

https://dspace.org/

A Validation study of the sense of coherence scale using two South African samples

Randall, Susan Jane

2007-03-01T11:05:14Z
http://hdl.handle.net/10539/2171

Downloaded from a DSpace repository. https://dspace.org/

Chapter One

Introduction to the research project

1.1 INTRODUCTION

This chapter presents a summary of the problem statement for the current research. Included in this discussion is a description of the research aims and a brief rationale for the study. This is followed by some definitions of key terms and concepts, and finally by an overview of the structure the research report.

1.2 PROBLEM STATEMENT AND RESEARCH QUESTIONS

The current research is broadly concerned with how people make meaning out of life and deal with stress. There is a growing interest in the social sciences regarding factors which may keep people healthy despite the presence of stress and trauma in their lives. This approach has become known as the salutogenic paradigm. The word "salutogenesis" derives from *salus* for "health" (Latin) and *genesis* for "origin" (Greek), thus meaning "the origins of health". The work of Aaron Antonovsky, who coined the term "salutogenesis" (Antonovsky, 1987) is prominent within this paradigm, and informs the current research.

Antonovsky was a medical sociologist who was born in 1923 and died in 1994. He grew up in America but later moved to Israel, where he became a professor (Lindström & Eriksson, 2005). He tried to identify personality factors that help to keep people healthy. He took into consideration the fact that ethnicity, culture, nationality, race, gender, income level and age all affect the life experiences which different individuals will tend to have. In turn, these experiences tend

Deleted: .

either to assist one in making sense out of life or to decrease one's ability to do so (Antonovsky, 1987).

Antonovsky's theory centred on what he named the "sense of coherence" (SOC). A strong SOC enables people to make meaning out of their lives, and this in turn helps them to deal with stressors and challenges more effectively. Antonovsky (1987, 1993) posited that socio-economic status, gender, culture, and so on affect one's SOC by determining, in part, what experiences one has in life and what coping resources are available to one. He wrote that:

Deleted: Antonovsky (1987, p.19) wrote:

> 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.
>
> Antonovsky, 1987, p. 19

Deleted: ¶

The three components identified above are referred to as (1) comprehensibility; (2) manageability; and (3) meaningfulness (Antonovsky, 1987, pp.16-18). Antonovsky suggested that individuals with a strongly-developed SOC are better able to deal with both major trauma and minor daily hassles than are those with a weakly-developed SOC. These psychologically robust individuals seem to master the art of transforming both mundane hassles and major trauma or stress into fuel for growth and well-being (Antonovsky, 1987; Linley & Joseph, 2004).

The salutogenic approach provides a counterbalance to the traditional "pathogenic" paradigm, which identifies factors that make people ill (Antonovsky, 1987; Strümpfer, 1990). The pathogenic paradigm also generally classifies people in terms of rather simplistic dichotomies, such as "healthy" versus "sick" (ibid.).

Antonovsky (1987) proposed that health should be viewed instead as a multi-dimensional continuum, with individuals positioned closer to either one of the hypothetical extremes of health and illness. Sense of coherence, he posited, is a major factor in determining one's position on the continuum.

The specific focus of this research project is to evaluate the Sense of Coherence Scale (SOC Scale), which was developed by Antonovsky (1987). This scale was designed to measure how effectively individuals are able to maintain a sense of meaning, coherence or psychological well-being in their lives. The scale was developed in Israel in the 1970s and was normed on Israeli populations, along with some standardisation using American samples (Antonovsky, 1987). Table 6.1 in Chapter 6 provides information on some of the specific sample groups on which the SOC Scale was normed, or with whom it has subsequently been used.

Antonovsky's SOC Scale has been proven empirically to be a valid and reliable measuring instrument for the construct it proposes to measure (Antonovsky, 1993; Frenz, Carey, & Jorgensen, 1993; McSherry & Holm, 1994). However, this assertion applies to research conducted with primarily Western population groups (including Israeli samples, which are viewed here as being westernised). Because the scale is now being used in other countries, it is necessary to undertake validation studies to assess how suitable it is for use in those countries (Paunonen & Ashton, 1998).

According to Paunonen and Ashton (1998), no scale can be assumed to be a reliable or valid measure of a construct in a population that differs from the one where the scale was developed and normed, without empirical evidence to support this assumption. In addition, cross-cultural adaptations of instruments sometimes prove to be necessary (ibid.). Paunonen and Ashton (1998, p. 165) state that "If the… reliability, criterion validity, and internal structure are roughly the same in the new culture as in the original culture, then the psychological test can simultaneously claim evidence of both its construct validity and its cross-cultural applicability."

If the empirical findings regarding a particular scale do vary across cultures, the reasons for this difference should be established. Minor variations are to be expected cross-culturally and do not in themselves render a scale useless in a foreign culture. The most important psychometric properties to assess are reliabilities (test-retest and internal consistency), means and variances, patterns of correlations and the factor structure (Paunonen & Ashton, 1998).

Although the SOC Scale has been quite widely used in South Africa (see Table 6.1, Chapter 6), none of these studies appears to have been in-depth validation research. Thekiso's (1999) study did include validation research with the SOC Scale, but he examined the performance of four other scales as well, and hence did not provide particularly much detail regarding SOC Scale data.

Descriptions of the South African samples used in the current research are given in section 4.2.3. Evidence for the SOC Scale's reliability in these South African contexts would imply that its items are as intelligible to these samples as they were to the Western populations on which the scale was normed. Similarly, evidence for the scale's validity in a South African context would suggest that it adequately measures the three theoretical components of SOC (comprehensibility, manageability, and meaningfulness). The current research explores the extent to which this kind of evidence was apparent in the empirical results.

However, an assessment of construct validity is not merely a numerical or statistical affair (see 3.4.1 and 4.3.3). Given that SOC theory relates to an aspect of personality functioning, an in-depth attempt to assess the validity of the SOC Scale requires the researcher to have some insight into the assumptions which different societies hold about the nature of personality. It is possible that the SOC construct is particularly relevant to societies which foster worldviews that may be assumed to be typically Western (see Chapter 2 for a full discussion of Western and non-Western views regarding the personality). If so, the instrument may not

do justice to individuals from cultures with vastly different beliefs about what it means to be human.

Owen (1992) discusses bias and unfairness in test items, as well as construct and predictive validity in tests designed for one group but used with another. He states that "the term **bias** refers to a systematic underestimate or overestimate of a population parameter" that is "associated with the group membership of those individuals" (Owen, 1992, p. 2) rather than being due to true individual differences (also Anastasi, 1982).

It is thus important to assess whether differences in SOC scores obtained by different population groups are due to item bias or problems with construct validity, or to true personality differences among the populations being compared (Paunonen & Ashton, 1998). The need exists for systematic investigations of the psychometric properties of all scales used in South African settings (HPCSA, 2002), and the SOC Scale is no exception. Thus, the general question which the current research addresses is: How reliable and valid is the SOC Scale for use with South African populations?

The specific questions that the research aims to answer are:

1. What is the internal consistency of the SOC Scale for the current samples?
2. What means, standard deviations, and score ranges (minimum and maximum) are obtained for the current samples?
3. Does the SOC Scale show the same factor structure in the current research as it has in other studies?
4. What is the variance of the individual item scores?
5. What is the convergent (criterion) validity of the SOC Scale in relation to another relevant measuring instrument, namely the Perceived Stress Scale (Cohen, Kamarch, & Mermelstein, 1983)?

1.3 RESEARCH AIMS

The current research aims to add to the body of knowledge relating to Antonovsky's SOC theory and the use of the SOC Scale. The general aim is to evaluate the SOC Scale, also known as the Orientation to Life Questionnaire or OLQ (Antonovsky, 1987), using a quantitative approach. Based on a critical analysis of the instrument's structure, item variance, reliability and validity, and with reference to Antonovsky's theory, suggestions will then be made for possible improvements to the scale for use in a South African context.

The specific aims of this research are:

1. To examine the alpha scores for the internal consistency of the scale, for the current data.
2. To provide descriptive statistics (mean, standard deviations, ranges) of the scores obtained.
3. To explore the factor structure of the data.
6. To examine the variance of the individual item scores.
4. To assess the convergent validity of the SOC Scales in relation to the Perceived Stress Scale (PSS).

As this is a validation study which relies on exploratory procedures and reasoning, no specific hypotheses will be presented.

1.4 RATIONALE

Although "sense of coherence" is a useful construct within the social sciences, research with the SOC Scale has yielded a somewhat unclear picture. Antonovsky's conceptualisation of SOC was broad, referring to a global personality disposition rather than a trait or state. This makes it a complex and

difficult variable to measure. Some research indicates an overlap between SOC and other variables, either personality-related (Schnyder, Büchi, Mörgeli, Sensky, & Klaghofer, 1999) or related to social support, or to wealth (Antonovsky, 1993).

The current study aims, firstly, to clarify what the SOC Scale is measuring, and possibly to offer suggestions for improving the wording of certain items for use in a local context. Secondly, any social sciences scale should ideally be used by different researchers in a wide variety of contexts and countries. Doing so helps to determine whether that scale is equally useful across diverse populations, or whether its usefulness is limited to contexts similar to the one in which it was created (Paunonen & Ashton, 1998). Comprehensive normative data are collected when an instrument is used in diverse cultural contexts, and validation studies enable researchers both to assess an instrument's cross-cultural utility value and to add to the normative data. Therefore, this study will assess the SOC Scale's reliability, validity, and patterns of item variance for two South African samples.

1.5 DEFINITION OF KEY TERMS AND CONCEPTS

This section offers a definition of some key terms. It also provides a preliminary discussion of concepts which will be discussed in greater depth in the literature review (Chapters 2 and 3), or in the chapters on methodology, research results and interpretation of the results (Chapters 4 to 7).

1.5.1 Worldviews

"Worldview", in the current report, refers to a global philosophical point of view regarding life and the world one lives in. Worldviews are essentially belief systems, and as such are strongly influenced by cultural tradition, religion, education, family beliefs, and so on.

In terms of the input of culture on worldview, while there is obviously no such thing as a homogenous "Western worldview", this term is used throughout the

thesis as an aid to academic discussion. Similarly, there is no such thing as a monolithic "Eastern worldview" or a single, unified "African worldview". The use of such terms may at times seem oversimplistic. Cultural diversity is a complex matter, and arguably each individual personality represents its own unique culture, shaped partly by the external social circumstances into which it was born and within which it developed. However, generalised terms such as the above do, at times, facilitate the analysis and discussion of recurring social themes and concerns within psychology.

Chapter 2 of this report examines the influence of culture on personality development, and on people's conceptualisation of what it means to be human. Chapter 2 thus contains a discussion of the various worldviews that may generally be associated with Western, Eastern or African cultures.

Just as Western, Asian and African cultures and worldviews are not homogenous, they are also not static. Cultures are increasingly in flux as communication technology and means of worldwide transport advance. These advances have enabled diverse groups of people across the globe to share their viewpoints—and material products—with each other with greater ease. Since very early in human history, cultures have influenced each other through the exchange of objects, philosophies, traditions, or religions. This tendency has not changed; if anything, the process has accelerated.

Such trends are reflected in the literature reviewed for this research. For example, all of the texts on African tradition which are referred to in Chapter 2 make at least some mention of the process of westernisation (eg. Turnbull, 1966 and 1976; Clasquin, 1999; Mboya, 1999). As a result, the fact of cultural flux is taken somewhat for granted in this report. The current research attempts merely to identify some of the more salient features of each culture, as that culture existed in its traditional form. Many of these features still exist to at least some degree among the modern-day descendants of the communities or cultures in question, and may affect the psychological make-up of individuals. The topic of cultural

change is not the main focus of this research, and it thus seemed appropriate to use terms that are, admittedly, somewhat compromising generalisations. The intention is simply to examine some of the cultural aspects of personality functioning and concepts about personality.

1.5.2 Construct

In the field of psychology, the term "construct" refers to an abstract idea or variable. In other words a construct is an intellectual concept, and as such cannot be observed or measured directly. However, it is inferred or hypothesised to exist because it gives rise to phenomena or processes that are measurable (Reber, 1985; Rosenthal & Rosnow, 1991). Examples of constructs are intelligence, need for achievement, and sense of coherence.

1.5.3 Personality

Maddi (1989, p. 669) defines personality as "A stable set of characteristics and tendencies that determine those commonalities and differences in the psychological behaviour (thoughts, feelings, and actions) of people that have continuity over time[,] and that may or may not be easily understood in terms of the social and biological pressures of the immediate situation alone". Weiten (1989, p. 650) defines it more simply as "An individual's unique constellation of consistent behavioral traits".

1.5.4 Scales of measurement

McCall (1990, p. 439) defines measurement as "The systematic assignment of numerical values to objects, characteristics or events". Reber (1985, p. 661) defines a measurement scale as "any procedure or device that is used for the purpose of arranging objects or events in some progressive series". This includes testing instruments which have "items or tasks arranged along some dimension", with that dimension representing one of many possible things, such as difficulty (e.g for intelligence testing) or preferences (e.g. for attitude testing) (ibid., p. 661).

The SOC Scale which is the focus of this research is an "ordinal" scale, since the mathematical values assigned to item responses possess only magnitude or rank-order. The scores do not have an absolute zero point, nor the properties of equal intervals (distances) between them (McCall, 1990; Kerlinger, 1986). Scales with an absolute zero point and equal intervals are known as "ratio" scales, while those with equal intervals but no absolute zero point are "interval" scales.

1.5.5 Psychometric properties of scales

Reliability

Reliability refers to the degree of dependability or consistency between test and re-test scores of the same test for the same subjects, at two different points in time but under basically the same testing conditions (McCall, 1990). It should make no difference which form of the test was used or who administers it (Anastasi, 1982). However, the term has also come to mean the degree to which individual item scores within a single test or its subtests correspond with each other. The precise name for the latter type of reliability is "internal-consistency reliability" (Rosenthal & Rosnow, 1984). The current research does not examine the SOC Scale's **test-retest reliability**, but does explore its **internal consistency**.

Validity

While reliability is concerned with the consistency of a measure, validity is concerned with the measure's ability to tap the theoretical construct which it purports to reflect, rather than some other unintended variable (McCall, 1990; Rosenthal & Rosnow, 1984). If a test has **criterion validity**, it is able to predict with reasonable accuracy either a second score on another, related measuring instrument, or a particular behaviour or event, such as job success (Anastasi, 1982). **Content validity** requires that test items or subtests adequately cover the areas they are supposed to represent, and only those areas (Anastasi, 1982).

Maddi (1989) states that in personality research, the most important type of validity is **construct validity**. While constructs themselves can never be entirely proven or disproven (Rosenthal & Rosnow, 1984), effort must be made to show that the test does measure the hypothetical quality or trait which it purports to measure (Reber, 1985). One of the most practical ways of doing this is to compare the test results with scores obtained on other, better-known testing instruments. This type of validity is assessed via convergent and discriminant validity (see 4.3.3, Chapter 4).

Item variance

Variance is a measure of the dispersion, variability or spread of a set of scores. A variance index is determined by finding the mean of the squared deviations of raw scores from their means. Item variance provides information on the psychometric properties of each test item so that useful items can be distinguished from the less useful ones (Anastasi, 1982; McCall, 1990; Rosenthal & Rosnow, 1984).

1.5.6 Stress

Reber (1985) refers to stress as a state of psychological tension resulting from social, physical or psychological forces and pressures. Weiten (1989) states that a transactional model of stress has become the dominant viewpoint; in this model, stress is seen as "neither a stimulus nor a response, but a special stimulus-response transaction wherein one feels threatened" (ibid., p. 473). Lazarus and Folkman (1984, p. 21) state that stress "emphasizes the relationship between the person and the environment, which takes into account characteristics of the person on the one hand, and the nature of the environmental event on the other." They add that an individual's cognitive appraisal of an event is central in determining whether or not that event is stressful for him or her, regardless of whether or not the same event is experienced as stressful by another person.

1.5.7 Coping

Closely linked to the concept of stress is the term "coping", which according to Weiten (1989) refers to specific, active behaviour aimed at mastering, reducing or tolerating a demand or stress. Weiten adds that some coping styles are unhealthy and potentially create even more stress (such as avoidance, aggression, addiction or defensiveness) while more constructive coping styles include conscious, task-oriented strategies, realistic appraisals, regulation of one's own potentially destructive emotions, and a lessening of the destructive physiological effects of stress reactions (Weiten, 1989).

According to Lazarus and Folkman (1984), coping includes behavioural, cognitive and psycho-physiological dimensions. However, only effortful striving is classified as coping, whereas automatic behaviour, no matter how adaptive, is not. Similarly, coping is not dependent on the actual outcome or degree of mastery over the environment or the challenge. The process of cognitive appraisal assumes central importance in Lazarus and Folkman's (1984) theory. Lazarus and Folkman's definition of stress is probably most widely accepted by psychologists at present, and Antonovsky was influenced by this perspective and included elements of it in his SOC theory (Antonovsky, 1987).

1.5.8 Definitions of health and disability

Definitions of health and disability are discussed here, partly because the current research includes a sample of people with disabilities, and partly because SOC theory is concerned with health.

Traditionally, medical models of the Western world defined health as the absence of disease or illness (Lee & McCormick, 2002). However, improvements in medical care and medical technology meant that increasing numbers of people were surviving serious accidents and illnesses and living with residual disability, chronic illness or health problems associated with extreme ageing (Hahn, 1984; Lee & McCormick, 2002; McDowell & Newell, 1996). This situation prompted revisions of the prevailing definitions of health.

In the 1950s the World Health Organisation (WHO) suggested that health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (Lee & McCormick, 2002; McDowell & Newell, 1996). However, as Lee and McCormick (2002) state, this definition was also problematic since it implied that people with chronic illness or disability were unhealthy. It also excluded those who had suffered temporary disruptions, or who relied on minor aids such as spectacles (Kosa & Robertson, 1975).

In 1980 the WHO started developing more complex classifications schemes to describe health and disability (Goldblum, 2005). The most recent version is the International Classification of Functioning, Disability and Health (ICF) which was developed in 2001. The ICF shifts the focus from a medical and impairment-oriented perspective to a biopsychosocial paradigm that takes into account social participation and support, and environmental accessibility. It contains two parts, "Functioning and Disability" and "Contextual Factors". Part 1 covers "Body functions and body structure" (including psychological functioning), and "Activities/participation". Part 2 includes "Environmental factors" and "Personal factors" (Goldblum, 2005).

In 1997, Hales suggested defining health as "the process of discovering, using, and protecting all the resources within our bodies, minds, spirits, families, communities, and environment." (Lee & McCormick, 2002). This approach is compatible with SOC theory, and it is interesting that the subsequent WHO classification scheme has, in fact, been similarly formulated

The WHO also suggested some definitions of the concepts of impairment, disability and handicap. According to the WHO, impairment implies organ disturbance or damage, while disability refers to any functional limitation—that is, "limitations in physical or mental function, in carrying out socially defined tasks and roles that individuals generally are expected to be able to do", such as walking (Schnyder et al., 1999, p. 103. See also McDowell & Newell, 1996).

Handicap occurs when a disability gives rise to social disadvantage, such as loss of earnings or social isolation (McDowell & Newell, 1996). For example, a cognitive disability would handicap an academic but not an athlete, while a physical disability would handicap an athlete but not an academic (ibid.).

Oliver (in Goldblum, 2005, Chapter 2) states that "all disabled people experience disability as social restriction", whether this restriction is due to inaccessible built environments, stereotypes about intelligence and social competence, the dearth of sign language and material in Braille, or hostile attitudes towards non-visible disabilities. Hahn (1984, p. 15) goes so far as to suggest that disability could be defined as "an image in the mind of the beholder which might be projected onto other individuals whose appearance or demeanour is regarded as unconventional or intolerable".

Hahn, writing in 1984, identified three main definitions of disability: medical, economic, and sociopolitical. The medical definition equates disability with functional impairment, and locates these limitations within the individual. The economic approach defines disability in terms of a person's vocational limitations, and again locates the disability within the individual. The social or sociopolitical approach provides a fairly radical alternative, and has been developing since the 1970s largely through the efforts of disabled activists (Goldblum, 2005). This approach has subsequently become the dominant paradigm in the social sciences (ibid.). Essentially, it views disability as "a product of the interaction between the individual and the environment" (Hahn, 1984, p. 11), and the consequence of a "disabling environment" (ibid., p. 11). In other words, the limitation is no longer seen as a problem that is located purely within the individual.

1.6 STRUCTURE OF THE RESEARCH REPORT

Chapter 1 has provided an overview of the focus and aims of the current research, and it has provided some definition of the key concepts and terms used in this

report. Chapters 2 and 3 provide a review of the relevant literature. Chapter 2 covers personality theories from around the world, as well as existential theory; it also deals with stress and coping theories. Chapter 3 focuses on the salutogenic paradigm and Antonovsky's SOC theory, and also explores some issues relating to disability and cross-cultural assessment.

The research methodology and design is discussed in Chapter 4, as well as the reliability and validity of the instruments. Ethical considerations are briefly discussed in Chapter 4. In Chapter 5 the empirical data are discussed (data collection, organisation and analysis), while Chapter 6 presents an interpretation and discussion of these results in relation to the theory as given in the literature review. Chapter 7 presents the implications of the findings and analysis; limitations in the research design of the current study are discussed, and recommendations are made for possible future research topics.