The “Recursive Cosmosis” Model:  
South African Women in Higher Education  
Finding Strength and Resilience  
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Abstract  
This study investigates how the concepts sense of coherence and spirituality are inter-related and contribute to the health and wellbeing of 13 women working in South African higher education institutions. Drawing from Antonovsky’s work on salutogenesis data are analyzed in terms of three sub-components, namely, manageability, comprehensibility, and meaningfulness. Interview data on manageability point to an action component where the pursuit of work-life balance is uniquely experienced by women, not only as a challenge, but also as actively pursued as a strength resource. On comprehensibility, the data captured women’s attitudes in terms of being realistic and understanding of others and of the work context. The data show that women rely most on meaningfulness on the meaningfulness of their life (Mayer, 2011) and meaningfulness has been connected with spirituality (Henderson et al., 2002). It also contributes significantly to social connectedness and wellbeing (Kim & Seidlitz, 2002). It also contributes as a strength resource. On comprehensibility, the data captured women’s attitudes in terms of being real and understandable of others and of the work context. The data show that women rely most on meaningfulness on the meaningfulness of their life (Mayer, 2011) and meaningfulness has been connected with spirituality (Henderson et al., 2002). It also contributes significantly to social connection (Saxana et al., 2002).  

Introduction  
Due to the psycho-social impact women have in the family system and in society, their wellbeing remains an area of research interest. In addition, with the increasing number of women entering senior management and executive roles (Eagly & Carli, 2003; Löve, Hagberg & Dellve, 2011; Van Wyk, 2012) research highlighting the unique challenges women leaders face, continues to grow (Chisholm, 2001; Geisler, 2000; Gouws, 2008; Littrell & Nkomo, 2005; Martin & Barnard, 2013; Streibel, et al., 2006; Teferra & Altbach, 2004). In the work context, research shows that women leaders are often subjected to discrimination, stereotyping and exclusion in subtle and overt ways (Baxter, 2012; Person, 2003). From a positive psychology perspective, some contemporary research highlights the strength and resilience of women in coping with the unique work challenges they face (Booysen & Nkomo, 2010; Martin & Barnard, 2013; Mdlongwa, 2014).  

Recent research in South Africa has shown that the concepts sense of coherence (SOC) (Mayer, 2011) and spirituality (Honiball, Geldenhuys & Mayer, 2014; Mayer & Viviers, 2014) contribute to positive health and well-being in individuals in leadership positions. However, these mental health constructs have received little attention in women in the South African work context (Desjarlais, Eisenberg, Good, & Kleinman, 1995; Mayer & Surtee, 2015). The research reported in this chapter addresses SOC and spirituality in women leaders in higher education to fill the stated research gap. Next we provide a theoretical background, research aims and questions, and a discussion of the findings.  

Sense of coherence  
The past decades have seen a strong shift from a pathological perspective on health to a salutogenic perspective. Salutogenesis deals with the question of what keeps people healthy and refers to psychological health as a ranging continuum between optimal health and ill health (Antonovsky, 1987). Aaron Antonovsky, a pioneer in salutogenesis coined the construct of SOC, which is defined as a universal life orientation that enables individuals and groups to cope with life’s challenges. SOC comprises three components: comprehensibility (the way people understand the world and make sense of it), manageability (the belief that one’s own resources meet the demands of life) and meaningfulness (the extent to which one believes that life’s challenges are worth engaging in). Research on the health promoting benefits of having a strong SOC has been explored in various work and life settings (Mayer, 2011; Mayer & Van Zyl, 2013).  

Spirituality  
Spirituality is defined as the subjective experience of being connected to the universe and a greater being, and also being connected to oneself and others (Krishnakumar & Neck, 2002). Spirituality is, in this way, viewed as an experienced realization of a transcendent reality (Ferrer, 2002). It is an intuitive feeling of being connected with the world (Eckersley, 2007) and is a part of everyday life. Recently spirituality at work has been emphasized as a potential health resource (Mayer & Geldenhuys, 2014) and its value has been highlighted in various work and organisational settings (Honiball et al., 2014; Mayer & Viviers, 2014; Mayer & Boness, 2011). The significance of spirituality with regard to mental health has been reported (Grossman et al, 2004) and it has been shown in previous research that spirituality moderates the relationship between stress and wellbeing (Kim & Seidlitz, 2002). It also contributes significantly to social connection (Saxana et al., 2002).  

Connecting sense of coherence and spirituality  
Both SOC and spirituality positively affect wellbeing and stress management (Mayer, 2011) and promote leaders’ health and wellbeing (Honiball, et al., 2014). According to Barnard, Peters & Muller (2010), individuals with a strong SOC are resourceful, perseverant in challenging situations and can exercise control. They also seem to have awareness on the meaningfulness of their life (Mayer, 2011) and meaningfulness has been connected with spirituality (Henderson et al., 2012). Previous studies have shown that
Sampling and participants

This study forms part of a larger study on women and psychological and spiritual wellbeing in which 29 women participated. For the purposes of the current study we drew a purposeful sample of 13 women from the 29 who adhered to the sampling criteria of being in middle to senior leadership roles, working permanently in South African higher education institutions. Women leaders included were either in support services or in academic positions. The sample included due to self-description two African women, three women of coloured origin, three Indian and five white women.

Data collection and analysis

Data were gathered through semi-structured interviews and analysed through a constructivist GT approach (Charmaz, 2011). The researchers followed an abductive reasoning approach and planned interview questions around the meta-con structs predeter-

mined by our psycho-spiritual research interest. The interviews focused on exploring women’s SOC by asking questions, such as “Please describe your orientation in life.” “Which aspects make your life meaningful?” or “How are meaningfulness in your life and you being a woman working in higher education interlinked?” The interviews also probed spirituality through asking questions, such as “Please describe the meaning of spirituality to you.” “How does your spirituality influence your leadership practices?” and “How does spirituality influence your wellbeing?”

During data analysis new meanings emerged through constant comparison of emergent themes and meta-theoretical constructs. Interviews were added one by one to the analysis after completion of the first interview’s line-by-line analysis and labelling of codes. Memos were constructed during the course of the analysis to enhance meaning making in the construction of categories of codes and ultimately in the identification and explication of three primary themes, which were reconstructed in a conceptual psycho-spiritual model, coined the “recursive cosmosis” model. The model proposes an integrative understanding of the strengths and resilience of women leaders in higher education.

Quality criteria and ethical considerations

Voluntary informed consent was obtained from all participants. During interviews the participant and researcher’s roles were demarcated, and strategies to ensure anonymity, confidentiality and freedom to withdraw, were discussed. Through the iterative GT strategy of constant comparison and through intersubjective validation shared amongst the three researchers we strived to attain rigour in data interpretation.

Main themes were construed from the data based on an abductive reasoning approach. As such our interpretations are explicitly directed by our preconceived meta-theoretical interest in SOC and spirituality and are presented as a plausible model presenting the key salutogenic and spiritual strength resources women leaders in higher education (HE) draw on to cope with and resile in their work context. Although meaningfulness is one of the three SOC sub-components it is also central to conceptualisations of spirituality. For the participants of this study, it provides a conceptual link between SOC and spirituality. Meaningfulness is thus hypothesised as the central theoretical construct in the proposed model depicting a psycho-spiritual wellbeing framework for women leaders in HEIs. The findings and model, which we have creatively labelled the “recursive cosmosis” model are explained below.

Sense of coherence: applying a wellbeing enabling life orientation

In terms of manageability, the instrumental SOC sub-component, we explored the data for action strategies strengthening participants’ resilience at work. In describing their life-orientation, ten women’s narratives portrayed an action component represented by a constant endeavour to manage balancing their work and life roles. Participants commented on their commitment to actively engage in strategies on a daily basis, aimed at integrating their social and family roles with their responsibilities as leaders at work. I7 for example responds: “I also try to keep a balance between work and home. You get

Abductive reasoning moves grounded theory beyond a purely inductive approach and acknowledges the need to scrutinize research findings against possible theoretical explanations, concluding with a plausible and creative explanation of the data (Charmaz, 2011).
to the point where you think everybody wants to have a piece of you. I try to make sure I’ve got the home life, the work life... on all levels, you know, the day to day side, the emotional side, the work side, and then the spiritual side as well” and I14: “I’m the director... and I’m a mother and a wife and a daughter and I’m a sister. ... For me it was about trying to get the balance right.” To them, such actions not only help them to cope with dual and sometimes conflicting roles and responsibilities, but enriches their lives as reflected by I13’s story:

Sometimes you find you are pulled in different ways ... but I’m not saying it’s not a good thing. Sometimes the one enriches the other. I get to work before eight and I can actually work through most of the day. But I’m able to finish at half past three or four o’clock, pick up the children, spend a bit of time with them, and then if I need to pick up some more work later on in the evening, then I can do so... I can be a career woman as well as a mother and a wife as well...

Similar to Franks et al. (2006), Watts (2009) and Martin and Barnard (2013) we found that work-life balance is thus uniquely experienced by women not only as a challenge, but in it is fact actively pursued by them as a strength resource.

Scrutinising the data for aspects of comprehensibility, the cognitive SOC sub-component, nine statements in the data reflect women’s attitudes in terms of being realistic and understanding of others and of the work context: “I can’t always expect to be understood and what works better is you try to understand others” (I29). These attitudes are of particular concern for women in their life orientation because they enable coping with external demands and problems to be solved.

In terms of meaningfulness, various participants mentioned particular values, such as integrity (two indications), justice, fairness and equity (one indication each) and outer appearance (one indication) as contributing to their life orientation as a leader. These values seem to present the women with meaning in their work and they derive a motivational drive in applying a value-driven life orientation. I15 said, “I enjoy life, I’m enjoying my work. I find things to do that make my work exciting”. Similarly I21 engages in her work because she derives meaning from it: “When that underprivileged child coming through my classroom for the first time... and they finish their programmes, I can look back and say I’ve made a difference in that person’s life”. I27 also reported: “I find it very meaningful to do research and to use my research and to apply it”. I14 regards her work as “a very stimulating part and very important part of what I do. It gives me purpose”. From the data, the significance of meaningfulness superseded the other SOC components and became a central focus in our findings.

**Meaningfulness**

Women leaders comment with regard to the meaningfulness in their lives that their relationships (twenty statements) mainly contribute to their meaningfulness, followed by their self-orientation (18 statements), a transpersonal orientation (three statements) and task-orientation (one statement).

Women mainly derive meaning through their connection to others, as is evident in narratives about their work with students, how they contribute to other people’s well-being and obtaining mutual understanding among peers and colleagues. I18, for example, finds meaning in her social connection with other black women and in striving to empower others through her own experiences: “It’s important to ensure that women in this world get educated, (...) As black women we understand the concept of making sure that other black women are looked after”.

Second, meaningfulness is created through a self-orientation in terms of academic achievements, personal growth, feeling stimulated, self-actualization and passion in terms of loving what they do, as noted by I13: “I find it very stimulating to listen to their discussions. My contribution is limited at the moment, but I find it a growing experience and I find it very stimulating”. Women, also in particular connected meaningfulness to spirituality and their transpersonal experiences in terms of a connection to God (for two women) and hearing of an inner calling (for one woman). One woman highlights that “making things run smoothly” in terms of the task she has to complete contributes to her meaningfulness (i.e. task orientation).

Psychological meaning in the workplace is defined as the meaning or the significance of work and has been positively related to work-related wellbeing (Rothmann & Hamukang’andu, 2013) and engaged employee behaviour (Swart & Rothmann, 2012; Van Zyl, Deacon & Rothmann, 2010). Lethborg, Aranda, Bloch and Kissane (2006) emphasize the importance of meaning-based coping. Our findings show that a relational orientation is unique to understanding women’s sense of meaning – a relational orientation to others, to the self, to a higher being and to the task. Meaningfulness thus construed, broadens our understanding of women’s salutogenic functioning to emphasise the unique importance of women’s need for a relational orientation promoting meaning in their work lives. Women in this study, not only construed meaningfulness as such, we also found it to be fundamentally imbedded in their spiritual orientation, as is reflected below.

**Spirituality**

Spirituality is for women leaders foremost connected to transpersonality (33 statements) in which women describe their personal strength with spiritual connotations such as being beyond religion and every day activities, being a connection to the higher self, the proximity to God and being part of the creation: “For me it’s about the God that I believe in on a daily basis, it’s about loving the people that I believe God has placed in my path – colleagues, students, and actually showing them the values” (I21). It is further on mentioned in terms of the relationship to the supernatural, a concept that moves beyond “doing things”, a belief independent of institutions and a “guiding light”.

Moving from such a transpersonal orientation, 23 statements relate spirituality on an individual basis to a personal inner connection in terms of identity and knowing who
you are, inner peace, inner balance, being in a good place and happiness, motivation and a tap into the soul. Additionally, spirituality is viewed as impacting on the inner value system, as well as concrete personal values, such as respect, love and dignity, quality, freedom. The inner-connection and transpersonal orientation here, link back to the self- and transpersonal orientation, which were evident in our construction of meaningfulness above.

In exploring how women’s spirituality and leadership are interconnected it became clear that their spirituality influences leadership in terms of social, spiritual and individual aspects, primarily becoming a coping and wellbeing resource in the workplace. Women leaders apply spiritual practices in the work context in order to help them cope with daily challenges as a leader and generally to orientate their actions on a daily basis at work as clearly articulated by I29: “… if you are in your work space and you do not have a strong spiritual being, you cannot survive”. Moreover, 24 statements reflect a positive connection between women’s work-related wellbeing and their spirituality. I7’s words also clearly show the manner in which spirituality becomes a coping resource in the workplace: “Spirituality always influences wellbeing. I feel as if time flows for me and I never feel like I am in a tight spot. I prefer to go with the flow and stay healthy”.

**Discussion**

The data shows that women rely most on meaningfulness as a coping resource, whether they are speaking of their life orientation (SOC) or their spiritual orientation. This supports the theory that meaningfulness is the most important SOC subcomponent (Antonovsky, 1987) and a fundamental construct of spirituality (cf. Griffiths, 2009; Krishnakumar & Neck, 2002; Rothmann & Hamukang’andu, 2013). In this study we found meaningfulness to be the central motivational component in women’s salutogenic life orientation, facilitating their coping and resilience in the work sphere. A deeper exploration of their meaningfulness revealed women’s propensity to engage in a relational orientation to others, an inner-orientation, a transpersonal orientation and task orientation in order to derive meaning in their work and personal lives. The self- (inner-connectedness) and transpersonal orientation underlying women’s meaningfulness in particular also emerged as an essential component in women’s construction of spirituality. Meaningfulness is thus a central construct linking women’s psychological and spiritual perspectives to wellbeing and coping. As an analogy, meaningfulness becomes the ‘psycho-spiritual adhesive’ enabling strength and resilience in the work place. This analogy derives from one participant’s construction of spirituality as a universal adhesive: “Spirituality for me is a personal belief that there’s no cosmic glue for instance, or a belief in God. It’s independence of any institution… or divine force. My husband’s terminology is cosmic glue. (...) We have interesting conversations about cosmic glue and for him that is spirituality…” (I27). Our conclusion here is based on what we found to be a plausible conceptual interpretation of participants’ strength resources and it is not proposed as an ultimate conclusion.

In the proposed recursive “cosmosis” model illustrated in figure 1 below, meaningfulness as a central theoretical construct (compare Mayer et al., 2015) links the spiritual and salutogenic perspectives as a framework for understanding women leaders’ strength and resilience, acting as the analogous “cosmic glue”. According to the Oxford English Dictionary (2010, p.526) osmosis refers to the process in which solvent molecules spontaneously move through a membrane from high to low concentration, which tends to equalize the degree of solvent concentration on either side. Semantically playing with the words cosmic glue and osmosis lead to labelling the model the “recursive2 cosmosis” model in which women find their strength in the workplace by iteratively or recursively applying spiritual and salutogenic resources, yet meaningfulness always plays a central role either way.

**Conclusion**

This chapter builds on our emerging psycho-spiritual perspective to the work-related wellbeing of women leaders in HEI, highlighting the centrality of meaningfulness as a motivational and relational construct and proposes a unique model encapsulating this perspective. The small context-specific sample of the study, as well as the researchers’ predisposition in terms of a deliberate salutogenic and spiritual theoretical perspective, generates both limitations for generalizability, yet also opens up various possibilities for alternative interpretations in future research. From our psycho-spiritual perspective, wellbeing interventions aimed at developing a meaningful self, other, task and transpersonal relations in the work setting, may enhance women leaders’ resilience and coping and positively affect their leadership capacity.

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2 Synonym for iterative, meaning repeatedly or recurrent (Oxford Dictionary, 2010)
The initial findings of this research project was accepted for publication in the SA Journal of Psychology in 2015, in which we first propose a psycho-spiritual perspective to understanding the well-being of women leaders in HE. This chapter is an extension of our initial findings and here we have developed a model based on our proposed psycho-spiritual perspective. We first proposed the “recursive cosmosis model” in our presentation at the IACCP 2014, Reims France, where this chapter evolved from.

References


