
The Roles of Negative Career Thoughts and Sense of Coherence in Predicting Career Decision Status

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ABSTRACT

The relationship between sense of coherence and negative career thoughts was investigated in a non-college-based population to determine the relationship and predictive value of these factors toward career decision status. Participants completed the *Orientation to Life Questionnaire*, *Career Thoughts Inventory*, and *Career Decision Profile's* decidedness and decisiveness subscales. Results indicated strong inverse relationships between sense of coherence and negative career thinking. Regression analysis indicated that sense of coherence and negative career thoughts together accounted for 15% of the variance of career decidedness but 38% of the variance of decisiveness. Implications for counselling are discussed.

RÉSUMÉ

La relation entre le sentiment de cohérence et les pensées négatives au sujet de la carrière a été étudiée dans une population non basée dans un collège afin de déterminer la relation et la valeur prédictive de ces facteurs relativement à l'état de décision sur la carrière. Les participants ont complété les sous-échelles se rapportant au niveau de certitude vocationnelle et à la capacité décisionnelle de l'*Orientation to Life Questionnaire*, du *Career Thoughts Inventory*, et du *Career Decision Profile*. Les résultats indiquent une forte relation inverse entre le sentiment de cohérence et les pensées négatives au sujet de la carrière. L'analyse de régression indiquent que, pris ensemble, le sentiment de cohérence et les pensées négatives au sujet de la carrière représentent 15 % de la variance du niveau de certitude vocationnelle; par ailleurs ils représentent 38 % de la variance de la capacité décisionnelle. Les répercussions sur le counseling sont discutées.

Sense of coherence (SOC) has recently entered the domain of career development research (Höge & Büssing, 2004; Lustig & Strauser, 2002), having demonstrated a robust literature pertaining to its health-related value. Described as an active and dynamic general health resource (Pallant & Lae, 2002; Vuori, 1994), SOC expresses the "extent to which one has pervasive, enduring, and dynamic feelings of confidence that one's internal and external environments are predictable and that there is a high probability that things will work out as well as can be reasonably expected" (Antonovsky, 1979, p. 123). According to Antonovsky (1993), the

SOC serves as a perceptual filter. In his view, an individual can appraise stressors as negative, neutral, or salutary.

Individuals with high SOC invariably believe that all will work out well (Antonovsky, 1979). Conversely, individuals with low SOC become fixated on the stressors and potential negative outcomes by appraising them as burdens (Korotkov, 1998). The demonstrated nature of SOC makes it valuable for research within career development literature.

Acquiring and integrating the myriad of personal and contextual factors within career decision-making can be perceived as stressful for individuals. One's ability to mediate this stress may assist in the career choice process. This thesis was central to a study conducted by Lustig and Strauser (2002). Their research represented a preliminary study into the relationship between stress-buffering factors and career-oriented cognitions. In particular, they focused on the relationship between SOC and negative career thoughts with a student population.

Results of the Lustig and Strauser (2002) investigation showed that SOC maintained significant statistical predictive relationships with *negative career thinking* (NCT). They found SOC accounted for 14% of the variance of the criterion variables. Lustig and Strauser suggested their study be replicated with a more diverse sample (specifically non-college-based samples and/or individuals currently involved in career counselling).

SOC comprises three theoretically and empirically interwoven dimensions: comprehensibility, manageability, and meaningfulness. Comprehensibility refers to the degree to which the individual perceives stimuli as predictable, ordered, and making cognitive sense. Manageability refers to the individual's appraisal that he or she has internal and external resources to manage the stressor. Meaningfulness pertains to the individual's appraisal that life makes sense and that demands are worthy of energy and commitment (Korotkov, 1998). Korotkov's research supports the notion that each subcomponent of SOC is theoretically and empirically indivisible.

Empirical research has found that high SOC significantly mediates stress (Albertsen, Nielsen, & Borg, 2001; Cilliers, 2003; Diraz, Ortlepp, & Greyling, 2003; Feldt, Kinnunen, & Mauno, 2000; Hedov, Annernsen, & Wikblad, 2002; Hintermair, 2004; Höge & Büssing, 2004; Kalimo, Pahkin, & Mutanen, 2002) and burnout (Cilliers). Stronger SOC empirically relates to greater well-being (Chamberlain, Petrie, & Azriah, 1992; Nasermoadeli, Sekine, Hamanishi, & Kagamimori, 2003; Pallant & Lae, 2002; Ryland & Greenfield, 1991; Wissing & van Eeden, 2002), self-esteem (Soderberg, Lundman, & Norberg, 1997), and life satisfaction (Diraz et al., 2003; Lustig, Rosenthal, Strauser, & Haynes, 2000). Moreover, individuals indicating stronger SOC also show greater emotional stability (Mlonzi & Strümpfer, 1998) and emotional calm and contentment (Johnson, 2004).

Individuals with higher SOC also display fewer psychological difficulties, such as neuroticism (Larsson & Kallenberg, 1996; Strümpfer, Gouws, & Viviers, 1998), anxiety (Edwards & Besseling, 2001; Geyer, 1997), psychopathology (Bengston

& Hansson, 2001; Petri & Brook, 1992), dysfunctional thinking (Karlson, Seger, Osterberg, Gunnell, & Orbaek, 2000; Lustig & Strauser, 2002), and depression (Carstens & Spangenberg, 1997; Edwards & Besseling, 2001; Geyer). These factors may influence the career choice process.

The nature of the SOC concept is of value to the present study. Unemployment may cause stress (Hammarström & Janlert, 1997; Hanish, 1999; Sulsky & Smith, 2005; Vinokur & Schul, 2002). How an individual copes with the stress of unemployment influences career decision-making (Amundson & Borgen, 1996). Because SOC assists in the mediation of both stress and perceived stressors, SOC may impact the process of career choices in unemployed adult populations.

Lustig and Strauser's (2002) research pairing SOC with NCT is important. Negative career thoughts are unhelpful cognitions that are pessimistically biased, distorted, and idiosyncratic (Lam & Cheng, 2001; Young, 1999). Within career development literature these thoughts have been referred to as poor career beliefs (Enright, 1996), faulty self-efficacy beliefs (Brown & Lent, 1996), faulty generalizations (Stead, Watson, & Foxcroft, 1993), career myths (Dorn & Welch, 1985), dysfunctional cognitions (Corbishley & Yost, 1989), self-defeating assumptions (Dryden, 1979), dysfunctional career beliefs (Krumboltz, 1990), self-defeating beliefs (Sweeney & Shill, 1998), and NCT (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996b).

Negative career thoughts invariably manifest in emotional, verbal, and behavioural responses (Corbishley & Yost, 1989; Lam & Gale, 2004) and can impede the career decision process (Strauser, Lustig, Keim, Ketz, & Malesky, 2002; Van Haveren, 2000). Research has found that NCT significantly contributes to anxiety (Gordon, 1998; Sampson, Reardon, Peterson, & Lenz, 2004; Stead et al., 1993), and this anxiety limits career development behaviour (Carr, 2004). Similarly, NCT has been empirically linked to low job satisfaction (Judge & Locke, 1993), low skill confidence (Wright, 2001), academic undecidedness (Kilk, 1997), low employment seeking status (Keim, Strauser, & Ketz, 2002), job avoidance behaviour (Judge & Locke), career undecidedness (Wright), perfectionism and career indecision (Osborn, 1998), depression and career indecision (Saunders, Peterson, Sampson, & Reardon, 2000), career indecision (Kleiman et al., 2004), and career indecisiveness (Austin, Wagner, & Dahl, 2004).

The current study followed the line of research and recommendations of Lustig and Strauser (2002) by sampling a non-college-based population enrolled in a career decision-making intervention. With this research as a backdrop, the present research focused on three questions:

1. What are the relationships between SOC and NCT in a sample of adults who are engaged in the process of career decision-making?
2. What are the relative contributions of SOC and NCT in predicting career decidedness?
3. What are the relative contributions of SOC and NCT in predicting career decisiveness?

METHOD

Participants

The sample was 87 (40 male and 47 female) adults enrolled in a community-based career decision-making program funded by the Government of Canada. All participants were unemployed and non-college-based adults when this research occurred. Participants were recruited from a population of individuals seeking career decision-making services. Participation was voluntary, and all individuals signed an informed consent. Research participants ranged in age from 18 to 64 with a mean age of 36 years ($SD = 12$).

Instruments

Orientation to Life Scale (OLQ) (Antonovsky, 1987). The OLQ is a general measure of one's SOC. As such, it measures the degree to which an individual has a pervasive enduring and dynamic feeling of confidence that (a) stimuli are structured, predictable, and explicable; (b) one has the resources to meet the demands posed by the stimuli; and (c) these encounters are worthy of investment and confrontation (Antonovsky, 1987). The 29-item assessment asks the individual to select responses to questionnaire items ranging from 1 (*never have this feeling*) through 7 (*always have this feeling*). The summative value for the OLQ ranges from 29 to 203. Higher scores indicate more robust SOC. The total score represents a global SOC entity. Although subscale scores for each of comprehensibility, manageability, and meaning can be obtained, the global SOC score is the only one recommended as having sufficient psychometric standards for research (Antonovsky, 1993; Korotkov, 1998).

Reliability and validity research pertaining to the OLQ has demonstrated its value. Internal consistency for the OLQ has averaged .91 for published articles, .85 for theses and dissertations, and .88 for unpublished studies (Antonovsky, 1993). Lustig and Strauser (2002) noted that the alpha coefficient of the OLQ was .91 within their research. Test-retest reliability has also been satisfactory, with reports of .93 at a 30-day interval (Frenz, Carey, & Jorgensen, 1993). Construct and convergent validity has been established with other measures of SOC.

Career Thoughts Inventory (CTI) (Sampson, Peterson, Lenz, Reardon, & Saunders, 1996a). The CTI measures dysfunctional thinking related to assumptions, attitudes, behaviours, beliefs, feelings, plans, or strategies related to career choice. These attributes are believed to inhibit effective career decision-making. The 48-item CTI total score measures a global factor of dysfunctional thinking pertaining to career problem-solving and decision-making. Three subscales measure Decision Making Confusion (DMC), Commitment Anxiety (CA), and External Conflict (EC). DMC refers to the "inability to initiate or sustain decision making as a result of disabling emotions and/or a lack of understanding about decision making itself" (Sampson et al., 1996b, p. 28). The CA scale reflects the "inability to make a commitment to a specific career choice, accompanied by generalized anxiety about the outcome of decision making. This anxiety perpetuates indeci-

sion" (Sampson et al., 1996b, p. 28). The EC scale reflects the "inability to balance the importance of one's own self-perceptions with the importance of input from significant others, resulting in a reluctance to assume responsibility for decision making" (Sampson et al., 1996b, p.28). All factors negatively impact career decision-making. Respondents select one of four item responses ranging from 0 (*strongly disagree*) to 3 (*strongly agree*).

The internal consistency (alpha) coefficients for the CTI total score was 0.97 in research normed with an adult group. Alpha coefficients for the construct scales were .94 (DMC), .91 (CA), and .81 (EC) for the adult group (Sampson et al., 1996b). Convergent validity of the CTI was determined against other career development instruments such as *My Vocational Situation*, *Career Decision Scale*, *Career Decision Profile*, and *Revised NEO Personality Inventory* (Sampson et al., 1996b).

Career Decision Profile (CDP) (Jones, 1989). The CDP is a 16-item inventory designed to assess an individual's career decision status. The CDP was developed from a three-dimensional model of career decision status (Decidedness, Comfort, and Reasons) and includes six subscales. Responses are based on a Likert scale from 1 (*strongly disagree*) to 8 (*strongly agree*). To understand the predictive value of SOC and NCT toward elements of career decision status, only the CDP's decidedness and decisiveness subscales were utilized. These scales are distinct categories consistent with the decision-making taxonomy proposed by the Cognitive Information Processing model (Sampson et al., 2004) and have high reliability. As defined by Jones, decidedness is the degree of certainty about a choice. Decisiveness, on the other hand, measures the ability to decide independently and resolutely. It considers the individual's belief in his or her capability to make decisions without avoidable delay, difficulty, or dependence on others. Low scorers are characterized by indecisiveness. It was noted that individuals demonstrating greater indecisiveness often require more involved and complex career counselling (Sampson et al., 2004). Alpha coefficients for the decidedness subscale were .85. Internal consistency estimates for the decisiveness subscale range from .79 to .84 (Jones).

PROCEDURE

Participants were attending a community-based career decision-making intervention. At the onset of the program, each participant completed an informed consent and assessments ascertaining SOC, NCT, and elements of career decision status vis-à-vis decidedness and decisiveness. Participation in the study was voluntary.

Data Analysis

Data analysis was performed using Pearson product-moment coefficients on all possible pairings. Hierarchical regression analyses were performed with global SOC and CTI (predictor variables) and decidedness and decisiveness (criterion variables). A statistical power analysis using a medium to large effect size of .20 and alpha level of .05 indicated the sample size of 87 was more than sufficient to

ensure adequate power of 0.8 for the decisiveness analysis (Cohen, 1992). However, this sample size was insufficient to ensure a 0.8 power level for the very small effect size (.01) found for the decidedness dependent variable.

RESULTS

As seen in Table 1, analysis of the data found statistically significant inverse relationships between the SOC and each of global CTI ($r = -.61$), DMC ($r = -.54$), CA ($r = -.43$), and EC ($r = -.38$). In behavioural terms, individuals demonstrating greater SOC would maintain lower overall levels of dysfunctional career thinking. Moreover, persons with higher SOC would maintain less confusion regarding career choices, lower career-related anxiety, and less conflict related to significant others.

Table 1
Means, Standard Deviations, and Correlation Coefficients Among Variables (n = 87)

| Variable | mean | st. dev. | 2 | 3 | 4 | 5 | 6 | 7 |
|--------------|-------|----------|--------|--------|--------|--------|--------|--------|
| SOC | 136.7 | 23.9 | -.61** | -.54** | -.43** | -.38** | .38** | |
| CTI global | 56.8 | 8.8 | - | .92** | .83** | .63** | -.31* | -.59** |
| DMC | 56.2 | 9.9 | | - | .72** | .48** | -.46** | -.62** |
| CA | 58.2 | 8.4 | | | - | .42** | -.30* | -.48** |
| EC | 57.3 | 12.6 | | | | - | -.04 | -.16 |
| Decidedness | 10.1 | 4.6 | | | | | - | .41** |
| Decisiveness | 15.9 | 6.2 | | | | | | - |

* $p < .01$; ** $p < .001$

SOC also showed significant positive relationships with both career decidedness ($r = .38$) and career decisiveness ($r = .50$). In behavioural terms, individuals demonstrating greater SOC manifest stronger career decidedness and greater decisiveness.

Noteworthy relationships were also established between the CTI subscales and elements of career decision status. Inverse correlations were observed between the CTI global scale and decidedness ($r = -.31$), DMC ($r = -.46$), and CA ($r = -.30$). EC did not demonstrate significant relationships with career decidedness. In behavioural terms, individuals demonstrating greater career decidedness maintained less dysfunctional career thinking overall. Further, career-decided persons were less likely to demonstrate confusion regarding career decisions or anxiety regarding their commitment to career choices.

The correlation between the CTI global scale and decisiveness also showed an inverse relationship ($r = -.59$). CTI subscales inversely correlated with DMC ($r = -.62$) and CA ($r = -.48$). As with career decidedness, EC did not demonstrate significant relationships with decisiveness. In behavioural terms, individuals demonstrating greater decisiveness maintained less dysfunctional career thinking overall. Further, persons with greater decisiveness were less likely to demonstrate

confusion regarding career decisions or anxiety regarding their commitment to career choices.

Table 2 shows the regression analysis when career decidedness was entered as the outcome variable with SOC and global CTI as predictor variables. When combined, SOC and NCT account for 15% of the variance associated with career decidedness. SOC uniquely predicts approximately 14% of career decidedness, and NCT appears to uniquely account for a non-significant 1% of the variance.

Table 2
Summary of Simultaneous Regression Analysis for Variables Predicting Decidedness (n = 87)

| Variables | β | t | R | R ² | ΔR^2 | p |
|------------|---------|-------|-----|----------------|--------------|------|
| SOC | .06 | 2.34 | .38 | .14 | .14 | .02 |
| CTI global | -.07 | -1.04 | .39 | .15 | .01 | n.s. |

Table 3 shows the regression analysis when career decisiveness was entered as the outcome variable with SOC and global CTI as predictor variables.

Table 3
Summary of Simultaneous Regression Analysis for Variables Predicting Decisiveness (n = 87)

| Variables | β | t | R | R ² | ΔR^2 | p |
|------------|---------|-------|-----|----------------|--------------|-------|
| SOC | .06 | 2.14 | .50 | .25 | .25 | .03 |
| CTI global | -.32 | -4.11 | .62 | .38 | .13 | <.001 |

When combined, SOC and NCT accounted for 38% of the variance associated with decisiveness. SOC uniquely predicted 25% of the variance associated with decisiveness, and NCT appears to account for 13% of the variance.

DISCUSSION

SOC is a global, appraisal-driven construct that applies to many domains of individual functioning. Career thinking is domain specific. With this in mind, researchers sought to clarify the relationships between these factors with adults' career decision-making. Findings were significant but not surprising. Individuals demonstrating stronger SOC demonstrated lower levels of dysfunctional career thinking across all scales of the CTI. In essence, higher SOC was associated with less overall dysfunction regarding career choice. Further, higher SOC meant that individuals had less confusion regarding career choice, less anxiety regarding that choice, and less conflict with significant others.

Correlations between SOC and CTI were higher in the current study compared to those in the Lustig and Strauser (2002) research: $r = -.61$ (current study) com-

pared with $r = -.35$ (Lustig and Strauser study) for SOC/CTI total; $-.54$ vs. $-.31$ for SOC/DMC subscale; $-.43$ vs. $-.37$ for SOC/CA subscale; and $-.38$ vs. $-.29$ for SOC/EC subscale. These differences could be attributed to the nature of the sample surveyed. Lustig and Strauser assessed students while this study investigated a non-college-based sample.

Additionally, it has been established that career choice is mediated by developmental factors (Hall, 1992; Patton & Creed, 2001; Super, Savickas, & Super, 1996). Specifically in regards to SOC, it is hypothesized that older adults would have greater familiarity with themselves and the world of work. Possessing more maturity may increase comprehensibility (i.e., more life experience allowing for understanding), manageability (i.e., greater skill acquisition and resources), and meaning (i.e., more opportunity for insight and reflection).

The relationship between NCT and career decidedness has produced paradoxical findings. In particular, the strong empirical correlations in the present research confirm earlier literature that suggests lower levels of NCT correspond to greater levels of career decidedness (Gordon, 1998; Sampson et al., 2004; Saunders et al., 2000). However, that NCT did not empirically predict career decidedness is inconsistent with this same research (Saunders et al.). Current results may be due to a different study sample (i.e., non-college-based, non-depressed, adults). Further research is needed to clarify these findings.

The empirical findings pertaining to SOC and decisiveness are new to career development literature. Within the career development context, it may be that higher levels of SOC increase the resoluteness and independence of the individuals' choice. Decisiveness may allow an individual to spend less time and fewer emotional resources when making a career decision.

The significant empirical findings between NCT and decisiveness are consistent with the career development literature. In particular, career decision-making theorists have postulated that the "indecisive" career decision state could entail greater levels of dysfunctional career thoughts. The current research corroborates these suppositions (Gordon, 1998; Sampson et al., 2004) and confirms findings from earlier research (Austin et al., 2004).

Further, it makes intuitive sense that external conflict did not significantly relate to either decidedness or decisiveness, given the mean age of the sample. It is reasonable to assume that non-college-based adults would be less influenced by parents or teachers regarding their career choice. On the other hand, the findings do not account for the influence of other important individuals (including life partners, children, friends, and colleagues) with regards to career decision status.

Implications for Intervention

The Orientation to Life and CTI assessments may be of use as intake and/or diagnostic instruments within the counselling context. SOC is a global appraisal-driven construct in which low-scoring individuals appraise stressors as significant and pervasive. Further, NCT is domain-specific regarding individual career choice. Given the significant collective predictive value of both the OLQ and CTI of

career decidedness and decisiveness, the use of each as an intake measure could provide counsellors with information regarding clients who may have greater difficulties in making a career choice, in particular, or in their decision-making process more generally.

Similarly, the SOC components could be used as starting points for counselling strategies and therapeutic intervention. Although it may seem axiomatic that the ability to understand, manage, and derive meaning from the world are germane to good career decision-making, these areas will require further research attention.

CONCLUSIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The researchers in the current study sought to follow the line of inquiry conducted by Lustig and Strauser (2002) and confirmed some of their findings. In particular, NCT and SOC maintained significant inverse relationships among all factor scales. Moreover, research found that NCT and SOC both predicted indecisiveness. However, only SOC predicted career decidedness. These findings are new to the career development literature, and they should be viewed as seminal and tentative. For example, NCT did not significantly predict career indecision, which is inconsistent with prior research (Saunders et al., 2000). Further research is needed to clarify this issue.

The introduction of SOC to career development literature is relatively new (Höge & Büssing, 2004; Lustig & Strauser, 2002), but holds promise for its inclusion in further research. Recall that SOC has a significant literature pertaining to its stress-mediating capacity. The perceived stress of career decision-making for nonstudents is documented (Hanish, 1999; Vinokur & Schul, 2002). The role of SOC in mediating the stress of unemployment and career choice is a potential arena for further research.

Further, the nature of SOC may contribute to its value in research with the non-college-based career-deciding adults. SOC is developmentally set by adulthood (Fiorentino & Pomazal, 1998; Ryland & Greenfeld, 1991) and is believed to be stable through life issues such as unemployment (Antonovsky, 1998). This feature makes the SOC a stable construct through the establishment, maintenance, and disengagement stages of career development (Super, 1990). SOC research following Super's taxonomy (Super) with non-college-based adults may provide insight into the unique nature of career choice at various times during adulthood.

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