmann (2003), found that a re-specified one-factor model fit the data better in their random, stratified sample of police officers in South Africa (N=2396). The model was re-specified after deleting items 3, 11, 15 and 16 and then based on the 13-item revision. The fit indices indicated a better fit for the re-specified model. ($\chi^2 = 2250.37$; $df = 18.91$; GFI 0.87, AGFI 0.85, PGFI 0.68, NFI 0.90; TLI 0.90, CFI 0.91, RMSEA 0.09. Internal consistencies of the three subscales were confirmed at acceptable levels according to the guideline of $\alpha = 0,70$ (Nunnally & Bernstein, 1994). Cronbach alphas were determined at 0,78 (Vigour); 0,89 (Dedication), and 0,78 (Absorption). No evidence of structural inequivalence or item bias was found for the UWES in this particular study.

- **Motivation for the use of the scale in the current investigation**

Strümpfer (2003), in describing competency models of wellness, includes engagement as a fortigenic construct, whilst Kahn (1990) believes that psychological experiences at work drive workers' attitudes. Although, conceptually, work engagement is the antithesis of burnout, Schaufeli

et al. (2002) disagree that engagement can adequately be measured by the opposite profile of the MBI scores. The researcher therefore decided to include this measurement instrument to measure levels of work engagement. Furthermore, acceptable psychometric properties were reported by the test constructors as discussed above.

5.7.6 BURNOUT

Burnout is traditionally measured with the Maslach Burnout Inventory (MBI - Maslach & Jackson, 1986), as was the case in the current study. Typically, burnout was assumed to occur in individuals who work with people in some capacity, for instance in health care, social services or education. For that very reason, all three original dimensions of the MBI refer to contacts with other people at the workplace. Furthermore, it is expected that burnout and engagement scales will be significantly and negatively related (Schaufeli *et al.*, 2002).

5.7.6.1 DEVELOPMENT AND DESCRIPTION OF THE MASLACH BURNOUT INVENTORY

The 22-item MBI-Human Services Survey (MBI-HSS) was developed by Maslach and Jackson (1986) for use with people working in the human services and health care (Maslach, *et al.*, 2001).

The three dimensions measured reflect the focus on workers who interact extensively with other people (including those in health services), emotional exhaustion, depersonalization, and reduced personal accomplishment. A high degree of burnout is reflected in high scores on the emotional exhaustion and depersonalisation subscales, and low scores on personal accomplishment. Scores are considered high when they fall in the upper third of the normative distribution, average in the middle third, and low in the lower third. Items are anchored by a 7-point scale ranging from Never to Every day.

5.7.6.2 RESEARCH FINDINGS WITH THE MASLACH BURNOUT INVENTORY

Maslach and Leiter (1986) report the following reliabilities for participants from a variety of service and health occupations in the USA ($n = 1,316$). Cronbach alphas were: for Emotional Exhaustion 0.90; for Depersonalisation 0.79, and for Personal Accomplishment 0.71. Previously both the frequency and intensity were assessed but the newer edition assesses only the frequency dimension.

Test re-test reliabilities range from 0.60 – 0,82 and 0.54 – 0.60 if applied after one year. In a South African study by Storm and Rothmann (2003) with a pharmaceutical group, the MBI scores were normally distributed and alpha coefficients were found to be acceptable when compared to the guidelines of $\alpha > 0.70$ (Nunnally & Bernstein, 1994).

- **Motivation for the use of the scale in the current investigation**

According to Schaufeli *et al.* (2002), burnout constitutes a barometer of social dysfunction at work, whilst Maslach and Leiter (1997) argue that burnout is primarily a problem of the social environment in which employees work. Since the researcher is interested in the influence of emotional intelligence on the psychological climate as mediator of wellness indicators at work, the MBI is included to measure burnout in the workplace. Adequate psychometric properties have been reported as described above.

5.7.7 CONTEMPLATED QUITTING

5.7.7.1 CONTEMPLATED QUITTING AND ITS MEASUREMENT

The respondents' intention to quit the organisation was measured using a Guttman self-developed scale. The scale is anchored on a five point Likert scale as suggested by Cohen (1993): 1) I think I will remain in the service of my present employer for the rest of my career to 5) I will be leaving the service of my present employer soon. Thus, the higher the score, the stronger the intention to quit.

- **Motivation to include this instrument in the current study**

Fatt and Howe (2003) contend that EI matters in staff turnover across all categories. The current study wishes to ascertain whether the link between psychological climate at work, the prevailing experienced affect, and turnover intention, as depicted in the literature, can be replicated in this study, and the contemplated quitting scale is therefore included to measure this outcome.

5.7.8 GENERAL HEALTH QUESTIONNAIRE

5.7.8.1 *PHYSICAL AND MENTAL HEALTH AND ITS MEASUREMENT*

A self-compiled Health Questionnaire containing 46 items was constructed to probe the general physical and mental health of the respondent (see Appendix B). Since health may be conceptualised as a multi-dimensional construct, a questionnaire was compiled to systematically assess the different physical health systems of the human body, as well as aspects pertaining to mental wellness. Physical systems investigated included general symptoms as well as those in relation to the cardiovascular, respiratory, gastro-intestinal, neurological, genitor-urinary and musculo-skeletal systems, chronic illnesses and family history of inherited conditions. Blood pressure and heart rate were reported and respondents were requested to provide an overall rating of 1-10 for their experienced physical health. A higher score is indicative of perceived better physical health, a lower score of poorer health. The questionnaire included a frequency scale in regard to the experienced symptoms ranging from never, infrequently or frequently experienced; they had to report whether the symptoms were (in their view) related to work stress, and whether they made use of over-the-counter or prescription medicine to ease symptoms. As far as their mental status was concerned questions related to their experienced energy levels, sleep disturbances, tension, anxiety and depression. In addition, respondents were requested to provide an overall rating of 1-10 for their mental health. The higher score was again indicative of perceived better mental health, and a lower score of poorer mental health. Since the group, as a whole, rated very positively on both physical and mental health, the researcher decided to make use only of the two continuums for the participants' overall evaluations of their health in both the indicated domains.

- **Motivation to include this instrument in the current study**

According to Ryff and Singer (1998), human wellness may be conceptualised as multi-dimensional, and a comprehensive assessment of positive health should include both physical and mental well-being.

An overview is now provided of the procedure followed with regard to the analysis of the data in the present investigation.

5.8 PROCEDURE FOR DATA ANALYSIS

For purposes of processing, all questionnaires were pre-coded by research assistants to simplify the entry of raw data into the computer system. The raw data were accordingly entered into the computer system of the University of the Free State by allocated research assistants who specialise in this field.

The focus of the statistical analysis was firstly on the relationship between the emotional intelligence of the leader/manager and the other variables identified as indicative of the well-being of employees; and on the predictive value of emotional intelligence on these variables. Likewise, the relationship between the emotional intelligence of the employee and the other variables of interest, was investigated, as well as whether employee EI holds any predictive value for these variables.

- **Revalidation of the Measuring Instruments:**

The factor structures of the different measuring instruments were determined in the present study and used in the analyses in an attempt to reduce error variance in the measurements. Descriptive statistics, Product-moment Correlation, Multiple Regression, and Structural Equations Modelling were applied to analyse the obtained data.

The data were analysed by means of statistical procedures in SPSS version 12 (SPSS, 2003). Exploratory Factor Analysis (EFA) is normally used to identify the number and nature of the underlying factors, based on measures obtained on a number of variables. Exploratory Factor Analysis was consequently carried out in order to determine the factor structure of each of the measuring instruments used in the research. This was followed up with a Confirmatory Factor Analysis (CFA) to compare the Goodness of Fit indices of the original model with those of the derived model. The existence and strength of relationships identified among the various constructs in the current research, were investigated by applying correlation methods. Structural Equation Modelling (SEM) was also applied in order to investigate possible causal relationships based on the empirical results of the research.

5.9 THE PSYCHOMETRIC PROPERTIES OF THE

MEASURING INSTRUMENTS

Since the measuring instruments applied in the current investigation were developed abroad, the researcher decided to revalidate the most prominent measuring instruments to ascertain how well the properties described by the test developers fit the data obtained from the current South African sample. The procedure followed will now be described.

5.9.1 SPECIFYING DECISION RULES

To analyse the structure and internal reliability of the measuring instruments used in the current investigation, the instruments were revalidated via Exploratory and Confirmatory Factor Analysis. The following steps were applied in investigating and computing the Exploratory Factor Analysis for each (N=198) of the measuring instruments included in this research.

Eigenvalues = 1 were identified; a scree test was applied to identify clear breaks between the Eigenvalues = 1.00, following which the identified breaks were accepted as indicative of the number of underlying latent variables. Accordingly, Exploratory Factor Analysis (EFA) was performed in regard to all (N=198) the responses obtained on the measuring instrument items. A principal-axis factoring extraction method employing direct oblimin rotation was then used. The particular extraction method was decided on due to:

- high inter-correlations found between the factors, and
- this method is more rigorous than the Principal Components extraction method.

After determining the factor structure, the factor loadings in the rotated pattern matrix were studied. The following decision rules applied in evaluating the results of the Principal-axis factoring analyses:

- An item was selected if it had a loading ≥ 0.30 on the appropriate factor and was deemed to cross-load across factors if the loadings differed by ≤ 0.25 .
- Items that did not comply with ≥ 0.30 factor loading criteria, or were thought to cross-load, were rejected.

The EFA was repeated until a clean factor structure was obtained. The procedure of doing an EFA followed by a CFA was conducted on the whole sample (N=198). CFA's were done to test the measurement models as derived from the sample to determine how well the observed structure fit the data obtained through the EFA. This was done to determine whether the questionnaire has acceptable construct validity and other psychometric qualities when applied to a South African sample, and whether the factor structure, as claimed by the original test constructors, holds true for the current sample. Lisrel version 8.53 was applied in this regard.

Interpretation of the goodness-of-fit indices will be done according to the following guidelines. The Root Mean Square of Error of Approximation (RMSEA) estimates the overall amount of error, favours parsimonious models and is relatively unaffected by sample size. Values below 0.05 indicate good fit and 0.05-0.08 indicate a fair fit (Steiger & Lind, 1980; Steiger, 1990; 2000). Hu and Bentler (1999) suggested a value of 0.06 to indicate a good fit. Brown and Cudeck (1989, Cudeck & Brown, 1983) expect the cross validation index (ECVI) will also be reported. Expected cross-validation indices for the fitted model that are lower than those for the saturated model, typically indicate good fit, and the smaller the ECVI, the better the fit of the model. The ECVI also takes model parsimony into account, and is relatively stable across different estimation methods (Hu & Bentler, 1998). The Normed Fit Index (NFI) is used to assess global model fit. The NFI represents the point at which the model being evaluated falls on a scale running from a null model to perfect fit. This index is normed to fall on a 0-1 continuum. Marsh, Balla and Hau (1996) suggest that this index is relatively insensitive in terms of sample size. The comparative Fit Index (CFI) of Bentler (1990) shows how much better the model fits when compared to a baseline model, usually the independence model. The CFI scores may vary between 0 and 1, with higher values indicating better fit. Hu and Bentler (1995, p.91) and Fan and Wang (1998) found that the CFI fared well with a range of sample sizes under most conditions. The CFI has been found to function better than most other incremental indices, especially with non-normal data (West, Finch & Curran, 1995). The Root Mean Square Residual (RMR) (Jöreskog & Sörbom, 2001) is the mean of the remaining residuals (the discrepancies between the reproduced covariance matrix and the sample covariance matrix after the model has been fitted) divided by their standard errors. Kline (1998, p. 131) recommended that the value of the Standardised Root Mean Square Residual (SRMR) be less than 0.10. Hu and Bentler (1998), who found the SRMR particularly adept at detecting model misspecification, recommend its use as a fit index with a cut-off value of 0.8. The SRMR provides a summary of the fit of individual parameters of the model in a standardised (i.e., scale-free) form – information of vital importance to the assessment of a model's fit (Kline, 1998, p.278). Jöreskog and Sörbom's (2001) Goodness of Fit Index (GFI) attempts to determine the degree to which the covariance matrix produced by the fitting

function agrees with the sample covariance matrix. It has a normal range of 0-1, although negative values are also possible. Values of greater than 0.9 are generally indicative of a good fit. The Parsimony goodness-of-fit index (PGFI) addresses the issue of parsimony in SEM (Mulaik, James, Van Alstine, Bennett, Lind, & Stilwell, 1989). The PGFI takes into account the complexity (i.e., number of estimated parameters) of the hypothesised model in the assessment of overall fit and provides a more realistic fit of the hypothesized model. Mulaik *et al.*, (1989) suggest that indexes in the 0.90's accompanied by PGFI's in the 0.50's are not unexpected, however, values of greater than 0.80 are considered more appropriate (Byrne, 2001).

The results of the revalidation of the measuring instruments are described in Chapter 6.

Chapter 6

RESULTS

6.1 INTRODUCTION

In this chapter the results obtained in the current investigation are reported on in two sections. The first part of the chapter will reflect the results of the revalidation of the measuring instruments. The second part of the chapter will provide a report on the descriptive statistics, describe the intercorrelations and reflect on the testing of the models via the process of structural equations modelling.

6.2 DETERMINING THE PSYCHOMETRIC

QUALITIES OF THE MEASURING

INSTRUMENTS

It was obvious from the results of the confirmatory factor analyses that the factors identified by the test constructors did not fit the data of the current sample well. Thus the researcher followed up the CFA's with factor analyses for the major instruments used.

6.2.1 EMOTIONAL INTELLIGENCE

6.2.1.1 360-SUEIT

In the current study, all participants rated the EI of their leaders / managers by means of the original 64-item 360-Degree Version of the Workplace SUEIT by Palmer and Stough (2001), whilst the self-report version was used by all employees to assess their own EI levels.

6.2.1.1.1 Exploratory Factor Analysis

The first EFA (principal-axis factoring extraction method, direct oblimin rotation) was performed using all (N=198) the responses obtained on the 64 items. Exploratory Factor Analysis (EFA) was performed to uncover the underlying latent variable structure of the instrument. The items seemingly loaded on three meaningful factors: factor 1: eigenvalue = 11.939, factor 2: eigenvalue = 3.523, and factor 3: eigenvalue = 2.564. This result matched the scree criterion. The three factors together explained 34.011 percent of the variance (factor 1 = 22.526%, factor 2 = 6.647 %, and factor 3 = 4.838%). After several rounds of EFAs using the three factor solution, items were eliminated that did not meet the selection criteria, after which only 53 items remained. After the first round the following items were removed: 1. Can tell how colleagues are feeling at work, 2. Generates positive moods and emotions to get over being frustrated at work, 33. Finds it difficult to get colleagues excited about things at work, 35. Attends to his/her feelings on a matter when making important work-related decisions, 42. Finds it hard to convey anxiety to colleagues, 44. Finds it easy to comfort colleagues when they are upset about something at work, and 53. When trying to recall certain situations at work, he/she tends to think about how they felt. After the second round, the following items were removed: 12. Uses moods and emotions to help generate new ideas, 45. Colleagues' facial expressions reveal a lot to him/her about the way they are feeling, and 46. At work, when he/she experiences strong emotions they are not well controlled. In the next round of EFA only one item one was removed to obtain the final factor structure. The item was: 50. Goes with 'feelings' when making important decisions at work.

In the current study the Cronbach alpha coefficient was found to be 0.883 for the total instrument, whilst the Cronbach alpha coefficients for the factors were: factor 1: $\alpha = 0.921$, factor 2: $\alpha = 0.904$, and factor 3: a low $\alpha = 0.646$. The final factor structure for the whole sample is shown in *Table 6.1*.

On inspecting the items that load meaningfully on the three factors, it is not immediately obvious which three factors of EI are measured. Items originally written to measure the five dimensions of EI, loaded in an apparently mixed fashion on these three factors. Studying the wording of the items with the highest factor loadings, and considering at the overall set of items in each factor, it was decided to name factor 1 = Emotional Intelligence Skill, factor 2 = Lack of Emotional Intelligence Skill, and factor 3 = Emotional Expression. The items included in the Emotional Intelligence Skill factor cover a variety of items that reflect the ability to express own emotions, and to identify and to manage the emotions of others.

Table 6.1 Factor analysis of the 360-SUEIT emotional intelligence items for the whole group (N = 198)

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.

ITEM	DESCRIPTION	FACTOR 1	FACTOR 2	FACTOR 3
		Emotional Intelligence Skill	Lack of Emotional Intelligence Skill	Emotional Expression
36	Overcomes anger at work by thinking through what's causing it	.728		
4	When anxious, he/she remains focused on what he/she is doing	.608		
34	Can pick up on the 'emotional tone' of staff meetings	.601		
56	Can tell when a colleague feels the same way as him/her about another colleague, without actually discussing it	.438		
29	Watches the way clients react to things when trying to build rapport with them	.573		
24	Comes up with new ideas at work using rational thoughts rather than using moods and emotions	.532		
64	When he/she is upset by a colleague, he/she thinks through what the person has said and finds a solution to the problem	.574		
43	Can determine when a colleague's emotional reactions are inappropriate	.565		
41	Can be upset at work and still think clearly	.574		
18	Tries not to let emotions guide his/her problem solving at work	.504		
28	Overcomes conflict with colleagues by influencing their moods and emotions	.502		
5	Can tell whether colleagues like each other or not	.526		
30	His/her problem solving is based on sound reasoning rather than feelings	.520		
47	Believes that feelings should be kept at bay when making important work-related decisions	.427		
62	Tries to keep emotions out of work-related decision making	.441		
63	Can tell when a colleague doesn't really like him/her	.392		
48	Readily notices the 'feel' of work environments	.548		
40	Weighs-up how he/she feels about different solutions to work-related problems	.521		
3	Believes that the examination of feelings is useful in solving work-related problems	.545		
38	Readily understands the reasons why their has upset someone at work	.480		
51	Can detect emotions when he/she experiences them at work	.430		
54	Can easily snap out of feeling down at work	.455		
17	Can tell when a colleague is trying to hide his/her true feelings	.526		
21	Does not think that it's a good idea to use emotions to guide work-related decision making	.393		
15	Finds it easy to influence the moods and emotions of clients	.396		
13	Can tell how a colleague is feeling by the tone in his/her voice	.470		

ITEM	DESCRIPTION	FACTOR 1	FACTOR 2	FACTOR 3
		Emotional Intelligence Skill	Lack of Emotional Intelligence Skill	Emotional Expression
20	Can describe his/her feelings on an issue to colleagues	.445		
19	Finds it easy to control anger at work	.452		
31	Finds it difficult to think clearly when feeling anxious about something at work		.625	
9	Difficult situations at work elicit emotions he/she finds hard to overcome		.678	
55	Finds it hard to distinguish emotions at work		.478	
59	Finds it hard to determine exactly how colleagues feel about work-related issues		.661	
14	When anxious at work, finds it difficult to express this to his/her colleagues		.476	
32	Has trouble finding the right words to express how he/she feels		.570	
57	Finds it difficult to maintain positive moods and emotions when under stress		.567	
11	Finds it difficult to keep from getting stressed-out when under a lot of pressure at work		.558	
7	Finds it difficult to talk about feelings with work colleagues		.450	
39	Finds it hard to reduce anxiety in colleagues		.578	
23	Finds it hard to get colleagues to cooperate with each other		.522	
52	When discussing an issue, he/she finds it difficult to tell whether colleagues feel the same way as he/she does		.446	
60	When something goes wrong at work, he/she finds it difficult to remain positive		.479	
16	Does not easily pick-up on the emotional overtones of workplace environments		.388	
8	Finds it hard to determine how a colleague is feeling from their body language alone		.527	
6	Tends to get irritated by colleagues when stressed		.538	
58	When colleagues get worked-up, he/she stays out of their way		.299	
22	Finds it hard to identify if a colleague is upset with him/her		.395	
27	Finds it hard to determine who gets along and who doesn't at work		.411	
25	Finds it hard to concentrate on a task when really excited about something		.341	
49	When something gets him/her down at work, they find it difficult to snap out of it		.316	
61	Colleagues can easily tell how he/she feels			.556
10	Colleagues find it easy to pick-up on how he/she is feeling			.501
37	Colleagues know when he/she is worried			.525
26	Can portray how he/she is feeling to colleagues through body language			.429
	Eigenvalue	11.939	3.523	2.564
	Percentage of variance explained	22.526	6.647	4.838
	Cumulative percentage of variance explained	22.526	29.174	34.011

6.2.1.1.2 CONFIRMATORY FACTOR ANALYSIS

Now that the latent variable structures were known for the EI scale, Confirmatory Factor Analysis was performed using Lisrel 8.53 to examine the goodness-of-fit between the hypothesised models and the obtained data that comprised the observed measurements. The maximum likelihood (ML) method was used to estimate the models (Jöreskog & Sörbom, 2001).

The indices of model fit for the CFA are presented in *Table 6.2*. Examination of the fit indices leads one to believe that the derived model provides for a reasonable fit with the data.

Table 6.2 *360-SUEIT Confirmatory Factor Analysis: Model Fit Indices*

Model derived from:	Total Group
Data obtained from:	Total Group
Degrees of Freedom	1271
Minimum Fit Function Chi-Square	2201.6238 (P=0.0)
Normal Theory Weighted Least Chi Square	2062.3669 (P=0.0)
Root Mean Square Error of Approx	0.05622
90% Confidence Interval for RMSEA	0.05177;0.06060
ECVI for Saturated Model	13.9898
Expected Cross-validation index (ECVI)	11.5552
90% Confidence interval for ECVI	10.9442; 12.2061
Chi-square for independence Model with 1326 Degrees of Freedom	9934.6923
Model AIC	2276.3669
Normed Fit Index (NFI)	0.7784
Non-Normed Fit Index (NNFI)	0.8872
Parsimony Normed Fit Index	0.7461
Comparative Fit Index (CFI)	0.8919
Incremental Fit Index (IFI)	0.8926
Relative Fit Index (RFI)	0.7688
Root Mean Square Residual (RMR)	0.1315
Standardised RMR	0.08102
Goodness of Fit Index (GFI)	0.7129
Adjusted Goodness of fit (AGFI)	0.6888
Parsimony Goodness of fit (PGFI)	0.6576

6.2.1.2 SUEIT SELF-REPORT

6.2.1.2.1 EXPLORATORY FACTOR ANALYSIS

The first EFA (principal-axis factoring extraction method, direct oblimin rotation) was performed using all (N=198) the responses obtained on the 64 items. Exploratory Factor Analysis (EFA) was performed to uncover the underlying latent variable structure of the instrument. The items seemingly loaded on three meaningful factors: factor 1: eigenvalue =

11.129, factor 2: eigenvalue = 4.088, and factor 3: eigenvalue = 2.334. This result matched the scree criterion. The three factors together explained 35.104 percent of the variance (factor 1 = 22.259%, factor 2 = 8.176%, and factor 3 = 4.669%). After several rounds of EFAs using the three factor solution, items were eliminated that did not meet the selection criteria, after which only 50 items remained. After the first round the following items were removed: 7. I find it difficult to talk about my feelings with my colleagues, 12. My moods and emotions help me generate new ideas, 16. I don't easily pick up the emotional overtones of workplace environments, 19. I find it easy to control my anger at work, 39. I find it hard to reduce anxiety in colleagues, 41. I can be upset at work and still think clearly, and 54. I can easily snap out of feeling "down" at work. After the second round the following items were removed: 47. Feelings should be kept at bay when making important work-related decisions, 51. At work, I can detect my emotions as I experience them. After the third round the following items were removed: 35. I attend to my feelings on a matter when making important work-related decisions, and 23. I find it hard to get colleagues to cooperate with one another. After the fourth round the following item was removed: 63. I can tell when a colleague doesn't really like me. After the fifth round the following items were removed: 2. I Generate positive moods and emotions within myself to get over being frustrated at work, and 50. I go with my 'feelings' when making important decisions at work.

In the current study the Cronbach alpha coefficient was found to be 0.907 for the instrument, while the Cronbach alpha coefficients for the factors were: factor 1: $\alpha = 0.902$, factor 2: $\alpha = 0.858$, and factor 3: $\alpha = 0.703$. The final factor structure for the whole sample is shown in *Table 6.3*.

On inspecting the items that load meaningfully on the three factors, it is not immediately obvious which three factors of EI are measured. Items originally written to measure the five dimensions of EI loaded in an apparently mixed fashion on these three factors. Studying the wording of the items with the highest factor loadings, and looking at the overall set of items in each factor, it was decided to name factor 1 = Emotional Intelligence Skill, factor 2 =Lack of Emotional Intelligence Skill, and factor 3= Emotional Expression. The items included in the Emotional Intelligence Skills factor cover a variety of items that reflect the ability to express own emotions, and to identify and manage the emotions of others.

Table 6.3 Factor analysis of the SUEIT-SELF emotional intelligence items for the whole group (N = 198)

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.

ITEM	DESCRIPTION	FACTOR 1	FACTOR 2	FACTOR 3
		Emotional Intelligence Skill	Lack of Emotional Intelligence Skill	Emotional Expression
45	Colleagues' facial expressions reveal a lot to me about the way they are feeling	.724		
13	When anxious, I remain focused on what I am doing	.646		
48	I readily notice the 'feel' of work environments	.695		
64	When a colleague upsets me at work, I fully think through what the person has said and find a solution to the problem	.617		
17	I can tell when a colleague is trying to hide his/her true feelings	.567		
43	I can determine when a colleague's emotional reactions are inappropriate	.618		
5	I can tell whether colleagues like each other or not	.650		
3	Examination of feelings is useful in solving work-related problems	.612		
34	I can pick-up on the 'emotional tone' of staff meetings	.597		
38	I readily understand the reasons why I have upset someone at work	.627		
44	I find it easy to comfort colleagues when they are upset about something at work	.558		
40	I weigh-up how I feel about different solutions to work-related problems	.588		
24	I come up with new ideas at work using rational thoughts rather than my moods and emotions	-.580		
30	My problem solving at work is based on sound reasoning rather than feelings	-.559		
29	I watch the way clients react to things when I'm trying to build rapport with them	.479		
18	I try not to let my emotions guide me when problem solving at work	-.492		
1	I can tell how colleagues are feeling at work	.568		
15	I find it easy to influence the moods and emotions of clients	.479		
62	I try to keep emotions out of work-related decision making	-.444		
20	I can describe my feelings on an issue to colleagues	.493		

ITEM	DESCRIPTION	FACTOR 1	FACTOR 2	FACTOR 3
		Emotional Intelligence Skill	Lack of Emotional Intelligence Skill	Emotional Expression
56	I can tell when a colleague feels the same way as myself about another colleague, without actually discussing it	.501		
36	I overcome anger at work by thinking through what's causing it	.498		
53	Thinking about how I felt in certain situations at work helps me remember them	.245		
21	I don't think it's a good idea to use emotions to guide work-related decision making	-.444		
4	When I'm anxious I can remain focused on what I am doing	.500		
28	I overcome conflict with my colleagues by influencing their moods and emotions	.457		
60	When something goes wrong at work, I find it difficult to remain positive		.638	
57	I find it difficult to maintain positive moods and emotions when I'm under stress		.644	
9	Difficult situations at work elicit emotions in me that I find hard to overcome		.691	
49	When something gets me down at work, I find it difficult to snap out of it		.458	
31	I find it difficult to think clearly when I'm feeling anxious about something at work		.522	
55	I find it hard to distinguish my emotions at work		.482	
46	At work, I experience strong emotions that are hard to control		.498	
6	When I'm under stress, I tend to get irritated by colleagues		.481	
58	When colleagues get worked-up, I stay out of their way		.355	
11	I find it difficult to keep from getting stressed-out when I am under a lot of pressure at work		.467	
52	When discussing an issue, I find it difficult to tell whether colleagues feel the same way as me		.467	
25	I find it hard to concentrate on a task when I'm really excited about something		.453	
32	At work, I have trouble finding the right words to express how I feel		.462	
42	I find it hard to convey my anxiety to colleagues		.375	
14	When I am anxious at work, I find it difficult to express this to my colleagues		.357	

ITEM	DESCRIPTION	FACTOR 1	FACTOR 2	FACTOR 3
		Emotional Intelligence Skill	Lack of Emotional Intelligence Skill	Emotional Expression
27	I find it hard to determine who gets along and who doesn't at work		.451	
33	I find it difficult to get colleagues excited about things at work		.423	
59	I find it hard to determine exactly how colleagues feel about work-related issues		.479	
22	I find it hard to identify if a colleague is upset without them telling me/		.512	
8	I find it hard to determine how a colleague is feeling from his/her body language alone		.446	
61	Colleagues can easily tell how I feel			.744
10	Colleagues find it easy to pick-up on how I am feeling			.550
37	Colleagues know when I am worried			.532
26	I can portray how I am feeling to colleagues through my body language			.533
	Eigenvalue	11.129	4.088	2.334
	Percentage of variance explained	22.259	8.176	4.669
	Cumulative percentage of variance explained	22.259	30.435	35.104

6.2.1.2.2 Confirmatory Factor Analysis

Now that the latent variable structures were known for the SUEIT Self-Report Scale, Confirmatory Factor Analysis was performed using Lisrel 8.53 to examine the goodness-of-fit between the hypothesized models and the obtained data that comprised the observed measurements.

The indices of model fit for the CFA can be found in *Table 6.4*. Examination of the fit indices leads one to believe that the derived model provides for a reasonable fit with the data.

Table 6.4 *SUEIT-SELF confirmatory factor analysis: model fit indices*

Model derived from:-	Total Group
Data obtained from:-	Total Group
Degrees of Freedom	1172
Minimum Fit Function Chi-Square	1889.4219 (P=0.0)
Normal Theory Weighted Least Chi Square	1852.5359 (P=0.0)
Root Mean Square Error of Approximation	0.05429
90% Confidence Interval for RMSEA	(0.04957; 0.05892)
ECVI for Saturated Model	12.9442
Expected Cross-validation index (ECVI)	10.4494
90% Confidence interval for ECVI	(9.8751; 11.0639)
Chi-square for independence Model with 1225 Degrees of Freedom	10685.8360
Model AIC	2058.5359
Normed Fit Index (NFI)	0.8232
Non-Normed Fit Index (NNFI)	0.9207
Parsimony Normed Fit Index	0.7876
Comparative Fit Index (CFI)	0.9242
Incremental Fit Index (IFI)	0.9246
Relative Fit Index (RFI)	0.8152
Critical N (CN)	135.2473
Root Mean Square Residual (RMR)	0.06779
Standardised RMR	0.07419
Goodness of Fit Index (GFI)	0.7267
Adjusted Goodness of fit (AGFI)	0.7026
Parsimony Goodness of fit (PGFI)	0.6680

6.2.1.3 DISCUSSION

6.2.1.3.1 Exploratory Factor Analysis

An important result of the EFA was that the original five-factor structure as proposed by Palmer and Stough (2001), and according to which the SUEIT (Self-Report and 350-Degree instrument) was constructed, could not be replicated in the current South African sample. At most, evidence for a three-factor structure could be found. These three factors were: Emotional Intelligence skill, Lack of Emotional Intelligence skill and Emotional Expression. One of the explanations for the reduction in the number of factors may be found in the number of items that had to be removed in the EFA process in order to obtain a “clean” factor structure. This most probably results from the difference in the way South African respondents understand/interpret the items in comparison with their Australian counterparts, taking into account language and cultural differences. Furthermore, a relatively homogenous sample was used in the current study.

A further possible explanation is that Palmer and Stough (2001) applied the principal components extraction method, utilising varimax rotation in doing their EFA. The present study used principal axis factoring and direct oblimin rotation, which constitutes a more rigorous test than the former methodology. It therefore usually results in fewer factors than would be found with the principal components extraction method. This may also explain the differences in the obtained factor loadings on the individual items.

6.2.1.3.2 *Confirmatory Factor Analysis*

- **360-SUEIT**

The 360-Degree model fit indices reveal the following: the RMSEA (0.05622) indicates a fair fit, the ECVI (11.552), a good fit. The NFI (0.7784) indicates a mediocre fit and the CFI (0.819) a reasonably good fit. The SRMR (0.8102) indicates a reasonable fit and the GFI (0.7129) a mediocre fit. The PGFI level (0.6576) is acceptable. Thus, with the exception of the NFI and GFI, a reasonable fit was obtained.

- **Self-SUEIT**

The SUEIT Self-Report model fit indices reveal the following: the RMSEA (0.05429) reveals a fair fit, the ECVI (10.4494) a good fit. NFI (0.8232) indicates mediocre fit and the CFI (0.9242) indicates good fit. The SRMR (0.07419) indicates a mediocre fit. The GFI (0.7419) in the current study indicated mediocre fit. The PGFI (0.6680) indicates a fair fit.

The fact that this measurement model does not replicate exactly as it did before may indicate a problem with the measurement model as conceptualised by the test constructor or a different interpretation of the test items by participants.

6.2.2 PSYCHOLOGICAL CLIMATE (PC)

6.2.2.1 *EXPLORATORY FACTOR ANALYSIS*

The first EFA (principal-axis factoring extraction method, direct oblimin rotation) was performed using all (N=198) the responses obtained on the 21 items. Exploratory Factor Analysis (EFA) was performed to uncover the underlying latent variable structure of the instrument. The items seemingly loaded on a single meaningful factor: eigenvalue = 7.176. This result matched the scree criterion. The single factor explained 37.767 % of the variance. After several rounds of EFAs using the single factor solution, items were eliminated that did

not meet the selection criteria, after which only 19 items remained. After the first round the following items were removed: 4. I'm careful in taking responsibility because my manager is often critical of new ideas, and 18. There are parts of myself that I am not free to express at work. In the current study the Cronbach alpha coefficient was found to be 0.902 for the instrument. The final factor structure for the whole sample is shown in *Table 6.5*.

It was decided to name factor 1 = A General Psychological Climate factor.

Table 6.5 *Factor analysis of the Psychological Climate items for the whole group (N = 198)*

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.

ITEM	DESCRIPTION	FACTOR 1
		A general psychological climate factor.
1	My manager is flexible about how I accomplish my job objectives.	.460
2	My manager is supportive of my ideas and ways of getting things done	.570
3	My manager gives me the authority to do my job as I see fit	.562
5	I can trust my manager to back me up on decisions I make in the field.	.574
6	Management makes it perfectly clear how my job is to be done	.513
7	The amount of work responsibility and effort expected in my job is clearly defined.	.487
8	The norms of performance in my department are well understood and communicated	.622
9	I feel very useful in my job	.685
10	Doing my work well really makes a difference	.557
11	I feel like a key member of the organisation.	.739
12	The work I do is very valuable to the organisation	.668
13	I rarely feel my work is taken for granted	.566
14	My superiors generally appreciate the way I do my job	.762
15	The organization recognizes the significance of the contributions I make.	.662
16	The feelings I express at work are my true feelings	.426
17	I feel free to be completely myself at work	.737
19	It is OK to express my true feelings in this job	.493
20	My job is very challenging	.556
21	It takes all my resources to achieve my work objectives	.329
	Eigenvalue	7.176
	Percentage of variance explained	37.767
	Cumulative percentage of variance explained	37.767

6.2.2.2 CONFIRMATORY FACTOR ANALYSIS

Now that the latent variable structure was known for the Psychological Climate scale, Confirmatory Factor Analysis was performed using Lisrel 8.53 to examine the goodness-of-fit

between the hypothesised models and the obtained data that comprised the observed measurements.

The indices of model fit for the CFA can be found in *Table 6.6* for comparison.

Table 6.6 *Psychological Climate confirmatory factor analysis: model fit indices*

Model derived from:	Total Group
Data obtained from:	Total Group
Degrees of Freedom	152
Minimum Fit Function Chi-Square	524.21 (P = 0.0)
Normal Theory Weighted Least Chi Square	527.74 (P = 0.0)
Root Mean Square Error of Approx (RMSEA)	0.11
90% Confidence Interval for RMSEA	(0.10; 0.12)
ECVI for Saturated Model	1.93
Expected Cross-validation index (ECVI)	3.06
90% Confidence interval for ECVI	(2.73; 3.44)
Chi-square for independence Model with 78 Degrees of Freedom	4207.77
Model AIC	603.74
Normed Fit Index (NFI)	0.88
Non-Normed Fit Index (NNFI)	0.90
Parsimony Normed Fit Index	0.78
Comparative Fit Index (CFI)	0.91
Incremental Fit Index (IFI)	0.91
Relative Fit Index (RFI)	0.86
Critical N (CN)	74.46
Root Mean Square Residual (RMR)	0.18
Standardised RMR (SRMR)	0.73
Goodness of Fit Index (GFI)	0.62
Adjusted Goodness of fit (AGFI)	0.8231
Parsimony Goodness of fit (PGFI)	0.5740

6.2.2.3 DISCUSSION

6.2.2.3.1 Exploratory Factor Analysis

An important result of the EFA was that the original six dimensions, as proposed by Brown and Leigh (1996), and according to which the Psychological Climate Inventory was constructed, could not be replicated in the current South African sample. Evidence could only be found for a single factor, namely a general psychological factor. One of the reasons for the reduction in the number of factors may be found in the number of items that had to be removed in the EFA process in order to obtain a “clean” factor structure. This most probably results from the difference in the way South African respondents understand/interpret the items in comparison with their American counterparts, taking into account language and

cultural differences. For a significant portion of the sample English is a second language. The questionnaire was, however, presented in both languages. The present study used principal axis factoring and direct oblimin rotation, which constitutes a rigorous methodology. It therefore usually results in fewer factors than would be found with the principal components extraction method. This may also explain the differences in the obtained factor loadings on the individual items.

6.2.2.3.2 *Confirmatory Factor Analysis*

The model fit indices reveal the following: the RMSEA (0.11) indicates a mediocre fit, the ECVI (3.06), a bad fit. The NFI (0.7784) indicates a mediocre fit and the CFI (0.91) a good fit. The SRMR (0.076) indicates a mediocre fit and the GFI (0.78) a mediocre fit. The PGFI level (0.62) is acceptable.

The fact that this measurement model does not replicate exactly as it did before reiterates that the model does not replicate exactly the same in all samples.

6.2.3 JOB AFFECT (JAS)

6.2.3.1 *EXPLORATORY FACTOR ANALYSIS*

The first EFA (principal-axis factoring extraction method, direct oblimin rotation), was performed using all (N=198) the responses obtained on the 20 items. Exploratory Factor Analysis (EFA) was performed to uncover the underlying latent variable structure of the instrument. The items seemingly loaded on two meaningful factors: factor 1: eigenvalue = 3.477 and factor 2: eigenvalue = 2.055. This result matched the scree criterion. The two factors together explained 46.098 percent of the variance (factor 1 = 28.976% and factor 2 = 17.122%). After the first round of EFA using the two factor solution, items were eliminated that did not meet the selection criteria, after which only 12 items remained. The following items were removed after the first round namely 2. Calm, 4. Sleepy, 7. Scornful, 8. Hostile, 12. Relaxed, 14. At rest, 16. Drowsy, and 20. Sluggish.

In the current study the Cronbach alpha coefficient was found to be 0.549 for the instrument, while the Cronbach alpha coefficients for the factors were: factor 1: $\alpha = 0.692$ and factor 2: $\alpha = 0.752$. The final factor structure for the whole sample is shown in *Table 6.7*.

On inspecting the items that load meaningfully on the two factors, it is clear that the scale measures positive and negative affect, although items did not load in the same fashion as in the original test. It was therefore decided to retain the original names with factor 1 = Positive Affect and 2 = Negative Affect.

Table 6.7 Factor analysis of the Job Affect items for the whole group (N = 198)

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.

ITEMS	DESCRIPTION	FACTOR 1	FACTOR 2
		<i>Positive Affect</i>	<i>Negative Affect</i>
6	Excited	.778	
9	Enthusiastic	.692	
13	Peppy	.564	
5	Strong	.625	
1	Active	.439	
17	Elated	.475	
10	Dull	-.361	
18	Placid	.391	
15	Nervous		.796
19	Jittery		.717
11	Fearful		.661
3	Distressed		.476
	Eigenvalue	3.477	2.055
	Percentage of variance explained	28.976	17.122
	Cumulative percentage of variance explained	28.976	46.098

6.2.3.2 CONFIRMATORY FACTOR ANALYSIS

Now that the latent variable structures were known for the JAS scale, Confirmatory Factor Analysis was performed to examine the goodness-of- fit between the hypothesized models and the obtained data that comprised the observed measurements.

The indices of model fit for the CFA can be found in *Table 6.8* for comparison.

Table 6.8 *Job Affect Confirmatory Factor Analysis: Model Fit Indices*

Model derived from:	Total Group
Data obtained from:	Total Group
Degrees of Freedom	53
Minimum Fit Function Chi-Square	81.1432 (P=0.007712)
Normal Theory Weighted Least Chi Square	82.7244 (P=0.005581)
Root Mean Square Error of Approximation (RMSEA)	0.05336
90% Confidence Interval for RMSEA	(0.02927; 0.07481)
ECVI for Saturated Model	0.7919
Expected Cross-validation index (ECVI)	0.6737
90% Confidence interval for ECVI	(0.5682; 0.8195)
Chi-square for independence Model with 66 Degrees of Freedom	938.9574
Model AIC	132.7244
Normed Fit Index (NFI)	0.9136
Non-Normed Fit Index (NNFI)	0.9599
Parsimony Normed Fit Index	0.7336
Comparative Fit Index (CFI)	0.9678
Incremental Fit Index (IFI)	0.9682
Relative Fit Index (RFI)	0.8924
Critical N (CN)	194.8453
Root Mean Square Residual (RMR)	0.06672
Standardised RMR	0.06112
Goodness of Fit Index (GFI)	0.9346
Adjusted Goodness of fit (AGFI)	0.9037
Parsimony Goodness of fit (PGFI)	0.6350

6.2.3.3 DISCUSSION

6.2.3.3.1 Exploratory Factor Analysis

An important result of the EFA was that the original two-factor structure as proposed by Brief *et al.*, (1988) and according to which the JAS instrument was constructed, was replicated in the current South African sample, although 8 items had to be removed in the EFA process in order to obtain a “clean” factor structure. This most probably results from the difference in the way South African respondents understand/interpret the items in comparison with their American counterparts, taking into account language and cultural differences. These two factors represent positive and negative affect. For a significant portion of the sample English is a second language. The questionnaire was, however, presented in both languages. The present study used principal axis factoring and direct oblimin rotation, which constitutes a more rigorous test than the principal component extraction method. This may also explain the differences in the obtained factor loadings on the individual items.

6.2.3.3.2 *Confirmatory Factor Analysis*

The JAS fit indices reveal the following: The RMSEA (0.5336) indicates a fairly good fit. The ECVI (0.6737) is smaller than for the saturated model and therefore indicates good fit. The NFI (0.9136) and CFI (0.9678) SRMR (0.06112) and GFI (9346) also indicate good fit. The PGFI indicates fair fit. Thus, overall, a good fit of the model to data was found.

The measurement model does allow for the two factors as initially conceptualised by the constructors, although it did not replicate exactly in terms of the items included per factor. This may relate to how the current sample interpreted the test items. In addition, one-word items may leave less room for misinterpretation.

6.2.4 WORK ENGAGEMENT (UWES)

Previous studies confirming the emergence of three dimensions of the Maslach Burnout Inventory used exploratory or confirmatory factor analysis. This procedure was repeated for the current sample.

Exploratory and confirmatory factor analyses were used to investigate the factor structure of the UWES for the current sample.

6.2.4.1 EXPLORATORY FACTOR ANALYSIS

The first EFA (principal-axis factoring extraction method, direct oblimin rotation) was performed using all (N=198) the responses obtained on the 17 items. Exploratory Factor Analysis (EFA) was performed to uncover the underlying latent variable structure of the instrument. The items seemingly loaded on three meaningful factors: factor 1: eigenvalue = 7.149, factor 2: eigenvalue = 1.188, and factor 3: eigenvalue = 1.046. This matched the scree criterion. The three factors together explained 64.098 percent of the variance (factor 1 = 47.659%, factor 2 = 7.919%, and factor 3 = 6.977%). After several rounds of EFAs using the three factor solution, items were eliminated that did not meet the selection criteria, after which only 15 items remained. In round 1 the following items were discarded: 9. I feel happy when I am engrossed in my work, and 13. To me, my work is challenging.

In the current study the Cronbach alpha coefficient was found to be 0.919 for the instrument, while the Cronbach alpha coefficients for the factors were: factor 1: $\alpha = 0.911$, factor 2: $\alpha =$

0.824, and factor 3: $\alpha = 0.645$. The final factor structure for the whole sample is shown in *Table 6.9*.

On inspecting the items that load meaningfully on the three factors, it is not immediately obvious which three factors of work engagement are measured. Items originally written to measure the three dimensions of work engagement, loaded in an apparently mixed fashion on these three factors. The items are distributed slightly differently over the three factors in the current sample, but the factors still seem to represent the same factors as conceptualised by the test constructors. On studying the wording of the items with the highest factor loadings, and looking at the overall set of items in each factor, it was decided to name factor 1 =Vigour, factor 2 = Dedication, and factor 3=Absorption.

Table 6.9 *Factor analysis of the Work Engagement items for the whole group (N = 198)*

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.

ITEM	DESCRIPTION	FACTOR 1	FACTOR 2	FACTOR 3
		Vigour,	Dedication	Absorption
5	I am enthusiastic about my job	.856		
4	I feel strong and vigorous in my job	.853		
7	My job inspires me	.811		
2	I find my work full of meaning and purpose	.778		
1	I am bursting with energy in my work	.695		
3	Time flies when I'm working	.637		
8	When I get up in the morning, I feel like going to work	.734		
11	I am immersed in my work		.832	
10	I am proud of the work that I do		.798	
14	I get carried away by my work		.682	
17	I always persevere at work, even when things do not go well		.593	
12	In my job, I can continue working for very long periods at a time		.563	
16	It is difficult to detach myself from my job			.772
6	When I am working, I forget everything else around me			.535
15	I am very resilient, mentally, in my job			.448
	Eigenvalue	7.149	1.188	1.046
	Percentage of variance explained	47.659	7.919	6.977
	Cumulative percentage of variance explained	47.659	55.578	62.554

6.2.4.2 CONFIRMATORY FACTOR ANALYSIS

Now that the latent variable structures were known for the Utrecht Work Engagement Scale, a Confirmatory Factor Analysis was performed using Lisrel 8.53 to examine the goodness-of- fit

between the hypothesized models and the obtained data that comprised the observed measurements.

The indices of model fit for the CFA can be found in *Table 6.10* for comparison.

Table 6.10 Work Engagement Confirmatory Factor Analysis: Model Fit Indices

Model derived from:	Total Group
Data obtained from:	Total Group
Degrees of Freedom	87
Minimum Fit Function Chi-Square	157.1764 (P=0.0000)
Normal Theory Weighted Least Chi Square	155.0099 (P=0.0000)
Root Mean Square Error of Approx (RMSEA)	0.06299
90% Confidence Interval for RMSEA	(0.04655; 0.07891)
ECVI for Saturated Model	1.2183
Expected Cross-validation index (ECVI)	1.1219
90% Confidence interval for ECVI	(0.9651; 1.3184)
Chi-square for independence Model with 105 Degrees of Freedom	4474.8503
Model AIC	221.0099
Normed Fit Index (NFI)	0.9649
Non-Normed Fit Index (NNFI)	0.9806
Parsimony Normed Fit Index	0.7995
Comparative Fit Index (CFI)	0.9839
Incremental Fit Index (IFI)	0.9840
Relative Fit Index (RFI)	0.9576
Critical N (CN)	152.1497
Root Mean Square Residual (RMR)	0.05723
Standardised RMR	0.04228
Goodness of Fit Index (GFI)	0.9050
Adjusted Goodness of fit (AGFI)	0.8690
Parsimony Goodness of fit (PGFI)	0.6562

6.2.4.3 DISCUSSION

6.2.4.3.1 Exploratory Factor Analysis

An important result of the EFA was that the original three-factor structure as proposed by Schaufeli *et al.*(2002) and according to which the UWES-instrument was constructed, could be partially replicated in the current South African sample since evidence for a three-factor structure could be found. These three factors were named Vigour, Dedication and Absorption. A number of items had to be removed in the EFA process in order to obtain a “clean” factor structure. This most probably results from the difference in the way South African respondents understand/interpret the items in comparison to their Spanish, Portugal and Netherlands counterparts, taking into account language and cultural differences. For a significant portion of the sample English is a second language. The questionnaire was, however, presented in both

languages. The present study used principal axis factoring and direct oblimin rotation, which constitutes a rigorous test. This may also explain the differences in the obtained factor loadings on the individual items. It thus seems that these factors are, conceptually, part of the same construct.

6.2.4.3.2 *Confirmatory Factor Analysis*

The UWES fit indices reveal the following: The RMSEA (0.6299) indicates a fairly good fit. The ECVI (1.1219) is smaller than for the saturated model and therefore indicates good fit. The NFI (0.9649) and CFI (0.9839) SRMR (0.06112) and GFI (0.9050) also indicate good fit. The PGFI indicates fair fit.

The current measurement model does replicate the factors as conceptualised by the test constructors although not exactly the same items replicated in the individual factors. This is indicative of the fact that measurement models do not replicate exactly the same in all samples, probably due to sample idiosyncrasies.

6.2.5 BURNOUT (MBI)

Previous studies that confirmed the emergence of three dimensions of the Maslach Burnout Inventory used exploratory or confirmatory factor analysis. This procedure was repeated in the current investigation.

6.2.5.1 EXPLORATORY FACTOR ANALYSIS

The first EFA (principal-axis factoring extraction method, direct oblimin rotation) was performed using all (N=198) the responses obtained on the 22 items. Exploratory Factor Analysis (EFA) was performed to uncover the underlying latent variable structure of the instrument. The items seemingly loaded on three meaningful factors: factor 1: eigenvalue = 6.793, factor 2: eigenvalue = 4.997, and factor 3: eigenvalue = 1.439. This result matched the scree criterion. The three factors together explained 66.147 percent of the variance (factor 1 = 33.965%, factor 2 = 24.985 %, and factor 3 = 7.196%). After several rounds of EFAs using the three factor solution, items were eliminated that did not meet the selection criteria, after which only 20 items remained. After the first round the following items were removed: 18. I treat some patients as if they were impersonal 'objects', and 21. I don't really care what happens to some patients. In the current study the Cronbach alpha coefficient was found to be 0.830 for

the instrument, while the Cronbach alpha coefficients for the factors were: factor 1: $\alpha = 0.858$, factor 2: $\alpha = 0.954$, and factor 3: $\alpha = 0.811$. The final factor structure for the whole sample is shown in *Table 6.11*.

On inspecting the items that load meaningfully on the three factors, it is not immediately obvious which three factors of Burnout are measured. Items originally written to measure the three dimensions of Burnout, loaded in an apparently mixed fashion on these three factors. On studying the wording of the items with the highest factor loadings, and looking at the overall set of items in each factor, it was decided to name factor 1 = Personal Accomplishment, factor 2 = Emotional Exhaustion, and factor 3 = Depersonalisation.

Table 6.11 Factor analysis of the Burnout items for the whole group ($N = 198$).

Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.

ITEMS	DESCRIPTION	FACTOR 1	FACTOR 2	FACTOR 3
		Personal Accomplishment	Emotional Exhaustion	Depersonalisation
12	I feel I'm positively influencing other people's lives through my work	.911		
14	I can easily create a relaxed atmosphere with my patients.	.900		
11	I deal very effectively with the problems of my patients	.868		
15	I feel exhilarated after working closely with my patients	.851		
13	I feel very energetic	.850		
17	In my work, I deal with emotional problems very calmly	.812		
10	I can easily understand how my patients feel about things	.810		
16	I have accomplished many worthwhile things in my job	.806		
5	I feel burned out from my work		.857	
9	I feel like I'm at the end of my rope		.768	
3	I feel fatigued when I get up in the morning and have to face another day on the job		.686	
2	I feel used up at the end of the workday		.682	
1	I feel emotionally drained from my work		.661	
6	I feel frustrated by my job		.624	
7	I feel I'm working too hard on my job		.559	
8	Working with people directly puts too much stress on me			.852
4	Work with people all day is really a strain for me			.753

ITEMS	DESCRIPTION	FACTOR 1	FACTOR 2	FACTOR 3
		Personal Accomplishment	Emotional Exhaustion	Depersonalisation
22	I feel patients blame me for some of their problems.			.657
20	I worry that this job is hardening me emotionally.			.608
19	I have become more callous towards people since I took this job			.603
	Eigenvalue	6.793	4.997	1.439
	Percentage of variance explained	33.965	24.985	7.196
	Cumulative percentage of variance explained	33.965	58.951	66.147

6.2.5.2 CONFIRMATORY FACTOR ANALYSIS

Now that the latent variable structures were known for the Maslach Burnout Inventory scale, Confirmatory Factor Analysis was performed using Lisrel 8.53 to examine the goodness-of-fit between the hypothesized models and the obtained data that comprised the observed measurements.

The indices of model fit for the CFA can be found in *Table 6.12*.

Table 6.12 *Burnout Confirmatory Factor Analysis: Model Fit Indices*

Model derived from:	Total Group
Data obtained from:	Total Group
Degrees of Freedom	167
Minimum Fit Function Chi-Square	492.2784 (P=0.0)
Normal Theory Weighted Least Chi Square	509.6276 (P=0.0)
Root Mean Square Error of Approximation (RMSEA)	0.1021
90% Confidence Interval for RMSEA	(0.09201; 0.1122)
ECVI for Saturated Model	2.1320
Expected Cross-validation index (ECVI)	3.0235
90% Confidence interval for ECVI	(2.6979; 3.3878)
Chi-square for independence Model with 190 Degrees of Freedom	5598.0580
Model AIC	595.6276
Saturated AIC	420.0000
Normed Fit Index (NFI)	0.9121
Non-Normed Fit Index (NNFI)	0.9316
Parsimony Normed Fit Index	0.8017
Comparative Fit Index (CFI)	0.9399
Incremental Fit Index (IFI)	0.9401
Relative Fit Index (RFI)	0.9000
Critical N (CN)	86.0135
Root Mean Square Residual (RMR)	0.2630
Standardised RMR	0.08592
Goodness of Fit Index (GFI)	0.7945
Adjusted Goodness of fit (AGFI)	0.7416
Parsimony Goodness of fit (PGFI)	0.6318

6.2.5.3 DISCUSSION

6.2.5.3.1 Exploratory Factor Analysis

An important result of the EFA was that the original three-factor structure, as proposed by Maslach and Leiter (1997) and according to which the Maslach Burnout Inventory was constructed, was to some extent replicated in the current South African sample, and evidence for a three-factor structure was found. These three factors were: Personal Accomplishment, Emotional Exhaustion and Depersonalisation. A number of items were removed in the EFA process in order to obtain a “clean” factor structure. This may be due to the peculiar way in which South African respondents understand/interpret the items when compared to their American counterparts (taking into account language and cultural differences). For a significant portion of the sample, English is a second language. The questionnaire was, however, presented in both languages. Furthermore, the present study used principal axis factoring and direct oblimin rotation, which constitutes a rigorous test.

6.2.5.3.2 Confirmatory Factor Analysis

The MBI fit indices reveal the following: The RMSEA (0.1021) indicates poor fit. The ECVI (3.0235) is larger than for the saturated model and therefore indicates poor fit. The NFI (0.9121), CFI (0.9399) and SRMR (0.08592) indicate good fit. The GFI (0.7945) indicate mediocre fit. The PGFI (6318) indicates fair fit.

The basic factors as identified by the original test constructors could be replicated although the items loaded in a different fashion. This underlines the fact that the measurement model may show some discrepancies due to differences in how samples interpret items and there are therefore no real universal truths in this subject domain.

6.2.6 CONCLUSION

To summarise, the measuring instruments, on the whole, presented with acceptable to good alphas, indicative of their reliability. The SUEIT (both the 360-degree and Self-versions) as well as the Psychological Climate scale did not, during the EFA's, replicate the factors as identified by the original test constructors. In comparison (although the items loaded in a different fashion) the JAS, UWES and Maslach Burnout Inventories did replicate the basic factors as those conceptualised by the test constructors. Furthermore, the CFA's demonstrated, on average, reasonable to mediocre fit. This is indicative of the fact that measurement models

do not replicate exactly the same in all samples, probably because of sample idiosyncrasies. Measurement models may show some discrepancies due to differences in how participants in different samples interpret items. This seems to reiterate that no real universal truths are reflected in this subject domain.

Attention now turns to the second part of this chapter that comprises a report on the descriptive statistics and the testing of the proposed models via the process of structural equations modelling.

6.3 DESCRIPTIVE STATISTICS

Demographics of the data set are depicted in *Table 6.14*. The label convention is provided in *Table 6.13*.

Table 6.13 *The label convention*

Label	Measuring Instrument / Scale	Description
SM1	SUEIT: Manager	Emotional Intelligence Skill
SM2	SUEIT: Manager	Lack of Emotional Intelligence
SM3	SUEIT: Manager	Manager Emotional Expression
SM	SUEIT: Manager	(Observed)
SM_L	SUEIT: Manager	(Latent)
SS1	SUEIT: Self	Emotional Intelligence Skill
SS2	SUEIT: Self	Lack of Emotional Intelligence
SS3	SUEIT: Self	Emotional Expression
SS	SUEIT: Self	
SS_L	SUEIT: Self	(Latent)
CLIM	Psychological Climate	
JA1	Job Affect	Positive Affect
JA2	Job Affect	Negative Affect
JA_L	Job Affect	(Latent)
WE1	Work Engagement	Vigour
WE2	Work Engagement	Dedication
WE3	Work Engagement	Absorption
WE_L	Work Engagement	(Latent)
MAS_F_I *	Maslach Burnout Frequency	Emotional Exhaustion
MAS_F_II**	Maslach Burnout: Frequency	Personal Accomplishment
MAS_F_III	Maslach Burnout Frequency	Depersonalisation
HEALTH	Health	
PHYS	Physical Health	
MENTAL	Mental Health	
CONQ	Contemplated Quitting	

Note: The statistics were dealt with at different locations. The revalidation of the measuring instruments were done at the U.S., the SEM at the University of Johannesburg. In contrast to the (arbitrary) naming of factors derived in the EFA's and flowing from a change in statistician, MAS F1* was henceforth renamed Emotional Exhaustion and MAS F 11** to Personal Accomplishment.

Next, a summary of the means scores, standard deviations, skewness, kurtosis as well as minimum and maximum scores for all the scales and subscales are reported in *Table 6.14*.

6.3.1 DEMOGRAPHICS

Table 6.14 Summary of the descriptive statistics of total scores

Descriptive statistics of total scores								
	N		Mean	Std. Deviation	Skewness	Kurtosis	Minimum	Maximum
	Valid	Missing						
PHYS	198	0	8.46	1.168	-.948	2.002	3	10
Mental	198	0	8.37	1.332	-1.088	2.513	3	12
CONQ	198	0	1.98	.937	1.059	1.256	1	5
SM1	198	0	99.5101	19.85269	-.743	1.073	26.00	140.00
SM2	197	1	61.5228	24.83919	-.582	-.563	4.00	103.00
SM3	198	0	13.7929	3.77845	-.493	-.061	3.00	20.00
SM	198	0	174.5152	32.18975	-.748	.782	54.00	239.00
SS1	198	0	99.9747	12.59741	-.734	4.003	30.00	128.00
SS2	198	0	47.2879	10.35624	.111	.596	20.00	82.00
SS3	198	0	13.6768	2.97478	-.290	.427	4.00	20.00
SS	198	0	183.6667	20.16153	-.227	2.293	86.00	240.00
CLIM	198	0	109.7828	18.03629	-1.203	1.477	37.00	133.00
JA1	198	0	27.2828	4.80068	-.425	-.336	14.00	37.00
JA2	198	0	8.1313	3.23887	.801	.301	4.00	18.00
WE1	198	0	31.8131	6.20058	-.372	-.314	14.00	42.00
WE2	198	0	23.8232	4.09210	-.560	-.240	13.00	30.00
WE3	198	0	11.6111	3.00174	.109	-.448	5.00	18.00
WE	198	0	67.2475	11.64685	-.274	-.322	34.00	90.00
MAS_F_I	198	0	9.5960	7.85260	1.123	1.860	.00	42.00
MAS_F_II	198	0	13.7778	14.40886	1.483	1.086	.00	48.00
MAS_F_III	198	0	3.4798	4.91730	2.864	11.313	.00	30.00
MAS_F	198	0	26.8535	16.70812	1.204	3.279	.00	106.00

By examining *Table 6.14* it can be seen that the summary of the descriptive statistics indicates a normal distribution with most of the constructs leaning towards a negative skewness. The only exception is MAS F III that exhibits a relatively high positive skewness and kurtosis.

In viewing the mean score in relation to the maximum score, the following is evident. As far as health is concerned, participants were, on average, quite healthy, with their physical health

perceived as slightly better than their mental health. As far as contemplated quitting was concerned, the inclination towards quitting seems low. As far as perceived emotional intelligence is concerned, participants rated their supervisors' EI skill higher than their lack of EI skill. In comparison, participants rated their own EI skill slightly higher than that of their supervisors whilst they rated their own lack of EI skill much lower than the lack of the same skill in their supervisors. This may represent a natural bias (attribution error) to evaluate the self more positively. In addition, the psychological climate, overall, seems to be perceived much more positively than negatively, and in accordance, more positive than negative job affect was experienced. All three dimensions of work engagement reflect a strong positive bias. On average, participants within the sample also rated low on burnout.

The data was deemed suitable for the parametric statistical procedure applied in the study. Means derived from a revalidation of the measuring instruments for this data set cannot directly be compared to those described in the literature, since the items comprising the scales / subscales differ from those presented in the literature.

Attention now turns to the testing of the hypothesized models via structural equations modelling.

6.4 STRUCTURAL EQUATIONS MODELLING

As discussed previously, the four models proposed will undergo structural equations modelling (path analysis) to determine which of the four best fits the data sampled.

Initially a second-order factor structure with each subscale being a latent variable, and loading on a single second-order factor, was undertaken in order to determine the most appropriate fit. Due to the model complexity the analysis did not converge, thus it was deemed that the sample was insufficient in size to cater for the model and thus could not be utilised. Thereafter, it was decided to work on a first-order factor structure (with the subscales as measured variables) and if the need arose even to approach a simpler level in path analysis whereby the model comprises only the observed variables.

All structured models and path analyses were carried out using the AMOS software version 6 developed by AMOS Development Corporation. All models comprised complete data and thus need not be concerned regarding the impact missing values will have on the analysis. All

models were carried out using the Maximum Likelihood Estimation. All analyses were based on non-recursive models. Convention is that unobserved variables are cast as circles, observed variables as squares, one-headed arrows indicate putative causal influence, and two-headed arrows or curves represent non-directional covariance.

6.4.1 MODEL 1

Manager emotional intelligence influences experienced psychological (work) climate, which, in turn, influences job affective states, predicting work engagement, burnout, contemplated quitting and health. The correlation matrix for model 1 is depicted in *Table 6.15*.

Table 6.15 Correlation matrix for Model 1

CORRELATIONS														
		SM	CLIM	JA1	JA2	PHYS	MENTAL	CONQ	MAS_F_I	MAS_F_I I	MAS_F_I II	WE1	WE2	WE3
SM	Pearson Correlation	1	.094	.073	.072	.048	.043	.100	.060	-.002	-.001	-.143(*)	-.001	-.022
	Sig. (2-tailed)		.187	.306	.317	.505	.546	.163	.399	.978	.984	.044	.991	.760
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
CLIM	Pearson Correlation	.094	1	.436(**)	-.049	.111	.092	-.104	-.088	-.064	-.198(**)	.486(**)	.405(**)	.316(**)
	Sig. (2-tailed)	.187		.000	.493	.120	.198	.146	.218	.371	.005	.000	.000	.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
JA1	Pearson Correlation	.073	.436(**)	1	-.195(**)	.179(*)	.100	-.172(*)	-.058	-.139	-.194(**)	.592(**)	.469(**)	.302(**)
	Sig. (2-tailed)	.306	.000		.006	.012	.161	.015	.420	.051	.006	.000	.000	.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
JA2	Pearson Correlation	.072	-.049	-.195(**)	1	-.158(*)	-.106	.086	.123	.031	.104	-.071	-.096	.067
	Sig. (2-tailed)	.317	.493	.006		.026	.139	.226	.083	.664	.143	.320	.179	.345
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
PHYS	Pearson Correlation	.048	.111	.179(*)	-.158(*)	1	.382(**)	-.006	-.223(**)	-.140(*)	-.185(**)	.148(*)	.161(*)	.010
	Sig. (2-tailed)	.505	.120	.012	.026		.000	.937	.002	.049	.009	.038	.024	.885
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
MENTAL	Pearson Correlation	.043	.092	.100	-.106	.382(**)	1	-.088	-.262(**)	-.166(*)	-.234(**)	.081	.073	.066
	Sig. (2-tailed)	.546	.198	.161	.139	.000		.217	.000	.019	.001	.256	.309	.353
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
CONQ	Pearson Correlation	.100	-.104	-.172(*)	.086	-.006	-.088	1	.187(**)	.043	.072	-.171(*)	-.054	-.050
	Sig. (2-tailed)	.163	.146	.015	.226	.937	.217		.008	.548	.313	.016	.447	.480
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_I	Pearson Correlation	.060	-.088	-.058	.123	-.223(**)	-.262(**)	.187(**)	1	-.227(**)	.571(**)	-.206(**)	.103	-.107
	Sig. (2-tailed)													

CORRELATIONS

		SM	CLIM	JA1	JA2	PHYS	MENTAL	CONQ	MAS_F_I	MAS_F_I I	MAS_F_I II	WE1	WE2	WE3
	Sig. (2-tailed)	.399	.218	.420	.083	.002	.000	.008		.001	.000	.004	.149	.134
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_I I	Pearson Correlation	-.002	-.064	-.139	.031	-.140(*)	-.166(*)	.043	-.227(**)	1	-.049	-.147(*)	-.229(**)	-.092
	Sig. (2-tailed)	.978	.371	.051	.664	.049	.019	.548	.001		.489	.039	.001	.197
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_I II	Pearson Correlation	-.001	-.198(**)	-.194(**)	.104	-.185(**)	-.234(**)	.072	.571(**)	-.049	1	-.168(*)	-.142(*)	-.078
	Sig. (2-tailed)	.984	.005	.006	.143	.009	.001	.313	.000	.489		.018	.046	.276
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
WE1	Pearson Correlation	-.143(*)	.486(**)	.592(**)	-.071	.148(*)	.081	-.171(*)	-.206(**)	-.147(*)	-.168(*)	1	.710(**)	.573(**)
	Sig. (2-tailed)	.044	.000	.000	.320	.038	.256	.016	.004	.039	.018		.000	.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
WE2	Pearson Correlation	-.001	.405(**)	.469(**)	-.096	.161(*)	.073	-.054	-.103	-.229(**)	-.142(*)	.710(**)	1	.573(**)
	Sig. (2-tailed)	.991	.000	.000	.179	.024	.309	.447	.149	.001	.046	.000		.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
WE3	Pearson Correlation	-.022	.316(**)	.302(**)	.067	.010	.066	-.050	-.107	-.092	-.078	.573(**)	.573(**)	1
	Sig. (2-tailed)	.760	.000	.000	.345	.885	.353	.480	.134	.197	.276	.000	.000	
	N	198	198	198	198	198	198	198	198	198	198	198	198	198

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

The SEM analysis of Model 1 is shown in *Figure 6.1* below. The standardised regression weights applicable to this model are depicted in *Table 6.16*.

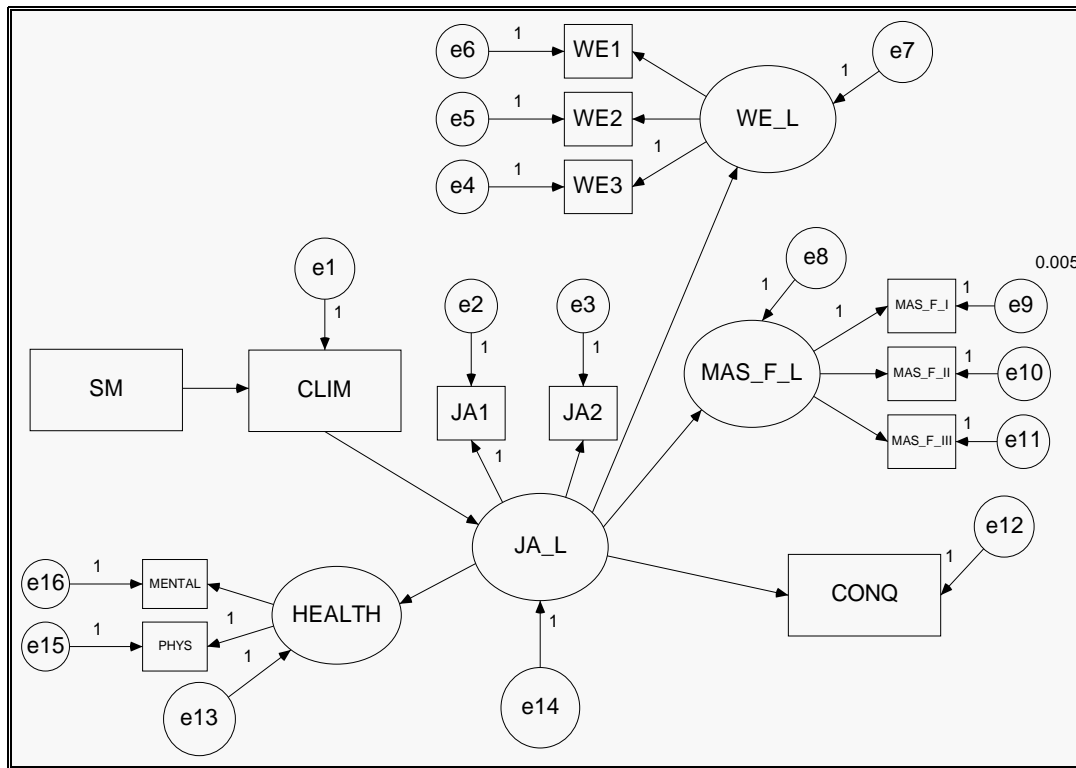


Figure 6.1 SEM analysis of Model 1

Table 6.16 below shows the regression weights for Model 1 as depicted in *Figure 6.1* above.

Table 6.16 Regression weights for Model 1

			Regression Weights				Standardised Regression Weights
			Estimate	S.E.	C.R.	P	
CLIM	<---	SM	.053	.040	1.329	.184	.094
JA_L	<---	CLIM	.118	.016	7.132	***	.602
WE_L	<---	JA_L	.454	.073	6.217	***	.844
MAS_F_L	<---	JA_L	-.441	.181	-2.443	.015	-.198
HEALTH	<---	JA_L	.073	.027	2.710	.007	.290
JA1	<---	JA_L	1.000				.733
JA2	<---	JA_L	-.150	.074	-2.014	.044	-.163
CONQ	<---	JA_L	-.055	.022	-2.565	.010	-.208
WE3	<---	WE_L	1.000				.632
WE2	<---	WE_L	1.690	.189	8.945	***	.783

			Regression Weights				Standardised Regression Weights
			Estimate	S.E.	C.R.	P	
WE1	<---	WE_L	3.006	.318	9.452	***	.919
MAS_F_I	<---	MAS_F_L	1.000				1.000
MAS_F_II	<---	MAS_F_L	-.417	.127	-3.272	.001	-.227
MAS_F_III	<---	MAS_F_L	.358	.037	9.762	***	.571
PHYS	<---	HEALTH	1.000				.757
MENTAL	<---	HEALTH	.759	.404	1.876	.061	.504

All but one of the latent variables yielded results. SM could only be represented as an observed variable due to identification problems encountered whereby the SM variables were yielding very large standard errors, and this is indicative that the model must be adjusted for it to converge accordingly. Error 9 (e9) encountered a negative variance (i.e. an error variance estimate of less than 0) and this is termed a Heywood Case. Such a result is logically impossible because it implies a less than 0 percent error in an item, and by inference, it implies that more than 100 percent of the variance in an item is explained. Heywood cases are particularly problematic in CFA models with small sample sizes or when the three-indicator rule is not followed. Two solutions exist. Firstly, the researcher can set the error variance at an arbitrary number (such as 0.005). Although this value may identify the parameter, it can lead to lower fit because the value is not likely to be the true sample value. Another solution is to delete the offending variable. However, in order to find a medium between meaningfulness and statistical fit, the researcher decided to select meaningfulness and thus set the error variance at 0.05. The fit indices are reflected in *Table 6.17* below.

Table 6:17 *Fit indices for Model 1*

Index	Value
Degrees of Freedom	63
Chi-Square	131.642 (P=0.0)
Root Mean Square Error of Approximation (RMSEA)	.074
90% Confidence Interval for RMSEA	(.056; .092)
PCLOSE	.014
ECVI for Default Model	.952
90% Confidence interval for ECVI	(.805; 1.140)
Model AIC	187.642
Model BIC	279.714
Normed Fit Index (NFI)	.797
Comparative Fit Index (CFI)	.880
Incremental Fit Index (IFI)	.883
Relative Fit Index (RFI)	.749
Root Mean Square Residual (RMR)	6.073
Goodness of Fit Index (GFI)	.911
Adjusted Goodness of fit (AGFI)	.871
Parsimony Goodness of fit (PGFI)	.630

From the above it can be seen that the model does yield a reasonable fit (for example a RMSEA of 0.74; CFI of .880 and a GFI of .911), but in order to value its true fit the remaining models also need to be tested.

6.4.2 MODEL 2

Manager emotional intelligence influences experienced psychological (work) climate to predict job affect, work engagement, burnout, contemplated quitting and health. The correlation matrix for Model 2 is depicted in Table 6.18 below:

Table 6.18 *Correlation Matrix: Model 2*

		Correlations														
		SM1	SM2	SM3	PHYS	MENTAL	CONQ	CLIM	JA1	JA2	WE1	WE2	WE3	MAS_F_I	MAS_F_II	MAS_F_III
SM1	Pearson Correlation	1	-.053	.211(**)	.086	.122	-.052	.458(**)	.307(**)	-.010	.190(**)	.312(**)	.242(**)	-.027	-.139	-.106
	Sig. (2-tailed)		.457	.003	.227	.087	.468	.000	.000	.889	.007	.000	.001	.705	.051	.136
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
SM2	Pearson Correlation	-.053	1	.200(**)	-.006	-.039	.143(*)	-.245(**)	-.146(*)	.090	-.324(**)	-.237(**)	-.206(**)	.087	.094	.081
	Sig. (2-tailed)	.457		.005	.933	.584	.044	.001	.040	.206	.000	.001	.004	.224	.189	.260
	N	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
SM3	Pearson Correlation	.211(**)	.200(**)	1	.030	.084	.097	.097	.033	-.034	.016	.022	.001	-.014	.019	-.040
	Sig. (2-tailed)	.003	.005		.671	.238	.172	.173	.648	.632	.827	.759	.985	.849	.786	.573
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
PHYS	Pearson Correlation	.086	-.006	.030	1	.382(**)	-.006	.111	.179(*)	-.158(*)	.148(*)	.161(*)	.010	-.223(**)	-.140(*)	-.185(**)
	Sig. (2-tailed)	.227	.933	.671		.000	.937	.120	.012	.026	.038	.024	.885	.002	.049	.009
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
MENTAL	Pearson Correlation	.122	-.039	.084	.382(**)	1	-.088	.092	.100	-.106	.081	.073	.066	-.262(**)	-.166(*)	-.234(**)
	Sig. (2-tailed)	.087	.584	.238	.000		.217	.198	.161	.139	.256	.309	.353	.000	.019	.001
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
CONQ	Pearson Correlation	-.052	.143(*)	.097	-.006	-.088	1	-.104	-.172(*)	.086	-.171(*)	-.054	-.050	.187(**)	.043	.072
	Sig. (2-tailed)	.468	.044	.172	.937	.217		.146	.015	.226	.016	.447	.480	.008	.548	.313
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
CLIM	Pearson Correlation	.458(**)	-.245(**)	.097	.111	.092	-.104	1	.436(**)	-.049	.486(**)	.405(**)	.316(**)	-.088	-.064	-.198(**)
	Sig. (2-tailed)	.000	.001	.173	.120	.198	.146		.000	.493	.000	.000	.000	.218	.371	.005
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198

Correlations																
		SM1	SM2	SM3	PHYS	MENTAL	CONQ	CLIM	JA1	JA2	WE1	WE2	WE3	MAS_F_I	MAS_F_II	MAS_F_III
JA1	Pearson Correlation	.307(**)	-.146(*)	.033	.179(*)	.100	-.172(*)	.436(**)	1	-.195(**)	.592(**)	.469(**)	.302(**)	-.058	-.139	-.194(**)
	Sig. (2-tailed)	.000	.040	.648	.012	.161	.015	.000		.006	.000	.000	.000	.420	.051	.006
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
JA2	Pearson Correlation	-.010	.090	-.034	-.158(*)	-.106	.086	-.049	-.195(**)	1	-.071	-.096	.067	.123	.031	.104
	Sig. (2-tailed)	.889	.206	.632	.026	.139	.226	.493	.006		.320	.179	.345	.083	.664	.143
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
WE1	Pearson Correlation	.190(**)	-.324(**)	.016	.148(*)	.081	-.171(*)	.486(**)	.592(**)	-.071	1	.710(**)	.573(**)	-.206(**)	-.147(*)	-.168(*)
	Sig. (2-tailed)	.007	.000	.827	.038	.256	.016	.000	.000	.320		.000	.000	.004	.039	.018
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
WE2	Pearson Correlation	.312(**)	-.237(**)	.022	.161(*)	.073	-.054	.405(**)	.469(**)	-.096	.710(**)	1	.573(**)	-.103	-.229(**)	-.142(*)
	Sig. (2-tailed)	.000	.001	.759	.024	.309	.447	.000	.000	.179	.000		.000	.149	.001	.046
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
WE3	Pearson Correlation	.242(**)	-.206(**)	.001	.010	.066	-.050	.316(**)	.302(**)	.067	.573(**)	.573(**)	1	-.107	-.092	-.078
	Sig. (2-tailed)	.001	.004	.985	.885	.353	.480	.000	.000	.345	.000	.000		.134	.197	.276
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_I	Pearson Correlation	-.027	.087	-.014	-.223(**)	-.262(**)	.187(**)	-.088	-.058	.123	-.206(**)	-.103	-.107	1	-.227(**)	.571(**)
	Sig. (2-tailed)	.705	.224	.849	.002	.000	.008	.218	.420	.083	.004	.149	.134		.001	.000
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_II	Pearson Correlation	-.139	.094	.019	-.140(*)	-.166(*)	.043	-.064	-.139	.031	-.147(*)	-.229(**)	-.092	-.227(**)	1	-.049
	Sig. (2-tailed)	.051	.189	.786	.049	.019	.548	.371	.051	.664	.039	.001	.197	.001		.489
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_III	Pearson Correlation	-.106	.081	-.040	-.185(**)	-.234(**)	.072	-.198(**)	-.194(**)	.104	-.168(*)	-.142(*)	-.078	.571(**)	-.049	1
	Sig. (2-tailed)	.136	.260	.573	.009	.001	.313	.005	.006	.143	.018	.046	.276	.000	.489	
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

The SEM analysis of Model 1 is shown in *Figure 6.2* below. The standardised regression weights for this model are depicted in *Table 6.19*.

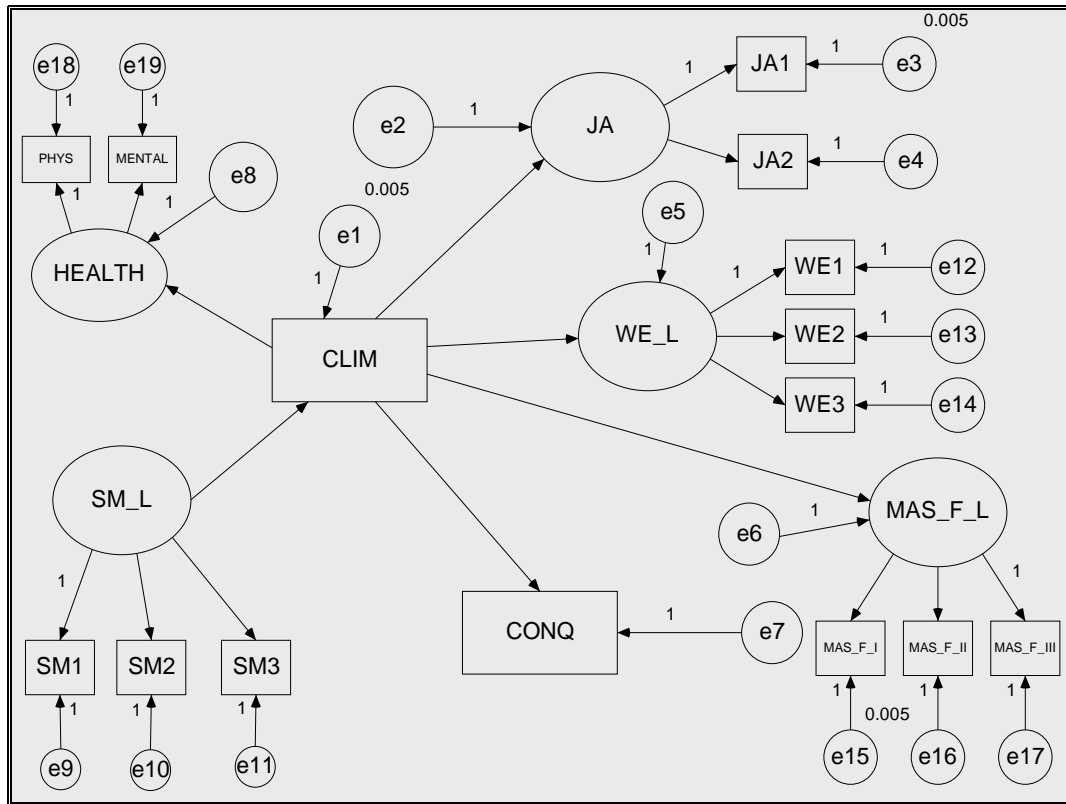


Figure 6.2 SEM analysis of Model 2

Table 6.19 below depicts the regression weights for Model 1.

Table 6.19 Regression weights for Model 2

	Regression Weights				Standardised Regression Weights		
	Estimate	S.E.	C.R.	P			
CLIM	<---	SM_L	1.985	.275	7.227	***	1.000
JA	<---	CLIM	.116	.017	6.801	***	.436
WE_L	<---	CLIM	.157	.021	7.495	***	.525
MAS_F_L	<---	CLIM	-.014	.011	-1.230	.219	-.088
HEALTH	<---	CLIM	.007	.005	1.567	.117	.163
JA1	<---	JA	1.000				1.000
JA2	<---	JA	-.131	.047	-2.786	.005	-.195
CONQ	<---	CLIM	-.005	.004	-1.462	.144	-.104

			Regression Weights				Standardised Regression Weights
			Estimate	S.E.	C.R.	P	
SM1	<---	SM_L	1.000				.458
SM2	<---	SM_L	-.670	.210	-3.187	.001	-.245
SM3	<---	SM_L	.040	.030	1.347	.178	.097
MAS_F_III	<---	MAS_F_L	1.000				.571
MAS_F_II	<---	MAS_F_L	-1.165	.376	-3.102	.002	-.227
MAS_F_I	<---	MAS_F_L	2.797	.286	9.762	***	1.000
WE1	<---	WE_L	1.000				.872
WE2	<---	WE_L	.619	.054	11.528	***	.818
WE3	<---	WE_L	.371	.039	9.598	***	.669
PHYS	<---	HEALTH	1.000				.679
MENTAL	<---	HEALTH	.944	.752	1.256	.209	.562

From the above it is clear that all of the latent variables yielded results, i.e. a complete first-order factor structure was feasible. The only problems encountered were the 3 negative variances (e_1 , e_3 , e_{15}) that had to be set to arbitrary values of 0.005 each. As discussed above, these increased Heywood cases do reduce the usefulness of the model, but this can only be fully determined once the fit indices are displayed: The fit indices for Model 2 are depicted in *Table 6.20*.

Table 6.20 Fit indices Model 2.

Index	Value
Degrees of Freedom	89
Chi-Square	228.674 (P=0.0)
Root Mean Square Error of Approximation (RMSEA)	.089
90% Confidence Interval for RMSEA	(.075; .104)
PCLOSE	.000
ECVI for Default Model	1.476
90% Confidence interval for ECVI	(1.268; 1.722)
Model AIC	290.674
Model BIC	392.610
Normed Fit Index (NFI)	.695
Comparative Fit Index (CFI)	.783
Incremental Fit Index (IFI)	.789
Relative Fit Index (RFI)	.640
Root Mean Square Residual (RMR)	8.101
Goodness of Fit Index (GFI)	.868
Adjusted Goodness of fit (AGFI)	.822
Parsimony Goodness of fit (PGFI)	.644

Model 2's fit is quite clearly poorer than that of Model 1 (for example a RMSEA of .089, CFI of 783 and a GFI of .868), however, this was anticipated from problematic identification problems encountered with the model and thus the need for forcing the model to converge.

6.4.3 MODEL 3

Manager emotional intelligence influences experienced psychological (work) climate and job affect to predict work engagement, health, burnout and contemplated quitting. The correlation matrix for Model 3 is depicted in *Table 6.21* on the following page.

Table 6.21 *Correlation Matrix: Model 3*

		Correlations														
		SM1	SM2	SM3	PHYS	MENTAL	CONQ	CLIM	JA1	JA2	WE1	WE2	WE3	MAS_F_I	MAS_F_II	MAS_F_III
SM1	Pearson Correlation	1	-.053	.211(**)	.086	.122	-.052	.458(**)	.307(**)	-.010	.190(**)	.312(**)	.242(**)	-.027	-.139	-.106
	Sig. (2-tailed)		.457	.003	.227	.087	.468	.000	.000	.889	.007	.000	.001	.705	.051	.136
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
SM2	Pearson Correlation	-.053	1	.200(**)	-.006	-.039	.143(*)	-.245(**)	-.146(*)	.090	-.324(**)	-.237(**)	-.206(**)	.087	.094	.081
	Sig. (2-tailed)	.457		.005	.933	.584	.044	.001	.040	.206	.000	.001	.004	.224	.189	.260
	N	197	197	197	197	197	197	197	197	197	197	197	197	197	197	197
SM3	Pearson Correlation	.211(**)	.200(**)	1	.030	.084	.097	.097	.033	-.034	.016	.022	.001	-.014	.019	-.040
	Sig. (2-tailed)	.003	.005		.671	.238	.172	.173	.648	.632	.827	.759	.985	.849	.786	.573
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
PHYS	Pearson Correlation	.086	-.006	.030	1	.382(**)	-.006	.111	.179(*)	-.158(*)	.148(*)	.161(*)	.010	-.223(**)	-.140(*)	-.185(**)
	Sig. (2-tailed)	.227	.933	.671		.000	.937	.120	.012	.026	.038	.024	.885	.002	.049	.009
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
MENTAL	Pearson Correlation	.122	-.039	.084	.382(**)	1	-.088	.092	.100	-.106	.081	.073	.066	-.262(**)	-.166(*)	-.234(**)
	Sig. (2-tailed)	.087	.584	.238	.000		.217	.198	.161	.139	.256	.309	.353	.000	.019	.001
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
CONQ	Pearson Correlation	-.052	.143(*)	.097	-.006	-.088	1	-.104	-.172(*)	.086	-.171(*)	-.054	-.050	.187(**)	.043	.072
	Sig. (2-tailed)	.468	.044	.172	.937	.217		.146	.015	.226	.016	.447	.480	.008	.548	.313
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
CLIM	Pearson Correlation	.458(**)	-.245(**)	.097	.111	.092	-.104	1	.436(**)	-.049	.486(**)	.405(**)	.316(**)	-.088	-.064	-.198(**)
	Sig. (2-tailed)	.000	.001	.173	.120	.198	.146		.000	.493	.000	.000	.000	.218	.371	.005
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198

Correlations																
		SM1	SM2	SM3	PHYS	MENTAL	CONQ	CLIM	JA1	JA2	WE1	WE2	WE3	MAS_F_I	MAS_F_II	MAS_F_III
JA1	Pearson Correlation	.307(**)	-.146(*)	.033	.179(*)	.100	-.172(*)	.436(**)	1	-.195(**)	.592(**)	.469(**)	.302(**)	-.058	-.139	-.194(**)
	Sig. (2-tailed)	.000	.040	.648	.012	.161	.015	.000		.006	.000	.000	.000	.420	.051	.006
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
JA2	Pearson Correlation	-.010	.090	-.034	-.158(*)	-.106	.086	-.049	-.195(**)	1	-.071	-.096	.067	.123	.031	.104
	Sig. (2-tailed)	.889	.206	.632	.026	.139	.226	.493	.006		.320	.179	.345	.083	.664	.143
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
WE1	Pearson Correlation	.190(**)	-.324(**)	.016	.148(*)	.081	-.171(*)	.486(**)	.592(**)	-.071	1	.710(**)	.573(**)	-.206(**)	-.147(*)	-.168(*)
	Sig. (2-tailed)	.007	.000	.827	.038	.256	.016	.000	.000	.320		.000	.000	.004	.039	.018
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
WE2	Pearson Correlation	.312(**)	-.237(**)	.022	.161(*)	.073	-.054	.405(**)	.469(**)	-.096	.710(**)	1	.573(**)	-.103	-.229(**)	-.142(*)
	Sig. (2-tailed)	.000	.001	.759	.024	.309	.447	.000	.000	.179	.000		.000	.149	.001	.046
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
WE3	Pearson Correlation	.242(**)	-.206(**)	.001	.010	.066	-.050	.316(**)	.302(**)	.067	.573(**)	.573(**)	1	-.107	-.092	-.078
	Sig. (2-tailed)	.001	.004	.985	.885	.353	.480	.000	.000	.345	.000	.000		.134	.197	.276
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_I	Pearson Correlation	-.027	.087	-.014	-.223(**)	-.262(**)	.187(**)	-.088	-.058	.123	-.206(**)	-.103	-.107	1	-.227(**)	.571(**)
	Sig. (2-tailed)	.705	.224	.849	.002	.000	.008	.218	.420	.083	.004	.149	.134		.001	.000
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_II	Pearson Correlation	-.139	.094	.019	-.140(*)	-.166(*)	.043	-.064	-.139	.031	-.147(*)	-.229(**)	-.092	-.227(**)	1	-.049
	Sig. (2-tailed)	.051	.189	.786	.049	.019	.548	.371	.051	.664	.039	.001	.197	.001		.489
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_III	Pearson Correlation	-.106	.081	-.040	-.185(**)	-.234(**)	.072	-.198(**)	-.194(**)	.104	-.168(*)	-.142(*)	-.078	.571(**)	-.049	1
	Sig. (2-tailed)	.136	.260	.573	.009	.001	.313	.005	.006	.143	.018	.046	.276	.000	.489	
	N	198	197	198	198	198	198	198	198	198	198	198	198	198	198	198

**Correlation is significant at the 0.01 level (2-tailed).

*Correlation is significant at the 0.05 level (2-tailed).

The SEM analysis of Model 3 is shown in *Figure 6.3* below. The applicable standardised regression weights are seen in *Table 6.22*.

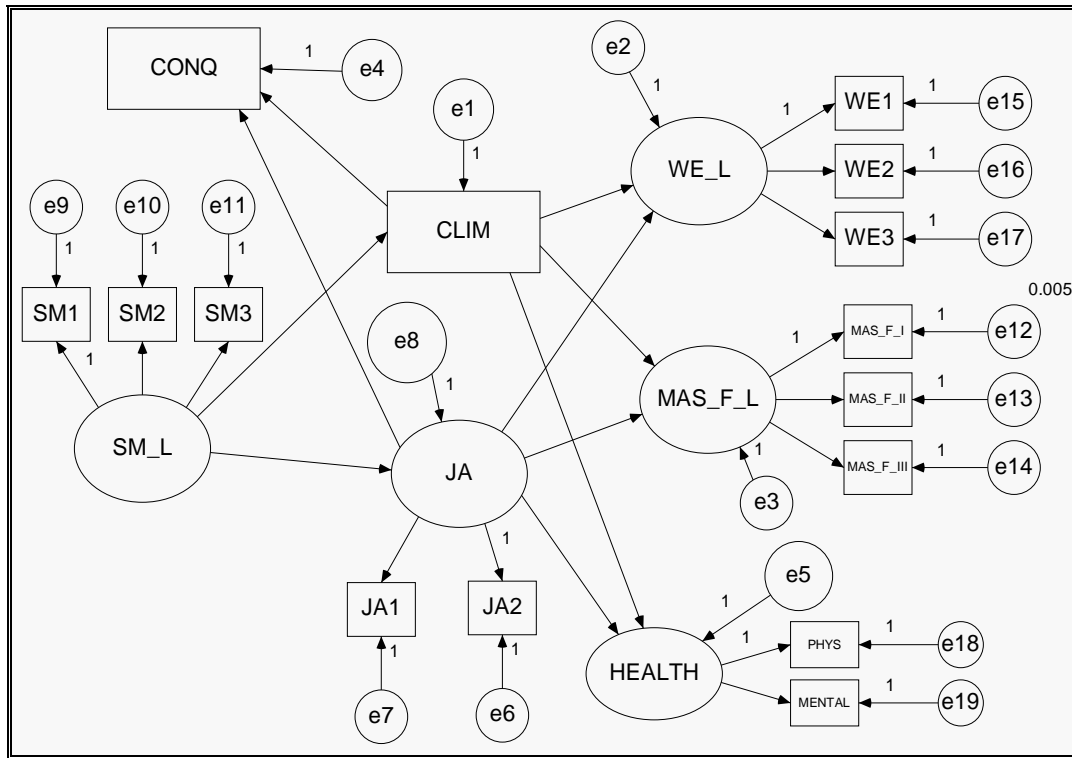


Figure 6.3 SEM analysis of Model 3

Table 6.22 below depicts the regression weights for Model 3.

Table 6.22 Regression weights for Model 3

			Regression Weights				Standardised Regression Weights
			Estimate	S.E.	C.R.	P	
CLIM	<---	SM_L	1.447	.286	5.054	***	.850
JA	<---	SM_L	-.039	.018	-2.164	.030	-.659
MAS_F_L	<---	JA	2.573	1.709	1.506	.132	.205
MAS_F_L	<---	CLIM	.011	.041	.272	.785	.026
WE_L	<---	JA	-6.420	2.967	-2.164	.030	-.709
WE_L	<---	CLIM	.041	.041	1.015	.310	.131
HEALTH	<---	CLIM	-.001	.006	-.237	.812	-.029
HEALTH	<---	JA	-.464	.274	-1.691	.091	-.330
JA2	<---	JA	1.000				.193
JA1	<---	JA	-6.012	2.594	-2.318	.020	-.782

			Regression Weights				Standardised Regression Weights
			Estimate	S.E.	C.R.	P	
SM1	<---	SM_L	1.000				.533
SM2	<---	SM_L	-.655	.202	-3.243	.001	-.279
SM3	<---	SM_L	.042	.029	1.426	.154	.116
MAS_F_I	<---	MAS_F_L	1.000				1.000
MAS_F_II	<---	MAS_F_L	-.417	.127	-3.272	.001	-.227
MAS_F_III	<---	MAS_F_L	.358	.037	9.762	***	.571
WE1	<---	WE_L	1.000				.912
WE2	<---	WE_L	.572	.046	12.361	***	.790
WE3	<---	WE_L	.338	.036	9.524	***	.637
CONQ	<---	CLIM	.001	.005	.304	.761	.029
CONQ	<---	JA	.358	.218	1.643	.100	.239
PHYS	<---	HEALTH	1.000				.752
MENTAL	<---	HEALTH	.770	.388	1.987	.047	.508

The increased complexity of the model does not impact too significantly on the identification of the model (for example a RMSEA of .072, a CFI of .867 and a GFI of .899). Only one negative error variance, (e12) had to be adjusted to an arbitrary value of 0.05. However, the model failed to converge when the arcs between JA and CLM formed part of the equation, and was therefore discarded. The fit indices, are illustrated in *Table 6.23*.

Table 6.23 Fit indices for Model 3

Index	Value
Degrees of Freedom	83
Chi-Square	168.660 (P=0.0)
Root Mean Square Error of Approximation (RMSEA)	.072
90% Confidence Interval for RMSEA	(.057; .088)
PCLOSE	.011
ECVI for Default Model	1.232
90% Confidence interval for ECVI	(1.063; 1.440)
Model AIC	242.660
Model BIC	364.326
Normed Fit Index (NFI)	.775
Comparative Fit Index (CFI)	.867
Incremental Fit Index (IFI)	.872
Relative Fit Index (RFI)	.716

Index	Value
Root Mean Square Residual (RMR)	8.558
Goodness of Fit Index (GFI)	.899
Adjusted Goodness of fit (AGFI)	.855
Parsimony Goodness of fit (PGFI)	.622

Model 3's fit indices are an improvement on those of Model 2 (for example a CFI of .867); however it still falls short of the better fit of Model 1. Attention now turns to the last hypothesised model.

6.4.4 MODEL 4

This model reflects the relative contribution of manager and employee emotional intelligence with regard to psychological (work) climate and job affect, to predict work engagement, burnout, contemplated quitting and health. The correlation matrix for Model 4 is depicted below in *Table 6.24*.

Table 6.24 Correlation Matrix: Model 4

Correlations											
		SM	SS	CLIM	JA1	JA2	PHYS	MENTAL	CONQ	MAS_F	WE
SM	Pearson Correlation	1	.099	.094	.073	.072	.048	.043	.100	.026	-.082
	Sig. (2-tailed)		.167	.187	.306	.317	.505	.546	.163	.714	.250
	N	198	198	198	198	198	198	198	198	198	198
SS	Pearson Correlation	.099	1	.348 (**)	.285 (**)	-.252 (**)	.096	.154 (*)	-.097	-.252 (**)	.473 (**)
	Sig. (2-tailed)	.167		.000	.000	.000	.180	.031	.175	.000	.000
	N	198	198	198	198	198	198	198	198	198	198
CLIM	Pearson Correlation	.094	.348 (**)	1	.436 (**)	-.049	.111	.092	-.104	-.155 (*)	.482 (**)
	Sig. (2-tailed)	.187	.000		.000	.493	.120	.198	.146	.030	.000
	N	198	198	198	198	198	198	198	198	198	198
JA1	Pearson Correlation	.073	.285 (**)	.436 (**)	1	-.195 (**)	.179 (*)	.100	-.172 (*)	-.204 (**)	.558 (**)
	Sig. (2-tailed)	.306	.000	.000		.006	.012	.161	.015	.004	.000
	N	198	198	198	198	198	198	198	198	198	198
JA2	Pearson Correlation	.072	-.252 (**)	-.049	-.195 (**)	1	-.158 (*)	-.106	.086	.116	-.054
	Sig. (2-tailed)	.317	.000	.493	.006		.026	.139	.226	.105	.449
	N	198	198	198	198	198	198	198	198	198	198
PHYS	Pearson Correlation	.048	.096	.111	.179 (*)	-.158 (*)	1	.382 (**)	-.006	-.280 (**)	.138
	Sig. (2-tailed)	.505	.180	.120	.012	.026		.000	.937	.000	.053
	N	198	198	198	198	198	198	198	198	198	198
MENTAL	Pearson Correlation	.043	.154 (*)	.092	.100	-.106	.382 (**)	1	-.088	-.335 (**)	.086
	Sig. (2-tailed)	.546	.031	.198	.161	.139	.000		.217	.000	.229
	N	198	198	198	198	198	198	198	198	198	198
CONQ	Pearson Correlation	.100	-.097	-.104	-.172 (*)	.086	-.006	-.088	1	.146 (*)	-.123

Correlations											
		SM	SS	CLIM	JA1	JA2	PHYS	MENTAL	CONQ	MAS_F	WE
	Sig. (2-tailed)	.163	.175	.146	.015	.226	.937	.217		.040	.085
	N	198	198	198	198	198	198	198	198	198	198
MAS_F	Pearson Correlation	.026	-.252 (**)	-.155 (*)	-.204 (**)	.116	-.280 (**)	-.335 (**)	.146 (*)	1	-.286 (**)
	Sig. (2-tailed)	.714	.000	.030	.004	.105	.000	.000	.040		.000
	N	198	198	198	198	198	198	198	198	198	198
WE	Pearson Correlation	-.082	.473 (**)	.482 (**)	.558 (**)	-.054	.138	.086	-.123	-.286 (**)	1
	Sig. (2-tailed)	.250	.000	.000	.000	.449	.053	.229	.085	.000	
	N	198	198	198	198	198	198	198	198	198	198

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

The SEM analysis of Model 4 is shown in *Figure 6.4* below whilst the relevant standardised regression weights for this model are depicted in *Table 6.25*.

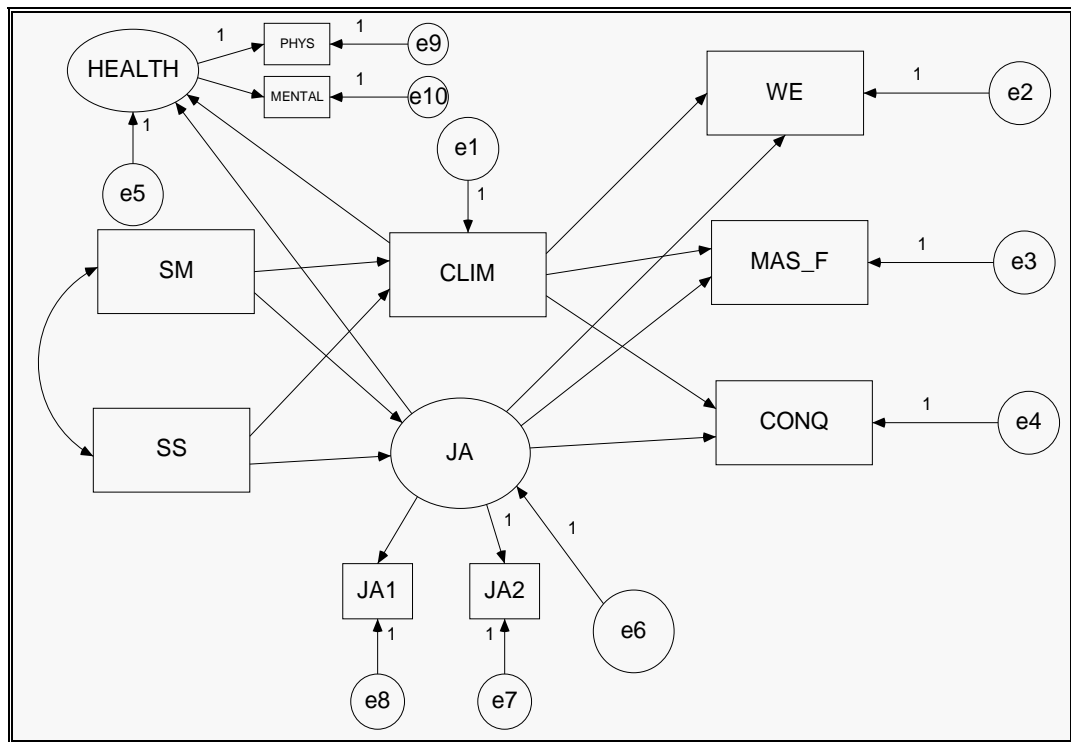


Figure 6.4 SEM analysis of Model 4

Table 6.25 below depicts the regression weights for Model 4.

Table 6.25 *Regression weights for Model 4*

			Regression Weights				Standardised Regression Weights
			Estimate	S.E.	C.R.	P	
CLIM	<---	SM	.034	.038	.903	.367	.060
JA	<---	SM	.003	.002	1.449	.147	.128
CLIM	<---	SS	.306	.060	5.108	***	.342
JA	<---	SS	-.023	.008	-2.802	.005	-.575
HEALTH	<---	JA	-.340	.166	-2.045	.041	-.354
HEALTH	<---	CLIM	.002	.004	.490	.624	.047
JA2	<---	JA	1.000				.247
JA1	<---	JA	-3.653	1.298	-2.814	.005	-.607
WE	<---	CLIM	.173	.037	4.650	***	.275
MAS_F	<---	CLIM	-.016	.065	-.242	.809	-.017
CONQ	<---	CLIM	-.002	.004	-.531	.595	-.038
CONQ	<---	JA	.230	.126	1.831	.067	.196
MAS_F	<---	JA	8.669	3.350	2.588	.010	.415
WE	<---	JA	-9.418	3.319	-2.837	.005	-.662
PHYS	<---	HEALTH	1.000				.658
MENTAL	<---	HEALTH	1.002	.416	2.411	.016	.578

As can be seen, Model 4 has the most technical and complex path of all the proposed models. Due to this complexity the model could not converge under a first-order factor structure, thus it could only be measured on a simple basis, whereby the majority of the constructs were measured as observed variables. Furthermore, the model failed to converge when the arcs between JA and CLIM formed part of the equation, and was therefore, discarded. JA was deemed still necessary to be measured as 2 observed variables converged into one latent variable. Since the model is now in the most basic form of the four, no Heywood cases were encountered. The fit indices for Model 4 are depicted in *Table 6.26*.

Table 6.26 *Fit indices for Model 4*

Index	Value
Degrees of Freedom	28
Chi-Square	95.652 (P=0.0)
Root Mean Square Error of Approximation (RMSEA)	.111
90% Confidence Interval for RMSEA	(.087; .135)
PCLOSE	.000
ECVI for Default Model	.760
90% Confidence interval for ECVI	(.628; .930)
Model AIC	149.652
Model BIC	238.435

Index	Value
Normed Fit Index (NFI)	.714
Comparative Fit Index (CFI)	.767
Incremental Fit Index (IFI)	.779
Relative Fit Index (RFI)	.541
Root Mean Square Residual (RMR)	6.976
Goodness of Fit Index (GFI)	.918
Adjusted Goodness of fit (AGFI)	.839
Parsimony Goodness of fit (PGFI)	.467

Although Model 4 has the simplest path analysis of the four models, it lacks in its fit to the data (for example, a RMSEA of .111, CFI of .767 and a GFI of .918). Below is a brief comparison of all four models' analyses in *Table 6.27*.

Table 6.27 A comparison of all four model analyses

Index	Value			
	Model 1	Model 2	Model 3	Model 4
Degrees of Freedom	63	89	83	28
Chi-Square	131.642 (P=0.0)	228.674 (P=0.0)	168.660 (P=0.0)	95.652 (P=0.0)
RMSEA	.074	.089	.072	.111
90% Interval RMSEA	(.056; .092)	(.075; .104)	(.057; .088)	(.087; .135)
PCLOSE	.014	.000	.011	.000
ECVI	.952	1.476	1.232	.760
90% Interval ECVI	(.805; 1.140)	(1.268; 1.722)	(1.063; 1.440)	(.628; .930)
AIC	187.642	290.674	242.660	149.652
BIC	279.714	392.610	364.326	238.435
NFI	.797	.695	.775	.714
CFI	.880	.783	.867	.767
IFI	.883	.789	.872	.779
RFI	.749	.640	.716	.541
RMR	6.073	8.101	8.558	6.976
GFI	.911	.868	.899	.918
AGFI	.871	.822	.855	.839
PGFI	.630	.644	.622	.467

Regarding the comparisons, where the bold text indicates the best value per an index, overall Models 1 and 4 yield the best results. However, it must be noted that Model 4 has the simplest structure and thus has less complexity involved.

Taking this into account, as well as Model 1's fit over the remaining models, Model 1 clearly has the best fit. Further investigation of Model 1's results, is shown in *Table 6.16*:

Table 6.16 Regression weights for Model 1

			Regression Weights				Standardised Regression Weights
			Estimate	S.E.	C.R.	P	
CLIM	<--	SM	.053	.040	1.329	.184	.094
JA_L	<--	CLIM	.118	.016	7.132	***	.602
WE_L	<--	JA_L	.454	.073	6.217	***	.844
MAS_F_L	<--	JA_L	-.441	.181	-2.443	.015	-.198
HEALTH	<--	JA_L	.073	.027	2.710	.007	.290
JA1	<--	JA_L	1.000				.733
JA2	<--	JA_L	-.150	.074	-2.014	.044	-.163
CONQ	<--	JA_L	-.055	.022	-2.565	.010	-.208
WE3	<--	WE_L	1.000				.632
WE2	<--	WE_L	1.690	.189	8.945	***	.783
WE1	<--	WE_L	3.006	.318	9.452	***	.919
MAS_F_I	<--	MAS_F_L	1.000				1.000
MAS_F_II	<--	MAS_F_L	-.417	.127	-3.272	.001	-.227
MAS_F_III	<--	MAS_F_L	.358	.037	9.762	***	.571
PHYS	<--	HEALTH	1.000				.757
MENTAL	<--	HEALTH	.759	.404	1.876	.061	.504

It may be noted that most of the regression weights prove to be significant within the model, except for that of SM. It is interesting to note that SM does not play a role in explaining variance within the model from the start. In comparison, the influence of SS exceeds that of SM when it is brought into the equation in Model 4. Model 1 still has room for improvement and this may be achieved through substituting SM with SS. Model 1 is therefore amended to replace SM with SS. This was not hypothesised at the outset of the research.

6.4.5 MODEL 1 (ALTERNATIVE)

Employee emotional intelligence influences experienced psychological (work) climate, which, in turn, influences job affective states, predicting work engagement, burnout, contemplated quitting and health. The correlation matrix for Model 1 (Alternative) is depicted in *Table 6.28*

Table 6.28 Correlation Matrix: Model 1 (Alternative)

		Correlations												
		CLIM	JA1	JA2	PHYS	MEN-TAL	CONQ	MAS_F_I	MAS_F_II	MAS_F_III	WE1	WE2	WE3	SS
CLIM	Pearson Correlation	1	.436 (**)	-.049	.111	.092	-.104	-.088	-.064	-.198 (**)	.486 (**)	.405 (**)	.316 (**)	.348 (**)
	Sig. (2-tailed)		.000	.493	.120	.198	.146	.218	.371	.005	.000	.000	.000	.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
JA1	Pearson Correlation	.436 (**)	1	-.195 (**)	.179 (*)	.100	-.172 (*)	-.058	-.139	-.194 (**)	.592 (**)	.469 (**)	.302 (**)	.285 (**)
	Sig. (2-tailed)	.000		.006	.012	.161	.015	.420	.051	.006	.000	.000	.000	.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
JA2	Pearson Correlation	-.049	-.195 (**)	1	-.158 (*)	-.106	.086	.123	.031	.104	-.071	-.096	.067	-.252 (**)
	Sig. (2-tailed)	.493	.006		.026	.139	.226	.083	.664	.143	.320	.179	.345	.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
PHYS	Pearson Correlation	.111	.179 (*)	-.158 (*)	1	.382 (**)	-.006	-.223 (**)	-.140 (*)	-.185 (**)	.148 (*)	.161 (*)	.010	.096
	Sig. (2-tailed)	.120	.012	.026		.000	.937	.002	.049	.009	.038	.024	.885	.180
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
MENTAL	Pearson Correlation	.092	.100	-.106	.382 (**)	1	-.088	-.262 (**)	-.166 (*)	-.234 (**)	.081	.073	.066	.154 (*)
	Sig. (2-tailed)	.198	.161	.139	.000		.217	.000	.019	.001	.256	.309	.353	.031
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
CONQ	Pearson Correlation	-.104	-.172 (*)	.086	-.006	-.088	1	.187 (**)	.043	.072	-.171 (*)	-.054	-.050	-.097
	Sig. (2-tailed)	.146	.015	.226	.937	.217		.008	.548	.313	.016	.447	.480	.175
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_I	Pearson Correlation	-.088	-.058	.123	-.223 (**)	-.262 (**)	.187 (**)	1	-.227 (**)	.571 (**)	-.206 (**)	-.103	-.107	-.120
	Sig. (2-tailed)	.218	.420	.083	.002	.000	.008		.001	.000	.004	.149	.134	.092
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_II	Pearson Correlation	-.064	-.139	.031	-.140 (*)	-.166 (*)	.043	-.227 (**)	1	-.049	-.147 (*)	-.229 (**)	-.092	-.185 (**)
	Sig. (2-tailed)	.371	.051	.664	.049	.019	.548	.001		.489	.039	.001	.197	.009
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
MAS_F_III	Pearson Correlation	-.198 (**)	-.194 (**)	.104	-.185 (**)	-.234 (**)	.072	.571 (**)	-.049	1	-.168 (*)	-.142 (*)	-.078	-.122
	Sig. (2-tailed)	.005	.006	.143	.009	.001	.313	.000	.489		.018	.046	.276	.087
	N	198	198	198	198	198	198	198	198	198	198	198	198	198

Correlations														
	CLIM	JA1	JA2	PHYS	MEN-TAL	CONQ	MAS_F_I	MAS_F_II	MAS_F_III	WE1	WE2	WE3	SS	CLIM
WE1	Pearson Correlation	.486 (**)	.592 (**)	-.071	.148 (*)	.081	-.171 (*)	-.206 (**)	-.147 (*)	-.168 (*)	1	.710 (**)	.573(*)	.422 (**)
	Sig. (2-tailed)	.000	.000	.320	.038	.256	.016	.004	.039	.018		.000	.000	.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
WE2	Pearson Correlation	.405 (**)	.469 (**)	-.096	.161 (*)	.073	-.054	-.103	-.229 (**)	-.142 (*)	.710 (**)	1	.573 (**)	.468 (**)
	Sig. (2-tailed)	.000	.000	.179	.024	.309	.447	.149	.001	.046	.000		.000	.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
WE3	Pearson Correlation	.316 (**)	.302 (**)	.067	.010	.066	-.050	-.107	-.092	-.078	.573 (**)	.573 (**)	1	.327 (**)
	Sig. (2-tailed)	.000	.000	.345	.885	.353	.480	.134	.197	.276	.000	.000		.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198
SS	Pearson Correlation	.348 (**)	.285 (**)	-.252 (**)	.096	.154 (*)	-.097	-.120	-.185 (**)	-.122	.422 (**)	.468 (**)	.32	1
	Sig. (2-tailed)	.000	.000	.000	.180	.031	.175	.092	.009	.087	.000	.000	.000	.000
	N	198	198	198	198	198	198	198	198	198	198	198	198	198

*Correlation is significant at the 0.05 level (2-tailed)
**Correlation is significant at the 0.01 level (2-tailed).

The SEM analysis of Model 1 (Alternative) is shown in *Figure 6.5* below. The relevant standardised regression weights are depicted in *Table 6.29*.

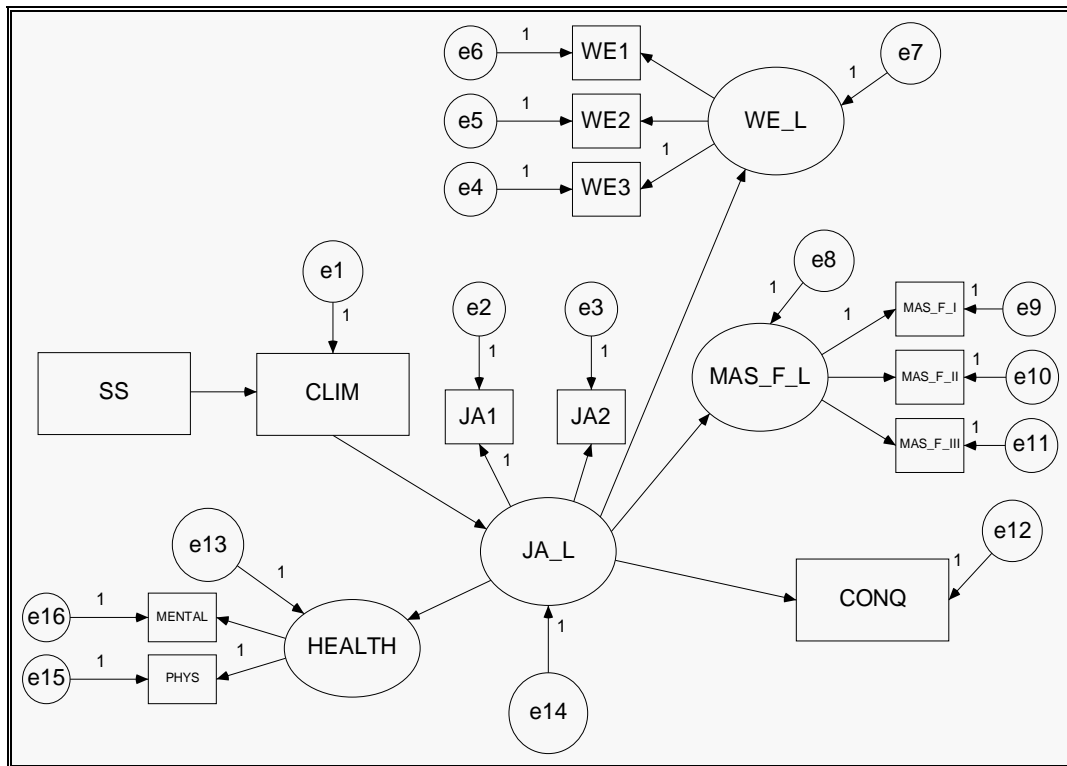


Figure 6.5 SEM analysis of Model 1 (Alternative)

The regression weights of Model 1 (Alternative) are depicted in *Table 6.29*

Table 6.29 The regression weights of Model 1 (Alternative)

			Regression Weights				Standardised Regression Weights
			Estimate	S.E.	C.R.	P	
CLIM	<---	SS	.311	.060	5.211	***	.348
JA_L	<---	CLIM	.118	.016	7.132	***	.602
WE_L	<---	JA_L	.454	.073	6.217	***	.844
MAS_F_L	<---	JA_L	-.441	.181	-2.443	.015	-.198
HEALTH	<---	JA_L	.073	.027	2.710	.007	.290
JA1	<---	JA_L	1.000				.733
JA2	<---	JA_L	-.150	.074	-2.014	.044	-.163
CONQ	<---	JA_L	-.055	.022	-2.565	.010	-.208
WE3	<---	WE_L	1.000				.632
WE2	<---	WE_L	1.690	.189	8.945	***	.783
WE1	<---	WE_L	3.006	.318	9.452	***	.919
MAS_F_I	<---	MAS_F_L	1.000				1.000
MAS_F_II	<---	MAS_F_L	-.417	.127	-3.272	.001	-.227
MAS_F_III	<---	MAS_F_L	.358	.037	9.762	***	.571
PHYS	<---	HEALTH	1.000				.757
MENTAL	<---	HEALTH	.759	.404	1.876	.061	.504

As anticipated, besides the improvement of the prediction of CLIM, all other variables remain as is. What is noticeable is that the alternative model yields a complete set of statistically significant results, as opposed to the original Model 1.

The alternative form of Model 1 also encounters a Heywood case on an error variance (e_9), and again this has been corrected with a forced arbitrary value of 0.05. A comparative table (*Table 6.30* below) illustrates the differences between the two models regarding their fit indices.

Table 6.30 A comparative table illustrating the differences between Model 1 and Model 1 (Alternative)

Index	Value	
	Model 1	Model 1 (Alternative)
Degrees of Freedom	63	63
Chi-Square	131.642 (P=0.0)	159.950 (P=0.0)
RMSEA	.074	.088
90% Interval RMSEA	(.056; .092)	(.071; .106)
PCLOSE	.014	.000
ECVI	.952	1.096
90% Interval ECVI	(.805; 1.140)	(.926; 1.305)
AIC	187.642	215.950
BIC	279.714	308.022
NFI	.797	.772
CFI	.880	.845
IFI	.883	.848
RFI	.749	.718
RMR	6.073	8.900
GFI	.911	.892
AGFI	.871	.844
PGFI	.630	.617

A choice between the two models clearly indicates that the original Model 1 still has a better fit. A choice thus has to be made between statistical fit and substantive meaningfulness. To help make this decision, a summary of the models is provided.

6.4.6 SUMMARY OF MODELS

The following serves to briefly highlight the regressions / correlations found in the different models. Findings in relation to the different **arcs** within the path analyses are now indicated.

SM → CLIM: SM, on average, demonstrates a small and non-significant positive influence on climate (models 1 and 4). In model 2 it was held constant whilst a strong positive influence on CLIM presented in model 3.

SS→CLIM: SS exerts a significant moderately positive influence on CLIM in model 4 and in model 1 (alternative) an even greater positive influence in the indicated direction.

CLIM→JA: CLIM exerted a strong and significant positive influence on JA in models 1 and 1 alternative, a weaker influence in the same direction in models 2 and 4, whilst no relationship was reported in model 3.

JA → WE: JA exerts a very strong and significant positive influence on WE in models 1 and 1 alternative; a smaller influence in the same direction in model 2 and a small non-significant influence in model 3.

JA → MAS: JA exerts a small but significant negative influence on MAS in model 1 and model 1 alternative, and a larger influence in the same direction in model 4. A small non-significant positive relationship presents the same direction in model 3.

JA → CQ: JA demonstrates a small but significant negative influence on CQ in models 1 and 1 alternative, but a small positive influence in the same direction in models 3 and 4.

JA → HEALTH: A small but significant positive influence was exerted in the depicted direction in models 1 and 1 alternative, whilst a significant negative influence is noted in model 3 and 4.

CLIM → WE: CLIM demonstrates a moderately strong positive influence on WE in models 2 and 4, and a lesser and non-significant influence in the same direction in model 3.

CLIM → MAS: CLIM shows a small negative influence on MAS in model 4; a non-significant negative influence in the same direction model 2, and a non-significant positive influence in model 3.

CLIM → CQ: CLIM demonstrates a small and significant negative influence on CQ in model 4; a small non-significant negative influence in the same direction in model 2, and a small non-significant positive influence in model 3.

CLIM → HEALTH: CLIM exerts a small significant positive influence on health in model 4, a non-significant positive influence on health in model 2, and a small negative influence in model 3.

The implications of the above influences will be further elaborated on in Chapter 7.

In viewing the four models, and especially model 1 alternative as the model of choice, it is clear that all influences in the path analysis are in the hypothesised direction and in accordance with the literature.

The model of choice for the researcher is Model 1 (Alternative). Although it demonstrates a slightly weaker fit, the fit indices are still within acceptable parameters. On the whole, the

structural model is more meaningful and in accordance with literature that consistently demonstrated the superiority of individual affectivity (as depicted by SS / employee emotional intelligence) in determining behaviour and attitudes over and above a cognitive evaluation of experience that may result from the interpretation of SM's (manager EI) influence on proximal work events.

The models cannot be assumed to indicate causality. These represent postulated influences and not necessarily influences representing cause and effect, but rather those of hypothesised relationships. When considering Model 1 (Alternative), *Figure 6.5* and *Table 6.29*, the following may be deduced: SS has a moderately positive influence on CLIM. This was not observed in Model 1 with SM as the predictor variable. CLIM exerts a strong positive influence on JA, as was postulated. JA in turn shows a strong positive relationship with WE and a moderate negative relationship with MAS, as was hypothesised. JA furthermore shows a moderately negative relationship with CONQ and a moderately positive relationship with health. All these relationships confirm the hypothesised relationships.

Attention now turns to the concluding chapter of the current investigation.

Chapter 7

DISCUSSION AND CONCLUSION

7.1 INTRODUCTION

As stated at the outset in Chapter 1, the overarching purpose of the current research was to investigate the influence of leaders' emotional intelligence on the work-related well-being of their subordinates.

The specific objectives included, firstly, an investigation as to whether managers' emotional intelligence mediated psychological climate, job affect and indices of the work-related well-being of their subordinates. The constructs of interest included two positive (work engagement and health) and two negative indices of well-being (burnout and contemplated quitting).

Secondly, the researcher was interested in investigating the process whereby the proposed effect took place.

Thirdly, the researcher was interested to investigating to what extent this process was mediated by the employees' own level of emotional intelligence.

The major measuring instruments were revalidated to ascertain their applicability in regard to the particular South African sample.

In this final chapter the most important findings of the study will be discussed. This will be followed by a reflection on contributions and limitations of the present study as well as recommendations for future research.

7.2 THE THEORETICAL MODELS INVESTIGATED

IN THE CURRENT STUDY

As stated in Chapter 6, four a priori models were formulated on the grounds of supportive theoretical argumentation as reflected in the literature review, and against the background of the Affective Events Theory of Weiss and Cropanzano (1996) that serves as the predominant explanatory model for the current research. These authors hold the view that proximal work events drive affective states that, in turn, influence attitudinal and judgement driven behaviours (see 2.3.5.1). In addition, Ashkanasy and Tse (2000) contend that emotional intelligence is instrumental in moderating the effect of work events on work attitudes and behavioural outcomes; and Frijda (1986) argues that events are initially evaluated in terms of their relevance to the individual's well-being.

7.2.1 THE REVALIDATION OF THE MEASURING INSTRUMENTS

To effectively investigate the research objectives as stated, it was deemed necessary and beneficial to examine the measuring instruments with regard to their reliabilities, construct validity and internal consistencies. Of interest and some concern was that the results of the revalidation of the measuring instruments (described in Chapter 6) reflected discrepancies if compared to the original factor structure as conceived of by the constructors. In some instances fewer factors were derived and had to be renamed, as was the case with the SUEIT, for both versions of the instrument, namely the 360-degree version and the Self-SUEIT. In regard to the Psychological Climate instrument, the total scale was used rather than the two first and six secondary order factors as conceptualised by its test constructors. In comparison, the Job Affect, Work Engagement and Maslach scales all retained the number of factors conceptualised by their individual constructors, although the items representing the individual factors differed to some extent from the items included by the constructors of the instruments. It was therefore decided that, in all cases, the factor pattern as derived in relation to the current sample would be applied in further analyses of the data.

7.2.2 THE EVALUATION OF THE THEORETICAL MODELS

The investigation started off with four a priori models concerning the relationship between leader/subordinate emotional intelligence, psychological climate, job affect and indices of well-being at work.

Model 1: *Proposed that manager emotional intelligence influences experienced psychological (work) climate, which, in turn, influences job affective states, predicting work engagement, health, burnout and contemplated quitting.*

All but one of the latent variables yielded results. SM could only be represented as an observed variable due to identification problems that were encountered. The SM variables yielded very large standard errors indicating that the model had to be adjusted for it to converge accordingly. The model yielded a respectable fit with the signs of the parameters, as theoretically predicted. Whilst most of the other parameters yielded significant results, the small positive relationship between SM and CLIM was non-significant. The fit indices surpassed that of the other a priori models but a Heywood case was encountered.

Model 2: *Proposed that manager emotional intelligence influences experienced psychological (work) climate to predict job affect, work engagement, health, burnout and contemplated quitting. Job affect is therefore no longer a mediator but a dependent variable in line with the other indicators of well-being.*

All of the latent variables yielded results and made feasible a complete first-order factor structure. The only problems encountered were the 3 negative variances (e_1 , e_3 , e_{15}) that had to be set to arbitrary values of 0.005 each. The increased Heywood cases reduce the usefulness of the model. This was reiterated by the fit indices that were clearly poorer than that of Model 1. Although most of the parameters still appeared with signs in the theoretically predicted direction, fewer were statistically significant.

Model 3: *Proposed that manager emotional intelligence influences psychological (work) climate and job affect, to predict work engagement, health, burnout and contemplated quitting. In this instance, both psychological climate and job affect were therefore proposed to act as possible mediators between leaders' emotional intelligence and indices of well-being of the subordinates.*

The increased complexity of the model did not impact too significantly on its identification. Only one negative error variance (ϵ_{12}) was adjusted to an arbitrary value of 0.05. The model, however, failed to converge when the arcs between JA and CLIM formed part of the equation and was therefore discarded. Although Model 3's fit indices reflected an improvement over that of Model 2, it still fell short of the better fit of Model 1. Furthermore, a number of the parameter signs were the opposite of what was expected on the basis of the relevant theoretical considerations, previous correlations in the literature as well as those in the previously tested a priori models of the current study. Attention now turns to the last hypothesised model.

***Model 4:** Proposed that both manager and employee emotional intelligence influences psychological (work) climate and job affect, to predict work engagement, health, burnout and contemplated quitting. The subordinate's own emotional intelligence is thus brought into the equation to determine its relative contribution within the hypothesised model.*

Model 4 reflects the most technical and complex path of all the proposed models. Due to its complexity, the model would not converge under a first-order factor structure. It could therefore only be measured on a simple basis, with the majority of the constructs measured as observed variables. The model again failed to converge as in Model 3 when the arcs between JA and CLIM formed part of the equation, and was therefore discarded. Since the model then constituted the most basic form of the four, no Heywood cases were encountered. Despite reflecting the simplest path analysis of the four models, it lacked in its fit to the data. In addition, a number of the parameters presented with reverse negative signs, rather than positive signs as reflected in the theoretical literature and previous correlations stemming from such literature.

In comparing the four a priori models, it was clear that Models 1 and 4 yielded the best results. In comparing these two models it is, however clear that Model 4 reflects the simplest structure with less complexity involved than in the other models. In comparing Model 1's fit with that of the other models, it was clear that Model 1 shows the best fit.

Further investigations of Model 1's fit indices shows that most of the regression weights were significant. However, the only exception was that of the hypothesised influence of the leader/managers' EI on psychological climate and the other indices of well-being that, from the beginning, failed to reflect a significant influence on psychological climate. In comparison, the emotional intelligence of the subordinate exceeds the influence of the leader's emotional

intelligence in Model 4. The researcher therefore deemed that Model 1 still had room for improvement.

- ***Model Improvement***

Improvement of Model 1 was envisaged to result from substituting manager emotional intelligence with that of the subordinates' emotional intelligence. Model 1 was thus modified accordingly although this was not hypothesised when the research models were conceptualised.

Model 1 Alternative: *proposed that employee emotional intelligence influences experienced psychological (work) climate, which, in turn, influences job affective states, predicting work engagement, burnout, contemplated quitting and health.*

As was expected, all variables remained as they were, except for an improvement in the prediction of psychological climate. Important is that the alternative model yields almost a complete set of statistically significant results, as opposed to the original Model 1. The alternative form of Model 1 also encountered a Heywood case on an error variance (e_9) and was again corrected with a forced arbitrary value of 0.05. A comparison of the two models regarding their fit indices clearly indicates that the original Model 1 still has a better fit. A choice thus had to be made between statistical fit and substantive meaningfulness.

When viewing the four models, and especially Model 1 Alternative as the model of choice, it was clear that all influences in the path analysis were in the hypothesised direction and in accordance with the literature. The results are now discussed further.

7.2.3 REFLECTIONS ON THE HYPOTHESISED AND OBTAINED RELATIONSHIPS

7.2.3.1 LEADER/MANAGER EI AND PSYCHOLOGICAL CLIMATE

The results of the current investigation as reflected in Models 1 to 4 (depicting a small but non-significant positive relationship) seem to contradict Goleman's (2002) and Williams' (1994) statement that a significant relationship exists between leader EI abilities and organisational climate. Van Zyl (1998) contends that the psychological climate within an

organisation is determined at the top level of any organisation. Brown and Leigh (1996) and Cilliers and Kossuth (2002) also concur that different managerial styles and the quality thereof may relate to a variation in psychological climate. The results seem to support criticism levelled at the construct by Landy (2005) who argues that historically, scientifically, conceptually and psychometrically, there are many substantial questions relating to the EI construct. Others have taken an even stronger position in viewing it as an invalid concept (Locke, 2005). Conte (2005) notes that, in viewing the discrepancies in psychometric measures of EI, serious questions present as to whether the instruments indeed measure the same underlying construct. Researchers such as Van Rooy and Viswesran (2004) found that EI lacks in discriminant validity since high inter correlations were found when EI was correlated with the Big Five personality characteristics.

In regard to the obtained results, the researcher is of the opinion that the EI measuring instrument used in the current investigation may be in need of further refinement and adaptation to the South African population for more accurate results. The fact that the instrument resulted from a factor analysis of the most prominent instruments available at the time of its inception (and indeed covering the broader continuum of definitions that informed the conceptualisation of the different instruments), may have indeed resulted in its lacking a definitive driving definition in terms of its own conceptualisation rendering it too general. However, the instrument was developed specifically with the workplace in mind and includes both a 360-degree and a self-evaluation format, enhancing its attractiveness as an instrument of preference. Thus, the inadequacies of the instruments may indeed have influenced the accuracy of the results obtained, rather than the results necessarily rendering the emotional intelligence construct null and void.

Furthermore, it may also be that other aspects of leadership are more influential in determining psychological climate at work than is the emotional intelligence of the leader. In the current sample the technical skills and decisiveness of the leader/manager may, for example, have been more influential since technical skills may indeed hold “life or death” implications for the patients involved, together with the legal liabilities that may accrue to nursing staff when incorrect treatment is given the patient or incorrect decisions are made in crisis situations. Therefore, in the context of the current study, emotional intelligence may indeed have been less influential in creating, for example, a safe and secure environment for the nursing staff involved (Medi-Clinic Private Hospital Group, s.a.).

Another important influencing factor may have been that the investigation took place at private healthcare facilities where the leader/manager and his/her subordinates alternate according to their work schedules. This may have rendered the effect of the leader/manager much less than in a traditional organisational setting in which the leader/manager may indeed be much more influential in determining psychological climate due the greater stability of his/her presence.

7.2.3.2 *EMPLOYEE EI, PSYCHOLOGICAL CLIMATE AND INDICES OF WELL-BEING*

Employee EI exerted a significant moderately positive influence on psychological climate in Model 4 and, in Model 1 Alternative, and an even greater positive influence in the indicated direction. This seems to support Salovey *et al.*'s (2002) findings that individuals with an enhanced EI ability correctly perceive and adaptively manage emotion in the self and in the environment. Danserau *et al.* (1975) and James *et al.* (1990) also support the notion that individual differences among employees will contribute to variations in both perceptions and evaluations of features of the organisational environment. In addition, Tellegen (1982) believes that individuals with higher levels of positive affectivity (assumed reflected in enhanced EI) are inclined to experience a sense of well-being and are more often pleasurably and effectively engaged at work.

Fredrickson (1998; 2000) argues that positive states of mind (such as assumed under the rubric of EI) lead to both a meaningful and healthier life. The link between EI and health rests on the belief that negative emotions and stress result from a dysfunctional relationship between the environment and aspects of the self. Individuals with positive beliefs (Taylor *et al.*, 2000) influence emotional states that, in turn, affect the physiology and neuro-endocrine underpinnings of illness. Cartwright (2002), Oginska-Bulik (2005) and Tsaousis and Nikolaou (2005) found that individuals measuring high on EI experienced less stress and better physical and psychological well-being. However, Donaldson-Feilder and Bond (2004) could not confirm such a relationship in their study among workers in the United Kingdom. Furthermore, Reilly (1994) and Ricca (2003) identified a negative relationship between burnout and EI in individuals. However, a large number of theorists argue that an individual's burnout level does not singularly depend on work events, but also on his/her coping resources

(Folkman *et al.*, 1986; Greenglass *et al.*, 1998; Storm & Rothman, 2003). In addition, Fatt and Howe (2003) state that EI matters in turnover across all categories of jobs.

7.2.3.3 PSYCHOLOGICAL CLIMATE AND JOB AFFECT

A moderately strong and significant positive relationship was reflected in Models 1 and its alternative; a weaker influence in the same direction in Models 2 and 4, whilst no relationship was reflected in Model 3. These relationships seem to confirm Kahn's (1990) belief that psychological experiences at work drive people's behaviour and attitudes. Individuals evaluate events in terms of congruence to/beneficial for, or incongruent/harmful, with reference to the pursuance of personal goals. The intensity of the affective reaction is dependent on the importance of the event for the individual. James and Sells (1981) declare: "The causal flow from PC perceptions to emotions and behaviours is based on the widespread belief that individuals respond primarily to cognitive representations of environments rather than to the environments per se" (p.279). Härtel *et al.* (in press) suggest that affective climate may indeed act as a *primary incubator* from which excellence emerges.

7.2.3.4 JOB AFFECT AND INDICES OF WELL-BEING

The relationships between job affect and indices of well-being forthcoming from the current investigation (described in paragraphs 7.2.3.4.1. – 7.2.3.4.4.), seem to support Pirola-Merlo *et al.*'s (2002) and Weiss and Cropanzano's (1996) viewpoint that mood may be viewed as a mediator between antecedents and outcomes, or as a variable that influences the relationship between them (namely the affect-centric perspective). This is also in accordance with Forgas and George (2001), who conclude that mood provides the underlying affective context for most of our behaviours and ongoing thought processes. The results also support James and James (1989) who assert that organisational well-being may be seen as the degree to which positive affect exceeds negative affect in regard to an employee's overall work experience. Job affect is constituted by both positive and negative affect, with positive affect contributing more to the latent variable. One may therefore assume that, in further viewing the effect of the job affect variable, that such influence may be assumed to emanate from positive affect. The relationships emanating from the current study are now described individually.

7.2.3.4.1 *Job Affect and Work Engagement*

Job affect exerted a very strong and significant positive influence on work engagement in Models 1 and its alternative, a smaller influence in the same direction in Model 2, and a small non-significant influence in Model 3. Maslach and Leiter (1997) contend that promoting work engagement starts with management and their creating of a supportive emotional climate. This, however, was not supported by the current set of results. However, Begley and Czajka's (1993) and Conolly and Viswesvaran's (2000) line of thinking seems supported since they maintain that positive mood relates to positive affective commitment to the organisation.

7.2.3.4.2 *Job Affect and Health Indicators*

Job affect exerted a small but significant positive influence on health in Models 1 and 1 Alternative, whilst a significant negative influence were noted in Models 3 and 4. According to Goleman (2000), research, over the past 20 years has convincingly yielded evidence of the influence of emotions on physical health (see 5.4.4 for detail). Brief *et al.* (1998), for example, found a significant relationship between somatic complaints and job stress, and Hart *et al.* (1996) view emotions as taking centre stage in the dynamic process of stress.

7.2.3.4.3 *Job Affect and Burnout*

Job affect exerted a small but significant negative influence on burnout in Model 1 and Model 1 Alternative, and a larger influence in the same direction in Model 4. A small non-significant positive relationship presents in the same direction in Model 3. The results correlate with George and Brief's (1996) assertion that people in a negative mood are less satisfied with their jobs and tend to demonstrate more withdrawal behaviour. In addition, Maslach and Leiter (1997) hold the opinion that, when the work place does not recognise the human side of work, the risk of burnout increases. Therefore, as demonstrated in the current research, positive affect should indeed, inversely relate to burnout.

7.2.3.4.4 *Job Affect and Contemplated Quitting*

Job affect demonstrated a small but significant negative influence on contemplated quitting in Models 1 and 1 Alternative, but a small positive influence in the same direction in Models 3 and 4. This is in accordance with Weiss and Cropanzano's (1996) AET model that provides for an explanation of the role of proximal events, affective reactions and the resultant judgement-driven behaviour leading to quitting. Goleman (2002) stated that. "The percentage of time people feel positive emotions at work turns out to be one of the strongest predictors of

satisfaction, and therefore, for instance, of how likely employees are to quit” (p.14). Rhoades and Eisenberger (2002) and Shaw (1999), add that employees committed to their organisation are less likely to quit their job. According to Mobley *et al.* (1978), job dissatisfaction leads to withdrawal cognitions and finally translates into final resignation. Therefore, positive affect as depicted by the JA variable in the current study, should inversely relate to contemplated quitting to support the hypothesised relationship.

7.2.4 THE MODEL OF CHOICE

The model of choice for the researcher is Model 1 Alternative despite it demonstrating a slightly weaker fit. The fit indices are, however, still within acceptable parameters. To summarise, the following may be deduced by viewing Model 1 Alternative: employee EI has a moderately positive significant influence on psychological climate (this was not observed in Model 1 with SM as the predictor variable). Climate exerts a strong positive influence on job affect, as was postulated. Job affect in turn shows a strong positive relationship with work engagement; a moderately positive relationship with health, and a moderately negative relationship with both burnout and contemplated quitting. All these relationships serve to confirm the hypothesised relationships. The structural model is, on the whole, more meaningful and in accordance with literature that consistently demonstrates the superiority of individual affectivity (as depicted by employee emotional intelligence) in determining behaviour and attitudes over and above a cognitive evaluation of experience that may result from the interpretation of leader/managers’ EI.

The models, however, cannot be assumed to indicate causality. These represent postulated influences and not necessarily influences representing cause and effect, but rather those of hypothesised relationships.

7.3 CONTRIBUTIONS OF THE INVESTIGATION

7.3.1 The literature review

Positive psychology serves as the meta-theoretical approach to the present study. The broad focus is to investigate salutogenic and fortigenic functioning at work. In order to promote employee well-being and efficacy, the researcher attempts to align knowledge about optimal

human functioning with organisational effectiveness and outcomes. The researcher was interested in investigating how different work practices and processes contribute to creating more positive workplaces since healthy work may indeed contribute to building a positive psychology ethic.

For twenty odd years during which the cognitive paradigm reigned supreme in organisational psychology, affective experiences took a back seat to cognition. Lack of research in this field left a lacuna in respect of the value and functional aspects of affect in the work context.

The literature review serves to highlight the salience of affective experience in human life. New evidence from non-intrusive methods of studying the brain suggests: a neurological link between thought and feeling; strong and influential links from the amygdala to the cortex, and affective style (influencing approach and withdrawal behaviour) evident at a young age.

Furthermore, the importance of neural plasticity was highlighted, supporting argumentation in favour of growth as a continual process even in adulthood, allowing for neurogenesis and change. This holds the implication that new skills, for example those predicated in terms of the emotional intelligence construct, may indeed be acquired with practice. By implication, neural plasticity further has the implication that an individual may indeed be positively influenced by a salubrious environment with its resultant effects.

The literature review highlights the important consequences of emotions and mood at work and, more specifically, the important influence thereof on the general well-being of employees as reflected in both positive and negative work-related outcomes. The Broaden-and-Build theory serves to highlight the possible gains in the workplace when experienced positive affect, on the whole, supersedes negative affect. In addition, the Affective Events Theory highlights the influence of affective experiences on both job satisfaction and performance. Individuals react to work events that drive their affective states to mediate attitudes and judgement as well as affect driven behaviours. This influences performance and, as was demonstrated in the current study, indices of well-being.

The literature review further advanced an argument in favour of the very existence of the emotional intelligence construct, taking cognisance of convincing arguments evolving from the field of neuroscience; competing constructs and concepts (such as emotional competence); other influential psychological factors including the role of the primary caregiver, and the individual's dual task ability to consider simultaneously their own and other's needs. It was

further argued that the development of emotional intelligence is dependent upon the ability to symbolically represent emotions by means of, for example, language. The researcher continued to reflect on disparities inherent to the different theorists' competing definitions and conceptualisations of the evolving construct. These disparities serve to inhibit the development of psychometric measures to measure the construct succinctly and definitively. It was further argued that EI constitutes an exciting and developing research area related to the understanding and predicting of organisational behaviour.

The literature study further served to expand on leadership with specific reference to the transformational leadership theories and leadership links with employee satisfaction, effort, performance, emotional intelligence and indices of well-being.

Finally, the literature review explored the possible role of a salubrious psychological climate (assumed mitigated by the emotional intelligence of the leader/manager) together with job affect as possible mediators of employee well-being. Employee well-being was, for purposes of the current study, represented by two positive (work engagement and health) and two negative (burnout and contemplated quitting) indicators of well-being. The literature review concluded with an attempt at theory building. The Affective Events Theory was expanded to include psychological climate (as a mediator of well-being) together with manager and individual EI as factor(s) influential in determining particular work outcomes.

7.3.2 The empirical investigation

Structural equations modelling has earned a place among the array of methodologies available to researchers in psychology (Bentler, 1986; Coover, Penner & MacCullum, 1990) and has since gained both great appeal and wide application. "The daunting nature of the complex methodology underlying SEM has discouraged many researchers from employing it" (Raubenheimer, 2002), despite a new wave of user-friendly computer programmes. This methodology allows for analyses of more complex phenomena and has therefore gained much appeal, also in the social sciences.

7.3.2.1 THE REVALIDATION OF THE MEASURING INSTRUMENTS

A revalidation of the major measuring instruments in terms of their applicability in the South African context again highlights that instruments developed for other cultures and in other countries may not necessarily be equally suitable in the host context and need to be examined as to their reliability and validity rather than being applied as is since this may contribute to claims being made in regard to results that may not be fully justified.

7.3.2.2 RESULTS

A positive finding was that, despite a flurry of negative views on the existence of the construct (and possible shortcomings in the measuring instruments applied) emotional intelligence did indeed contribute to how the individual experiences work climate in the current study. For manager EI the positive influence was small and non-significant, whereas it was moderately strong and significant in the case of the employee's own EI. This creates a platform for the notion of EI and its possible influence as depicted in the literature and is of late supported by neurological evidence.

In addition, psychological work climate and job affect clearly demonstrated their significance as mediators in relation to indices of well-being at work and therefore need careful consideration in the workplace. The results again serve to emphasise the important influence of affective experiences in the workplace. In a quest to understand organisational behaviour better, leaders/managers will do well to consider how best to effectively manage the affective climate at work and enhance emotional intelligence.

Organisations have long believed that positive emotions link with performance and therefore attention was paid to aspects such as positive reinforcement, positive affect and humour, all of which are well described elsewhere (cf. Luthans, 2002). Enhanced performance is not the aim of the current investigation, since focus rather falls on how positive emotions and well-being may be enhanced in the workplace. Positive emotions and well-being are of course, not singularly an end to themselves, but also important in terms of their relation to performance.

The Broaden-and-Build Theory succinctly pleads in favour of the positive effects that result when positive affect supersedes negative affect, including the building of "a variety of enduring personal resources" (Fredrickson, 2000, p.239). These include enhanced physical,

intellectual, social and psychological resources. Research has clearly demonstrated that positive emotions broaden the thought-action repertoires; the scope of attention; cognition and action, all virtues that may serve the workplace well (see paragraph 2.2.4.4.1). Positive emotions may furthermore serve to undo the effects of negative emotions; protect health, and fuel emotional resilience, all of which contribute to freeing up employee energy that may be channelled into work and other activities, thereby enhancing work engagement. In accordance with the above postulates, the current investigation demonstrated a significant positive relationship between the experience of positive job affect and both work engagement and health, and a significant negative relationship with burnout and contemplated quitting. By contrast, the experiencing of negative emotions may serve to create a downward spiral in which negative/depressed mood and pessimistic, narrow thinking reciprocally influence one another, sapping individual energy and redirecting energy and thought processes inward (cf. Aspinwall, 1998;2001).

The cost of the escalation in burnout among employees needs to be carefully considered. Burnout and its well described consequences increases exhaustion with both mental and physical absence from work; decreased levels of both resilience and meaning derived from a lack in the experience of personal accomplishment, and depersonalisation and callousness that may have a detrimental effect on the level of service delivery. Higher levels of burnout may also coincide with an increase in contemplated or real quitting with an accompanying loss of expertise that may again negatively influence the performance and management of an organisation. Ill health may again have stark monetary implications in terms of escalating medical expenditures for the organisation.

7.4 LIMITATIONS

The measuring instruments applied in the study were all developed and standardised in relation to populations outside of South Africa. Applying them in a South African context brings to bear differences in interpretation of the items included in the questionnaire to the extent that different factors emerged. This was clearly seen with the SUEIT in that, rather than the five factors conceptualised by the test constructors, only three factors emerged, loading very differently than for the Australian samples. None of the constellation of items representing the different factors of the measuring instruments replicated exactly as was the case in the originating samples, for example. This was, to some extent, addressed by the

revalidation of the measuring instruments. In the final analysis, however, discrepancies came to the fore that may indeed influence the validity of the results, especially in the case of the instrument applied in measuring the main construct, namely emotional intelligence. In this instance it might prove better to use an instrument with a proven track record that has repetitively proven its reliability and validity. The researcher, however, found that those instruments protected by the commercialised instrument houses (MHS and Hay Associates) proved too expensive to use in academic research and requests for the accessing of their instruments were not encouraged by cutting back on the exorbitant fees (for larger numbers of research participants). This seems to support the argument in Chapter 3 where some criticism was levelled at these houses. Claims are put forward by them with regard to large studies, the content and process of which are not open to scrutiny by the scientific community.

Another limitation of the current investigation is the type of sample used. As stated previously, the particular organisation was one of a few contacted to determine their interest in participation in the current investigation. The particular group of private health care facilities was very interested in participating and offered its full and efficient support. This was in stark contrast to the other organisations contacted in this regard. As was discussed, subordinates were paired with their direct leader/manager who was deemed by management to influence the psychological work climate of the particular individual. However, since rotation of staff is inevitable in a hospital setting, it may be that the presumed influence was indeed diminished by this very situation, decreasing the influence of the leader/manager on the particular subordinates. Therefore, it may be well advised to make use of different types of organisations so as to limit the possible influence of third variables, including organisations in which subordinates do not work shifts, thereby possibly diminishing the influence of any particular leader on his/her group of subordinates.

Furthermore, researchers interested in applying the SEM methodology should be aware that larger, rather than smaller, samples are of the essence, especially to compensate for incomplete questionnaires that contribute to decreasing the number of participants. A rule of thumb is that 200-300 participants would be the minimum indicated. In the current investigation the aim was to have at least 200 participants, but incomplete questionnaires contributed to a decrease in these numbers so that the final sample consisted of 198 individuals, rendering the sample slightly less than optimal.

7.5 RECOMMENDATIONS

7.5.1 In regard to future studies

Recognising the influence of affect in the workplace is only lately being viewed as a field of study alongside the influence of cognition that, for so long dominated in the field of industrial/organisational psychology (Ashkanasy, Härtel & Daus, 2002). New knowledge from the cognitive-neurosciences (LeDoux, 1998) and the working of our chemical selves can no longer be ignored and is indeed paradigm shifting, putting forward a bold call for researchers to explore the inner world of man and how this influences observed behaviour, also in the workplace.

The measuring instrument applied in regard to the main construct should be selected with care. However, researchers interested in further investigating the EI construct need to realise that, at present, and against the background of the differing definitions applied in constructing instruments to measure EI, a definitive answer still forms part of the future.

Researchers interested in studying the influence of leader/manager EI on their subordinates may do well to consider sampling from different types of organisations to ensure better control of the influence of possible contaminating or third variables. A case in point would be organisations in which subordinates do not work shifts, thereby possibly diminishing the influence of any particular leader on his/her group of subordinates.

7.5.2 In regard to practice

In a bid to survive in an ever changing and increasingly complex and dynamic environment (Cartwright & Cooper, 1997), organisations need to position themselves competitively. In this regard employees form an essential core in business success and frequently provide the competitive edge. Excellent employees are sought and organisations will do well to retain their staff in the global environment. One aspect enhancing the attractiveness of an organisation is its approach to the well-being of employees.

The new and flattened organisational structures governing larger numbers of modern organisations, and in which authoritarian leadership has made way for transformational leadership (Skogstadt & Einarsen, 1999), seem to open up new avenues yet to be successfully

explored. Such include, inter alia, the emotional intelligence abilities that underlie much of the characteristics supportive of these new leadership styles. According to Robbins (2001), an important aspect of transformational leadership theories is the emotionally appealing aspect of their behaviour. Since leadership is regarded as the single most important factor in organisational success or failure (Bass, 1990), researching determinants of effective leadership is ever important (Yukl, 1998). The flattening of the traditional hierarchical structures also requires employees to develop new interpersonal skills as direct open communication seems to be the order of the day.

It seems that at corporate level, worldwide, but also in South Africa, pressure is increasing in terms of taking care of employee well-being. This results, inter alia, from legal pressures, including the Basic Conditions of Employment Act, the Occupational Health and safety Act, *etcetera* (Kotton, 2006). Modern man is much more alert to his/her rights and seems more intent on leading a balanced life, increasingly seeking for more balance between work, leisure and family life. Work satisfaction and well-being has become an important issue in a competitive market within organisations. Organisations are therefore increasingly coming under scrutiny in terms of how well they cater for their employees.

In an attempt to attract and retain better staff an organisation's focus on well-being has become an important branding issue. It therefore seems that organisations will do well to monitor the psychological climate and resultant affective experiences (Weiss & Cropanzano, 1996) in order to reap the many benefits thereof in their organisations (Fredrickson, 1998;2001). The current investigation served to demonstrate that a positive organisational climate and the resultant positive affect does indeed influence indices of well-being.

SUMMARY

The changing world of work necessitates a new approach to managing organisations and employees together with a stronger focus on employee wellbeing. The main aim of the study was to investigate how manager emotional intelligence influences psychological climate, job affect, and indices of work-related well-being in sub-ordinates. These include job engagement, health and contemplated quitting. Secondly, focus fell on the processes by which the proposed effects took place. Next, the extent to which these processes were mediated by sub-ordinates' own level of emotional intelligence was investigated. Fourthly, measuring instruments were revalidated to ascertain their fit to data in the South African sample.

A cross sectional correlational design was used. The sample consisted of 198 participants from private hospitals in rural and urban areas in South Africa. The sample composed mainly of nursing staff but also included health care managers. Each manager/leader was subsequently coupled (in dyads) with an employee for whom he/she acted as direct manager/team leader.

The most prominent measuring instruments (developed abroad) were revalidated to ascertain how well the properties described by the test developers fit the data obtained from the current sample. Results of the confirmatory factor analyses indicated that the factors identified by the test constructors did not fit the data of the current sample well since discrepancies presented when compared to the original factor structure.

Four a priori models, depicting tentative causal relationships between emotionally intelligent managers, their influence on the psychological (work) climate, subordinate job affect, work engagement, health, burnout and contemplated quitting, were investigated. The employees' own emotional intelligence was then brought into the equation. Descriptive statistics, Product-moment correlations, multiple regressions, and structural equations modelling (SEM) were applied to analyse the data. SEM was used to test the goodness-of-fit indexes of the hypothesised models on the data. The subscales of the questionnaires served as manifest variables.

Emotional intelligence did indeed contribute to how the individual experiences work climate in the current study. For manager EI the positive influence was small and non-significant whereas it was moderately strong and significant in the case of the employee's own EI. Psychological work climate and job affect clearly demonstrated their significance as mediators in relation to indices of well-being at work and therefore needs careful consideration in the

workplace. The results again serve to reiterate the important influence of affective experiences in the workplace. In a quest to understand organisational behaviour better, leaders/managers will do well to consider how best to effectively manage the affective climate at work and enhance emotional intelligence.

Key words

Emotional intelligence, leader/manager, employee, psychological climate, job affect, well-being, work engagement, health, burnout, contemplated quitting.

OPSOMMING

Die veranderende wêreld van werk vereis 'n nuwe benadering tot die bestuur van organisasies en hulle werknemers saam met 'n sterker fokus op werknemerwelstand. Die hoofdoelwit van die studie was om ondersoek in te stel na hoe bestuurders se emosionele intelligensie, psigologiese (werks) klimaat, werksaffek en indikatore van werksverwante welstand in werknemers beïnvloed. Hierdie indikatore sluit in werksbetrokkenheid, gesondheid, uitbranding en die oorweging om hul werkgever se diens te verlaat. Tweedens was die fokus op die prosesse waardeur hierdie veronderstelde gevolge plaasvind. Vervolgens is die mate waartoe hierdie prosesse deur die werknemer se eie emosionele intelligensie medieer is, ondersoek. Vierdens is die meetinstrumente wat gebruik is hervalueer om hulle passing ten opsigte van die Suid-Afrikaanse datastel te bepaal.

'n Deursnitkorrelasieontwerp is gebruik. Die steekproef het bestaan uit 198 deelnemers van private hospitale in dorps-en stedelike gebiede binne Suid-Afrika. Die steekproef het hoofsaaklik bestaan uit verpleegpersoneel maar het ook gesondheidsorgbestuurders ingesluit. Elke bestuurder/leier is saamgroepeer met 'n werknemer waarvan hy/sy as direkte bestuurder/spanleier ageer.

Die mees prominente meetinstrumente (in die buiteland ontwikkel) is hervalueer om te bepaal hoe goed die eienskappe soos beskryf deur die ontwikkelaars pas by die data soos verkry by die huidige steekproef. Die resultate van die faktoranalise het aangetoon dat die oorspronklike faktore soos bepaal deur die ontwikkelaars van die instrumente nie 'n goeie passing getoon het met data verkry by die huidige steekproef nie aangesien diskrepansies voorgedoen het toe die resultate vergelyk is met die oorspronklike faktorstrukture. Vier voorafgekonseptualiseerde modelle wat verskillende oorsaaklike verhoudings tussen die emosionele intelligensie van bestuurders en hulle invloed op die psigologiese klimaat, ondergeskikte werksaffek, werksbegeestering, gesondheid, uitbranding en die oorweging om hul werkgever se diens te verlaat is ondersoek. Beskrywende statistiek, produkmoment korrelasies, meervoudige regressies, en strukturele vergelykingsmodelle is gebruik om die data te ontleed. Strukturele vergelykings is gebruik om die passingsindekse van die gehipotetiseerde modelle op die data te toets. Die subskale van die vraelyste het as die gemanifesteerde veranderlikes gedien.

Emosionele intelligensie het inderdaad bygedra tot hoe individue in die huidige studie werksklimaat ervaar het. In die geval van bestuurders was die positiewe invloed van hulle emosionele intelligensie klein en nie beduidend nie terwyl dit in die geval van die werknemer se eie emosionele intelligensie wel redelik sterk en beduidend was. Psigologiese werksklimaat en werksaffek het duidelik hulle belangrikheid as mediators in verhouding tot indikatore van werkswelstand getoon en verdien gevolglik versigtige oorweging binne die werksplek. Die resultate dien weereens om die belangrikheid van affektiewe belewing in die werksplek te bevestig. In die soeke daarna om organisatoriese gedrag beter te begryp sal dit gepas wees vir leiers/bestuurders om aandag te skenk aan die effektiewe bestuur van die affektiewe werksklimaat sowel as die ontwikkeling van werknemer emosionele intelligensie.

Sleutelwoorde

Emosionele intelligensie, leier/bestuurder, werknemer, psigologiese klimaat, werksaffek, welstand, werksbetrokkenheid, gesondheid, uitbranding, oorweging om diens te verlaat.

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APPENDIX A

HEALTH CARE: THE CONTEXT FOR THE CURRENT STUDY

The current study was conducted in private health care facilities. Private health care is to some extent influenced by public health care. Both are briefly illuminated.

Public health care in South Africa

At present, the broader South African health care context reflects an acute problem with the retaining of health care staff. For example, Thom (2004) reports a massive exodus of healthcare staffing and the UK Nursing and Midwifery Council released figures showing that 2114 nurses and midwives from South Africa were registered to practise in the UK (2003/4). Ntuli and Day, in the South African Health Review (2004) report that in the public sector, vacant public health posts in 2003 amounts to an average of 31,1%. Increased numbers of skilled staff migrate abroad. Of those involved in community service, 20% - 45% intend to work overseas. Padarath, Ntuli, and Berthiaume (2004) reviewing the high rate of turnover in the public health system, note that the exodus of skilled health personnel from South Africa is substantial with approximately 250,000 people leaving the country for Australia, Nieu Zealand, Canada, UK and the USA between 1989 and 1997 together with a significant brain drain of nurses from the country as stated. Of the 41 563 nurses in the public sector 80% are African, 10.5% are Coloured, 7.4% are White and 2% are Indian reflecting the demographics of the country.

Ntuli and Day (2004) cite a number of factors including low levels of job satisfaction; poor working conditions; despondency in regard to the HIV/AIDS pandemic with its escalated health risk (in 2000, 39% of all deaths in RSA were related to this illness); unsatisfactory management and inadequate salaries as underlying health professionals' dissatisfaction with working in the public sector. The authors contend that an increased load is placed on existing staff due to HIV/AIDS together with the attrition of health care workers resulting from AIDS related mortality. Further attrition is expected due to burnout and overload as a result of the increased burden of care brought about by death due to AIDS, and a spiralling reluctance due to fear of contracting the disease. Ntuli and Day report on a study related to the impact of AIDS on the health care system where 16% of health workers currently employed in both the private and public health care sectors (in four provinces) admitted to be infected by HIV/AIDS. Current estimates indicate that by 2011, a shortage of 19 000 nurses (a 25% vacancy rate) will exist. According to these authors professional satisfaction, motivation, self-

realisation, social responsibility and prestige in health care services are called for. They are of the opinion that efforts aimed at improving management skills and monitoring allowances will be essential to retain staff. In this regard they quote Wimble who states that the quality of leadership mentoring and support of health professionals, over an extended period, seems crucial together with the development of general management competencies for the 'new world scenario'.

Private health care in South Africa

Due to the many and varied problems experienced in the public health sector, large numbers of the current nursing staff enters into private health care institutions in seeking better working conditions. Attention now turns to the Medi-Clinic Private Hospital Group where, as stated, the current investigation was launched. Medi-Clinic Private Hospital Group is an established leader in South Africa's private hospital industry with a market share of 23% and more than 5500 beds in their network; 11,00 full time employees with more than 40 hospitals countrywide and in Namibia. The network's vision, is "Committed to Quality Care" and they seek to meet and exceed the expectations of, *inter alia*, their clients and employees. It sets out to manage the hospitals by focussing on leadership, and maintaining a safe and secure environment (Medi-Clinic Private Hospital Group, s.a.).

As far as employees are concerned, Medi-Clinic Private Hospital Group attempt to attract calibre staff in a sometimes volatile labour market. They wish to create and retain a motivated, dedicated, loyal and content workforce by directly influencing employees with their group values, policy subscribing to both internal and external equity, and commitment to the development of each individual. The latter is done by continuing professional development, basic and post-basic nursing education, business process training and management and leadership development. One would therefore assume that the staff would be much more content, dedicated with better levels of well-being than staff in the public sector.

- **Emotions in the hospital setting**

Occupations that require direct contact with a client, continuous interaction with team members or that evoke intense emotions such as working in a hospital emergency room, are all likely to have high levels of emotional display. Organisations have different rules (formal and informal) regarding the expression of emotion when at work. Hospice workers hired to provide emotional support (rather than traditional nursing) experienced that spontaneous and open-ended emotional work was, however, squeezed out by routinised physical work (James, 1989).

Furthermore, Millman (Ashforth & Humphrey,1995) noted that anger and mistrust commonly experienced by hospital patients are seen as potentially disruptive for efficient operations. Hospitals have thus developed different means of minimising and precluding the experience and expression of emotions. For example, consent forms minimise the perceived risk of surgery, doctors and nurses present a united front supporting recommended procedures and one another's expertise. Bedside visits are kept brief and hurried by doctors and only direct queries by patients are attended to. Patients are encouraged to view their doubts as natural nervousness to be dismissed. There thus seems to be an impediment on the normal experiencing of emotions in a hospital setting.