

**PSYCHOLOGICAL OPTIMALITY AS A CONCEPT IN
INDUSTRIAL PSYCHOLOGY**

by

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JUNE 1994

I declare that this dissertation "Psychological Optimality as a concept in Industrial Psychology" is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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"SEE TO IT THAT NO ONE TAKES YOU CAPTIVE THROUGH HOLLOW AND DECEPTIVE PHILOSOPHY, WHICH DEPENDS ON HUMAN TRADITION AND THE BASIC PRINCIPLES OF THIS WORLD RATHER THAN ON CHRIST. FOR IN CHRIST ALL THE FULNESS OF THE DEITY LIVES IN BODILY FORM, AND YOU HAVE BEEN GIVEN FULNESS IN CHRIST, WHO IS THE HEAD OVER EVERY POWER AND AUTHORITY".

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Dedicated to

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SUMMARY

The objective of this exploratory study was to conceptualise the constructs of psychological optimality in order to derive a definition of the concept and to compile a personality profile of the psychologically optimal individual. A sample of 200 employees in a large electricity utility were randomly selected. A psychometric battery comprising seven questionnaires was compiled and administered. The empirical investigation revealed four factors as indicative of psychological optimality. The factors comprise Intrapersonal dimensions, namely successful coping in stressful situations, an internal locus of control, and Interpersonal dimensions, namely interpersonal sensitivity and a commitment to society. It seems that work behaviour would be largely determined by the intra- and interpersonal behaviours.

KEY TERMS : Psychological Optimality, Third Force Psychology, Salutogenesis, Personal Orientation Inventory, Rotter Questionnaire, Self-Efficacy, Self-Control, Sense of Coherence, Personal Views Survey, Potency.

OPSOMMING

Die doel van hierdie verkennende studie was om die konstruerte onderliggend aan psigologiese optimaliteit te konseptualiseer ten einde 'n definisie van die konsep en 'n persoonlikheidsprofiel van die psigologiese optimale individu saam te stel. 'n Steekproef van 200 werknemers is ewekansig gekeur. 'n Psigometriese battery bestaande uit sewe vraelyste is saamgestel en geadministreer. Die empiriese ondersoek het vier faktore aangedui as onderliggend aan psigologiese optimaliteit. Die faktore dui op intrapersonlike dimensies, naamlik suksesvolle stresshantering, interne lokus van kontrole, en Interpersoonlike dimensies, naamlik interpersoonlike sensitiviteit en toewyding aan die gemeenskap. Dit blyk dat werksgedrag grootliks bepaal sal word deur intra- en interpersoonlike gedrag.

SLEUTELTERME : Psigologiese Optimaliteit, Derdemag Sielkunde, Salutogenese, "Personal Orientation Inventory", Rotter Vraelys, Self-werksaamheid, Selfbeheer, Sin van Koherensie, "Personal Views Survey", Potensie.

CHAPTER ONE : INTRODUCTION AND ORIENTATION TO THE STUDY

This dissertation examines the concept of psychological optimality and its application in industry. This embraces constructs from traditional personality theories and the more recent salutogenic paradigm.

In this chapter, the background to and motivation for this study, the problem statement, aim, paradigmatic perspective and lastly the method of study is presented.

1.1 BACKGROUND TO AND MOTIVATION FOR THIS STUDY

Since its development into a science in the first half of the century, industrial psychology has undergone many changes. Industrial psychologists became involved in a variety of activities, but in a sense their responsibilities can be viewed as relating either to the science of psychology (with an emphasis on research) or to the profession of psychology (with an emphasis on the application of knowledge and insight to practical problems in the work situation) (Gouws et al., 1979).

In the work situation, the focus has been on organisation processes mostly with the aim to increase the productivity of labour (Mc Cormick & Ilgen, 1981). Shifts in industrial psychology have been reflected in a broadening of the entire field, changing emphasis on certain areas, the development of new methods and techniques for the measurement and analysis of relevant variables, and increased attention to the development of theories that might serve as generalised bases for "explaining" human behaviour in the industrial context. This is illustrated in the earlier Hawthorne studies (Schein, 1980), which represented the first attempt at understanding employees instead of approaching them from the point of view of increased efficiency, as advocated by F W Taylor in his scientific management theory. The Hawthorne studies marked the inception of the human potential movement (Schein, 1980).

The human potential movement has drawn attention to the study of well- functioning persons, the objective of which is to identify and define the healthy personality (Walsh & Shapiro, 1983; Schultz, 1977).

Consequently, emphasis on the mental health of the individual evolved as studied in the field of industrial mental health (Noland, 1973). The theoretical basis is found in health psychology (where mental health is equated with physical health - Noland, 1973) and growth psychology (with the emphasis on psychological growth and development of the individual - Schultz, 1977).

The popular approach in industrial psychology is that these interventions belong in the field of clinical or counselling psychology and that the industrial psychologist is more concerned with organisational systems and processes, and not with the individual person. In practice, it seems as if the demands levelled at the industrial psychologist have changed, encompassing involvement in the potential development of the individual employee and of groups in the organisation. To accommodate this shift in emphasis, the industrial psychologist has in recent years become involved and interested in self-actualisation training (Shostrom et al., 1976), empathy training (Egan, 1990) and has focussed on the optimal psychological functioning of individuals (Cilliers, 1984, 1988; Strümpfer, 1990) and groups (Rogers, 1975) in the organisation. This is studied within the humanistic paradigm (Maslow, 1971).

These trends also signify the emergence of a new model, that of salutogenesis (Strümpfer, 1990). The underlying paradigm was first described by Antonovsky (1979) in which the emphasis is on the origins of health, or wellness (from Latin : salus = health; Greek : genesis = origins). The traditional way of thinking has been according to the "medical model" or a "pathogenic" orientation, emphasising the abnormal where the assumption is that diseases are caused by physical, bio-chemical, micro-biological and psychosocial agents. The salutogenic concept emphasises the maintenance and enhancement of health and wellness irrespective of the omnipresence of stressors (Antonovsky, 1979 : 9,10).

1.2 PROBLEM STATEMENT

Although it is possible to find correspondences between the various personality theories, methods, and findings, contemporary views on personality remain largely irreconcilable and provocative (Maddi, 1971). Furthermore, although many models exist in the field of industrial

psychology which facilitate the understanding and measurement of human behaviour, there is no integration of these theories or methodologies.

With its origins in the salutogenic paradigm, psychological optimality as an umbrella concept (Cilliers, 1984, 1988), corresponds with many personality theories, models and technologies emphasising the human motivation to grow and to actualise potential. This optimality consists of specific personality characteristics and constructs, such as the intrapersonal characteristic of ego-strength as well as effectiveness on the interpersonal level.

The concept of optimality seemingly supports the general emphasis in industrial psychology pertaining to the development of optimal behaviour of employees and managers in the work situation, although the theoretical bases of this statement is still being researched as in part by this study.

This statement confirms the point of view of Kuhn (1970) as quoted by Strümpfer (1990) that there is still much "mopping-up" activity within the salutogenic paradigm. Research questions emanating from the above discussion include the following :

- * what is the definition of psychological optimality ?
- * what constructs are relevant to the concept ?
- * what are the personality characteristics of each construct ?

1.3 AIMS OF THE STUDY

1.3.1 GENERAL AIM

The general aim of this study is to ascertain the constructs of psychological optimality.

1.3.2 SPECIFIC AIMS

Theoretically the aims are :

- * to explore the process of psychological optimal functioning as seen from various paradigms and to integrate this into a theoretical definition ;
- * to integrate the personality characteristics indicative of psychological optimal functioning into a comprehensive personality profile.

Empirically the aims are :

- * to compile and administer a psychometric battery to measure the personality profile indicative of psychological optimality;
- * to integrate these findings into a personality profile of the psychologically optimal employee by means of a varimax rotated factor analysis.

1.4 PARADIGMATIC PERSPECTIVE OF THE STUDY

The purpose of this paradigmatic perspective is to provide the context within the field of psychology in which this study is being conducted (Mouton & Marais, 1990). Meta-theoretical assumptions, a theoretical model, and choice of methodology are discussed below.

1.4.1 META-THEORETICAL ASSUMPTIONS

1.4.1.1 Field of Study

This research project is undertaken in the context of industrial psychology which is conceptually described as "..... the scientific study of human behaviour and psychological conditions in the work-related aspects of life and the application of knowledge toward the minimisation of problems in this context" (McCormick & Ilgen, 1981). The problem addressed in part by this study is to explore the theoretical description of optimal behaviour of employees and managers in the work situation.

Within this context the relevant subfields of industrial psychology are industrial mental health, health psychology, growth psychology, and

psychometrics. As they contribute to the description of psychological optimality these subfields are briefly defined :

- * Elements of many disciplines - (for example development, personality, career, personnel and organisational psychology) and related fields (such as psychiatry, medical sciences, sociology) form part of contemporary literature on **industrial mental health**. Industrial mental health refers to an employee's thoughts, feelings and behaviour that may affect work behaviour as well as behaviour away from the work situation (Noland, 1973).

- * **Growth psychology** is that subfield of industrial psychology which is not concerned with the sick side of human nature (psychological illness) but with the healthy side (psychological "wellness") (Schultz, 1977). The purpose of growth psychology is not to treat victims of neuroses and psychoses, but to tap and release the vast human potential for actualising and fulfilling all capabilities and finding deeper meaning in life. Strümpfer (1990) refers to "the normalities even of abnormal persons, with locating and developing personal and social resource and adaptive tendencies so that the individual can be assisted in making more effective use of them". The emphasis is on utilising whatever potential is available as a catalyst for growth and "wellness".

- * **Health psychology** studies the individual as a self-system in all his modes of behaviour (biological, social and psychological). Individuals join an organisation to achieve objectives and to satisfy needs in a work context that would be impossible or difficult to accomplish on their own. The interaction between the individual and organisation contributes to the meta-objectives for organisational and individual success, namely efficiency, effectiveness and "health" (Neff, 1977). The last mentioned quality includes individual physical and mental health which in turn contribute to organisational health. The focus is on the capacity for growth and change in the human personality, realising talent, creativity, energy and motivation on the intra- and interpersonal level.

- * **Psychometrics** is a branch of psychology which studies the principles and practices of psychological measurement in all its dimensions, such as the compiling and standardisation of psychological tests and related statistical procedures (Plug et al., 1986). Psychometrics is complemented and influenced by various approaches to measurement, all based on different theories about human behaviour, offering different explanations for interpersonal and intrapersonal functioning. In this study seven questionnaires are used to compile a theoretical personality profile of a psychologically optimal person (see chapter 3).

1.4.1.2 Relevant Paradigms

A comprehensive theory of personality comprises a number of assumptions and concepts which integrate various empirical findings from general psychology, and posit new interrelations, whilst also possessing some merit for the description and prediction of human behaviour in certain circumstances. The correspondences between these various theories are referred to as paradigms (Mouton & Marais, 1990).

Paradigms are assumptions or views on which theorists agree. This makes it possible to classify different theorists under the same paradigm, for example, the third force and salutogenic paradigms. In this study the paradigm of psychological optimality is explored and developed on the basis of contributions from these two paradigms.

Third force psychology was founded by Maslow and a group of psychologists in America in 1955 in reaction to the psychoanalytic and behaviouristic approaches (Meyer et al., 1988). The third force person and worldview is that of a responsible person who has freedom of choice, who is continually in a process of growth - during which he strives to actualise his full potential.

Antonovsky (1979, 1985, 1987, 1987a), a medical sociologist at Ben-Gurion University in Israel, is the clearest proponent of the new salutogenesis paradigm (Strümpfer, 1990). The most recent contributions to the paradigm of psychological optimality are derived from the salutogenic paradigm. This paradigm suggests a movement

in psychological functioning on a continuum from abnormality, beyond normality to optimality.

This process toward psychological optimality is characterised by intra- and interpersonal behaviour (Shostrom et al., 1976). These two types of behavioural characteristics seem to be interdependent. Intra-personal behaviour comprises physical, cognitive, affective and conative functioning (Cilliers, 1984) and seemingly influences interpersonal behaviour.

In the empirical study the functional paradigm is relevant (Morgan, 1980). This paradigm is based upon the assumption that society has a systemic character oriented to produce an ordered and regulated state of affairs. It focuses upon understanding the role of human beings in society.

1.4.1.3 Psychology in Industry

Given a rapidly changing technology that requires a great adaptive capacity on the part of organisations in industry, the internal environments of organisations need to be created such that employees will be enabled to grow in their own unique capacity. The underlying assumption is that personal growth takes place in a work environment that will optimise human capabilities (Schein, 1980). The practise of psychology in industry has become inter-disciplinary, reflecting a realisation by psychologists that for an individual employee or manager, an organisation as a whole exists as a psychological entity to which he or she reacts. The theoretical basis of optimal behaviour being explored in this study is presented within the context of this realisation.

1.4.1.4 Terminology

1) Conceptual Framework

The conceptual framework for this study is provided by the third force and salutogenic paradigms to derive a grouping of common properties describing psychological optimality.

2) Model

The conceptual framework in 1) above is in part a model which offers guidelines for future research (Strümpfer, 1990).

3) Theory

Theory is the basic aim of science (Kerlinger, 1988). In this study the theoretical basis of psychological optimality will be explored to provide a framework from which phenomena such as the interrelation among variables can be predicted and explained in further studies.

4) Concept and Construct

Psychological optimality is a concept formed from the contributions of various theories and paradigms, namely those of third force and salutogenesis. A construct has the added meaning that it has been deliberately and consciously adopted in such a way that it can be observed and measured for a specific scientific purpose (Kerlinger, 1988). The constructs explored in this study are discussed in chapter 2.

5) Dimensions and Variables

In this study dimensions refer to the theoretical attributes of a construct. Variables refer to empirical application of theoretical dimensions.

1.4.2 THEORETICAL MODEL

A theoretical model is a conceptual framework offering guidelines for research (Kerlinger, 1988). For the purposes of this study, third force psychology and the salutogenesis paradigm provide the conceptual framework for the exploration of the concept psychological optimality. The specific contributions of these approaches are discussed in chapter 2.

1.4.3 CHOICE OF METHODOLOGY

It is possible to distinguish between three basic types of studies : exploratory, descriptive, and explanatory studies (Mouton & Marais, 1990).

1.4.3.1 Exploratory (or literature) studies

Exploratory studies are conducted in a relatively unknown research area - to seek what is rather than predict relations to be found (Kerlinger, 1988 : 373). The aims of this study are addressed by an exploratory study which may include the following :

- * to gain new insights into the phenomenon;
- * to undertake a preliminary investigation before a more structured study of the phenomenon;
- * to explicate the central concepts and constructs;
- * to determine priorities for future research;
- * to develop new hypotheses about an existing phenomenon.

In their book on research methodology, Selltiz et al. (1965) emphasise three methods by means of which exploratory research may be conducted :

- * a review of the related social science and other pertinent literature;
- * a survey of people who have had practical experience of the problem to be studied;
- * an analysis of "insight-stimulating" examples.

This study can be defined as an exploratory study because it usually leads to insight and comprehension rather than the collection of accurate and replicable data. It is not guided by hypotheses although

hypotheses tend to be developed as a result of the exploratory research.

1.4.3.2 Descriptive studies

These studies include a large variety of types of research. The single common element in all these types of research is the researcher's goal, which is to describe that which exists as accurately as possible, by summarising various types of raw data (Lemke & Wiersma, 1976; Kerlinger, 1988). This study is descriptive in its efforts to define the concept psychological optimality and its constructs.

1.4.3.3 Explanatory studies

The major aim of these studies is that of empirically indicating causality between variables or events (Lemke & Wiersma, 1976; Kerlinger, 1988). A valid causal explanation must, therefore, meet three central requirements :

- * that a demonstrable relationship exists between the phenomena or, stated differently, that the causal (or independent) variable covaries with the dependent variable, and;
- * that there is a specific sequence of cause and affect;
- * that a specific phenomenon is the real cause of the dependent variable.

This study can be seen as explanatory in its empirical efforts to ascertain the personality profile of the concept psychological optimality.

1.5 METHOD OF STUDY

To achieve the aims of this exploratory study the following steps are taken :

1.5.1 LITERATURE REVIEW IN CHAPTER 2

In chapter 2 the literature will be presented in the form of a theoretical definition of psychological optimality and the core personality constructs indicative of psychological optimality.

1.5.2 EMPIRICAL STUDY IN CHAPTER 3

In chapter 3 the empirical study deals with the compilation and administration of the psychometric battery to a sample of 200 employees. Thereafter the statistical procedure will be discussed by means of a factor analysis of the data to derive a personality profile from the constructs indicative of psychological optimality.

1.6 SAMPLE

The sample consists of 200 employees of different races selected by a computerised random sampling process from the Natal region of a large organisation (see chapter 3).

1.7 CHAPTER SUMMARY

The background to and motivation for this study, the problem statement, aim, paradigmatic perspective and method of study were discussed in this chapter.

In chapter 2 the concept of psychological optimality is explored by means of a literature review of existing theories and paradigms. The chapter concludes with a definition of psychological optimality.

CHAPTER TWO : PSYCHOLOGICAL OPTIMALITY

In this chapter psychological optimality is explored theoretically, conceptualised and defined.

2.1 BACKGROUND TO THE CONCEPT

The study of mental illness was for many years the only quest in psychology. In recent years, however, a growing number of psychologists are recognising the potential of growth and self-actualisation in human personality. This study investigates personality constructs indicating psychological health from the third force and salutogenic paradigms.

Third force psychologists have levelled criticism against the proponents of psychoanalysis and behaviourism for their limited views of human nature, ignoring the heights to which persons have the potential to develop.

The psychoanalytic approach has focused on abnormal and sick behaviour, that is, pathogenesis. Freud, the originator of psychoanalysis (Clinebell, 1981), views pathological behaviour as synonymous with the behaviour of normal people. Freud's person and worldview is deterministic and pessimistic, believing that man is irrational and at the mercy of certain dominant determinants, such as the environment or heredity, and that he is motivated by irrational forces, the unconscious, instincts and needs (Meyer et al., 1988).

In reaction to the psychoanalytic approach, the traditional behaviourist approaches focus on rational observable behaviour. Criticism of the behaviourist approach is that the stimulus-response principle and learning principles are too limited to explain human behaviour fully (Meyer et al., 1988).

Third force psychologists regard the psychoanalytic approach as too negative when emphasising the destructive nature of man as a passive being ruled by drives and unconscious processes, whilst behaviourism is viewed as an oversimplification of man as a passive being at the mercy of environmental influences. The third force psychologists maintain that a need exists to consider the internal psychological

composition and experience of the individual and attach significance to the individual's interpersonal relations and socio-cultural environment.

This shift in focus is illustrated in figure 2.1 :

*Still Newton!
not cybernetic way*

MEDICAL MODEL

OPTIMAL MODEL

NEGATIVE

ABNORMAL

MALADJUSTMENT

ILLNESS

PATHOGENESIS

NORMAL

ADJUSTMENT

HEALTH

POSITIVE

OPTIMAL

ACTUALISING

FITNESS

SALUTOGENESIS

FIGURE 2.1: SHIFT IN FOCUS FROM A MEDICAL MODEL TO AN OPTIMAL MODEL

An important assumption underlying the schema presented in figure 2.1 is that it is not a dichotomy but a continuum on which the characteristics of abnormality, normality and optimality can be defined and identified (Maslow, 1971; Antonovsky, 1979; Strümpfer, 1990).

The shift in focus from a medical model to an optimal model provides for psychological growth beyond normality. Third force psychologists describe this growth in various ways which are presented chronologically : Erich Fromm's (1956) "productive orientation", Gordon Allport's (1961) "mature person", Victor Frankl's (1969) "self-transcending", Abraham Maslow's (1971) "self-actualisation", Rogers (1973) "full functioning", Fritz Perls' (1976) "self-actualisation" and Berne's (1961) "winner".

The salutogenesis paradigm offers a number of constructs that have developed independently. Contributions from this paradigm describing growth beyond normality are partly from a neo-behaviourist approach namely, Rotter's (1966) "locus of control", Bandura's (1982) "self-efficacy", Rosenbaum's (1988) "learned resourcefulness", and partly from a humanist - existential approach, namely, Antonovsky's (1979)

"sense of coherence", Kobasa's (1982) "personality hardiness", and Ben-Sira's (1985) "potency".

From these contributions the paradigm of psychological optimality has developed. Although the concept is not defined formally and clearly in the literature there has been a tendency in the so-called growth psychology literature to move the emphasis away from negative, abnormal, pathogenic behaviour toward the positive human motivation to grow and to actualise potential (Schultz, 1977; Strümpfer, 1990). The individual contributions from third force psychologists and proponents of the salutogenic paradigm are subsequently presented according to i) conceptualisation and ii) personality characteristics. This chapter concludes with a theoretical definition of psychological optimality.

2.2 CONCEPTUALISATION OF PSYCHOLOGICAL OPTIMALITY

2.2.1 THIRD FORCE PSYCHOLOGY

Third force psychology (Hjelle and Ziegler, 1987), has given rise to a radically different image of human nature, namely, that persons are basically good and worthy of respect, and that they will move toward realisation of their potentialities if environmental conditions are conducive. In this approach, the individual is seen as health-seeking and as capable of fulfilling his own aspirations. The individual has a motivational drive towards self-actualising, which is defined as the optimisation of quality of life and psychological growth, achieved through self-awareness and acceptance of own choices and responsibility. The individual has complete freedom of choice, each person alone is responsible for his or her existence, and can live an authentic (honest and genuine) life. A person is never static; he or she is always in the process of becoming more in the here-and-now.

The contributions of proponents to the third force psychology movement are presented below. For every theorist, firstly a conceptualisation, and secondly the relevant personality characteristics will be given.

2.2.1.1 Erich Fromm

Fromm (1956) stresses that psychological wellbeing of man is best reflected in a productive orientation which includes qualities such as love, creativity and social interest. The influence of society impacts on the psychological health of the individual. The extent to which the individual develops mature love can indicate the soundness of his functioning. Because of his innate striving for growth and development, the individual attains greater freedom and superiority through a process of transcendence. Fromm believes that man has the ability to retrieve his security within his greater freedom, to form relationships, discover meaning in life and satisfy certain basic needs.

Fromm (1956) describes the productive oriented personality as the person who loves fully, is creative, has highly developed powers of reason, perceives the world and the self objectively, possesses a firm sense of identity, is related to and rooted in the world, is the agent of self and of destiny. Fromm's productive orientation is a concept similar to Allport's mature personality and Maslow's self-actualising person.

2.2.1.2 Gordon Allport

Allport was the first personality theorist to study mature, normal adults, instead of neurotics. Allport studied normal individuals and so developed a theory concerned almost entirely with the healthy personality. According to Allport (1961), psychological optimality or "health" is achieved in "maturity" - which he describes as a process of growth toward functional autonomy of human behaviour, of self and ego development, of someone who has outgrown his past, satisfied his needs for affection and security, with self-sustaining motives and a well-developed proprium (ego or self). As the person matures, he or she develops interests outside of the self, becoming fully involved in work, relationships with family and friends, hobbies, political and religious activities.

The psychologically mature person (Allport, 1961) is capable of displaying warmth, compassion and love in relation to other people's behaviour, does not judge or condemn but accepts human frailties, knowing that he or she shares the same weaknesses. Further, the mature person acts rationally and regards the world objectively. There

is a strong commitment to a wholehearted investment of self in his or her work. The central aspect of the mature person is displaying deliberate and conscious behaviour. Hopes, intentions and dreams are contained in long-range goals - the "intentional nature" of the personality according to Allport (1961).

2.2.1.3 Victor Frankl

Frankl (1967, 1969) states that the self-transcending person lives by ideals and values. Transcendence is the process in which a person moves beyond focus on self to a relationship with someone or something outside himself. Herein the self is fulfilled, actualised, and finds meaning and purpose.

Frankl's view of self-transcendence stresses the importance of meaning in human existence. The essence of human existence comprises three factors : spirituality, freedom, and responsibility. Without these, according to Frankl (1969), it is impossible to find meaning and purpose in life. Spirituality entails saying "yes" to life, despite whatever one has to face, be it suffering or even dying. Freedom to choose our own way is expressed by Frankl as "he who has a why to live can bear with almost any how". It is enough to feel free to choose, one must also accept the responsibility of choosing.

According to Frankl (1962), the self-transcending person is directed toward future goals, committed to meaning through his or her work and love of (and by) others, responsible, freely choosing, and independent.

2.2.1.4 Abraham Maslow

Maslow (1971), known as the father of humanistic psychology, based his theory of self-actualisation on the healthy, creative individual, stressing man's highest aspirations. An individual's striving for growth and self-actualisation culminates in supreme development and use of all abilities, the fulfillment of all his or her qualities and capabilities. Maslow calls self-actualisation "growth motivation", and its attainment means increased mental health and a limitless state constantly affording new avenues of satisfaction. Shostrom (1972) is of the opinion that the "wellness" of actualising persons begins with the ability to creatively express themselves on two basic polarities : strength and

weakness; anger and love. He found these individuals competent and strong, yet acutely aware of their own personal weaknesses.

Maslow (1962) associates self-actualisation with heightened spontaneity, problem-centredness, need for privacy, acceptance of self, others, and nature, autonomy and freedom from cultural norms, perception of reality, freshness of appreciation and wealth of emotional response, more frequent experience of highlights, more democratic character structure, very high creativity and a change of value system. The self-actualising personality displays the following characteristics as compared with the so-called average (normal) person : he or she has a superior perception of reality, shows a greater acceptance of self, others and nature; shows more spontaneous behaviour; is problem-oriented rather than self-centred; is more autonomous and independent; shows richer emotional reactions - attaches more value to people and things; is able to show more empathy and understanding; has deeper, more intimate and more enduring interpersonal relationships.

2.2.1.5 Carl Rogers

Essentially Roger's theory (1973, 1975) subscribes to the self as the focal concept. Rogers believes that the individual who is full functioning has a basic, inherent and all-governing drive for self-actualisation and optimal functioning. A fully functioning individual is one who uses, recognises and develops all his abilities and talents to further self-knowledge.

Rogers lists five characteristics of such a person : awareness of experiences, existential living (richness of experience), organismic confidence (decision-making powers), freedom of experience (selectivity and creativity) and lastly, intuitive living. According to Rogers (1973), full functioning depends on congruency of self, perception and experience, and self-actualisation implies, not the fulfilment of every potential, but a constructive, selective self-fulfilment.

2.2.1.6 Fritz Perls

Perls (1976) describes self-actualisation in terms of Gestalt psychology theory as evidenced in the individual who optimises his potential in the

here-and-now as a result of a continuous adaptation process, rather than an ideal end-state. Gestalt theory emphasises the unity of mind and body - placing strong emphasis on the need for integration of thought, feeling, and action. The main goal of gestalt therapy is to increase the individual's self-awareness and self-acceptance.

According to Perls (1976), people all go through life with unfinished business. Self-actualising is achieved when the individual is able to complete past unfinished business, having less psychological tension to cope with, being more realistically aware of self and his world; a here-and-now orientation to living, with the focus on the present as the only reality.

2.2.1.7 Eric Berne

Berne's transactional analysis (Berne, 1961), refers to a winner where all three ego states, the parent, adult and child, are functionally balanced (Berne, 1972, 1976), but with the emancipated adult ego as autonomous controller (Berne, 1961, 1964:25).

The core characteristic of a winner is the individual's striving for a socially satisfying and meaningful life.

INTEGRATION

Third force psychologists view the psychologically optimal person as an individual who is in the process of "becoming" - through transcendence (Frankl, 1969), finds meaning in life (Fromm, 1956), and is striving toward self-actualising (Maslow, 1962), in the here-and-now (Perls, 1976), as a responsible, mature (Allport, 1961), productive (Fromm, 1956), full-functioning individual (Rogers, 1973) - a winner (Berne, 1961).

2.2.2 SALUTOGENESIS

Antonovsky (1985) proposes a salutogenic orientation focusing on the sense of coherence which is an orientation to the world which sees it as comprehensible, manageable and meaningful. The crucial elements

in the salutogenic orientation are that the stimuli are viewed as challenges; the challenges are endemic, built into life; the dependent variable is a continuum, not a dichotomy. Antonovsky (1979 : 13) summarises the salutogenic orientation by stating, "thinking salutogenically not only opens the way for, but compels us to devote our energies to the formulation and advance of a theory of coping".

In response to this statement, the constructs of Antonovsky (1987) and other proponents to the salutogenesis paradigm are subsequently discussed. These constructs are of fundamental importance for research and practice in health psychology, since its primary concern is with the maintenance and enhancement of wellness, in addition to the treatment of illness (Strümpfer, 1990). For every theorist, firstly a conceptualisation, and secondly the relevant personality characteristics will be given.

2.2.2.1 Julian Rotter

Rotter (1954) developed a comprehensive theory of personality, called the social learning theory. This theory was further elaborated by the concept locus of control. Rotter (1966) postulates a continuum in which individuals at one end credit reinforcements to external control, that is, to such factors as other people in power, fate, or sheer chance, while individuals at the other end have a generalised expectancy that reinforcement is brought about by their own efforts, believing in internal control. Rotter (1966) has hypothesised a positive relationship between perceived locus of control and personal adjustment. From this theory, Rotter believes that persons who view positive reinforcements as contingent upon their own behaviour (internals) are better adjusted than those who see reinforcements as determined by chance, fate, or powerful others (external). Dependence on other is a characteristic of other-directed persons.

The individual with an internal locus of control (inner-directed) acts autonomously and independently, and is able to take decisions in terms of his or her own motivation and internalised principles. Such individuals are able to strike an optimal balance between inner-and other-directedness. On the other hand, the individual who has an external locus of control (other-directed) will tend to rely on others and to be highly susceptible to external influences, seeking acceptance

through manipulation and attempting to impress others from behind a mask (Shostrom, 1963; Rotter, 1966).

2.2.2.2 Albert Bandura

Bandura (1977, 1977a) can be classified as a neo-behaviourist. He emphasises primarily the role of the social environment in the development of personality. Bandura (1976) uses the cognitive concept of self-efficacy to describe the capability of individuals in which cognitive, social and behavioural skills are used to produce and to regulate events in their lives. People often do not behave optimally, even though they know what to do. This is because their self-referent thoughts dictate how they judge their capabilities and how, through their perception of self-efficacy, they affect their motivation and behaviour.

Self-efficacy beliefs operate on action through cognitive, affective and conative intervening processes. The personality characteristics of these processes are described as : goal achievement (cognitive), coping efficacy (affective) and personal mastery (conative).

Goal achievement : Self-efficacy beliefs affect thought patterns that may be self-aiding or self-hindering. Personal goal setting is influenced by self-appraisal of capabilities. The stronger their perceived self-efficacy, the higher the goals people set for themselves and the firmer their commitment to them (Bandura, 1989). Those who have a high sense of efficacy visualise success scenarios that provide positive guides for performance. Those who judge themselves as inefficacious are more inclined to visualise failure scenarios that undermine performance by dwelling on how things will go wrong. Coping efficacy : people's belief in their capabilities affect how much stress and depression they experience in threatening situations, as well as their level of motivation. People who believe they can exercise control over potential threats do not conjure up apprehensive cognitions and, therefore, are not perturbed by them. Those who believe they cannot manage potential threats tend to dwell on their coping deficiencies and view many aspects of their environment as fraught with danger (Bandura, 1988b, 1988c). People avoid potentially threatening situations and activities because they believe they will be unable to cope with situations they regard as risky (Bandura & Wood, 1989). The

stronger the perceived coping efficacy, the more venturesome the behaviour (Bandura, 1988b). Personal mastery : people's self-efficacy beliefs determine their level of motivation, as reflected in how much effort they will exert in an endeavour and how long they will persevere in the face of obstacles. The stronger their belief in their capabilities, the greater and more persistent are their efforts to master the challenge (Bandura, 1988a). There is a growing body of evidence that human attainments and positive well-being require an optimistic sense of personal mastery (Bandura, 1986).

2.2.2.3 Michael Rosenbaum

Rosenbaum (1983) defined the concept of learned resourcefulness as an acquired repertoire of behaviours and skills (mostly cognitive) by which a person self-regulates internal responses (such as emotions, pain, and cognitions) that interfere with the smooth execution of a target behaviour. This concept describes what Staats (1975) has labelled as a basic behavioural repertoire or a personality repertoire. These repertoires are learned from the moment of birth and serve as a basis for further learning.

There is today a large body of literature supporting the notion that individuals can be trained to self-regulate their emotions and thoughts when confronted with adverse, often uncontrollable, events (Goldfield, 1980; Kanfer, 1980; Rosenbaum & Merbaum, 1983). Meichenbaum (1977) was the first to apply the term "learned resourcefulness" in the context of coping skills training. According to Meichenbaum (1977), once clients acquire coping skills they change their perceptions of their condition (for example, speech anxiety) from "learned helplessness", to "learned resourcefulness".

Learned resourcefulness may involve a number of "enabling skills", such as the ability to self-monitor internal events, verbal abilities to label feelings and self-evaluation skills. Learned resourcefulness does not refer to intellectual, motoric or social resourcefulness (Rosenbaum, 1983).

2.2.2.4 Aaron Antonovsky

The sense of coherence (SOC) differs from many other coping constructs by focusing on those factors which promote coping and well-being, rather than focusing on risk factors contributing to disease. The SOC focus is on the different factors which move individuals towards the healthy end of the sickness - health continuum. Thus, the SOC takes a "salutogenic" or health-oriented approach to coping. A formal definition of SOC according to Antonovsky (1984, 1987) is : "the sense of coherence is a global orientation that expresses the extent to which one has a pervasive, enduring, though dynamic feeling of confidence that i) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable ii) the resources are available to one to meet the demands posed by these stimuli; and iii) these demands are challenges, worthy of investment and engagement" (Antonovsky, 1987:19). The three numbered portions of the definition describe three core personality characteristics. A description of each of these characteristics follows (Antonovsky; 1979:124-128, 1985:16-19).

Comprehensibility refers to the extent to which the person perceives the stimuli both within and without as clear, ordered, structured and consistent information, and on the basis of which (s)he can expect that these stimuli will in future also be orderable, explicable and even predictable. It means that perceptions make cognitive sense (Strümpfer, 1990). Manageability refers to the extent to which the person perceives the events of his or her life as experiences that are at least bearable, or better still, can be coped with, or even better, challenges that can be met (Strümpfer, 1990). Meaningfulness refers to the extent to which the person feels that life makes sense emotionally, rather than cognitively (Strümpfer, 1990).

2.2.2.5 Suzanne Kobasa

The concept of hardiness as a personality construct that moderates stress-illness relationships was first introduced by Kobasa (1979). It emerged from an existential theory of personality (Kobasa and Maddi, 1977). Three personality concepts were introduced as especially relevant to the hardy orientation : commitment, control and challenge. Commitment, control and challenge should keep persons healthy

despite encounters with events generally regarded as stressful (Kobasa, 1982). Hardiness will manifest in a stronger commitment to self, an attitude of vigorousness toward the environment, a sense of meaningfulness, and an internal locus of control. The hardy personality type formulated here builds upon the theorising of existential psychologists, Allport (1961) on propiarte striving, and Fromm (1956) on the productive orientation.

Commitment is an individual's belief in the truth, importance, and value of who he is and what he is doing, and is hereby related to the tendency to involve himself fully as a social being. Control is an individual's tendency to believe and act as if he can influence the course of events within reasonable limits; it entails the responsibility to act, but excludes the tendency to manipulate others. Challenge is based on the belief that change rather than stability is the normative mode of life; change is, therefore, expected in everyday life and not viewed as an adventurous rare occasion. Change is anticipated as an opportunity and an incentive for personal growth (Kobasa, 1982).

2.2.2.6 Zeev Ben-Sira

Ben-Sira (1985) viewed potency as a mechanism that prevents the tension which follows occasional inadequate coping, from turning into lasting stress. He defined potency as : "a person's enduring confidence in his own capacities as well as confidence in and commitment to his or her social environment, which is perceived as being characterised by a basically meaningful and predictable order and by a reliable and just distribution of rewards (Ben-Sira, 1985:399). One component of potency, which is a central characteristic in other concepts such as coherence (Antonovsky, 1979), hardiness (Kobasa, 1979), locus of control (Rotter, 1966), is an underlying basic sense of self-confidence in one's capacity to deal with the demands of life. The perceived predictability and meaningfulness of the social environment are crucial in facilitating coping.

Potency is the outcome of successful past experiences of coping and hence comprises mastery and self-appreciation. Weak potency, on the other hand, results from a history of unsuccessful coping experience. Potency as a personality characteristic, has the capacity to prevent tension from turning into lasting stress. Thus potency enables a person

to absorb failures without leading to an enduring disturbance of homeostasis.

INTEGRATION

Seen from the salutogenesis paradigm, the psychologically optimal individual has a vigorous and meaningful involvement in life, striving toward new goals and experiences (Antonovsky, 1985); a coherent and strong commitment to self and the social environment (Ben-Sira, 1985); a sense of internal control (or mastery) (Rotter 1966, Bandura, 1977); and confidence in his or her own abilities whilst viewing change as a challenge (Kobasa, 1979); and having the resourcefulness to thrive in changing environments (Rosenbaum & Ben-Ari, 1986).

2.3 PERSONALITY CHARACTERISTICS OF PSYCHOLOGICAL OPTIMALITY

The conceptualisations and personality characteristics of the psychological optimal functioning person discussed in 2.1 are categorised according to : intrapersonal, interpersonal and work behaviour.

The term **intrapersonal** behaviour relates to what happens within an individual and comprises the following components (Shostrom et al. 1976, Plug et al., 1986) : The physical refers to an individual's approach to, and his or her thoughts and feelings about, his or her body and bodily functions. The cognitive refers to an individual's thought processes, reasoning and problem-solving skills. The affective behaviour relates to emotions and feelings. The conative behaviour pertains to motivation or the driving force behind human actions and relates to the will to do things (rather than the ability to do things, which involves the intellect).

Interpersonal behaviour pertains to all contact or communication with other people (in which the above-mentioned intrapersonal components seem to play a decisive role).

In the opinion of the author, **work behaviour** refers to a combination of intra- and interpersonal behaviours and its manifestations in the work environment.

2.3.1 INTRAPERSONAL BEHAVIOUR

2.3.1.1 Physical Behaviour

1) Third Force Psychology

Optimal physical characteristics are displayed in a vital, active lifestyle, not bound by routine daily activities, with normal physical desires and the freedom to control and satisfy them (Allport, 1961); physiological tenacity (Rogers, 1961); productive living (Fromm, 1956); and the expression of spontaneous impulses (Perls, 1976).

2) Salutogenesis

Contributors to the salutogenesis paradigm view physical optimality of an individual as someone who has a healthy body image, accepting his body in spite of weakness or deficiency (Kobasa, 1982). This person is free from severe and chronic illness arising from prolonged stress and his or her health is less affected by an occasional disturbance of emotions. There is ample evidence of being physically active, alert and venturesome with self-reports of general health and wellness (Ben-Sira, 1985).

Conceptualisation of Physical Behaviour

The physical behaviour of the optimal functioning individual is characterised by physiological health and tenacity, a productive and active lifestyle with normal physical desires (Allport, 1961; Rogers, 1961). This person has a healthy body image, accepts his or her body in spite of weakness or deficiency (Kobasa, 1982).

2.3.1.2 Cognitive Behaviour

1) Third Force Psychology

Optimal individuals regard their world objectively and accept reality for what it is. They maintain a balance between the real self and ideal self through self-insight and a frame of reference based on reason (Allport, 1961). They express themselves spontaneously in creative products and creative living in all spheres of their existence, changing, growing

and developing in response to the rich stimuli of life around them (Rogers, 1973). The individual comprehends life by placing things, events and persons into a meaningful whole (Perls, 1976), and by being aware of himself and his environment through a superior perception of reality and independent autonomous thought processes (Maslow, 1971).

2) Salutogenesis

The cognitive functioning of the psychologically optimal person is reality-oriented, objective, task and goal-oriented, analytic and highly efficient in complex decision-making situations (Bandura, 1989). Effective application of problem-solving strategies is evidenced, for example, in planning, problem definition, evaluating alternatives, and anticipation of consequences (Rosenbaum & Ben-Ari, 1985). The individual has the ability to visualise success scenarios for future events whilst living cognitively in the present (Bandura, 1989). Learned resourcefulness is apparent in the repertoire of mostly cognitive behaviours and skills by which the individual self-regulates emotions and thoughts (Rosenbaum, 1983). He or she makes cognitive sense of stimuli, a process which Antonovsky (1987) refers to as "comprehensibility". Cognitive coping includes interpretations of situational events activating the imagination to make decisions on dealing with stressful events (Kobasa, 1982).

Conceptualisation of Cognitive Behaviour

Optimal cognitive behaviour is characterised by a superior perception of reality, independent, objective and autonomous thought processes, continual learning, creativity, high efficiency in complex decision-making and problem-solving situations (Allport, 1961; Maslow, 1971; Rogers, 1973; Perls, 1976; Kobasa, 1982; Rosenbaum & Ben-Ari, 1985; Bandura, 1989).

2.3.1.3 Affective Behaviour

1) Third Force Psychology

The optimal functioning person experiences a wide range of positive and negative emotions deeply and intensely, accepts responsibility for

his or her emotions and does not defend against them because none is threatening (Rogers, 1973).

This individual has a realistic self-image, is self-valuing, has self-respect, self-insight and self-acceptance in spite of weakness (Cilliers, 1988).

2) Salutogenesis

The psychological optimal individual is spontaneous towards others, free from anxiety and has an "openness" for the experience and acceptance of every emotion (Rotter, 1966), is sensitive, honest and congruent regarding his or her emotions and feels free to express these feelings behaviourally (Kobasa, 1982). The optimally functioning individual is emotionally stable (Ben-Sira, 1985), and is not likely to blame someone or something else for his feelings but takes responsibility for them (Bandura, 1989).

Conceptualisation of Affective Behaviour

The affective behaviour of the optimal individual is experienced in an intensely and deeply self-fulfilling, sensitive and emotionally satisfying life, free from guilt, free from blaming others, free to love, expressing emotions behaviourally whilst taking responsibility for them (Fromm, 1956; Allport, 1961; Rotter, 1966; Maslow, 1971; Rogers, 1973; Kobasa, 1982; Kobasa & Pucetti, 1983; Ben-Sira, 1985; Bandura, 1989).

2.3.1.4 Conative Behaviour

1) Third Force Psychology

The optimal personality has a great deal of spontaneity and freedom of choice and action (Rogers, 1973), always striving for goals that supply meaning to life (Frankl, 1969). He or she is forward-looking, motivated by long-range meaningful plans and goals (Allport, 1961). This person is self-motivated for growth and development, according to enduring values and standards in order to gain advantage, acts independently and autonomously (Maslow, 1971).

2) Salutogenesis

The optimal person sees life as a meaningful challenge and worthy of commitment, emotional investment and goal-oriented behaviour (Antonovsky, 1979). This person is inner-directed, guided primarily by internalised principles and motivations - depicted as active, striving, achieving, powerful, independent and effective (Rotter, 1966). A hardy orientation is displayed in the courage and motivation to exert control over external and internal events (Kobasa, 1982). He or she is highly resourceful and attributes success mainly to personal efforts showing high levels of motivation to perform well, and to a lesser extent to ability (Rosenbaum & Ben-Ari, 1985).

Conceptualisation of Conative Behaviour

The optimal individual experiences an innate striving toward long-range realistic goals that supply meaning to life (Frankl, 1969). He or she is oriented toward personal growth and self-actualising (Maslow, 1971), is inner-directed, active, striving, persevering and effective (Rotter, 1966).

Conceptualisation of Intrapersonal Behaviour

The intrapersonal behaviour of the optimal individual evidences a healthy, active physical lifestyle, efficient decision-making and problem-solving on the cognitive level whilst being reality-oriented and objective, having an emotionally satisfying life, with freedom from guilt and anxiety, freely expressing emotions behaviourally whilst taking responsibility for them. Conative functioning is inner-directed, active, persevering, with an innate striving toward long-range realistic goals that supply meaning to life.

2.3.2 Interpersonal Behaviour

1) Third Force Psychology

Optimal interpersonal behaviour is displayed in warmth, compassion, respect, acceptance and love for others (Fromm, 1956; Allport, 1961; Frankl, 1962; Maslow, 1962), does not judge or condemn (Allport, 1970) and has deeper, more intimate and enduring relationships

(Maslow, 1962). The person acts congruently (or real), and has the ability to show empathy (Rogers, 1961, 1973).

2) Salutogenesis

The optimal individual is inner-directed but involves him or herself fully as a social being (Kobasa, 1979), has confidence in and commitment to the social environment which is perceived as meaningful and ordered (Ben-Sira, 1985).

Conceptualisation of Interpersonal Behaviour

The interpersonal characteristics of the optimal individual are loving, warm, compassionate and socially acceptable (Fromm, 1956; Allport, 1961; Frankl, 1962; Maslow, 1962), evidencing empathy, respect, genuineness and concreteness (Wissing, 1978; Cilliers, 1984).

Empathy refers to a person's ability to transcend his or her own self-consciousness in order to arrive at a conscious and accurate understanding of the other person's deepest feelings and intentions, in terms of the latter's own frame of reference, and to explicitly communicate this understanding, particularly early on in the relationship. Respect may be defined as a profound recognition and appreciation of and regard for the value of the person as a unique creation and for his or her rights as a free individual. Respect is manifested in warmth, unconditional positive regard and in the quality of the attention given to that person. Genuineness involves the degree of correspondence or congruence between what a person says or does and what he or she truly feels and means. In their relationships with others, people who are genuine are spontaneous, honest, sincere, and fully themselves. Concreteness refers to the extent to which the personal or task-related information that is conveyed to the other person is specific and factual rather than vague or over-generalised. Concreteness aids accurate and clear communication (Cilliers, 1984).

2.3.3 Work Behaviour

Because the individual is involved in his totality at his work, it can be assumed that the above-mentioned intra- and interpersonal

characteristics are prerequisites for psychologically optimal work behaviour in addition to the following typical characteristics.

1) **Third Force Psychology**

The optimal individual becomes fully involved in his or her work, seeking new challenges and opportunities for self-actualisation and has clear, realistic, achievable and meaningful goals (Allport, 1961). This fully functioning person (Rogers, 1973), experiences freedom of choice and action, manages time well whilst constantly searching for and finding meaning in work (Frankl, 1969). There is self-motivation for growth and development and a striving to optimise potential in the here-and-now (Perls, 1976). Productivity is a personal work value (Fromm, 1956).

2) **Salutogenesis**

Optimal work behaviour is characterised by the following : **Hardiness**, which moderates stress through commitment to one's calling, control over the course of events within reasonable limits and, challenge which enables one to focus on the opportunities which change can bring, for example, a job transfer means a change that can be transformed into a career plan. **Self-efficacy**, which enables the individual to regulate events in his or her working environment by setting and achieving personal goals, exercising personal mastery in difficult situations and circumstances. The more efficacious, the more the individual prepares educationally for different occupational pursuits. **Potency**, as the outcome of successful past experience of coping, reflects confidence in an individual's abilities and the rewards which follow success at work. **Learned resourcefulness** manifests in a repertoire of task-oriented behaviours which enables the individual to employ various skills and behaviours to minimise the effects of stress on his or her performance. **The sense of coherence** within an individual's psychological functioning is characterised by the comprehension of stimuli from the environment as clear, ordered and structured. The work environment is manageable regardless of the challenges posed by it, and work provides meaning to him or her. Successful task performance is concomitant with the intelligence, knowledge and skills the person brings to work. When the task is ambiguous and complex, the strength of the sense of coherence will determine the successful completion of

the task. An internal locus of control enables the individual to function independently, set realistic goals for the future, yet be in contact with the here-and-now, whilst reflecting on past experiences to contribute to current decision-making. He or she is motivated by what he or she wants, prefers, likes and chooses. These individuals take responsibility for themselves and their performance at work. They are not afraid to make decisions for themselves in the work situation.

Conceptualisation of Work Behaviour

The work behaviour of the psychologically optimal individual manifests in a sense of mastering or self-efficiency; a sense of self-worth through occupational prestige and fulfilment of a culturally valued "bread-winner" role; a realistic identity; a sense of belonging in a social structure; meaning in work; problem-solving abilities and general coping powers; and increasing ability to adjust successfully to the environment and to outside demands.

2.4 DEFINITION OF PSYCHOLOGICAL OPTIMALITY

The shift in focus of psychological functioning from the medical model (abnormality, maladjustment, illness, pathogenesis) to the optimal model (optimal, actualising, fitness, salutogenesis) has necessitated a conceptualisation and description of core personality characteristics from the third force and salutogenic paradigms to provide a basis from which psychological optimality can be defined.

From the literature overview in 2.2 and the discussion thereof, there appear to be correspondences in the conceptualisation of psychological optimality. Third force psychologists refer to the optimal individual in the process of moving toward transcending, becoming, striving to function beyond normality (Fromm, 1956; Maslow, 1962; Frankl, 1969). Salutogenesis proponents similarly describe optimality as a process of growth and enhancement of wellness. In addition, emphasis is placed on the prevention and treatment of illness (Strümpfer, 1990).

Personality characteristics indicative of psychological optimality (as discussed in 2.3) reveal similarity as described by the third force and salutogenic paradigms. Regarding **intrapersonal behaviour**, the

physical behaviour is described as active, alert, tenacious, implying a level of "fitness". **Cognitive** behaviour is described as autonomous, reality-oriented, resourceful, creative, objective, analytic, seeing life as a meaningful whole (past, present, future) implying a type of optimal mental functioning. **Affective** behaviour is similarly described in terms of intensity of emotional experience which includes love and compassion for the self, sensitivity, taking responsibility for own feelings, as well as a realistic self-image, insight, respect and acceptance. Corresponding descriptions of **conative** behaviour includes striving for meaning, self-motivation, inner-directedness (autonomous, independent), goal-orientation, actualising. **Interpersonal behaviour** is similarly described as empathy (warmth, compassion), respect (not judgmental or condemning), genuineness and congruence (capacity for intimate and enduring relationships). **Work behaviour** corresponds with hardiness (productive, self-motivated), self-efficacy (clear, meaningful goals), potency (fully involved, effective), learned resourcefulness (creative), sense of coherence (self-actualising).

Based on the above, an integrated definition of psychological optimality is formulated, which for purposes of this study, will be used as a basis for the compilation of a psychometric battery in chapter 3 :

Psychological optimality is a process of transformational growth and renewal within individuals towards the optimal functioning of their physical, mental, psychological and spiritual potential into a meaningful whole - which manifests in their intra-, interpersonal and work behaviour and for which they accept full responsibility.

2.5 CHAPTER SUMMARY

In this chapter a literature overview of the concept psychological optimality was presented according to conceptualisations of the third force and salutogenic paradigms. From these conceptualisations the core personality characteristics of the psychologically optimal individual and a definition of psychological optimality were derived.

In chapter 3 the research methodology will be discussed.

CHAPTER THREE : RESEARCH METHODOLOGY

The purpose of this chapter is to describe the research methodology of this study. The empirical aim, psychometric battery, sample and data analysis are discussed.

3.1 EMPIRICAL AIM

Empirically the aims are :

- * to compile and administer a psychometric battery to measure the personality profile indicative of psychological optimality;
- * to integrate these findings into a personality profile of the psychologically optimal employee by means of a varimax rotated factor analysis.

3.2 PSYCHOMETRIC BATTERY

The conceptualisation of psychological optimality in chapter 2 has prompted the operationalisation of the concept in instruments which would measure the personality characteristics indicative of psychological optimality and which comply with the general aim of this study.

The psychometric battery used in this study comprises seven questionnaires:

- * Personal Orientation Inventory (Shostrom, 1963)
- * Rotter Questionnaire (Lefcourt, 1981; Phares, 1976)
- * Self-efficacy Scale (Bandura, 1982)
- * Self-control Schedule (Rosenbaum, 1980)
- * Sense of Coherence Questionnaire (Antonovsky, 1983)

- * Personal Views Survey (Kobasa, 1982)
- * Potency Scale (Ben-Sira, 1985)

A biographical questionnaire was compiled and then administered only to gather background information about the sample. The descriptive statistics of the sample are presented in Table 3.1.

Each measuring instrument is discussed according to its development and rationale, description, administration, interpretation, reliability and validity, and the motivation for use in this study.

3.2.1 PERSONAL ORIENTATION INVENTORY (POI)

3.2.1.1 Development and Rationale of the POI

The POI was developed by Shostrom (1963, 1974) as an instrument for the measurement of values and behaviour of self-actualising persons as described in chapter 2 by third force psychologists Maslow (1971), Rogers (1973), Shostrom (1974) and Perls (1976). They describe self-actualising persons as full-functioning, living in the present rather than dwelling on the past or the future, autonomous, competent, and yet fully aware of their own personal weaknesses. According to Shostrom (1974), the POI is also used in clinical situations to provide an objective measure of a client's mental health and to provide guidelines for growth during therapy.

3.2.1.2 Description of the POI

The POI consists of the questionnaire, answer sheet, profile sheets and scoring masks. The inventory consists of 150 two-choice comparative value-judgment items (A and B), or "paired opposites", reflecting values and behaviour of the self-actualising individual (Knapp, 1976:2-3). The separate answer sheet provides an A or B alternative for each of the 150 items. There are twelve masks (one for each scale). The profile sheet indicates the respondent's level of self-actualising on the scale continuum, with positive characteristics uppermost and negative

characteristics at the lower end of the profile. The POI consists of 12 clinically derived scales, grouped into two major scales and 10 subscales (Knapp, 1976:2-7). The major scales are interpreted in terms of a time and a support ratio.

Major Scales

1) The time ratio (Tc)

This scale measures time competence - a high score, indicative of being reality-oriented in the present and having the ability to bring past experiences and future expectations into a meaningful continuity. Time incompetence - a low score, suggests that the respondent does not discriminate well between past or future, is characterised by guilt, regret, remorse or by obsessive worry, fears and idealised goals and expectations.

2) The support ratio (I)

The support ratio relates inner-directedness to a high score indicative of being self-willed and independent. Other-directedness relates to a low score indicative of a tendency to be dependent on others. This ratio defines relative autonomy by assessing a balance between other-directedness and inner-directedness. A self-actualising person transcends and integrates both orientations, and this transcendence expresses itself in an optimal ratio between other- and inner-directedness.

There are 10 subscales which are grouped into five pairs. They are: values, feelings, self-perception, synergistic awareness and interpersonal sensitivity.

Values

3) Self-actualising Values (SAV)

This scale was derived from Maslow's (1962, 1969) concept of self-actualisation and measures the extent to which a person adheres to the

primary values of self-actualising persons. A high score suggests that the respondent holds and lives by values of self-actualising people, and a low score indicates the rejection of these values.

4) Existentiality (Ex)

This scale measures the respondent's ability to behave in accordance with the demands of a situation, that is, existentially, without rigidly adhering to principles. A high score indicates flexibility in application of values, whereas a low score indicates rigidity in adhering to values.

Feelings

5) Feeling reactivity (Fr)

This scale measures the extent to which a person is responsive towards his or her own needs and feelings. A high score measures sensitivity in this regard, while a low score indicates a lack of sensitivity.

6) Spontaneity (S)

This scale measures the extent to which the respondent feels free to act spontaneously and to be himself or herself. A high score reflects the ability to express feelings through spontaneous action. A low score reflects a fear of expressing feelings through actions.

Self-perception

7) Self-regard (Sr)

This scale measures the affirmation of the self in terms of one's own worth or strength. A high score reflects a tendency to regard one-self positively as a result of a feeling of personal strength, while a low score reflects feelings of low self-worth.

8) Self-acceptance (Sa)

This scale measures the extent to which respondents accept themselves despite their weaknesses or shortcomings. A high score indicates acceptance of one-self in spite of weaknesses or deficiencies whilst a low score reflects an inability to accept one's own weaknesses. Self-actualising requires both self-regard and self-acceptance, with the latter being more difficult to achieve.

Synergistic Awareness

9) Nature of man - constructive (Nc)

This scale measures the extent to which respondents have a constructive view of human beings. A high score suggests that the respondent sees man as essentially good and that he or she can resolve dichotomies such as good / bad, masculinity / femininity, selfishness / unselfishness and spirituality / sensuality in the nature of man. Thus a high score reflects the ability to achieve synergy in one's understanding of human nature, something that is characteristic of a self-actualising person. A low score means that the respondent sees opposites of life as antagonistic.

10) Synergy (Sy)

This scale measures the ability to achieve synergy by transcending dichotomies. A high score indicates that the respondent is able to connect and integrate seeming opposites, for instance, by understanding that work and play are not necessarily mutually exclusive. A low score indicates that the respondent sees opposites as antagonistic.

Interpersonal sensitivity

11) Acceptance of aggression (A)

This scale measures the extent to which the respondent is able to accept his or her own aggression. Thus high scores indicate that respondents are able to accept their own anger or aggression as natural or as a voluntary response. A low score indicates that respondents defend against such feelings by denying and / or repressing them.

12) Capacity for intimate contact (C)

This scale measures the ability to develop meaningful, intimate relationships with others, without undue emphasis on expectations and obligations. A high score indicates the respondent's ability to develop meaningful, and contactful relationships with other human beings. A low score indicates that the respondent has difficulty with warm interpersonal relationships.

3.2.1.3 Administration of the POI

The POI is self-administering, and is completed individually or in groups. The respondent reads the directions of the questionnaire by himself. Thereafter he records his answers to the 150 items on the answer sheet, selecting either option A or B, whichever is most true of himself. The answer sheet is scored, raw scores are converted to standard scores, and a self-actualising profile is obtained. Standard scores are calculated according to norms for American students and adults (Shostrom, 1963, 1964). In this research study the raw scores were used because of a lack of South African norms.

3.2.1.4 Interpretation of the POI

A score of between 50 and 65 is indicative of self-actualising behaviour. Scores of more than 65 may indicate that respondents either overestimated themselves or were trying to "fake good". Scores of less than 50 indicate that the respondent's quality of life can be improved if he or she strives for greater self-actualisation in certain fields.

3.2.1.5 Reliability and validity of the POI

According to Shostrom (1964), research in the USA testifies to the reliability and validity of the POI. Results indicate that the test discriminates between the self-actualised, normal, and non-self-actualised individuals on 11 of the 12 scales.

3.2.1.5.1 Reliability

Test-retest reliability coefficients have been obtained for POI scales based on a sample of students (Shostrom, 1964) N= 48. Reliability coefficients for the major scales of Time Competence and Inner-direction are 0,71 and 0,77 respectively, and coefficients for the subscales range from 0,52 to 0,82. In general, the correlations obtained in this study are at a level commensurate with other personality inventories.

3.2.1.5.2 Validity

A number of studies based on diverse populations have demonstrated the validity of the POI as a measure of concepts considered to reflect "actualising". Examples are available in Shostrom (1964), Fox, Knapp & Michael (1968), Burwick & Knapp (1991). There is strong evidence for the relevance of POI scores to behavioural indices judged to be important in the development of the actualising person. A number of studies have been undertaken to examine the relationship of POI variables to other personality constructs and scales (Knapp, 1976 : 78-

83). Considering the major POI scale of inner-directed, significant correlations against 16PF (Sixteen Personality Factor Questionnaire) scales depict the self-actualising person as active, ascendant, sociable, emotionally stable, and objective. Correlations between the other major POI scale, Time Competence, and 16PF temperament scales, suggest that those whose primary orientation is in the present would be described (from the 16PF) as assertive, happy-go-lucky, venturesome, trusting, and self-assured.

3.2.1.6 Motivation for use of the POI

The POI measures the values and behaviour of the self-actualising individual on the intrapersonal (scale 1 to 10) and the interpersonal level (scale 11 and 12) of psychological functioning. The concepts measured by the POI reflect the conceptualisation by the third force and salutogenic paradigms in chapter 2, namely, that the self-actualising person on the intrapersonal level functions in the here-and-now (time competent), is inner-directed (support ratio), holds self-actualising values (SAV), is flexible in the application of those values (Ex), is sensitive to own and other's feelings (Fr), spontaneously expresses feelings (S), has high self-regard (Sr), and self-acceptance (Sa), functions synergistically (Nc and Sy). On the interpersonal level he or she is sensitive and accepts responsibility for own aggression (A), and has the capacity to develop intimate, meaningful relationships (C).

3.2.2 Rotter Questionnaire

3.2.2.1 Development and rationale of the Rotter Questionnaire

The Rotter questionnaire (Lefcourt, 1981; Phares, 1976) was developed as a measure of individual differences in the generalised expectancy which distinguishes between those individuals who view reinforcement as contingent on their own skills and abilities (internal control) and those who feel what happens to them is a result of chance or forces outside their control (external control) (Rotter, 1966).

3.2.2.2 Description of the Rotter Questionnaire

The Rotter questionnaire includes an answer sheet and a scoring mask. It is a forced-choice (A or B) 29-item scale which includes seven filler items. The remaining items are indicative of either an external or an internal locus of control, depending on the choice (A or B) of the respondent.

1) External locus of control (other-directed) describes the individual who consistently relies on others for support and acceptance.

2) Internal locus of control (inner-directed) describes the individual who is autonomous, independent and self-reliant.

3.2.2.3 Administration of the Rotter Questionnaire

The questionnaire can be administered individually or in group sessions. The respondent reads the instructions and then proceeds to answer the 29 questions and indicates his or her answers on the answer sheet.

3.2.2.4 Interpretation of the Rotter Questionnaire

The questionnaire deals exclusively with the subject's belief about the nature of the world and the way in which certain important events in society affect him. A high score indicates persons with an internal locus of control who, at a personal level, are individualistic, assertive, interested in gaining knowledge, and willing to rely upon their skill in risky situations. At the societal level, persons with an internal locus of control are more concerned with social problems and more active in attempting to solve these problems than are externally-oriented persons (Maddi, 1980). A series of studies provides strong support for the hypotheses that the individual who has a strong belief that he can control his own destiny (internal control), is likely to: 1) be more alert to those aspects of the environment which provide useful information for his future behaviour; 2) take steps to improve his environmental condition; 3) place greater value on skill or achievement reinforcements

and be generally more concerned with his ability, particularly his failures; and 4) be resistive to subtle attempts to influence him. Persons believing that they are externally controlled (other-directed) are highly susceptible to the external influences of people or situations and do not display, to a greater or lesser extent, the characteristics of the person with an internal locus of control.

3.2.2.5 Reliability and validity of the Rotter Questionnaire

3.2.2.5.1 Reliability

Test-retest reliability is satisfactory, and the scale correlates satisfactorily with other methods of assessing the same variable (Rotter, 1966; Baumeister, 1991; Bunch & Schneider, 1991). Because the items are not comparable, split-half or matched-half reliability tends to underestimate the internal consistency. Kuder-Richardson reliabilities are limited since this is a forced-choice scale.

3.2.2.5.2 Validity

Discriminant validity is indicated by the low relationships with such variables as intelligence and social desirability. Most significant evidence of the construct validity of the Rotter questionnaire comes from predicted differences for individuals above and below the median of the scale or from correlations with behavioural criteria (Rotter, 1966; Baumeister, 1991; Bunch & Schneider, 1991).

3.2.2.6 Motivation for use of the Rotter Questionnaire

Both the third force and salutogenic paradigms describe the optimal individual as being autonomous and independent. Strümpfer (1990) refers to Rotter's (1966) internal-external locus of control construct as salutogenesis-related. The questionnaire measures the locus of control of the individual and it can therefore be predicted that individuals scoring higher on internal control will also be higher on a

self-actualisation measure which is an indicator of intrapersonal and interpersonal psychological functioning.

3.2.3 SELF-EFFICACY SCALE

3.2.3.1 Development and rationale of the Self-efficacy Scale

The self-efficacy scale was developed by Bandura (1982) as an instrument for the measurement of perceived self-efficacy which an individual has about him or herself in the performance of tasks. The stronger the perceived self-efficacy, the more active the coping efforts. The instrument distinguishes between those individuals who have the capability to use cognitive, social and behavioural skills to regulate events in their lives and those who do not.

3.2.3.2 Description of the Self-efficacy scale

The self-efficacy scale consists of a questionnaire, an answer sheet and a scoring mask. It contains 27 items to which responses are indicated on a 7-point scale. The items are indicative of the ability of the individual to self-regulate events in his or her life (Bandura & Adams, 1977).

3.2.3.3 Administration of the Self-efficacy Scale

The self-efficacy scale is self-administering, individually or in groups. Items are presented to the respondents in the form of statements asking for the extent of their agreement (1, strongly agree;7, strongly disagree). Responses are recorded on the answer sheet. Reverse scoring is required for nine items in the scale.

3.2.3.4 Interpretation of the Self-efficacy Scale

According to Bandura (1977), a low score indicates a sense of self-efficacy by the individual. This individual has the capability to use cognitive, social and behavioural skills to regulate events in his or her life. A high score is indicative of a lack of conviction that required behaviours result in avoidance of activities for which the individual lacks confidence and also an avoidance of threatening situations.

3.2.3.5 Reliability and validity of the Self-efficacy Scale

No reference to the reliability and validity of the self-efficacy scale could be traced in the literature. According to Bandura (1977a), empirical tests of the self-efficacy concept confirm that expectations of personal efficacy stem from four main sources of information. Firstly, performance accomplishments provide the most influential efficacy information because it is based on personal mastery experiences. The other three sources of efficacy information include the vicarious experiences of observing others succeed through their efforts, verbal persuasion that one possesses the capability to cope successfully, and states of physiological arousal from which people judge their level of anxiety and vulnerability to stress.

3.2.3.6 Motivation for use of the Self-efficacy Scale

The self-efficacy scale used in this study is a measure of the cognitive, motivational and affective processes which are indicative of optimal psychological functioning on the intrapersonal level. Bandura (1982, 1989) categorically states that the stronger an individual's perceived self-efficacy, the higher the goals he will set and the firmer the commitment to successfully achieve them (a cognitive process). There is a growing body of evidence that human attainments and positive well-being require an optimistic sense of personal efficacy (a motivational process) (Bandura, 1986).

3.2.4 SELF-CONTROL SCHEDULE (SCS)

3.2.4.1 Development and rationale of the SCS

The SCS was developed by Rosenbaum (1980) as an instrument for the measurement of learned resourcefulness described as an acquired repertoire of self-control behaviours and skills (mostly cognitive), by which a person self-regulates emotions, pain, and thoughts that interfere with the smooth execution of a target behaviour. These self-control behaviours are described in the literature as stress-handling (Lazarus, 1976) and as coping-skills (Meichenbaum, 1977). The SCS provides information which can be used to train individuals to self-regulate their emotions and thoughts when confronted with adverse events (Meichenbaum, 1977; Goldfield, 1980; Kanfer, 1980; Rosenbaum & Merbaum, 1983).

3.2.4.2 Description of the SCS

The SCS consists of the questionnaire, an answer sheet, and a scoring mask. The 36-item schedule rated on a 6-point scale, consists of 12 items referring to the use of cognitions to control emotional and physiological sensations, 11 items refer to the subject's tendency to employ problem-solving strategies, 4 items relate to the person's perceived ability to delay immediate gratifications, and 9 items are indicative of general expectations for self-efficacy.

3.2.4.3 Administration of the SCS

The SCS is self-administering and can be completed individually or in groups. Respondents read the instructions and respond to the 36 items, indicating how characteristic or descriptive each of the item statements is of him or her. Responses are indicated on the answer sheet, scored and interpreted.

3.2.4.4 Interpretation of the SCS

Learned resourcefulness as measured by the SCS refers to a basic behavioral repertoire. High scores indicate an extensive repertoire of self-controlling behaviours (high resourcefulness) and more effective coping methods when faced with stressful events. Low scores are associated with people who have a tendency to helplessness and little confidence in their ability to control their emotions and cognitions when faced with aversive events (low resourcefulness).

3.2.4.5 Reliability and validity of the SCS

3.2.4.5.1 Reliability

The internal reliability of the schedule was established in a number of studies involving more than 600 subjects (Rosenbaum, 1980). Alpha coefficients computed on six different samples of subjects ranged from 0,78 to 0,86 indicating a high internal consistency among items. Test-retest reliability after four weeks indicated that the SCS is fairly stable over time, $r(0,82) = 0,86$.

3.2.4.5.2 Validity

Incremental validity of the SCS was achieved by correlations with other self-report scales and by an experimental study. In contrast to other existing behavioural assessment instruments, the validation of the SCS is a complex task since self-control behaviours are mostly covert and must be inferred from the behaviour of a person under specific circumstances or from self-reports.

The convergent and the discriminant validity of the SCS was examined and confirmed (Meichenbaum, 1977) by comparing scores obtained on the SCS to scores obtained on a number of existing scales, such as the Rotter questionnaire (1966). A study by Kanfer (1980), provides further evidence for the construct validity of the SCS as a measure of self-control behaviours.

3.2.4.6 Motivation for use of the SCS

The SCS measures the self-control (resourcefulness) skills and behaviour of a person as conceptualised in the salutogenesis paradigm. Rosenbaum (1980) states preliminary findings which indicate that the SCS is a useful instrument in research on self-control, an indicator of optimal psychological functioning. Bandura's (1977a) concept of self-efficacy is similar to one of the self-control behaviours measured by the SCS, namely, belief in one's ability to self-regulate actions, emotions and cognitions. Rosenbaum (1980) reported that the SCS had low but statistically significant correlations with the following scales: Rotter's locus of control scale (Rotter, 1966), the G-factor ("self-control") of Cattell's 16 PF (Cattell et al., 1979). High correlations were obtained between SCS scores and assessment of specific self-efficacy expectations in situations that require self-control behaviour (Rosenbaum & Ben-Ari, 1986).

3.2.5 SENSE OF COHERENCE QUESTIONNAIRE (SOC)

3.2.5.1 Development and rationale of the SOC Questionnaire

The SOC questionnaire was developed on the basis of the sense of coherence construct (Antonovsky, 1983). Antonovsky is the chief proponent of salutogenesis. The SOC measures those personality factors which promote coping and well-being. This questionnaire is based on a salutogenic or health-oriented rather than a disease-oriented approach to psychological functioning and measures the extent to which the individual sees the world around him as predictable, manageable and meaningful, that is, "how people manage stress and stay well" (Antonovsky, 1979, 1987; Strümpfer, 1990).

3.2.5.2 Description of the SOC Questionnaire

The SOC questionnaire consists of a 29-item questionnaire and an answer sheet. The questionnaire is based on the components of the

sense of coherence construct and consists of 11 comprehensibility, 10 manageability, and 8 meaningfulness items (Antonovsky, 1984; 1987).

1) Comprehensibility - a high score is indicative of an individual who senses that life is ordered, consistent and makes sense. With reference to the future, it implies predictability. A low score indicates a sense of chaos, of randomness, life is accidental and cognitively not understandable.

2) Manageability - a high score is indicative of being able to perceive stressors as manageable and therefore selecting appropriate resources, those under one's own control, available from others, or from a legitimate authority, such as God, rather than to react with helplessness. A low score is indicative of such a reaction.

3) Meaningfulness - a high score indicates that life is seen as a challenge, as worthy of commitment. A low score indicates that life is seen as a burden and challenges as paralysing threats reacted to with negative behaviour based on self-fulfilling prophecies.

3.2.5.3 Administration of the SOC Questionnaire

The SOC questionnaire is administered individually or in groups. The respondent reads the instructions on the questionnaire and then proceeds to indicate his responses on the answer sheet provided. Reverse scoring is required for 13 items.

3.2.5.4 Interpretation of the SOC Questionnaire

The three components, namely, comprehensibility, manageability and meaningfulness provide a profile of the respondent's sense of coherence. Persons with a strong sense of coherence score significantly higher on the three scales. Those who have a low score on the three components would reflect that their environment seems less ordered and predictable; tasks seem less manageable, and to a large extent seem meaningless.

3.2.5.5 Reliability and Validity of the SOC Questionnaire

3.2.5.5.1 Reliability

The consistently high level of Cronbach's alpha, which ranges from 0,84 to 0,93 points to a high degree of internal consistency and reliability of the SOC questionnaire (Antonovsky, 1987).

3.2.5.5.2 Validity

Rumbaut et al. (1983) in Antonovsky (1987) present evidence for convergent and discriminant validity of the SOC questionnaire. Validity data are also found in a study by Dana (1985). The analyses of the relations between the SOC questionnaire and a variety of health and other measures lead Dana (1985) to conclude that the SOC score was consistently and significantly related to all positive health measures while being significantly and negatively related to all illness measures.

According to Antonovsky (1987) there is sufficient evidence to warrant the tentative conclusion that the scale is an adequate representation of the sense of coherence construct.

3.2.5.6 Motivation for use of the SOC Questionnaire

The sense of coherence is the central construct from the paradigm of salutogenesis. The SOC questionnaire is selected as a measure of the extent to which an individual sees life as comprehensible, manageable and meaningful - a salutogenic orientation (Antonovsky, 1987) on the intrapersonal level. High levels of reliability and validity reported by Dana (1985) and Antonovsky (1987) contribute to the motivation for the use of the SOC questionnaire as a measure of the sense of coherence construct. Payne (1982) reports that the SOC scale is consistently and significantly related to all positive health measures while being significantly and negatively related to all illness measures. The SOC questionnaire is thus appropriate to measure individuals on the illness - optimal continuum.

3.2.6 PERSONAL VIEWS SURVEY

3.2.6.1 Development and Rationale of the Personal Views Survey

On the basis of existential personality theory, personality hardiness is a salutogenic construct which moderates stress-health relationships. Several versions of hardiness scales were developed (Hahn, 1966; Jackson, 1974; Kobasa, 1979; Maddi et al., 1979; Kobasa et al., 1982; Kobasa & Pucetti, 1983; Ganellen & Blaney, 1984; Hull et al., 1987). The Personal Views Survey developed by Kobasa (1979) is used in this study to measure the three components of the personality hardiness construct - control, commitment and challenge.

3.2.6.2 Description of the Personal Views Survey

The Personal Views Survey comprises a 50-item questionnaire and an answer sheet on which responses are indicated on a 4-point scale. Commitment, control and challenge are measured by 16, 17, and 17 items respectively.

1) **Commitment** - a positive score is indicative of an individual who believes that he or she is someone of worth and is fully involved as a social being. A negative score is indicative of low self-worth and alienation in many situations in life, for example, work, family, friendship and social organisations.

2) **Control** - a positive score indicates that an individual believes he or she can influence events in life, with an emphasis on personal responsibility. A negative score reflects a feeling of powerlessness.

3) **Challenge** - a positive score indicates an expectation that change, rather than stability is the norm of life. A negative score indicates that change is perceived as a threat.

3.2.6.3 Administration of the Personal Views Survey

The Personal Views Survey is self-administered and can be completed individually or in groups. The respondent indicates on the answer sheet the extent of agreement or disagreement to the statements on a scale of 0 to 3; 0 indicating total disagreement and 3 indicating total

agreement. Reverse scoring from negative to positive is required for 39 of the 50 items to facilitate interpretation of the scores.

3.2.6.4 Interpretation of the Personal Views Survey

Kobasa

Low scores indicate hardy individuals who have a general sense of purpose or meaning (commitment), see change not as a burden but as a normal aspect of life (challenge), and feel that they can influence life events (control). Hardy individuals suffer from fewer illness because they are able to transform life events cognitively to make them less stressful. High scores on the hardiness subscales indicate maladjustment, feelings of alienation from self and work; powerlessness, with little control over life; and a need for security.

3.2.6.5 Reliability and Validity of the Personal Views Survey

The internal consistency of the instrument is 0,90 whereas the stability over time is $r = 0,60$ (Funk & Houston, 1987). Unfortunately, not enough empirical studies using this scale could be found in the literature.

3.2.6.6 Motivation for use of the Personal Views Survey

The Personal Views Survey used in this study measures the "hardy" personality (Kobasa, 1979 ; 1982) which is probably the salutogenic construct best known to psychologists (Ganellen & Blaney, 1984). It is accepted as an indication of intrapersonal and interpersonal coping resources although more empirical evidence is required.

3.2.7 Potency Scale

3.2.7.1 Development and Rationale of the Potency Scale

The potency scale was developed by Ben-Sira (1985) as an instrument to measure potency which he describes as a mechanism that prevents tension which follows occasional inadequate coping, from turning into lasting stress. As an indicator of salutogenesis (Strümpfer, 1990), potency encompasses a basic sense of self-confidence in the ability to deal with the demands of life.

3.2.7.2 Description of the Potency Scale

The potency scale consists of a 2-part scale, an answer sheet and a scoring mask.

The 2-part scale consists of :

1) an instrument comprising 6 items on mastery and 3 items on self-confidence as positive indicators, 5 items on alienation and 5 items on anomie which are negative indicators scored in the reverse to indicate commitment to society (in contrast to alienation) and perception of society as meaningful and ordered (in contrast to anomie).

- * **Mastery** - a high score indicates self-control (internal) and a sense of control over own destiny and circumstances.
- * **Self-confidence** - a high score indicates self-confidence in one's capacity to overcome the demands of life based on the predictability and meaningfulness of the social environment. A low score indicates a sense of failure and uselessness.
- * **Commitment to society** - a high score indicates confidence in one's ability to elicit the expected responses from society in return for one's "efforts". A low score reflects a feeling of alienation, an inability to elicit such responses, hence powerlessness.
- * **Society is meaningful and ordered** - a high score indicates perceived meaningfulness, justice and basic order in society characterised by a reliable and just distribution of rewards. A low score indicates a sense of anomie which describes inefficacy in achieving goals, indifference of social contracts and a sense of futility of life.

2) an instrument comprising 15 items which report physician - diagnosed, severe and generally chronic episodes. Responses are indicated as an affirmative "yes" or "no" regarding conditions diagnosed as : high blood pressure, heart disease, other disease of blood circulation, diabetes, disease of the nervous system, rheumatism, ulcer

of stomach, chronic eye disease, cancer, liver disease, kidney disease, other chronic conditions of the digestive system, bone disease, other chronic condition, permanent disability because of injury.

3.2.7.3 Administration of the Potency Scale

The 2-part scale is self-administering individually or in groups. Items in the first part, are presented in the form of statements asking for the extent of their agreement (1, very much agree; ; 6, very much disagree). Items on the second part, the Health State Questionnaire, are presented as a question with a "yes" or "no" response option.

3.2.7.4 Interpretation of the Potency Scale

According to Ben-Sira (1985), a person with a high potency score will be more stable emotionally, less affected by occasional failures in coping, as well as less affected by specific resource deficiencies. Having strong potency also means being able to mobilise primary social support such as education, employment, status, power, and friends. A low score indicates weak potency characterised by alienation from society and not being able to view society as meaningful and ordered.

3.2.7.5 Reliability and Validity of the Potency Scale

The available literature does not give specific reliability and validity findings for the Potency Scale. However, there is reference to the indicators of self-confidence and mastery (Pearlin et al., 1981), alienation (Seeman, 1959), and anomie (Srole, 1956). The correlational significance of the relationships between these constructs identify the predictive power of the variables in respect of the relationship of potency to coping and stress in a study conducted with Israeli Jewish adults aged 20+ (N = 1179). The correlation between coping and potency is 0,40 (Ben-Sira, 1985).

3.2.7.6 Motivation for use of the Potency Scale

The potency scale (Ben-Sira, 1985) was used in this study as a measure of the potency construct which is described as a part of the conceptual framework of salutogenesis (Strümpfer, 1990). The data

(Ben-Sira, 1985) supports the underlying two dimensions of potency, namely, confidence both in oneself and in the social environment - the intra- and interpersonal dimensions of potency.

3.3 SAMPLE

A computerised random sampling process was used to draw a sample of 200 employees, of which 96 responded voluntarily, from a population of 1379 salaried staff in the Natal region of a large electricity utility. According to Giere (1979 : 213) this percentage response assumes a 95 percent confidence interval ranging from 0,40 to 0,60.

Descriptive statistics of the sample are presented for interest in Table 3.1 but are not analysed further, or incorporated in the data analysis.

TABLE 3.1 : DESCRIPTIVE STATISTICS OF THE SAMPLE (N=96)

ITEM	N	ITEM	N
Division :		Gender :	
Engineering	41	Female	29
Marketing & Electrification	3	Male	67
Sales & Customer Service	30		
Finance	14	Age (in years) :	
Human Resources	8	28 or younger	16
Paterson Grade :		29 - 34	22
		35 - 44	33
E	-	45 - 54	17
M	11	55 or older	8
P	6		
C	48	Highest Education :	
B	31	Degree, diploma	23
		Recognised post-matric	20
Population :		Standard 10 or below	53
Asian	5		
Black	6	Length of service at	
Coloured	2	current organisation (in	
White	83	years) :	
		2 or less	11
Home Language :		3 - 5	24
		6 - 10	24
English	72	11 - 19	27
Afrikaans	19	20 or more	10
African Language	4		
Other	1		

3.4 RESEARCH PROCEDURE

The steps taken in conducting this study refer to the administration of the psychometric battery, the data analysis and the data processing.

3.4.1 Administration of the Psychometric Battery

The psychometric battery comprising the seven questionnaires and answer sheets discussed in this chapter were bound together as a booklet.

The 200 randomly sampled respondents were requested to complete the questionnaires in group sessions arranged throughout Natal. Participation was voluntary and respondents were assured of anonymity. A psychometrist administered the battery in standard test conditions.

3.4.2 Data Analysis

The responses on the answer sheets were checked for completion and then coded in preparation for statistical analysis. Raw scores were used throughout.

3.4.3 Data Processing

The data was coded for all seven questionnaires. This comprised 205 items, consisting of 12 for the POI, 29 for the Rotter questionnaire, 27 for the Self-Efficacy Scale, 36 for the Self-control Schedule, 29 for the Sense of Coherence questionnaire, 50 for the Personal Views Survey, 19 for the Potency Scale and 15 for the Health State Questionnaire which is the second part of the Potency scale.

The SAS (1985) computer programme was used to perform a varimax rotated factor analysis. Factor analysis is defined as "the statistical method that analyses the independent and interactive effects of two or more independent variables on a dependent variable" (Kerlinger, 1988).

Nunnally (1978 : 348, 385) proposes the use of the varimax rotation method when there are more than 20 variables in exploratory factor analysis to obtain a more interpretable set of factor loadings.

The results of the varimax rotated factor analysis are based on exploratory factor analysis as described by Nunnally (1978) where the method of analysis is guided by an open question about the number and kinds of factors which might be derivable from the collection of variables in this study.

The purpose of using the varimax rotated factor analysis was to identify the dimensionality of constructs indicative of psychological optimality. These results will then be used to construct a personality profile of the psychological optimal employee, as measured in this research.

The results of the Health State Questionnaire (Ben-Sira, 1985) were not included in the factor analysis and will be reported separately in Chapter 4.

3.5 CHAPTER SUMMARY

This chapter dealt with the research methodology of this study. Firstly the aim was stated where-after the psychometric battery was presented. Next the sample was discussed and lastly the research procedure was presented.

In chapter 4 the results are reported, interpreted and discussed. The personality profile presented in chapter 2 is reviewed in the context of the empirical study.

CHAPTER FOUR : RESULTS

In this chapter, the result from the factor analysis is reported, interpreted and discussed.

The Health State questionnaire (as part of the Potency Scale) was not included in the factor analysis and will be reported separately.

Lastly, all the above results will be integrated into a personality profile as measured in this research, which will then be contextualised within the theoretical profile as discussed in chapter 2.

4.1 Results Reported

The results of the factor analysis are presented in Table 4.1. Variables with a factor loading greater than 0,3 and values greater than 1,0 were accepted.

The communalities (h^2) reported in table 4.1 are the sum of squared loadings in any row of factor loadings and represent the proportion (percentage) of variance of the variable which is explained by the factors (Nunnally, 1978).

TABLE 4.1 : VARIMAX ROTATED FACTOR ANALYSIS

CONSTRUCT	VARIABLES	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	h ²
HARDINESS	CHALLENGE	0,73				,54
HARDINESS	CONTROL	0,69				,47
HARDINESS	COMMITMENT	0,67				,44
POTENCY	MASTERY	0,53				,28
SOC	MANAGEABILITY		0,79			,62
SELF- ACTUALISATION	TIME COMPETENCE		0,70			,49
SOC	COMPREHENS- BILITY		0,57			,32
SOC	MEANINGFUL- NESS		0,52			,27
LEARNED RESOURCE- FULNESS	SELF CONTROL		0,45			,20
SELF- ACTUALISATION	INTERPERSONAL SENSITIVITY			0,90		,81
SELF- ACTUALISATION	INNER- DIRECTEDNESS			0,46		,21
SELF-EFFICACY	COPING EFFICACY			0,47		,22
POTENCY	COMMITMENT TO SOCIETY				0,78	,60
POTENCY	SOCIETY PERCEIVED AS MEANINGFUL				0,65	,42
LEARNED RESOURCEFUL- NESS	BEHAVIOUR CONTROL				0,44	,19
						TOTALS
FACTOR VARIANCE		1,73	1,90	1,24	1,21	6,08
% TOTAL VARIANCE		7,04	9,18	3,34	3,49	23,05
% COMMON VARIANCE		28,45	31,25	20,40	19,90	100,00

From table 4.1 the following can be concluded :

- o **Factor 1** declares 7,04 percent of the total variance and comprises variables from the constructs **personality hardiness and potency**.
- o **Factor 2** declares 9,18 percent of the total variance and comprises variables from the constructs **sense of coherence, self actualisation and learned resourcefulness**.
- o **Factor 3** declares 3,34 percent of the total variance and comprises variable from the constructs **self-actualisation and self-efficacy**.
- o **Factor 4** declares 3,49 percent of the total variance and comprises variables from the constructs **potency and learned resourcefulness**.

4.2 INTERPRETATION AND DISCUSSION

The general aim of this study is to ascertain which personality constructs are indicative of psychological optimality. Four meaningful, significant factors have been identified from the factor analysis and are referred to as factor 1, factor 2, factor 3 and factor 4.

It appears from table 4.1 that interpersonal sensitivity (from the construct self-actualisation) has the highest factor loading, followed closely by variables from the sense of coherence, hardiness and potency constructs.

The four factors are subsequently namely interpreted and discussed, firstly in general terms and then according to their implications for the organisation.

4.2.1 FACTOR 1

All three the variables of the personality hardiness construct, namely, **commitment, control and challenge**, as measured by the Personal

Views Survey and one variable from the potency construct, namely **mastery**, as measured by the Potency Scale have loaded on factor 1.

Interpretation

It appears that this factor is representative of indicators of intrapersonal behaviour but more specifically successful coping in stressful situations. Findings in the literature review indicate that hardy persons are healthier, less depressed, and cope or perform better than non-hardy persons, encompassing an ability to cope and a basic sense of self-confidence in the capacity to overcome the demands of life. **Commitment** captures the authentic positive state of caring. "Coping is not a passive comfort, but rather an active, involving, and strenuous matter which takes into account the need and resources of one's self, one's environment and the other" (Kobasa & Maddi, 1982 : 403). **Control & challenge** assess another major element of authentic being namely, courage. Ben-Sira (1985) suggests that **mastery** as a variable from the potency construct prevents tension which follows occasional inadequate coping from turning into lasting stress, with resultant physiological and psychological consequences.

The results of the Health State Questionnaire administered in this study indicate that stomach ulcers and blood pressure problems are the most often diagnosed conditions of the sample (see table 4.2). According to Levi (1981), the hardy personality with a sense of mastery will not easily become the victim of such physiological complaints resulting from inadequate coping with stress. Kobasa (1982) also maintains that the hardy personality should remain healthy despite encounters with events generally regarded as stressful and also thrives on stress instead of suffering negative effects.

Implications for the Organisation

Implications for the work behaviour of persons high in hardiness is that such persons would easily commit themselves to what they are doing (rather than feeling alienated), generally believe that they can at least partially control events (rather than feeling powerless), and regard change to be a normal challenge or impetus to development (rather than a threat). In the perception and evaluation of specific stressful life events, hardy persons would find opportunities for the exercise of

decision-making, the confirmation of life's priorities, the setting of new goals, and other complex activities that they appreciate as important human capabilities. Further, they are capable of evaluating any given event in the context of an overall life plan. Their basic sense of purpose and involvement in life mitigates the potential disruptiveness of any single occurrence. The coping styles of hardy persons reflect their belief in their own effectiveness as well as their ability to make good use of other human and environmental resources. Coping for them consists of turning stressful events into possibilities and opportunities for their personal development and that of others around them.

One can speculate on what happens when the hardy individuals meet a stressful life event - how they evaluate the threat posed by the event and cope with it (Kobasa, 1982). A male executive having to deal with a job transfer will serve as an example. Whether hardy or not, the executive will anticipate and experience the changes that the transfer will bring about - learning to cope with new subordinates and supervisors, finding a new home, helping children and wife with a new school and neighbourhood, learning a new job and skills, and so on.

The hardy executive will approach the necessary readjustments in his life with a) a clear sense of his values, goals, and capabilities, and a belief in their importance (commitment to rather than alienation from self) and b) a strong tendency toward active involvement with his environment. Hence, the hardy executive does more than passively acquiesce to the job transfer. Rather, he throws himself actively into the new situation utilising his inner resources to make it his own. Another important characteristic of the hardy executive is an unshakable sense of meaningfulness and ability to evaluate the impact of a transfer in terms of a general life plan with its established priorities. For him, the job transfer means a change that can be transformed into a potential step in the right direction in his overarching career plan and also provide his family with a developmentally stimulating change. An internal (rather than external) locus of control allows the hardy executive to greet the transfer with the recognition that although it may have been initiated in an office above him, the actual course it takes is dependent upon how he handles it. For all these reasons, he is not just a victim of a threatening change but an active determinant of the consequences it brings about. In contrast, the executive low in hardiness will react to the transfer with a lesser sense of personal

resource, more acquiescence, more encroachments of meaningfulness, and a conviction that the change has been externally determined with no possibility of control on his part. In this context, it is understandable that the hardy executive will also tend to perceive the transfer as less personally stressful than his less hardy counterpart. It is inferred that the stress-resistance of non-executive hardy persons would be similar to that of the executive person.

In facilitating progress toward a hardy orientation (commitment, control, challenge) and mastery in the behavioural repertoire of employees in the work environment, management should create an optimal favourable climate which will facilitate the individual's work adjustment. Management should also endeavour to determine maladjustment and its causes at the earliest possible stage, and proceed to institute corrective and / or preventive measures. Factors contributing to a favourable work environment are organisational structure and size; organisational changes and development; control and disciplinary measures; communication structures; opportunities for development and participation; and staff functions such as selection, promotion and transfer, remuneration and other benefits, motivation and mental health or welfare services.

The concept of personality hardiness is probably the salutogenic construct best known to psychologists. Strümpfer (1990) considers the hardiness construct as part of the salutogenic paradigm but both its operationalisation and the supporting evidence is still very much in the pathogenic framework.

SUMMARY

It appears that factor 1 contains variables which are indicative of the intrapersonal functioning of the individual with resultant consequences for work behaviour specifically related to coping with stress.

4.2.2 FACTOR 2

All three variables of the SOC construct namely, **comprehensibility**, **manageability**, and **meaningfulness** as measured by the Sense of Coherence questionnaire form part of this factor. The other two variables, **time competence** as measured by the Personal Orientation

Inventory, and **self-control** as measured by the self-control schedule are variables of the constructs self-actualisation and learned resourcefulness respectively.

Interpretation

Comprehensibility indicates that an individual senses life as ordered and consistent. **Meaningfulness** indicates that an individual sees life as a challenge and not as a burden. In Antonovsky's (1979, 1987) writings of the salutogenesis paradigm he raises the question of how some people manage stress and stay well. Levi (1982) states that there has been a growing awareness of the impact of stress on physical and mental health and well-being. **Manageability** describes an individual's ability to perceive stressors as manageable. The individual's inability to deal with stress can lead to organisational effects which include absenteeism, poor productivity, poor interpersonal relationships at work and high levels of job dissatisfaction (Cox, 1978; Levi, 1982). **Time competence** indicates that an individual is reality-oriented in the present (Shostrom, 1963). **Self-control** indicates an individual who can control his or her emotions and thoughts during adverse events (Rosenbaum, 1990).

Implications for the organisation

Comprehensibility can be enhanced by providing the experience that things fit together, that the role is clear, and that events happen in an orderly pattern. Realistic Job Previews, open and fair pay structures, well-crafted performance appraisal systems and open communication all contribute to foster a greater sense of comprehensibility. Other ways to enhance the SOC on the job include meaningful first assignments and the avoidance of unchallenging jobs and dead-end career situations. Clear career paths will strengthen the SOC by providing meaningfulness and comprehensibility. In short, the SOC coping construct adds validity to most of the recommendations of a sound personnel system.

It is well-known that work-related stress is an impediment to the effectiveness and efficiency of organisations, representing a substantial cost in terms of lost productivity each year (Pearlin & Schooler, 1978). Training employees to cope with and manage stress is imperative in

organisations. Numerous studies have linked stress to impaired performance in the workplace due to such factors as health problems, absenteeism, turnover, industrial accidents, the use of drugs and alcohol on the job, and counterproductive behaviours such as spreading rumours, doing inferior work on purpose, stealing from employers, purposely damaging property, equipment and products, and various kinds of white collar crimes. Work stress is rapidly emerging as an issue for workers' compensation (Ivancevich, Matteson & Richards, 1985).

The results provide some directions for organisations that wish to reduce the high cost of stress. Reducing perceived stressors is one approach. However, another approach is to foster coping skills by strengthening the SOC in organisations, by providing the right kind of work environment. This should be particularly useful for younger workers. Although the SOC is seen as a fairly stable personality dimension, it can be gradually shaped by the environment throughout young adulthood, and it should therefore be in the power of an organisation to help strengthen the stress-coping abilities or manageability of its employees, especially its young entry-level employees. With better coping, they should experience greater general well-being and lower work stress.

Continued experiences of participation of socially valued decision-making can be a source of finding meaningfulness in work. A sense of Manageability can be enhanced by the experience of an appropriate load balance, providing the necessary resources to the employees in terms of knowledge, skills, materials, and equipment. Feelings of trust in superiors and control over work pace, work sequencing, and quality would likewise nourish a sense of Manageability.

Time competence is indicative of being reality-oriented in the present and having the ability to bring past experiences and future expectations into a meaningful continuity. The time competent individual is less burdened by guilts, regrets, and resentments from the past and his aspirations are tied meaningfully to present working goals. The time competent optimal employee would cope better with day-to-day stressors in that (s)he is living in the here-and-now and not being harassed by idealised goals, plans, expectations and fears.

Self-control as a variable of learned resourcefulness supports the notion that individuals can be trained to control their emotions and thoughts when confronted with adverse events (Rosenbaum, 1990).

It is apparent that factor 2 contains constructs which are applicable to the context of enabling coping skills and beyond to a repertoire of actualising behaviour. The self-actualising person is more fully functioning than the average person who is merely coping.

The assumption can be made that the individual who has factor 2 as a construct in his or her psychological repertoire would be able to move from the use of unconscious psychological defence mechanisms toward the use of conscious coping mechanisms; from the rigidity of defensive structures to the capacity for constant and creative inner readjustment and growth; from a waste of emotional energy toward its productive use; from emotional suffering toward joy; from narcissism toward giving of oneself; and from exploitation of others toward reciprocal interaction.

In the very nature of human existence, stressors are omnipresent. Yet many people, though far from most, even with a high stressor load, survive and even do well. Barring stressors that directly destroy the organism, people's health outcomes are unpredictable. This is the mystery the salutogenic orientation seeks to unravel.

It appears that factor 2 would have important relevance in an occupational setting and seems a promising construct in the area of occupational stress research with a "salutogenic" correlation to general well-being. Antonovsky (1984) suggests that stressors are neutral in their health consequences. If the person copes with the tension successfully, the stressors may even be a tonic. It is only when there is poor tension management that stress results, and opens the way for disease.

SUMMARY

As for factor 1, factor 2 comprises variables which are indicative of the intrapersonal functioning of an individual. However, factor 1 seems to relate to the ability to cope whereas factor 2 indicates a shift toward actively applying the coping skills as a repertoire of actualising behaviour and being more fully functioning than merely coping.

4.2.3 FACTOR 3

The construct self-actualisation (Shostrom, 1973) is represented by the variables **interpersonal sensitivity** and **inner-directedness** (internal locus of control) as measured by the Personal Orientation Inventory. The construct self-efficacy as measured by the Self-efficacy Scale (Bandura, 1989) is represented by the variable **coping efficacy**.

Interpretation

Interpersonal sensitivity has the highest loading of all the dimensions with a factor loading of 0,90. Research by Shostrom (1973) suggests that the "wellness" of actualising persons begins in the ability to creatively express themselves on two basic polarities : strength and weakness and anger and love. Maslow (1962), in his classical research on well-functioning people, found them able to express "righteous indignation" or anger, and yet at the same time able to express tenderness and love. He found them very competent and strong and yet they had an acute awareness of their own personal weaknesses. These conclusions have also been verified by research on the Personal Orientation Inventory (Shostrom, 1963).

From the literature review it appears that the optimal functioning individual has an internal locus of control, which enables him or her to be free but sensitive to other people's needs and deepest feelings with a capacity for intimacy and for compassion on the interpersonal level.

Regarding **inner-directedness** (internal locus of control) Maslow (1962) states that the self-actualised person can be characterised as autonomous and relatively independent of adverse external circumstances. It can be predicted that individuals scoring higher on internal control would also be higher on the self-actualisation measure.

Lack of correlation between the Inner-directed scale of POI and the Rotter I-E ($r = 0,07$) is consistent with Rotter's (1966) view that the I-E variable constitutes an aspect of functioning separate from the inner-other directed dimension on which the POI Inner-directed scale was based. Since the Inner-directed scale was also found to be the one sharing the largest intercorrelations with all other POI scales (r 's ranged from 0,40 to 0,78), it may be that self-actualisation, as

measured by the POI, depends to a considerable extent on that component and is, therefore, relatively independent of locus of control as conceptualised by Rotter (1966). Further studies would be necessary to indicate the validity of this hypothesis. Actualising behaviour (Shostrom, 1973) is defined as expressive behaviour which is rhythmic and relationship - enhancing. Although few can argue with the merits of encouraging self-actualisation, the irony lies in the possible conflict between it and the urgent need for greater employee productivity. The question of their compatibility can be argued both ways.

Coping efficacy relates to the construct locus of control (locus of control : Rotter, 1966; inner directedness : Shostrom, 1973). People with an inner locus of control believe that the coping efficacy of their own behaviours determine outcomes, whilst people with an external locus of control believe that outcomes are determined by luck, fate, chance or powerful others.

Implications for the organisation

Research has demonstrated that individuals with an internal locus of control orientation have higher achievement motivation, exhibit greater effort at self-mastery, and learn more about the situations in which they find themselves (Phares, 1976). Those who have a high sense of efficacy visualise success scenarios that provide positive guides for performance. Those that judge themselves as inefficacious would be more inclined to visualise failure scenarios that undermine performance by dwelling on how things will go wrong. Cognitive simulations in which individuals visualise themselves executing activities skilfully enhance subsequent performance (Bandura, 1986).

Social learning theory distinguishes between the effects of strength of perceived self-efficacy on effort during execution of established skills (Bandura and Schunk, 1981). In approaching learning tasks, persons who perceive themselves to be supremely self-efficacious in the undertaking may see little need to invest much preparatory effort in it. However, in applying acquired skills, strong belief in one's self-efficaciousness intensifies and sustains the effort needed to realise challenging goals, which are difficult to attain if one is plagued by self-

doubts. In short, self-doubts create an impetus for learning but hinder adept use of established skills.

Performance accomplishments provide the most influential efficacy information because it is based on personal mastery experiences. Another concept of efficacy information includes the observations of others succeeding through their efforts.

People often do not behave optimally, even though they know full well what to do. This is because people judge their perceived capabilities which in turn affects motivation and behaviour. People avoid activities that they believe exceed their coping capabilities, but they undertake and perform with confidence those that they judge themselves capable of managing (Bandura, 1977a). When beset with difficulties people who entertain serious doubts about their capabilities slacken their efforts or give up altogether, whereas those with a strong sense of efficacy exert greater effort to master the challenges (Bandura & Schunk, 1981). Optimal performance is difficult to realise if one is beleaguered by self-doubts. An aid to good performance is a strong sense of self-efficacy to withstand failures coupled with some uncertainty to spur preparatory acquisition of knowledge and skills but not fundamental doubts about one's capabilities.

People's judgments of their capabilities additionally influence their thought patterns and emotional reactions during anticipatory and actual transactions with the environment. Those who judge themselves inefficacious in coping with environment demands dwell on their personal deficiencies and imagine potential difficulties as more formidable than they really are (Meichenbaum, 1977). Such self-referent misgivings create stress and impair performance by diverting attention from how best to proceed with the undertaking to concerns over failings and mishaps. In contrast, persons who have a strong sense of efficacy deploy their attention and effort to the demands of the situation and are spurred to greater effort by obstacles.

There is a growing body of evidence that human attainments and positive well-being require an optimistic sense of personal efficacy (Bandura, 1986). This is because personal, social, and work realities are strewn with difficulties. They are often full of impediments, failures, adversities, setbacks, frustrations, and inequities. People must have a

robust sense of personal coping self-efficacy to sustain the perseverant effort needed to succeed.

Self-doubts can set in quickly after some failures or reverses. Because the acquisition of knowledge and competencies usually requires sustained effort in the face of difficulties and setbacks, it is resiliency of self-belief that counts. In his revealing book, titled *Rejection*, John White (1982) provides vivid testimony that the striking characteristic of people who have achieved eminence in their field is an inextinguishable sense of efficacy and a firm belief in the worth and meaningfulness of what they are doing. This resilient self-belief system enabled them to override repeated early rejections of their work. A robust sense of personal efficacy provides the needed staying power.

People's beliefs in their capabilities affect how much stress and depression they experience in threatening situations, as well as their level of motivation. The stronger the perceived coping efficacy, the more venturesome the behaviour. People avoid potentially threatening situations and activities, not because they are beset with anxiety, but because they believe they will be unable to cope with situations they regard as risky.

People tend to avoid activities and situations they believe exceed their coping capabilities, but they readily undertake challenging activities and select environments they judge themselves capable of handling.

The power of self-efficacy beliefs to affect the course of life paths through selection processes is clearly revealed in studies of career decision-making and career developments (Betz & Hackett, 1986). The more efficacious people judge themselves to be, the wider range of career options they consider appropriate and the better they prepare themselves educationally for different occupational pursuits.

It is partly on the basis of self-beliefs of efficacy that people choose what challenges to undertake, how much effort to expend in the endeavour, and how long to persevere in the face of difficulties (Bandura, 1986). In the face of negative discrepancies between personal standards and attainments, those who are assured of their capabilities heighten their level of effort and perseverance.

A self-actualising person by definition would be more highly motivated and therefore would be more productive. However, an alternative case could effectively be made that because the self-actualising person would become so engrossed in "doing his thing", productivity would become secondary.

A realistic constraint is that millions of jobs are so well-defined technologically that, aside from occasional opportunities for job enrichment, they simply do not provide opportunities for self-fulfillment.

The emergence of self-fulfilment as a popular employee need has several implications for the Human Resource professional. Several questions need to be answered within the context of each organisation: Firstly, is self-actualisation an important need among our employees and, if so, are opportunities for achieving it now being provided on the job? The answer may come from either careful and objective corporate introspection or via direct survey of a sample of employees. Secondly, would self-actualisation be a viable strategy for performance improvement within the organisation? And, if so, at what levels, or in which functional areas, or with which specific employees? And could there be any adverse side effects? Thirdly, how can the organisation best develop and implement a programme creating greater opportunities for on-job self-actualisation? What are the costs? And what will the benefits be?

Human Resource professionals must accept as fact the emergence of a demand for opportunities to self-actualise among their present and future employees. The corporate response may be slow or rapid, positive or negative, complex or simplistic. Practitioners should be urged to begin now to develop integrated programmes that will capitalise on this emerging need and begin to design jobs that pay off in self-fulfillment as well as in money.

SUMMARY

Factor 3 is indicative of optimal interpersonal functioning in conjunction with a strong internal locus of control and a personal efficacy evidenced in coping behaviour by which individuals believe that they are in control of their own behaviours and resultant outcomes. It seems apparent that the individual's expectations of himself has a great deal to do with

his willingness to put effort into coping with difficulties, the amount of effort he will expend, and his persistence in the face of obstacles. Bandura (1982) suggests various ways in which people's sense of self-efficacy can be strengthened. He refers to success, modeling, encouragement and reducing fear and anxiety.

4.2.4 FACTOR 4

The variables **commitment to society** (versus alienation) and viewing **society as meaningful and ordered** (versus anomie) from the construct potency as measured by the Potency Scale have loaded on this factor. Furthermore, the variable **behavioural control** from the construct learned resourcefulness as measured by the Self-control Schedule also loaded on factor 4.

Interpretation

Alienation and anomie fit in the pathogenic framework. The salutogenic and psychological optimal emphasis is toward the healthy emphasis of these two concepts and the effects they have on the psychological functioning of the individual. Thus the scores for alienation and anomie were reversed in the statistical analysis to provide an indication of **commitment to society** (vs alienation) and **experiencing society as meaningful and ordered** (vs anomie). **Behavioural control** describes the repertoire of behavioural skills from the construct learned resourcefulness.

Implications for the Organisation

Seeman (1959) maintained that the alienation in mass society eventually leads to five social-psychological phenomena : powerlessness, normlessness, isolation, self-estrangement, and meaninglessness. Powerlessness refers to the expectation on the part of the individual that he does not have complete control of his behaviour. Normlessness refers to the expectation that socially unacceptable behaviour is required in order to attain specific goals. Meaninglessness may be defined as a low expectation that it is possible to make meaningful predictions about the future consequences of behaviour. Isolation is a tendency to attribute little value to convictions or ideals which are typically highly valued. Self-estrangement indicates a degree

of dependence upon specific forms of behaviour for expected future consequences of behaviour. The Dictionary of Psychology (Reber, 1985) describes alienation not only as alienation from others, but also stresses the separation of the individual from the presumed "real" or "deeper" self resulting from preoccupation with conformity to the wishes of others, and other "outer-directed" motivations.

Rotter (1966) states that the concept of alienation seems related to the variable of internal-external control. The alienated individual feels unable to control his own destiny. Seeman (1959) has also linked the concept of alienation as it refers to powerlessness to internal-external control as a psychological variable.

Anomie is described in The Dictionary of Psychology (Reber, 1985) as a condition in society where there is a breakdown of social structure, a general lack of social values and a dissolution of cultural norms.

Behaviour Control as a variable of the construct learned resourcefulness refers to an individual's tendencies to apply self-control methods to the solution of behavioural problems (Rosenbaum, 1990). Affirmative responses to an item such as "Even when I am terribly angry at somebody, I consider my actions very carefully" reflect behavioural control.

One could predict that individuals who habitually use effective self-control methods, in comparison with those who use ineffective self-control methods a) are less likely to show helplessness behaviour b) will show more effective self-regulation during exposure to uncontrollable failure.

In a number of studies, Rosenbaum (1980) demonstrated that high resourcefulness persons use a more effective self-control strategy when faced with adverse situations than do low resourcefulness persons. Having self-control skills is likely to produce perceptions of self-efficacy.

Behavioural control over external events is the focus of the learned helplessness model. Future research should be aimed at further identifying those personal and environmental factors that help individuals to cope with uncontrollable situations by using their self-control skills. In

spite of the relative popularity of the internal-external control distinction, there is little research on the role of self-control in the development and maintenance of learned helplessness.

Research findings indicate that highly resourceful individuals cope more effectively with stressful situations and are more capable of adopting health related behaviours as well as other behaviours that require reformative self-control which is directed at breaking habits in order to adopt new and more effective behaviours. Healthful behaviour almost always requires some kind of delay of gratification for the purpose of achieving or maintaining good health in the long run. High resourceful people have been found to be more successful in giving up smoking on their own, in changing their eating habits and in curbing their intake of alcohol (Rosenbaum, 1980). It appears that high resourceful and low resourceful individuals do not differ in their ability to learn self-control skills. They do differ, on the other hand, in their ability to implement these skills on a long-term basis when confronted with stressful situations in their everyday life.

Most of the research done on the learned helplessness phenomenon focused on response-outcome expectancies, while other research has focused on self-efficacy expectancies which are defined as the conviction that one could successfully execute the behaviour required to produce a given outcome.

Self-efficacy expectancies, and most probably self-control skills, determine the extent to which the effects of helplessness are transferred from an uncontrollable failure situation to a subsequent learning task. Research is currently in progress exploring further how these self-efficacy expectancies are expressed in actual coping behaviour (Rosenbaum & Jaffe, 1983).

Karl Marx (Mouton & Marais, 1990) first developed the concept alienation and stated that the worker sees work as external to himself and not part of his nature, his work is not voluntary but imposed, forced labour. It is not the satisfaction of a need, but only a means of satisfying other needs. Seeman (1959) identified three alienation - type factors : i) a loss of control of work and product ii) a lack of integration within large organisational structures, and iii) a low level of accessibility to reward values.

Self-management training attempts to assist people to change their behaviour notwithstanding ongoing stimulation that favours their undesirable habits, so that they become less dependent on the environment. Meichenbaum (1977) first used the term "learned resourcefulness" to describe the belief of people who have been trained in stress inoculation, that they can deal effectively with manageable levels of stress. To Rosenbaum (1988), learned resourcefulness is not a personality trait, but a "personality repertoire", which is a set of complex behaviours, cognitions and feelings that are in constant interaction with the person's physical and social environment and are evoked by many situations, but which also provide the basis for further learning.

It appears that factor 4 describes the individual's interpersonal behaviours both at work and in society at large. The optimally functioning person, according to the literature review in chapter 2, perceives his world as predictable, manageable and meaningful, is productive-oriented, experiences a sense of mastery and self-control at work and of belonging in a social structure.

SUMMARY

Factor 4 indicates a strong thrust toward the intra- and interpersonal functioning of the individual at work. A broader interpersonal functioning in the social context is also evident in his commitment to society and in experiencing society as meaningful and ordered.

4.3 THE HEALTH STATE QUESTIONNAIRE

The Health State Questionnaire which was administered with the Potency Scale measured the physician - diagnosed physical health state self-reports of the sample in this study. High blood pressure (frequency = 22) and stomach ulcers (frequency = 16) appear to be the most often diagnosed conditions of this sample. The results are presented in table 4.2 :

TABLE 4.2 : PHYSICAL HEALTH SELF-REPORTS (SAMPLE : N= 96)

PHYSICIAN-DIAGNOSED CONDITION	FREQUENCY
1. HIGH BLOOD PRESSURE	22
2. HEART DISEASE	12
3. OTHER DISEASE OF BLOOD CIRCULATION	12
4. DIABETES	13
5. DISEASE OF THE NERVOUS SYSTEM	9
6. RHEUMATISM	12
7. ULCER OF STOMACH	16
8. CHRONIC EYE DISEASE	9
9. CANCER	12
10. LIVER DISEASE	11
11. KIDNEY DISEASE	13
12. OTHER CHRONIC CONDITION OF THE DIGESTIVE SYSTEM	8
13. BONE DISEASE	12
14. OTHER CHRONIC CONDITION	12
15. PERMANENT DISABILITY DUE TO INJURY	8

The optimal individual enjoys physical health and is free of stress-related physiological disorders. From table 4.2 it can be concluded that the sample of respondents in this study do suffer from physiological ailments related to stress. Adler and Cohen (1984 : 117) have stated that "... as a result of research in psychosomatic and behavioural medicine, it has become clear that there is probably no major organ system or physical homeostatic defense mechanism that is not subject to the influence of interactions between psychological and physiological events".

Although the investigation of this aspect is cursory in this study, it would provide much scope for further research.

4.4 PERSONALITY PROFILE REVIEW

One of the aims of this study was to derive a personality profile of the psychologically optimal individual. Psychological optimality has been a vague concept but now four clearly identifiable factors have emerged according to which a personality profile can be derived.

According to the conceptualisations in the literature review of chapter 2 and the results of the factor analysis the following personality profile is presented on the intrapersonal, interpersonal and work behaviours of the psychologically optimal individual.

4.4.1 INTRAPERSONAL BEHAVIOUR

According to the literature review in chapter 2, intrapersonal behaviour, (comprising physical, cognitive, affective, and conative behaviour) is characterised by physiological health and activity in spite of weakness or deficiency, superior, autonomous thought processes, an emotionally satisfying, self-fulfilling life, an active, innate striving toward personal growth and achievement of realistic goals and a relationship with God.

The results of the factor analysis in this study indicate that optimal intrapersonal behaviour is characterised by an internal locus of control, successful coping in stressful situations, and a confidence in this ability to cope. The results of the Health State Questionnaire indicate self-reports of physiological disorders for the sample in this study. For the optimal individual physical health is not impaired by occasional stressful situations which are seen by the individual as of a temporary nature. This individual is in control of and exercises mastery over his or her life. The optimal individual has a strong sense of coherence in which he sees life as manageable, comprehensible and meaningful. He lives time competently in the here-and-now being reality-oriented to bring past experiences and future expectations into a meaningful continuity. This individual is in contact with the "real" and "deeper" self.

4.4.2 INTERPERSONAL BEHAVIOUR

According to the literature review, **interpersonal behaviour** is evidenced by empathy (warm relating of self, compassionate), respect (recognition of the other person's rights, values and feelings), genuineness (honesty, sincerity, spontaneity), and concreteness (trustful, factual, and accurate communication).

The results of the factor analysis in this study confirm that the interpersonal behaviour of the optimally functioning individual is characterised by sensitivity in his relations with others on the polarities of admitting strengths and weaknesses and displaying anger and love without abusing the other person. An internal locus of control enables the individual to be free and autonomous but sensitive to other's needs and feelings, with a capacity for intimacy and compassion. A significant indicator is the individual's commitment to and involvement with society. He views society as meaningful and ordered. He contributes to the norms and values of society to maintain socially acceptable behaviour.

4.4.3 WORK BEHAVIOUR

According to the literature review, work behaviour manifests in a sense of mastery and meaning in work, having a high self-worth, a clear identity, being productive, experiencing change as a challenge, seeking out new opportunities for growth and renewal, using all powers and potential in the maximum development of self and others.

The results of the factor analysis in this study indicate that the optimally functioning individual is in control of and masters his work, setting clear and realistic future goals, integrating personal and work life into a meaningful balance. He exercises control over his own destiny. He commits himself to what he is doing, is productive, and is actively involved in his work. An internal locus of control enables him to see change as a challenge and becomes an active determinant of the consequences it brings about. He is more fully functioning on the intra- and interpersonal level than the average person who is merely coping.

4.5 CHAPTER SUMMARY

In this chapter the results of this study were reported, interpreted and discussed. The Health State questionnaire results were reported, and a personality profile reviewed. Chapter 5, the final chapter, deals with conclusions and recommendations.

CHAPTER FIVE : CONCLUSIONS AND RECOMMENDATIONS

In this chapter the conclusions and recommendations are formulated.

5.1 CONCLUSIONS

The four factors identified in this research study refer to successful coping in stressful situations, an internal locus of control, interpersonal sensitivity and a commitment to society as part of the personality profile of the psychologically optimal individual. This profile consists of the following behavioural characteristics.

Intrapersonal behaviour : physical health, active lifestyle, reality-oriented, objective and autonomous thought processes, creative, efficient in decision-making and problem-solving, sensitive and emotionally satisfying life, free from guilt and fear, striving, persevering, realistic goal orientation, a relationship with God, successful coping in stressful situations, self-control, internal locus of control, self-efficacy, strong sense of coherence.

Interpersonal behaviour : empathy, respect, genuineness, concreteness, sensitivity in being able to express tenderness and love, sensitive to other's needs and feelings, commitment to society, views society as meaningful and ordered, behavioural control.

Work behaviour : sense of mastery, self-efficiency, self-worth, meaning in work, productive-oriented, clear identity, sets and achieves realistic goals, work has intrinsic value, total involvement in work (commitment).

5.2 RECOMMENDATIONS

From this study the following recommendations are made for further research.

Research is required to determine whether relationships do exist between the constructs indicative of psychological optimality. This has been an exploratory study seeking what is rather than predict relations to be found with supportive empirical evidence.

Research on the relation of personality and health is needed as well as variables associated with health and the hardy personality. Once research clarifies how hardiness develops, it will be possible to devise intervention programmes to help people who are deficient in this personality configuration to change. Should change prove possible, they will no longer have to avoid stressful events for fear that illness will ensue.

On the intrapersonal level, continued work in the area of stress is essential. There is still much to be learned about the role of personality and other mediators in the connection between stressful life events and illness or health. Should studies incorporating physiological measures and employing prospective designs confirm the present findings, then instead of merely warning persons to avoid stressful lives, social scientists will be able to illuminate ways of developing the personality characteristics that can aid in a productive and healthy life led in the full complexity of modern, urbanised, industrialised societies.

The psychometric battery should be administered to a larger sample to determine the validity and relevance of the measuring instruments and also be exposed to more vigorous statistical analysis.

Fromm (1956) views personality as very much a product of culture. Psychological health is intricately linked to society, more specifically how sufficiently a society satisfies human needs. An unhealthy or sick society creates in its members hostility, suspicion, and distrust, and inhibits the full growth of the individual selves. A healthy society allows its members to develop love for one another, to be productive and creative, and it facilitates the emergence of fully functioning selves.

Fromm believes that people possess an inherent striving for emotional health and well-being, an innate tendency for productive living, for harmony and love. When social forces interfere with the natural tendency for growth, the result is irrational and neurotic behaviour; sick societies produce sick people. The dependence of mental health on the nature of society means that each society sets forth its own definition of mental health. This research need not be confined to the study of well-functioning or optimal people intra- and interpersonally and in work behaviour. The quest for personal growth (Maslow, 1969 : 732) will depend on a person's ability to create a society in which each

individual has maximal opportunities for realising his or her potentialities and live a meaningful and fulfilling life.

Nunnally (1978) says that when no definite hypotheses are available the analyses are mainly exploratory (as in this study), and the results suggest groups of variables across which one can generalise. More extensive investigations of the constructs discussed in this study are required.

In chapter one, the research questions were : “what is psychological optimality ?” “which constructs are indicative of the concept ?” and “what does the personality profile of the psychologically optimal person comprise ?” These questions have been addressed in part as there is no single description of psychological optimality on which all psychologists or personality theorists would agree. There are some points of agreement. They are summarised in the description of the intrapersonal, interpersonal and work behaviours of the optimal functioning individual. However, these conceptualisations are by no means exhaustive and therefore a call for more extensive research in the paradigm of psychological optimality.

REFERENCES

Adler, R. & Cohen, N. (1984). Behaviour and the immune systems. In Gentry, W.D. (ed.) **Handbook of behavioural medicine**. New York : Guilford.

Allport, G.W. (1961). **Pattern and growth in personality**. New York : Holt, Rinehart and Winston.

Allport, G.W. (1970). **Pattern and growth in personality**. London: Holt, Rinehart & Winston.

Antonovsky, A. (1979). **Health, stress and coping**. San Francisco : Jossey-Bass.

Antonovsky, A. (1983). The sense of coherence : Development of a research instrument. **The William S. Schwartz Newsletter and Research Reports**. (Tel Aviv University), 1, 11-22.

Antonovsky, A. (1984). A call for a New Question - Salutogenesis - and a proposed answer - the Sense of Coherence. **Journal of Preventive Psychiatry**, 2, 1-13.

Antonovsky, A. (1985). The life cycle, mental health and the sense of coherence. **Israeli Journal of Psychiatry**, 22 (4), 237-280.

Antonovsky, A. (1987). **Unraveling the mystery of health. How people manage stress and stay well**. San Francisco : Jossey-Bass.

Antonovsky, A. (1987a). **Health promoting factors of work : The sense of coherence**. Geneva : World Health Organisation.

Bandura, A. (1976). Self-reinforcement : Theoretical and methodological considerations. **Behaviourism**, 4, 135-155.

Bandura, A. (1977). **Social learning theory**. Englewood Cliffs, NJ : Prentice-Hall.

Bandura, A. (1977a). Self-efficacy : Toward a unifying theory of behavioral change. **Psychological review**, 84, 191-215.

Bandura, A. (1982). Self-efficacy : mechanism in human agency. **American Psychologist**, 37, 122-147.

Bandura, A. (1986). **Social foundations of thought and action**. Englewood Cliffs, NJ : Prentice-Hall.

Bandura, A. (1988a). Self-regulation of motivation and action through goal systems. In Hamilton, V., Bower, G.H., & Frjda, N.H. (Eds.), **Cognitive perspectives on emotion and motivation** (36-61). Dordrecht, Netherlands : Kluwer Academic Publications.

Bandura, A. (1988b). Perceived self-efficacy : Exercise of control through self-belief. In Dauwalder, J.P., Perrez, M., & Hobi, V. (Eds.), **Annual series of European research in behaviour therapy**, 2, 27-59. Lisse, Netherlands : Swets & Zeitlinger.

Bandura, A. (1988c). Self-efficacy conception of anxiety. **Anxiety Research**, 1, 77-98.

Bandura, A. (1989). Human agency in social cognitive theory. **American Psychologist**, 44, 1175-1184.

Bandura, A. & Adams, N.E. (1977). Analysis of Self-efficacy Theory of Behavioural Change. **Cognitive Therapy and Research Journal**, 1 (4), 287-310.

Bandura, A., Adams, N.E., Hardy, A.B. & Howells, G.N. (1980). Tests of the generality of Self-efficacy theory. **Journal of Cognitive Therapy and Research**, 4 (1), 39-66.

Bandura, A. & Schunk, D.H. (1981). Cultivating competence, self-efficacy, & intrinsic interest through proximal self-motivation. **Journal of Personality & Social Psychology**, 41, 586-598.

Bandura, A. & Wood, R.E. (1989). Effect of perceived controllability and performance standards on self-regulation of complex decision-making. **Journal of Personality and Social Psychology**, 56, 805-814.

Baumeister, R.F. (1991). On the stability of variability : Retest variability of metatraits. **Personality and Social Psychology Bulletin**, 17 (6), 633-639.

Ben-Sira, Z. (1985). Potency : A stress-buffering link in the coping-stress-disease relationship. **Social Science and Medicine**, 21, 397-406.

Berne, E. (1961). **Transactional analysis in psychotherapy**. New York : Ballantine.

Berne, E. (1964). **Games people play**. London : Penguin.

Berne, E. (1972). **What do you say after you say hello ?** London: Corgi.

Berne, E. (1976). **Beyond games and scripts**. New York : Ballantine.

Betz, N.E. & Hackett, G. (1986). Applications of self-efficacy theory to understanding career choice behaviour. **Journal of Social & Clinical Psychology, 4**, 279-289.

Bunch, J.M. & Schneider, H.G. (1991). Smoking-specific locus of control. **Psychological Reports, 69** (3), 1075-1081.

Burwick, S. & Knapp, R.R. (1991). Advances in research using the Personal Orientation Inventory. Special Issues : Handbook of self-actualisation. **Journal of Social Behaviour and Personality, 6** (5), 311-320.

Catell, R.B., Eber, H.W. & Tatsuoka, M.M. (1979). **Handbook for the 16PF questionnaire**. Campaign, IL : Institute for Personality and Ability testing.

Cilliers, F.v.N. (1984). 'n **Ontwikkelings program in sensitiewe relasievorming as bestuursdimensie**. Thesis : Doctor Philosophiae. Potchefstroom University.

Cilliers, F.v.N. (1988). The concept psychological optimality in Management. **IPM Journal**, October, 15-18.

Clinebell, H. (1981). **Contemporary growth therapies**. Nashville : Abbingon.

Cox, T. (1978). **Stress**. Hong Kong : Macmillan.

Dana, R.H. (1985). **Sense of coherence : examination for construct**. Paper presented at the meetings of the Southwestern Psychological Association, Austin, Texas.

Egan, G. (1990). **The skilled helper. A systematic approach to effective helping** (4th ed.). California : Brooks/Cole Publishing Company.

Fox, J., Knapp, R.R., & Michael, W.B. (1968). Assessment of self-actualisation of psychiatric patients : Validity of the Personal Orientation Inventory. **Educational and Psychological Measurement, 28**, 565-569.

Frankl, V. (1962). **Man's search for meaning : An introduction to Logotherapy**. Boston : Beacon Press.

Frankl, V. (1967). **Psychotherapy and existentialism**. New York : Washington Square Press.

Frankl, V. (1969). **The will to meaning : Foundations and Applications of Logotherapy**. Cleveland : World.

Fromm, E. (1956). **The art of loving**. New York : Holt, Rinehart & Winston.

Funk, S.C. & Houston, B.K. (1987). A critical analysis of the Hardiness Scale's Validity and Utility. **Journal of Personality & Social Psychology**, 53, 572-578.

Ganellen, R.J. & Blaney, P.H. (1984). Hardiness and social support as moderators of the effects of life stress. **Journal of Personality and Social Psychology**, 47, 156-163.

Giere, R. (1979). **Understanding scientific reasoning**. New York : Holt.

Goldfield, M.R. (1980). **Psychotherapy as coping skills training**. New York : Plenum.

Gouws, L.A., Louw, D.A., Meyer, W.F. & Plug, C. (1979). **Psigologie Woordeboek**. Johannesburg : McGraw-Hill.

Hahn, M.E. (1966). **California Life Goals Evaluation Schedule**. Palo Alto, CA : Western Psychological Services.

Hjelle, L.A. & Ziegler, D.J. (1987). **Personality Theories**. New York : McGraw-Hill.

Hull, J.G., Van Treuren, R.R. & Virnelli, S. (1987). Hardiness and health : A critique and alternative approach. **Journal of Personality and Social Psychology**, 53, 518-530.

Ivancevich, J.M., Matteson, M.T. & Richards, E.P. (1985). Who's liable for stress on the job ? **Harvard Business Review**, March-April, 60-71.

Jackson, D.N., (1974). **Personality research form manual**. London : Collins Fontana. (compiled by Jaffe).

Kanfer, F.H. (1980). **Self-Management methods**. In Kanfer, F.H. & Goldstein, A.P. (Eds.). *Helping people change*, (2nd ed.). New York : Pergamon Press.

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G.P.G.

7
1

Kerlinger, F.N. (1988). **Foundations of behavioural research**. Hong Kong : Holt, Rinehart & Winston, Inc.

Knapp, R.R. (1976). **Handbook for the Personal Orientation Inventory**. San Diego : Edits Publishers.

Kobasa, S.C. (1979). Stressful life events, personality, and health : An inquiry into hardiness. **Journal of Personality and Social Psychology**, 37, 1-11.

Kobasa, S.C. (1982). The hardy personality : Toward a social psychology of stress and health. In Sanders, G.S. & Suls, J. (Eds.). **Social Psychology of health and illness**, 3-32. Hillsdale, NJ : Erlbaum.

Kobasa, S.C. & Maddi, S.R. (1977). Existential personality theory. In Corsini, R. (Eds.). **Current Personality Theories**, 243-276. Itasca, IL : Peacock, T.F.

orb. (Kobasa, S.C. & Maddi, S.R. (1982). **Unpublished methodological memo on the Hardiness Scales** (revised). Chicago : University of Chicago.

Kobasa, S.C., Maddi, S.R. & Kahn, S. (1982). Hardiness and health : A prospective study. **Journal of Personality and Social Psychology**, 42, 168-177.

Kobasa, S.C., Maddi, S.R. & Pucetti, M.C. (1982). Personality and exercise as buffers in the stress-illness relationship. **Journal of behavioural medicine**, 5 (4), 391-404.

GP6. (Kobasa, S.C. & Pucetti, M.C. (1983). Personality and social resources in stress resistance. **Journal of Personality and Social Psychology**, 45, 839-583.

Kuhn, T.S. (1970). **The structure of scientific revolutions** (2nd ed.). Chicago : University of Chicago Press.

Lazarus, R.S. (1976). **Patterns of adjustment** (3rd ed.). New York : McGraw-Hill.

103
G.P. 103
Lefcourt, M.H. (1981). **Research with the locus of control construct**. Vol. 1. Assessment Methods. Orlando : Academic Press.

Lemke, E. & Wiersma, W. (1976). **Principles of Psychological Measurement**. Boston : Houghton Mifflin.

- Levi, L. (1981). **Preventing work stress**. Reading : Addison-Wesley.
- Maddi, S.R. (1971). **Perspectives on personality. A comparative approach**. Boston : Little, Brown & Co.
- Maddi, S.R., Kobasa, S.C. & Hoover, M. (1979). An alienation test. **Journal of Humanistic Psychology**, **19**, 73-75.
- Maddi, S.R. (1980). **Personality theories : a comparative analysis**. Homewood, IL : Dorsey Press.
- Maslow, A.H. (1962). **Toward a psychology of being**. Princeton : Van Nostrand.
- Maslow, A.H. (1969). Toward a humanistic biology. **American Psychologist**, **24**, 724-735.
- Maslow, A.H. (1971). **The farther reaches of human nature**. New York : Penguin Books.
- McCormick, E.J. & Ilgen, D. (1981). **Industrial Psychology**. Englewood Cliff, NJ: Prentice-Hall, Inc.
- Meichenbaum, D. (1977). **Cognitive - behaviour modification : an integrative approach**. New York : Plenum.
- Meyer, W.F., Moore, C. & Vijoen, H.G. (1988). **Personality theories : from Freud to Frankl**. Johannesburg : Lexicon Publishers.
- Morgan, G. (1980). Paradigms, metaphors, and puzzle solving in Organization Theory. **Administrative Science Quarterly**, **25** (4), 605-622.
- Mouton, J. & Marais, H.C. (1990). **Basic concepts in the methodology of the social sciences**. Pretoria : Human Sciences Research Council.
- Neff, W.S. (1977). **Work and human behaviour**. Chicago : Aldine.
- * Noland, R.L. (1973). **Industrial mental health & employee counselling**. New York : Behavioural publications.
- Nunnally, J.C. (1978). **Psychometric theory**. New York : McGraw-Hill.
- Payne, L. (1982). **Sense of Coherence : A measure of Health Status**. Unpublished master's thesis. School of Nursing, University of Alberta.

Pearlin, L.I., Lieberman, M.A., Menaghan, E.G. & Muller, J.T. (1981). The stress process. **Journal of Health and Social Behaviour**, **22**, 337.

Pearlin, L.I. & Schooler, C. (1978). The stress process. **Journal of Health and Social Behaviour**, **19**, 2-21.

Perls, F.S. (1976). **Gestalt therapy verbatim**. New York : Bantam.

Perls, F.S. (1976). **Locus of Control**. In London, H. and Exner, J.E. Dimensions of personality. New York : Wiley.

Phares, E.J. (1976). Locus of Control in personality. Morristown : General Learning Press.

Plug, C., Meyer, W.F., Louw, D.A. & Gouws, L.A. (1986). **Psigologie woordeboek**. Johannesburg : McGraw-Hill.

Reber, A.S. (1985). **The Penguin Dictionary of Psychology**. The Penguin Group : England.

Rogers, C.R. (1961). **On becoming a person : a therapist view of psychotherapy**. Boston : Houghton Mifflin.

Rogers, C.R. (1973). **Client-centered therapy**. London : Penguin

Rogers, C.R. (1975). **Encounter groups**. London : Penguin.

Rosenbaum, M. (1980). A schedule for assessing self-control behaviours : Preliminary findings. **Behaviour Therapy**, **11**, 109-121.

Rosenbaum, M. (1983). **Learned resourcefulness as a behavioural repertoire for the self-regulation of internal events : issues and speculations**. New York : Springer.

Rosenbaum, M. (1988). Learned resourcefulness. Stress and Self-regulation. In Fisher, S. & Reason, J. (Eds.), **Handbook of life - stress, cognition and health** (483-496). Chichester : Wiley.

Rosenbaum, M. (1990). **Learned resourcefulness. On coping skills, self-control, and adaptive behaviour**. New York : Springer Publishing Company.

Rosenbaum, M. & Jaffe, Y. (1983). Learned helplessness : The role of individual differences in learned resourcefulness. **British Journal of Social Psychology**, **22**, 215-225.

order

- Rosenbaum, M. & Ben-Ari, S. (1985). Learned helplessness and learned resourcefulness : Effects of noncontingent success and failure on individuals differing in self-control skills. **Journal of personality and social psychology**, 48 (1), 198-215.
- Rosenbaum, M. & Ben-Ari, S. (1986). Cognitive and personality factors in the delay of immediate gratification of hemodialysis patients. **Journal of personality and social psychology**, 51, 357-364.
- Rosenbaum, M. & Merbaum, M. (1983). **Self-control of anxiety and depression: an evaluative review of treatments**. New York : Haworth Press.
- Rotter, J.B. (1954). **Social learning and clinical psychology**. Englewood Cliffs, NJ : Prentice-Hall.
- Rotter, J.B. (1966). Generalised expectancies for internal versus external control of reinforcements. **Psychology Journal**, 80, 609.
- Rumbaut, R.G., Anderson, J.P. & Haplan, R.M. (1983). **Stress, health and the sense of coherence. Geriatric medicine and the social sciences**. Philadelphia : Saunders.
- SAS. (1985). **Statistics**. Vol. 1, Version 5. Cary, NC : SAS Institute Inc.
- ✧ Schein, E.H. (1980). **Organisational psychology**. (3rd ed.). Englewood Cliffs, NJ : Prentice-Hall.
- ✧ Schultz, D. (1977). **Growth psychology : Models of the healthy personality**. New York : Van Nostrand.
- Seeman, M. (1959). On the meaning of alienation. **American Sociological Review**, 24, 783.
- Selltiz, C., Jahoda, M., Deutsch, M. & Cook, S.W. (1965). **Research Methods in social relations. Revised edition**. New York : Holt, Rinehart & Winston.
- Shostrom, E.L. (1963). **Personal Orientation Inventory**. San Diego : Edits.
- Shostrom, E.L. (1964). A test for the measurement of self-actualisation. **Educational and Psychological Measurement**, 24, 207-218.
- Shostrom, E.L. (1972). The measurement of growth in psychotherapy. **Psychotherapy : Theory, research & practice**, 9, 194-198.

Shostrom, E.L. (1973). From abnormality to actualisation. **Psychotherapy Theory, Research and Practice**, 10, 36-40.

Shostrom, E.L. (1974). **Manual of the Personal Orientation Inventory**. San Diego : Edits.

✧ Shostrom, E.L., Knapp, L.F. & Knapp, R.R. (1976). **Actualising Therapy : Foundations for a Scientific Ethic**. San Diego : Edits.

Srole, L. (1956). Social integration and cohesion corollaries : an exploratory study. **American Sociological Review**, 21, 709, 712-713.

Staats, A.W. (1975). **Social behaviourism**. Homewood, IL : Dorsey Press.

✓ ✧ Strümpfer, D.J.W. (1990). Salutogenesis : A new paradigm. **South African Journal of Psychology**, 14, 45-52.

✧ Walsh, R. & Shapiro, D.H. (1983). **Beyond health and normality**. New York : Van Nostrand Reinhold.

Wissing, M.P. (1978). **Sensitiewe relasievorming as 'n faktor in effektiewe onderhoudvoering**. Potchefstroom : Dept. Psigologie, PU vir CHO.

White, J. (1982). **Rejection**. Reading, M.A. : Addison-Wesley.