

Chapter 3

The Salutogenic Paradigm

“Every day you may make progress. Every step may be fruitful. Yet there will stretch out before you an ever-lengthening, ever-ascending, ever-improving path. You know you will never get to the end of the journey. But this, so far from discouraging, only adds to the joy and glory of the climb.”

Sir Winston Churchill

The previous chapter emphasised how central the idea of meaning in life is for the individual. This chapter focuses on another important theory of meaning which is a salutogenic approach to stress and coping. The salutogenic paradigm in psychology arose as an alternative response to dealing with illness in individuals, and the paradigm as a whole suggests that instead of focusing on illness and disease there should be a focus on that which promotes wellness. The salutogenic paradigm falls within the larger paradigm of positive psychology and is a preventative model as opposed to being a disease model. Aaron Antonovsky (1923-1994), the late sociology professor, is recognized for his contribution to this field as the founder of the term *salutogenesis* as well as for his development of the theory of salutogenesis, sense of coherence and general resistance resources (Antonovsky, 1987).

The objective of section 3.1 is to present a comparison between pathogenesis and salutogenesis. Thereafter, an in-depth exploration of the main tenets of the salutogenic approach to health will be conducted. Section 3.3 focuses on various research into the

construct of salutogenesis. Finally, some important critiques of the literature surrounding salutogenesis will be analysed.

3.1 Pathogenesis and Salutogenesis: A Comparison

The pathogenic orientation emphasizes how processes in a state of homeostasis can become disregulated (Dossey, 1994; Selye, 1976). The medical-disease model is characterized by the dichotomy between healthy and sick individuals, and this approach seeks to treat illness and rid individuals of disease (Antonovsky, 1987; Dossey, 1994). The pathogenic paradigm is remedial and reactive in terms of stress and coping (Viviers, 1998) and there is an emphasis on identifying and dealing with risk factors in individuals (Strümpfer, 1990). Antonovsky (1984) argues that when too much attention is given to pathology, the human being is ignored, and this leads to not seeing the potential illness of the person's life situation as one only sees the person's immediate presenting medical illness.

Antonovsky (1987) claims that at any given time, there is always at least one third or more of the population in modern industrialized society that experiences some sort of pathological orientation or illness. The pathological orientation focuses on why people become ill, whereas the salutogenic approach seeks to discover why certain people are situated on the positive side of the health ease/dis-ease continuum (Antonovsky, 1979; 1987; 1993). The rapidly increasing costs of technology and the health care system have caused individuals and health care practitioners to become progressively wary and dissatisfied with more traditional ways of dealing with pathology, preferring instead to prevent disease if it is at all possible. It is because of the above reasons that a shift in focus has occurred, highlighting the importance of

self-care, social factors as facilitators of well-being, and the origins of health, coping and well-being (Levenstein, 1994). While the pathogenic paradigm seeks to treat disease, the salutogenic approach takes the view that disease and stressors are inevitable and that individuals must actively pursue adaptive strategies (Antonovsky, 1987). The pathogenic approach questions how we can rid the individual of stressors, whereas the salutogenic approach seeks to identify how we can live well with stressors and perhaps even use them to our advantage (Strümpfer, 1990). This view does not mean that the pathogenic approach should be disposed of in favour of the salutogenic model; it simply gives evidence for a shift in paradigms. Viviers (1998) illustrates the paradigmatic shift of pathogenesis to salutogenesis in the following way:

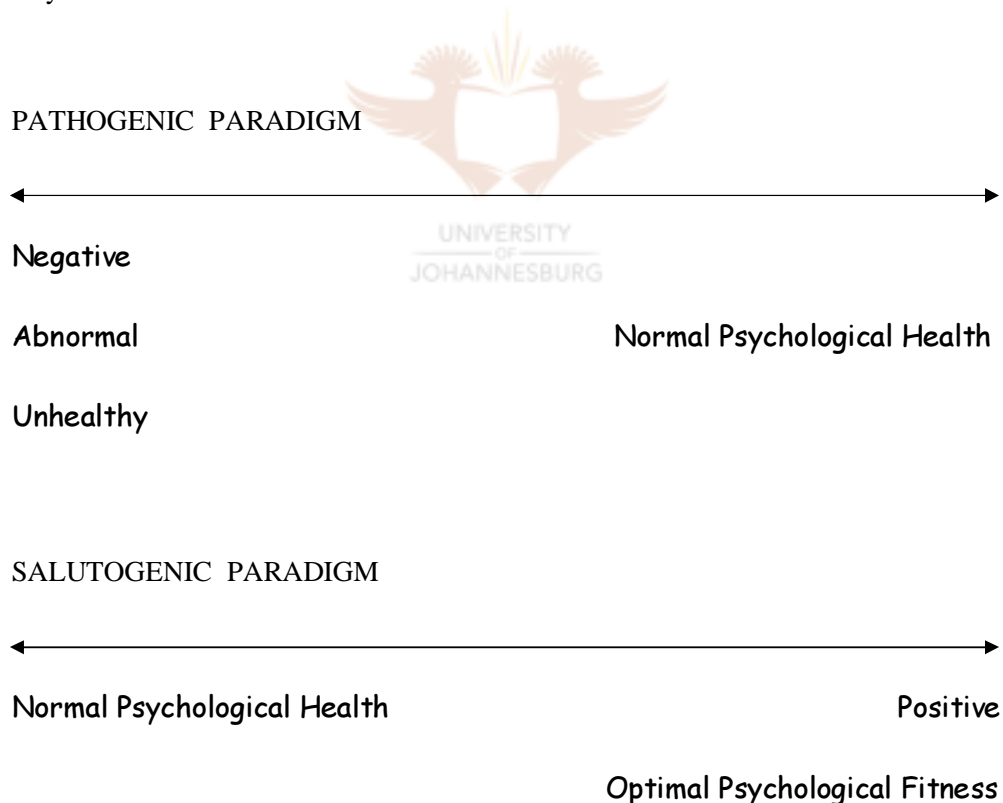


Figure 3.1 A Comparison between the Pathogenic and Salutogenic Paradigms

Antonovsky (1985) considers the salutogenic approach to stress research as an innovative and necessary shift from the pathogenic paradigm traditionally utilized in psychology. He emphasises however, that both pathogenesis *and* salutogenesis are important, and that a comprehensive view of coping necessitates the use of these two complementary approaches (Antonovsky, 1993).

Aside from stressors that would directly destroy the human organism, people's health outcomes following stressors are unpredictable and varied and it is this differential outcome among different individuals that presents the mystery to be unravelled in salutogenesis (Antonovsky, 1987), and this idea will be explored in the following section.

3.2 The Salutogenic paradigm

The neologistic construct of salutogenesis is derived from the Latin *salus* meaning 'health', and the Greek *genesis* meaning 'origins' (Strümpfer, 1995). The purpose of this section is to explore this construct, as well as the related concepts of sense of coherence and generalised resistance resources. The stability of sense of coherence in individuals will be investigated as well as literature conducted on sense of coherence within the South African context.

3.2.1. Aaron Antonovsky's (1923-1994) Theory of Salutogenesis

Antonovsky (1979) argued that microbiological, chemical, physical, psychological, social and cultural pathogens are everywhere, and because individuals are confronted with them every day, he commented that it would seem natural if everyone succumbed to them and died (Strümpfer, 1995). Given the fact that this does not

happen, Antonovsky (1987) sought to identify the sources of health and to ascertain how individuals cope with stress and remain well.

Antonovsky's (1979; 1987) theory on salutogenesis is related to the sense of coherence concept which explains why some individuals become ill following a stressful situation while others, after having experienced the same stressful situation, manage to stay well (Geyer, 1997). Over the past two decades, researchers have increasingly paid attention to potential protective factors or resistance factors that protect individuals in the face of stressful circumstances, instead of focusing only on possible pathogenic contributors to illness (Geyer, 1997). Antonovsky (1984) emphasizes that while the underlying premise of salutogenesis may at first seem pessimistic in that it assumes that all people will at some stage experience illness or dis-ease, he says that "paradoxically, the vista it opens up, though sans illusion, is far from dark...a rectangularisation of the human curve of survival is well under way. Thus, with appropriate social and individual behavioural measures, people, like Holmes's deacon's carriage, can live lives of vitality till very close to the end of their biologically allotted span of years" (Antonovsky, 1987, p14).

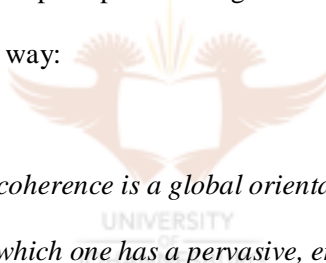
Antonovsky (1987) coins the term 'salutogenesis' to denote the very factors which he claims distinguish between those individuals who stay well and those who become ill after experiencing the same stressor or stressors. Salutogenesis thus moves away from focusing on treating a specific disease and looks to the broader realm of well-being where it is hoped that healthcare professionals can utilize social, psychological, and cultural resources to promote health and resist illness. It is a given that everybody experiences multiple stressors throughout their lives, yet some people who experience

a high stress load manage to survive and sometimes even do very well. Tension is created when stressors are faced but the way in which stressors are confronted and how tension is managed determines whether the outcome will be pathological, neutral or salutogenic (Antonovsky, 1985).

The main tenet of salutogenesis, also formulated by Antonovsky (1979; 1987), is the concept of *sense of coherence*, and the main aspects of this construct will be examined in depth in the following section.

3.2.2. Sense of Coherence

Sense of coherence is the main precept of salutogenesis and is defined by Antonovsky (1987, p19) in the following way:



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 (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement.

Sense of coherence is the way that individuals tend to make sense of the world, and it is comprised of three facets, namely Comprehensibility, Manageability and Meaningfulness.

3.2.2.1. *Comprehensibility*

The comprehensibility concept, which is also a subscale of the Sense of Coherence scale or Orientation to Life questionnaire (Antonovsky, 1987), refers to the extent to which one can make sense of stimuli from internal and external environments (Strümpfer, 1995). Comprehensibility refers to the way people perceive information as structured, ordered, consistent and clear, instead of as disordered noise from the environment. People who obtain a high score on this subscale expect life events and environmental stimuli to be predictable and ordered, even if life events and stimuli come as a surprise. A person high on Comprehensibility is able to make sense of even extreme events such as death or war (Antonovsky, 1987).

Antonovsky (1987) notes that when he classified certain subthemes in order to determine the three subscales, the comprehensibility construct emerged as a strong, clearly identified theme. Another subscale that emerged from this categorization of themes is manageability.

3.2.2.2. *Manageability*

Antonovsky (1987) points out that certain people always view life events as experiences that they can cope with or as challenges that they feel they can meet. Even in extreme circumstances, these individuals feel that the situation is manageable and they believe they can handle the consequences of any life event. Manageability is thus defined as the extent to which one perceives that they have the available resources at their disposal to meet any situation's demands. Having resources at one's disposal refers to either one's own resources, resources under an individual's control or resources controlled by God or others whom one considers to be trustworthy

(Strümpfer, 1995). People who score high on this construct never feel that life is unfair or that they are victims; they believe they will be able to cope and that grief has an ending.

The third construct of sense of coherence and the third subscale on the Orientation to Life Questionnaire (Antonovsky, 1987) is meaningfulness.

3.2.2.3. *Meaningfulness*

Antonovsky (1993) acknowledges Frankl's (1992) work in the field of *meaning*. Antonovsky (1987) described the meaningfulness subscale of the questionnaire as the way individuals go about identifying life events and circumstances as important; things they care for or that make the most sense to them, both cognitively and emotionally. Life events in this area are seen as challenges and as worthy of cognitive and emotional investment and commitment; these individuals have people and issues in their lives that matter to them. Meaningfulness refers to the extent to which an individual feels that life makes sense emotionally and cognitively (Ryff & Singer, 1998). Furthermore, individuals who measure high on the Meaningfulness subscale of the Sense of Coherence Questionnaire (Antonovsky, 1987), feel that demands and difficult life situations are worth investing energy in and are worth engaging with and committing to. Challenges are welcome. Although these individuals do feel grieved by death or illness, they respond to problems and challenges by seeking meaning and they believe the events should be overcome with dignity.

Antonovsky's (1979; 1987) central idea of salutogenesis is that a strong sense of coherence is essential for successful coping in terms of stressors and ensuring the

maintenance of health. The conditions for shaping a strong sense of coherence are defined by Antonovsky (1987) as generalized resistance resources and in turn, the sense of coherence concept is further developed as a result of his search for individual resistance resources.

3.2.3. Generalised Resistance Resources

Another important aspect of Antonovsky's (1987) theory is what he calls generalized resistance resources, referred to in short as GRR's. The important thing about GRR's is that they provide life experiences that promote the development and maintenance of a strong sense of coherence (Antonovsky, 1987). Different types of GRR's are described by Strümpfer (1990). There are GRR's of a physical and biochemical nature, such as immunosuppressors and –potentiators; money or wealth for food, clothing, healthcare and also power, status and services; cognitive GRR's, particularly knowledge, intelligence, and skills; the emotional GRR of ego identity; various coping strategies; interpersonal or relational GRR's such as social support and commitment (Strümpfer, 1990). Lastly, there are the macrosociocultural GRR's of culture, society and religion (Long, 2001).

In attempting to define a GRR, Antonovsky (1987) emphasizes predictable responses and feedback which are used to make sense of stimuli. If an individual makes use of GRR's, there will be positive consequences such as the development and maintenance of a strong sense of coherence, health and well-being. GRR's are particularly important for resolving and managing the tension created in individuals when they are confronted with stressors (Marais, 1997). The central theme of all GRR's is that they enable individuals to facilitate making sense out of stressors. Antonovsky (1987)

purports the notion that when GRR's are readily available, a strong sense of coherence develops. GRR's assist the individual to comprehend the many stressors he/she may be confronted with on a daily basis (Mlonzi, 1998). Correspondingly, individuals who have developed a strong sense of coherence will have the ability to incorporate and utilise the GRR's available to them (Mlonzi, 1998).

If GRR's consistently provide meaning for individuals within stressful circumstances, over time they generate a strong and stable sense of coherence (Antonovsky, 1987).

3.2.4. Stability of Sense of Coherence

Antonovsky (1987, p119) argues that "it is unlikely ... that one's sense of coherence, once formed and set, will change in any radical way". However, when he first made this statement, he was referring to individuals with a strong sense of coherence (Antonovsky, 1979). He says that the human organism which is an open system maintains balance at a low level of entropy or disorder. Individuals are always faced with entropic forces which constantly and inevitably attack one's sense of coherence. Those individuals who have developed a strong sense of coherence in early adulthood are able to draw on GRR's and meet challenging life circumstances and psychosocial transitions, even although entropy levels are temporarily increased (Antonovsky, 1987). Facing these difficult challenges and the expectation that the outcome will be positive ensures that people with a strong sense of coherence deal with psychosocial transitions adequately, and the low levels of disorder or entropy are restored (Antonovsky, 1987). A generalized resistance deficit is something that introduces entropy into the system, and a person with a strong sense of coherence will not

necessarily develop an increased sense of coherence, but will always be faced with a challenged sense of equilibrium (Antonovsky, 1987).

Antonovsky (1987) indicates that an individual in late adolescence/early adulthood who has developed only a moderate sense of coherence will tend to move toward a lower level over time, as these individuals will select less situations which reinforce sense of coherence. They will not be very successful when it comes to avoiding situations which are debilitating in terms of sense of coherence. In addition, the person with a low sense of coherence level never utilizes enough generalized resistance resources to offset the generalized resistance deficits. Life for these individuals, according to Antonovsky (1993), becomes more and more chaotic, unmanageable and meaningless. A courageous decision or major change can initiate transformation of the sense of coherence in the opposite direction, for example, an abused woman may decide to leave her abusive husband, but this is rare. Most likely, a person with a strong sense of coherence who is faced with generalized resistance deficits will seek out experiences that counterbalance stressors and they will be able to face difficult life challenges. Certain life circumstances may however undermine a person's sense of coherence. Antonovsky (1993) claims that it is important to note that when such rare changes occur, it is not due to one particular event but rather it initiates life-changing patterns and experiences, and gradual change is possible if this pattern is maintained over a period of time.

3.2.5. Cultural Considerations and the South African Context

All individuals are born into a particular set of life experiences based on a specific culture and history. This section investigates potential differences among culture with

regards to sense of coherence. Sense of coherence and certain cultural factors will be examined as well as cultural concerns of the sense of coherence construct specific to the South African context in terms of some studies conducted in South Africa which make use of the Orientation to Life questionnaire designed by Antonovsky (1979; 1987).

Firstly, cultural factors that may be relevant to the sense of coherence construct will be investigated.

3.2.5.1. Sense of Coherence and Cultural Factors

One of the things that determine the position of the individual on the sense of coherence continuum are the patterns of experience created by the historical and social conditions that make certain generalized resistance resources available (Antonovsky, 1987). Antonovsky (1979) acknowledges the fact that genes and predispositions may influence sense of coherence, but states that every individual is born into a particular class and is considered to be a certain culture, gender, religion and other social categories that determine particular patterns of life experiences for individuals, which may facilitate either a stronger or weaker sense of coherence.

The Sense of Coherence scale or the SOC scale (Antonovsky, 1987) comprises items that have been found to be universally understandable and meaningful across sex, social class and region (Carstens & Spangenberg, 1997), and has been used in 14 languages including English, Afrikaans, Dutch, Czech, Finish, German, Hebrew, Norwegian, Rumanian, Russian, Serbian, Spanish and Swedish which is indicative of its applicability across cultures (Bowman, 1996; 1997; Carstens & Spangenberg,

1997; Edwards & Besseling, 2001). A study by Bowman (1996) found that 81 Native Americans from a rural community college and 105 Anglo-Americans from a university developed the same levels of sense of coherence despite significant differences in socio-economic circumstances, family size and vastly different physical and cultural environments. The Native Americans were defined as having a significantly lower socio-economic status (as indicated by higher standard deviation scores) in family of origin (SD=21.19) and present family (SD=15,58) than the socio-economic status of the Anglo-Americans' family of origin (SD=13.92) and present family (SD=9.08). Results indicated that there were no significant differences between the two groups in terms of sense of coherence. This seems to indicate evidence for the applicability of the SOC scale (Antonovsky, 1987) to various cultural groups. While the total sense of coherence scores were similar for the two groups, no attempt was made to analyse the results based on the components of sense of coherence, namely Comprehensibility, Manageability and Meaningfulness, which may differ significantly despite the total scores being similar.

Antonovsky (1987) and Bowman (1996; 1997) postulate that many different cultural paths will result in similar levels of sense of coherence, and that differences in pathways are more likely due to differing life experiences and not to cognitive, motivational or emotional factors. Antonovsky (1993) argues that individual experiences must receive social valuation; this may be from family and friends and not from society at large, as long as there is some type of social valuation to reinforce meaningfulness. Not all cultures are naturally conducive to a strong sense of coherence, and similarly many cultures facilitate strong sense of coherence. Antonovsky (1987) uses the example himself of the contrast between sense of

coherence in individuals living in London's privileged Kensington area and those of poverty-stricken individuals living in Johannesburg's Soweto Township. He states that the difference hypothesised may result from the contrast between the amount of stressors inhibiting the sense of coherence, and the availability of GRR's enhancing the sense of coherence. The historical, political and social conditions of South Africa differ significantly from those in first world countries. Therefore research that has been conducted in South Africa will now be investigated.

3.2.5.2. Sense of Coherence and the South African Context

The Sense of Coherence scale or Orientation to Life questionnaire (Antonovsky, 1987) has been widely researched in South Africa. While evidence has been found for the validity of the scale in South Africa (for example Strümpfer & Mlonzi, 2001; Strümpfer & Wissing, 1998), most South African studies have selected very specific samples. These South African studies as well as numerous others will be discussed in this section as well as in following sections.

In a study by Diraz, Ortlepp and Greyling (2003), the relationship between inter-role conflict, life satisfaction and sense of coherence in a sample of working mothers (N=40) in the northern suburbs of Johannesburg was investigated. Results showed that sense of coherence was a moderator variable for inter-role conflict and life satisfaction.

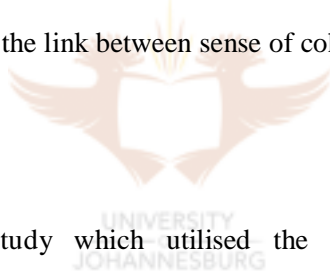
Ortlepp and Friedman (2001) investigated the relationship between sense of coherence and indicators of secondary traumatic stress in non-professional trauma counsellors in the South African banking sector (N=130), and the results indicated

that sense of coherence has a significantly strong effect on the indicators of secondary traumatic stress. This study however focused on a specific stress incident and did not give any indication as to how the individuals in this particular sample deal with day to day stressors.

Research by Edwards and Besseling (2001) investigated the relationships between depression, anxiety, sense of coherence, social support and religious factors in order to report the stress responses of a group of sawmill workers (N=51) in South Africa. The study examined stress responses to strike or industrialised action of workers who were protesting provident fund contributions. Results showed that the higher an individual's scores on sense of coherence, the lower their experience of anxiety and depression. Inversely, lower scores on the SOC scale correlated with high anxiety and depression. These results support research conducted using the SOC scale outside of South Africa (see section 5.3.2.2). However, the sample was limited, comprised of only blue-collar workers in a rural community and the average age was 38,6 (SD=10,4). The study focused on workers' responses to the strike, and thus did not attempt to measure generalised and consistent responses to stressors across time. Similarly, other South African research provides support for the effectiveness of the salutogenic approach and sense of coherence construct in South African samples.

In a research project by Strümpfer and Mlonzi (2001), which incorporated three separate studies, they investigated the relationships between sense of coherence and job satisfaction, job involvement, organisational commitment and conscientiousness. The first study consisted of a sample of life insurance consultants (N=92), the second study used a convenience sample obtained through human resource managers of

people working in organisations (N=141), and the third study used a sample comprised of university lecturers and professors (N=118). Results for all three studies indicated that sense of coherence and job satisfaction share a strong and possibly bi-directional relationship. The other work-related variables were shown to play a very small role. The alpha coefficients corresponding to both the 29 item SOC scale as well as the 13 item SOC scale were highly acceptable (see section 5.3.2.2). However, the sample was comprised of very specific group of individuals, namely employees, in middle to late adulthood with mean ages of 38.59 in study one, 34.28 in study two, and 41.00 in study three (Strümpfer & Mlonzi, 2001). Furthermore, results of this study refer directly to their experience of work and do not necessarily indicate sense of coherence levels in other facets of life. Nevertheless, this South African study provides further support for the link between sense of coherence and functional health status.



Another South African study which utilised the Sense of Coherence scale (Antonovsky, 1987) was conducted by Roothman, Kirsten and Wissing (2003), where gender differences in aspects of psychological well-being were investigated. A relatively large sample was used (N=378), which was comprised of individuals from different cultural backgrounds, different educational levels and different ages (18-65 years). There were 90 men and 288 women. The results of the study revealed that there are no significant differences between men and women in terms of sense of coherence, satisfaction with life, affect balance, emotional intelligence, self-efficacy, and the social components of self-concept and of fortitude. Men scored higher on physical self-concept, positive automatic thoughts, constructive thinking, cognitive flexibility, total self-concept and fortitude. Women scored higher on expression of

affect, somatic symptoms and religious well-being. The researchers indicate that the differences found may be due to social stereotypes of male and female gender roles (Roothman, Kirsten & Wissing, 2003). However, the study did not control for variables such as socio-economic status and level of education. The sample was obtained through snowball sampling and thus consisted of a wide range of participants such as adults with only a grade 10 education as well as adults who are highly educated. The age and level of education of participants may have influenced their responses in that some of them may have been raised in a pre-feminist era, while the younger participants may be more aware of gender aspects (Roothman et al., 2003). Again however, the Sense of Coherence scale (Antonovsky, 1987) was shown to have good internal consistency as indicated by the alpha coefficient of 0.87 on yet another South African sample (Roothman et al., 2003).

A qualitative journal article by Strümpfer (1995) argues that affluent, privileged people such as certain groups of Americans, Australians and South Africans, especially white South Africans may be engaged in the “mere pursuit of happiness” (p. 87). However, life is full of stressors and, for the previously disadvantaged groups which constitute the majority in South Africa, some form of resilience must be present for these individuals to continue living their lives and to be able to find meaning. These conditions necessitate having resilience resources and a life philosophy concerned with health, strength and their origins (Strümpfer, 1995). Strümpfer (1995) argues that understanding how and why people have the ability to withstand pressures and stressors is important for potentially increasing the number of individuals who are able to do this.

A number of researchers have investigated the nature of stressors in terms of the constructs salutogenesis and sense of coherence, and literature on the subject will be evaluated in section 3.3.

3.3 Contemporary Salutogenesis and Sense of Coherence Studies

The shift from a pathogenic to a salutogenic emphasis in the social and health sciences has resulted in much research being done on the topic. This section looks at other theories that seem to account for sense of coherence, literature surrounding sense of coherence and well-being, the proposition of the term 'fortigenesis', as well as the contemporary literature on sense of coherence and well-being, sense of coherence and personality and sense of coherence and negative affectivity.

Firstly, other theories that are said to account for sense of coherence will be looked at in terms of similarities and differences between their main tenets and the main features of the sense of coherence construct.

3.3.1. Other Theories Accounting for Sense of Coherence

Other theorists who have developed concepts that may have similarities to the sense of coherence construct are Rotter (1966) and Rosenbaum et al (Rosenbaum & Jaffe, 1983; Rosenbaum & Palmon, 1984). Both Kobasa (1979a; 1979b) and Bandura (1982) offer similar theories which explain why some people stay well and others become ill in the face of stressful life circumstances.

Kobasa (1979a; 1979b) puts forward a theory where she refers to a similar idea to that of individuals with a high sense of coherence. She uses the construct *hardy personality*, which also attempts to explain why individuals respond in different ways to similar life circumstances (Kobasa, Maddi & Kahn, 1983). Kobasa (1979a; 1979b) identified three aspects of personality: firstly, the belief that people are able to actively influence their environments, secondly that people are able to make commitments and to find meaning in individual behaviours, and thirdly, to view change as a challenge for personal growth. The first aspect of Kobasa's (1979b) theory appears to link to Antonovsky's (1979; 1987) Manageability and Comprehensibility dimensions, the second aspect to the Meaningfulness dimension, and the third aspect to the Comprehensibility and Meaningfulness dimensions (Cilliers, Viviers & Marais, 1998). Geyer (1997) thus argues that Antonovsky's (1979; 1987) concept of sense of coherence and Kobasa's (1979b) personality dimensions overlap, indicating that Antonovsky (1979; 1987) cannot in fact take the credit for being the originator of the sense of coherence concept. The difference between the two concepts is the way that they are operationalised. In defense of the sense of coherence concept, it is the differences between the two that Antonovsky (1987) himself focuses on.

A more general theory is the *self-efficacy* theory proposed by Bandura (1982), which springs from the social learning paradigm. This theory states that people perform certain behaviours in order to cope with stressors or attain goals. Bandura (1982) claims that expectation of mastery results in the exercising and sustainability of coping behaviour. Furthermore, according to this theory, people are more likely to seek out certain situations and avoid situations in which personal abilities are likely to

be exceeded (Cilliers et al., 1998). The conditions required for mastery to develop include direct experience, the observations of others' successful behaviour, verbal persuasion that one is able to succeed, and emotional arousal in challenging situations. These factors contribute to self-efficacy beliefs and behaviours (Geyer, 1997). While self-efficacy requires repeated learning experiences over time, Antonovsky's (1987) sense of coherence is a stable construct.

Similarities have been noted between the sense of coherence concept and the theories of Rotter (1966) and Rosenbaum (Rosenbaum & Jaffe, 1983; Rosenbaum & Palmon, 1984). Cilliers et al. (1998) argue that sense of coherence is similar to Rotter's (1966) theory regarding locus of control. Internal locus of control refers to the belief by certain individuals that outcomes are dependent on their own actions, while those who see situational outcomes as dependant on chance, fate or other people's actions are defined as having an external locus of control. The concept of 'learned resourcefulness' developed by Rosenbaum (Rosenbaum & Jaffe, 1983; Rosenbaum & Palmon, 1984) is also similar to sense of coherence in that the former is defined as a collection of skills with which individuals are able to regulate responses that may interfere with behaviour.

Antonovsky (1987) points out that although each theory puts forward different ideas and concepts, each of these theories share the same assumption, namely that how individuals view the world is a determining factor in predicting coping and the consequences to health. He examines the sense of coherence as dependant variable and elaborates on how the sense of coherence is formed based on culture and patterns of life experiences. He attempts to uncover what facilitates the capacity to function

well under pressure and what facilitates being unable to withstand stressors. He argues that analogous concepts such as internal and external locus of control, self-efficacy, learned helplessness or resourcefulness, Type A behaviour pattern and personality, state-trait anxiety, meaning in life and hardiness indicate similarities in terms of dispositional orientations (Antonovsky, 1987). One concept that shares much similarity with salutogenesis is *fortigenesis*, which originated from Strümpfer (1995), and this construct will be explored next.

3.3.2. Salutogenesis and Fortigenesis

Strümpfer (1995) argues that emphasising health as the end point of Antonovsky's (1979; 1987) salutogenic paradigm would be a limiting factor when regarding the extent of well-being that the salutogenic paradigm actually encompasses. Furthermore, he claims that investigating health becomes difficult and in fact the term *health* loses its meaning when it is overextended to encompass general well-being. To address this problem, he argues for a broader explanatory construct to investigate the interaction between GRR's, sense of coherence, and other areas of human experience which may be situated on the health ease/dis-ease continuum (Strümpfer, 1995). Strümpfer (1995) thus suggests the following:

The term 'fortigenesis', from Latin: fortis (= strong), seems to be more descriptive of the paradigm than the term 'salutogenesis'. The English words, fortify (= to impart physical strength, vigour or endurance, or to strengthen mentally or morally), fort (= a fortified place), and fortitude (= strength and courage in adversity or pain), all have the same root. Introducing the construct is not to deny the need to search for the origins of health; it is

merely to say that, in the process of doing so, Antonovsky could not help but point to the closely related origins of the strength needed to be effective at other end-points of human functioning too. This total endeavour should be acknowledged: 'fortigenesis' is more embracing, more holistic, than 'salutogenesis'. (p. 82).

Strümpfer (1995) claims that work experiences are closely linked to fortigenic processes. He has conducted research (for example Strümpfer & Mlonzi, 2001) investigating fortigenic development and occupational self-direction, combat experience and homemakers as part of the labour force. The emphasis is on strength, instead of only on health, and in addition, fortigenesis must be distinguished from merely pursuing happiness in life (Strümpfer, 1995). The salutogenic paradigm and the sense of coherence construct have been widely researched and these studies will now be explored and evaluated.



The first few studies deal with the relationship between sense of coherence and well-being.

3.3.3. Sense of Coherence and Well-Being

Antonovsky (1987) hypothesizes that positive correlations between sense of coherence and well-being are likely, even although he acknowledges that this would not be a directly causal link. If a high sense of coherence is linked to good health, and good health positively influences well-being, then sense of coherence and well-being are indirectly linked.

Research (for example Johnson, 2004; Zika & Chamberlain, 1992) indicates disagreement as to the exact role of sense of coherence in well-being. Sense of coherence has, on the one hand, been implicated as a stress buffer or resilience booster to help people deal with an existing chronic illness, disability or situation which impinges on quality of life. On the other hand, sense of coherence is described as a way to enable individuals to develop and maintain health (Johnson, 2004).

Studies have been conducted to ascertain whether a high score on the SOC scale (Antonovsky, 1987) influences psychological and physiological responses to a particular stressor or rather, whether sense of coherence influences these responses in a controlled stressful situation (McSherry & Holm, 1994). Participants' sense of coherence levels were tested and the participants were then asked to complete a number of questionnaires before, during and after a stressful situation. The researchers recorded physiological responses during baseline, anticipation and recovery periods. Statistical analyses were conducted in terms of the differences between low, middle and high sense of coherence groups. Differences were found between groups on measures of psychological distress, cognitive appraisal, coping processes and pulse rate, supporting the notion that subjects who score low on the SOC scale (Antonovsky, 1987) show more distress and tend to judge and cope with stressful situations in ways that are less likely to alleviate or diminish stress (McSherry & Holm, 1994).

Many of the GRR's related to strong sense of coherence are also related to well-being. Antonovsky (1987) points out however that there is a more direct causal relationship. On the one hand there are the global constructs of happiness, life satisfaction, morale,

positive and negative affect which are more likely to be dependant on inherent potential in objective situations, and on the other hand there is the way individuals feel about their functioning and this is directly related to sense of coherence. Antonovsky (1987) uses the example of a concentration camp. He says that any individual imprisoned in a concentration camp will not be happy, satisfied or of high morale. Also, all individuals experience difficult times of pain and suffering such as the death of a loved one, and Antonovsky (1987) says that in these situations individuals with a strong sense of coherence and those individuals with weak sense of coherence will have the capacity for the same feelings. However, the person with the strong sense of coherence will handle it to the best of their ability, despite the facts of the situation, and life can still seem manageable and bearable. Clearly, this aspect of well-being is linked to sense of coherence (Antonovsky, 1987).

Many studies have examined sense of coherence as a stress buffer itself (Jorgensen, Frankowski & Carey, 1999; Korotkov, 1993; Pallant & Lae, 2002), but Antonovsky (1993) argues that sense of coherence is not fundamentally a stress buffer variable. Furthermore research has found that sense of coherence is correlated negatively with life stress and symptoms of stress, and lessens the impact of stressors, but, that sense of coherence itself is not a buffer variable (Flannery & Flannery, 1990). One study which was conducted with participants (N=95) attending evening college courses (Flannery & Flannery, 1990), supports previous findings that show an adequate SOC is correlated with more optimal functioning (Antonovsky, 1987; Antonovsky & Sagy, 2001). Most participants were white, single, well-educated and middle-class in full-time employment with a mean age of 27.57. However, the study incorporated people between the ages of 19 and 57 years, which is a very large age range, thus making age

a possible confounding variable, as there may be differences in sense of coherence based on age. In addition, the study provides no indication of possible differences in sense of coherence for individuals from different cultural backgrounds.

In a study by Pallant and Lae (2002), which analysed responses from a community based sample (N=439), the construct and incremental validity of the short version of the Sense of Coherence scale (Antonovsky, 1987), known as the SOC-13 was investigated, and the relationship between sense of coherence and well-being was explored. The results support the notion that sense of coherence is correlated with physical and psychological well-being, adaptive coping strategies, and with personality measures. No significant differences were found for males and females. In Pallant and Lae's study (2002), correlations were found between sense of coherence and measures of both positive and negative psychological states, which indicates that sense of coherence contributes to improved well-being and not just negative affectivity (Pallant & Lae, 2002). However, this study uses the SOC-13. Furthermore, individuals with a strong sense of coherence tend to respond to stressors with adaptive coping strategies which increase the likelihood of positive outcomes, thereby limiting the possibility of impaired health and well-being (Pallant & Lae, 2002). Further research on the direction of causality is needed. Pallant and Lae's (2002) study is indicative of another central theme in sense of coherence research, namely the link between sense of coherence and personality.

3.3.4. Sense of Coherence, Personality and Negative Affectivity

Gibson and Cook (1996) researched the relationship between sense of coherence and personality traits on college students (N=95) using the SOC scale (Antonovsky, 1987)

and the Eysenck Personality Inventory. Their findings indicate a highly negative correlation between SOC scale scores and neuroticism. Of the 29 items on the Sense of Coherence questionnaire (Antonovsky, 1987), 18 items correlated with Neuroticism on the 99% certainty level, and 21 items correlated on the 95% certainty level (Gibson & Cook, 1996). Gibson and Cook (1996) thus argue that the SOC scale may indirectly measure neuroticism. Not all researchers agree. Maddi, Bartone and Puccetti (1987), argue that associating life events with health is not necessarily a measure of, nor is it confounded by, emotionality. They say that high scores on neuroticism, for example, may be associated with secondary health factors such as smoking thus leading to ill health, but argue that this does not mean the two are directly linked (Maddi, Bartone & Puccetti, 1987). This research also highlights the importance of personality factors in sense of coherence and health.

Marais and Stuart (2005) investigated the role of temperament in the development of Post-traumatic Stress Disorder (PTSD) amongst journalists (N=50). The sample included a wide distribution of age, ranging between 20 and 61 years (mean = 31.94). Experience of trauma was measured by the Trauma Questionnaire (Marais, 2003), temperament traits were measured by the Zuckerman-Kuhlman Personality Questionnaire (Zuckerman, Kuhlman, Joireman, Teta & Kraft, 1993) and sense of coherence was measured using the SOC scale (Antonovsky, 1987). The results support the salutogenic approach, which states that sense of coherence influences the ability to cope with trauma. The outcome of this study also provided support for the idea that the temperament trait of neuroticism is linked to unfavourable outcomes, and that sense of coherence may be a buffer against stress. This study focused on a very specific sample type, and furthermore the sample included a very wide range of ages

making it difficult to assess differences in sense of coherence in young adults versus older adults.

In a study conducted by Mlonzi (1998) on second year industrial psychology university students (N=100) using the Orientation to Life questionnaire (Antonovsky, 1987) and the 16PF (Cattell, 1972), results indicate that the SOC scale (Antonovsky, 1987) is indirectly related to a large range of primary personality traits. The 16PF was administered two weeks before the SOC scale (Antonovsky, 1987), thereby possibly reducing the common response sets used in the testing situation (Mlonzi, 1998). The most prominent finding of the study was the high negative correlation between the SOC scale (Antonovsky, 1987) and the Anxiety factor, and this relationship suggests that sense of coherence may in fact be linked to negative affectivity. Mlonzi (1998) notes however that the polar ends of the continuum on which neuroticism is found is not intended to be interpreted in a pathology-oriented manner. Mlonzi (1998) argues further that the positive end of the continuum (Cattell, 1972) could also have been used to identify it. Nevertheless, many other researchers (for example Clark & Watson, 1991; Flannery & Flannery, 1990; Hart, Hittner & Paras, 1991) have found high correlations between negative affectivity and sense of coherence.

Studies have also been conducted (for example Carstens & Spangenberg, 1997; Edwards & Besseling, 2001) in order to determine whether depression is associated with a weak sense of coherence (see section 3.2.4.2). Control group and patients diagnosed with major depressive disorder were asked to complete the Orientation to Life questionnaire (Antonovsky, 1987) and the Beck Depression Inventory (Beck,

1953). A low score on the Meaningfulness subscale was found to be the best predictor of scores on depression in clinically depressed participants (Carstens & Spangenberg, 1997). Researchers have argued that, instead of measuring resiliency in individuals, the Sense of Coherence scale (Antonovsky, 1987) actually measures negative affectivity (Clark & Watson, 1991; Strümpfer, Viviers & Gouws, 1998). To test this hypothesis and to see whether this occurs because of the negatively phrased items on the scale, Strümpfer et al. (1998) administered the SOC scale (Antonovsky, 1987) as well as negative and positive affectivity scales to a sample (N=118) comprised of nursing students, administrative and managerial personnel, and life insurance consultants. Results showed that the negatively phrased items do not contribute to the high correlations found between sense of coherence and negative affectivity (Strümpfer et al., 1998). Future research utilising affectivity measures would provide further cross-validation of these results. However, results from the study by Strümpfer et al. (1998) indicates that the relative consistency found in the abovementioned research from different samples and using different trait measures, support the current item phrasing of the SOC scale (Antonovsky, 1987).

Although the theory of salutogenesis and the sense of coherence concept as measured by the Sense of Coherence scale (Antonovsky, 1987) have been widely researched, a number of limitations should be noted, and these will be described in the following section.

3.4 Critique

Antonovsky's (1979; 1987) theory can be criticized on a number of levels (see for example Geyer 1997; Pallant & Lae, 2002). The three components of sense of coherence are described as interrelated concepts (Geyer, 1997). One criticism of the sense of coherence construct centres around whether it should be considered as a whole or in its components. Although Antonovsky (1987) concedes that people may have high scores on one aspect of sense of coherence and low scores on the other two, he claims that sense of coherence ought to be seen as a global consistent construct. He gives the example of a middle-class housewife who may be high on Comprehensibility and Manageability, but low on Meaningfulness (Antonovsky, 1987). Given the above example, there is an indication that referring to one's overall, global sense of coherence may be somewhat misleading. However, Antonovsky (1987) argues that it is in fact better to look at a person's overall sense of coherence as opposed to looking at the subscales individually (Geyer, 1997). This seems to be a major contradiction in Antonovsky's (1979; 1987) theory and a major criticism of his work.

Antonovsky (1993) explains his theory further by looking at the role of boundaries. On the one hand, sense of coherence is referred to as being a "generalized, long-lasting way of seeing the world and one's life in it" (Antonovsky, 1987, p26). On the other hand, Antonovsky (1993) argues that even people who have a strong sense of coherence do not necessarily see their entire objective worlds as coherent. He explains this by elaborating on the role of boundaries as he claims that all individuals set boundaries.

Antonovsky (1993) argues that what goes on outside of a person's boundaries is not important, even if the events are comprehensible, manageable and meaningful. Individuals differ in terms of what they include within these boundaries; some are narrow and others are broad. The boundary theory suggests that people do not need to consider all of life as comprehensible, manageable and meaningful in order to have a strong sense of coherence. People can thus choose to be cognitively and emotionally invested in certain things, while showing little concern for other realms of life. These individuals however are still considered to have a strong sense of coherence. Antonovsky (1979) emphasizes the importance of people having areas of life which are of subjective importance to them. Some spheres, he argues, are essential and these are an individual's inner feelings, one's immediate interpersonal relations, one's major activities, and existential issues such as death, failures, weaknesses, conflict and isolation (Antonovsky, 1987). If an individual sees any of these spheres as unimportant, by default they are low on meaningfulness.



One aspect of the boundary theory is attention, in that individuals may choose to exclude certain events at a particular time or include life areas at another. This may be temporary. This concept may be criticized because it seems to contradict the idea that sense of coherence is stable and consistent. However, Antonovsky claims that although there is some flexibility of boundaries, the four crucial components discussed above must be taken into account (Antonovsky, 1987).

One criticism of the idea that a strong sense of coherence may result in individuals feeling more optimistic and in control of their lives, is the proposition that individuals who already have a positive outlook and who feel good about themselves and their

lives may report high levels of coherence on the sense of coherence scale (Pallant & Lae, 2002). Thus level of optimism may influence scores on sense of coherence.

Another criticism of the sense of coherence concept is the concern that the SOC measure is too broad in terms of measuring resilience, which indicates that it may simply measure emotional calm and serenity which lies on the opposite end of the continuum from negative affect (Johnson, 2004).

Geyer (1997) notes several problems and inconsistencies related to the sense of coherence theory (see section 3.3.1). Firstly, he claims that sense of coherence is not the only theory that explains the concept of salutogenesis. Secondly, he points out that mixed results regarding the stability of sense of coherence have been found. Thirdly, Geyer (1997) argues that in defining the dimensions of the sense of coherence concept, Antonovsky (1979; 1987) failed to acknowledge the affective side. For example, seeking to achieve goals, coping and active behaviour are rationally motivated and emotionality only plays a small part. Geyer (1997) lastly postulates that Antonovsky's (1987) definitions for what may be construed as health and illness are vague, and says that consequently, health-preserving factors are also vaguely defined.

Geyer (1997) notes further that these shortcomings can be resolved by observing the work of Lazarus (1993), in which he focuses on the integration of emotions as aspects of stress and coping behaviour. Antonovsky (1987) claims that the most important consequence of the salutogenic orientation is that it enables and in fact compels individuals to formulate and advance theories of coping.

One very important factor to consider when analysing the pathogenic and salutogenic paradigms is that accepting the salutogenic view does not imply rejecting the pathogenic paradigm (Antonovsky, 1987). An individual with cancer once commented to Antonovsky (1987) that he wished to be treated for his cancer and not for his sense of coherence, and this example indicates the importance of the pathogenic approach in many circumstances in various clinical fields. Research on stressors and pathogens is extremely important and will continue to have theoretical and practical implications (Strümpfer, 1990). The two paradigms perform different functions and in some ways actually complement each other and stimulate and enrich growth in each other, although Strümpfer (1990) cautions against viewing the two as co-existing too peacefully. The salutogenic paradigm seems promising in terms of new insights and growth within the social sciences.

Overall the sense of coherence construct has been measured across research settings and across cultures, and the research results support the validity and reliability of the construct (Eriksson & Lindstrom, 2005; Flannery, Perry, Penk & Flannery, 1994). The sense of coherence construct and the salutogenic paradigm have greatly contributed to social science.

3.5 Chapter Summary

This chapter investigated the salutogenic paradigm which is a concept developed by Aaron Antonovsky (1979; 1987) to explain the health/dis-ease continuum of how some individuals become ill while others stay well, even although they are exposed to similar stressors. The paradigms of salutogenesis and pathogenesis were compared

and contrasted, and it was noted that both physiological and psychological approaches to stress, coping and health are in fact necessary. The salutogenic approach to health was investigated in terms of three important constructs namely Comprehensibility, Manageability and Meaningfulness. Relevant and recent literature on salutogenesis and sense of coherence was evaluated, and a critique of the paradigm was also included in this chapter. Overall it was shown that individuals differ in terms of their responses to coping with stress.

Clearly, sense of coherence plays an important role in coping with stress. Most of the research investigated in this section, however, was conducted on samples in middle to late adulthood. Research on coping with stress and sense of coherence in young adulthood is needed, given the many transitions faced by this age group. In order to complete the theoretical framework underlying this research project, theories of stress and coping as well as developmental facets of late adolescence/young adulthood will be the focus of the following section.