

Reduced Sense of Coherence Due to Neuroticism: Are Transcendent Beliefs Protective Among Catholic Pastoral Workers?

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Abstract In this study, we examined a third variable effect on the relationship of personality traits, especially neuroticism and the salutogenetic concept sense of coherence. Specifically, we were interested in the moderating role of religious trust (RT) and transcendence perception operationalized as daily spiritual experiences (DSE) on the aforementioned relationship among religious individuals. We applied a cross-sectional study among a sample of 8594 pastoral workers using standardized questionnaires. Multiple regression and moderator analysis displayed the relationships between big five personality variables and sense of coherence. Neuroticism was identified as a negative predictor to sense of coherence, indicating impairment on this psychological resource. RT and DSE appear to function as moderators that buffer the negative effects of neuroticism on sense of coherence among religious persons. This is an interesting finding because people with expressions of neurotic personality tendencies often struggle to find helpful methods of coping and may find a helpful resource in the concepts studied here.

Keywords Neuroticism · Sense of coherence · Religious trust · Daily spiritual experiences · German pastoral ministry study

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Introduction

How much do personality factors affect how well people feel they can understand what is going on in their lives that they come to grips with challenges in life and see their lives overall as meaningful? To what extent does the ability to experience trust and reliance in a personal spiritual and religious resource (i.e., God) help provide stability, hope and some basic security? In other words, how are personality, trust in a transcendent source, its periodic experience and feelings of comprehensibility, manageability and meaningfulness of life (as indicators of a person's sense of coherence) connected to one another, especially in religious people, as studied here?

We wanted to address these questions as part of the German Pastoral Ministry Study (Frick et al. 2015) and used validated concepts to operationalize the four basic elements of our questions, that is: (1) the concepts of religious trust (RT), (2) transcendence perception operationalized as daily spiritual experiences (DSE), (3) personality factors and (4) sense of coherence (SOC).

Conceptual Specification of Spirituality and Religious Trust

Many scholars have studied spirituality and religiosity empirically, which has led to important conceptual and methodological discussions. In the (recent) past, particularly research on spirituality has gained research in several fields (Baumann 2015; Büssing et al. 2012; Emmons and Paloutzian 2003; Koenig et al. 2012; Nelson 2009; Paloutzian and Park 2014). Spirituality is conceptualized as an “internal, personal, subjective, and private experience” (Reutter and Bigatti 2014, p. 57). Büssing identified three underlying motives in various definitions of spirituality: (a) *cognitive* “search for meaning,” (b) *emotional* “experience of connectedness” (with God but also with individuals and nature) and (c) *action*, the respective realization in everyday life (including general ethical conducts): “Spirituality could be assumed as persons' commitment to a higher principle/source which is embodied in their daily life” (Büssing 2014, p. 2802).

In contrast, religion typically involves a traditional religious creed and religious practice within a community of faith (Hill et al. 2000; Saucier and Skrzypińska 2006) and contains “collective, institutional, visible, and public elements” (Reutter and Bigatti 2014, p. 56).

In this study, two concepts were integrated that refer to spirituality/religiousness: (a) The concept of DSE intends to measure *perceptions of the transcendent in daily life* as an “everyday ordinary experience rather than particular beliefs or behaviors [...] to the extent to which spiritual feelings and inner experiences might constitute an integral part of the life of the ordinary person and, ultimately, to examine the relation of these factors to health and well-being” (Underwood and Teresi 2002, 22/23). (b) Individuals who express religious trust (RT) are relying on a transcendent entity which they deeply believe in (Büssing et al. 2015). Moreover: “A person's trust in spiritual guidance for their life, their feeling of being connected with a higher source, trust in a higher power which carries through whatever may happen [...]” (Büssing and Recchia 2015, p. 5).

Religion and Spirituality as Resources in Coping and Health

Recent research has indicated effects of religious and spiritual coping on health-related psychological strategies (Hood et al. 2009). The function of religion in coping is especially driven by the thoughts and behavioral sets that are available to religious persons in the

occurrence of stressors. In this matter, Pargament argued that “[...] the most central religious purposes of all: (is) the spiritual function” (Pargament 2011, p. 273). Several systematic reviews indicated the beneficial function of religion/spirituality as coping resources including physical health, maintaining self-esteem and self-efficacy, emotional stability and others (e.g., Gall and Guirguis-Younger 2013; Thune-Boyle et al. 2006). Büssing et al. (2009) found that reliance on God’s help, which is conceptually equivalent to RT, was correlated with the reappraisal of the disease, (i.e., ability to see illness also “as chance,” to change attitudes and behaviors, to set new priorities), and with life satisfaction and future perspectives. Reliance on God’s help was nevertheless not associated with higher health-related quality-of-life outcomes or better mental health, both among healthy persons and persons with chronic disease (Büssing et al. 2009). According to these authors, reliance on God’s help might be used as a strategy of hope. Moreover, reliance on God’s help was found to be a resource of meaning-focused coping in distinct subgroups of elderly persons with cancer. In another study on persons with depressive and addictive disorders, reliance on God’s help was not related to symptoms of depression, but was associated with adaptive coping strategies in this group, such as the reappraisal of illness (Büssing and Mundle 2012). Theoretically speaking, RT can be an integral part of a coping strategy, representing an external locus of control in the case of religious persons, God (Büssing et al. 2005; Park and Folkman 1997; Rotter 1966).

In this vein, also DSE as transcendence perception may be a helpful resource. “Openness to spirituality also opens people to perceive, receive, and respond to the fundamental goodness of creation and life” (Büssing et al. 2014, p. 2).

Personality Factors and Their Association with Spirituality

Personality originates in the biological, or more precisely, in the genetic structure of each individual (Plomin et al. 2013). Additionally, environmental stimuli encountered throughout the course of a lifetime are influential and co-evolve with genetic factors (Turkheimer et al. 2014). The five-factor model of personality (McCrae and Costa 2003) is well established; it contains the factors extraversion (E), agreeableness (A), conscientiousness (C), neuroticism (N) and openness to experience (O) and is applied in this study. The focal personality factor in this study is neuroticism. This is because N results in (a) the perception of certain stimuli as threatening and (b) predisposes the manner in which stimuli are handled. This has consequences for the application of coping strategies (e.g., Connor-Smith and Flachsbart 2007). “Individuals high on this dimension [neuroticism] perceive life as stressful, cope poorly, are dissatisfied with social supports, have low psychological well-being, and make more somatic complaints” (McCrae 1990, p. 237). Coping strategies may then be more effective depending on a person’s particular disposition and specific reactions. For example, the reappraisal of stressful stimuli might be omitted, and critical life events are interpreted as harmful or threatening instead of as challenging and negotiable situations in life (e.g., Carver et al. 1993; Park and Folkman 1997).

In the case of religious/spiritual individuals, personality is presumably related to religious or spiritual beliefs (Piedmont and Wilkins 2014). We tend to agree with Saroglou assumption (2009, p. 1) regarding the relationship between personality and religion: “Key personality traits associate with religiousness in a systematic way, are generalizable across contexts and domains of personality, can be considered predispositions of religiousness, are unique in their influence on religiousness [...] and have implications for understanding the role and functions of religion in many domains of life.”

Antonovsky's Concept of Salutogenesis and Spirituality

Sense of coherence (SOC) is the core concept of the salutogenetic theory of Aron Antonovsky and was introduced as an alternative perspective on health and resilience (Antonovsky 1987). In this theory, which is concerned with “How people manage stress and stay well,” Antonovsky proposed the idea of a global orientation that expresses the extent to which one has a “dynamic feeling of confidence” on behalf of three orientations. They are: “*Comprehensibility* (the stimuli from one’s internal and external environments in the course of living are structured, predictable and explicable), *Manageability* (resources are available to meet the demands posed by these stimuli) and *Meaningfulness* (these demands are challenges, worthy of investment and engagement)” (Antonovsky 1987, p. 19).

Antonovsky (1987, pp. 17–18) introduced the components of SOC as follows: *Comprehensibility* is thought to be the cognitive aspect of SOC and enables an appropriate reaction to stressors, as they can be organized in a cognitive map of demanding causes and resulting consequences. *Manageability* refers to a more subjective idea or feeling that sufficient resources are available. *Meaningfulness* refers to both the cognitive but also emotional momentum, like the “mad sense” in a certain area of life, and is seen as a motivational component in SOC (Antonovsky 1987, p. 18).

Overall, SOC does not refer to a specific coping strategy but is a strong independent predictor of quality of life by itself (Eriksson and Lindström 2006). A high SOC is apparent when one is able to establish a general orientation to life that supposedly maintains and protects mental health, also when critical and stressful life situations occur. Former research has indicated that the big five personality traits explain 40 % of the variation in SOC (Hochwälder 2012). It has been observed previously that SOC is also related to health and health-related outcomes (Eriksson 2014; Eriksson and Lindström 2006). For instance, studies have shown that SOC is a predictive factor for physical and psychological well-being (Pallant and Lae 2002), emotional symptoms such as depression/anxiety (Moksnes et al. 2013), and even all-cause mortality risk (Super et al. 2014).

The Nexus of Integrated Variables

Considering the big five personality inventory in terms of well-being and resilience, all five personality factors may predict SOC. However, neuroticism has been shown to be especially negatively related to SOC (Grevenstein and Bluemke 2015). Emotional instability, as represented in neuroticism, is not only a predictor for SOC and related health outcomes, but it is also predictive to physical and mental health outcomes by itself (Costa and McCrae 1987; Friedman and Kern 2014; Lahey 2009; Watson and Pennebaker 1989). Therefore, neuroticism is a relevant variable for our research.

As this sample of pastoral staff is likely to be considerably religious and spiritual, these individuals may use their spiritual/religious orientation as a helpful psychological resource. This may be particularly true for individuals who have a tendency to experience negative emotions such as anxiety, depression and hostility, as represented in the factor neuroticism (Digman 1990).

The core of our focal research question is therefore to show the relevance (or less) of religious and/or spiritual experiences when encountered stimuli are perceived as negative and harmful, resulting in more stable salutogenetic agency.

Moderator Model and Research Hypothesis

Our first hypothesis creates the groundwork for a moderation hypothesis, as we first intended to test the replication of the basic link between personality traits and SOC.

Therefore, the following preliminary hypotheses are formulated:

- 1a. Personality traits predict SOC.
- 1b. In the specific case of neuroticism, the prediction of this trait to SOC is negative. The second hypothesis addresses the moderating effect caused by RT/DSE on the relationship introduced in the first hypothesis. Since SOC is a general orientation to life, Antonovsky pointed out that it might be established through, and influenced by, the belief systems of a respective culture. This belief system may integrate resources that are not directly under one's own control but under control of, as Antonovsky states, legitimate others. This can be religious or spiritual entities "whom one feels one can count on, whom one trusts" (Antonovsky 1987, p. 18). Because RT/DSE is experienced as a subjective reality, it may stabilize SOC, even when it is impaired by temperamental constitution. Therefore, we are particularly interested in the helpful aspect of RT/DSE on the relationship between neuroticism and SOC. The experience of neuroticism may hinder the development or restoration of SOC and corresponding health outcomes. We believe that RT/DSE will mitigate this negative relationship and support the restoration of SOC in distressed persons (cf. Fig. 1).
Focal research hypothesis:
2. Functioning as a psychological resource, RT/DSE will lessen the negative impact of neuroticism on sense of coherence.

Method

Sample and Procedure

Participants for this cross-sectional study were recruited from all Catholic pastoral vocational groups (integrating ordained Roman Catholic priests and deacons, and lay persons such as pastoral assistants and parish expert workers) in 22 of the 27 German dioceses. The response rate was 41 %, resulting in a total of 8594 individuals who participated. Participants were assured of anonymity, were informed about the purpose of the study and provided consent.

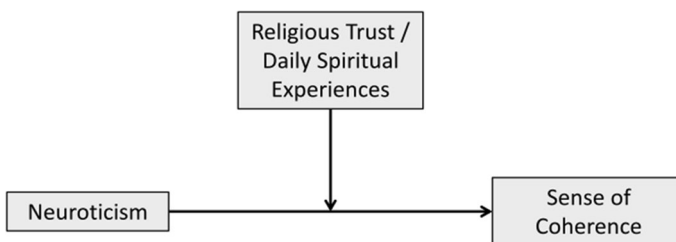


Fig. 1 Religious trust and daily spiritual experiences as a moderating factor for the relationship between neuroticism and sense of coherence

Measures

Religious Trust

The reliance on God's help (RGH) scale addresses non-organized intrinsic religiosity as an external transcendent "locus of control." The instrument contains five items, all scored from "1" (not at all true) to "5" (completely true). Specific items are "Whatever may happen, I trust in a higher power which carries me through," "I have strong belief that God will help me," "My faith is a strong hold, even in hard times," "I pray to be able to cope with arising problems," "I try to live in accordance with my religious convictions." The resulting scores are means, ranging from 1 to 5. The scale's internally consistency ranged in former research from Cronbach's $\alpha = .90$ –.96 (Büssing et al. 2015), but is lower in this sample of religious pastoral workers ($\alpha = .78$).

Perception of the Transcendent: Daily Spiritual Experiences

The items of the daily spiritual experience scale (DSES) refer to perceptions of the transcendent in everyday life. The scale does not refer to practices or other concrete behavioral outcomes (Underwood 2011; Underwood and Teresi 2002). In this study, we applied the 6-item version of the DSES (Cronbach's $\alpha = .86$). Example items read: I "feel God's presence" "feel God's love," "desire to be closer to God (union)," "find strength/comfort in God," "am touched by the beauty of creation." Participants responded on a scale with six categories which are: "many times a day," "everyday," "most days," and "some days," "once in a while" and "never/almost never," (Underwood and Teresi 2002).

SOC-13: Sense of Coherence

The instrument used here is a 13-item version of the instrument designed by Antonovsky (SOC-13; 1993) in a German translation with the following three components: manageability (items 3, 5, 10, 13), comprehensibility (items 2, 6, 8, 9, 11) and meaningfulness (items 1, 4, 7, 12). This version typically meets the same quality criteria as other and longer versions, as well as the original SOC-29 version (correlation of SOC-29 and SOC-13: $r = .95$; Hannöver et al. 2004). Sample items read like: "Has it happened that people whom you counted on disappointed you?" All items are answered on a 7-point Likert scale and were sum-scored. Thus, the SOC sum scale scores may range from 13 to 91. Test of internal consistency of this 13-item scale resulted in Cronbach's $\alpha = .80$ in this population, which is similar to several studies reported by Antonovsky (1993) (α range 74–81) or Eriksson and Lindström (2005) (α range 70–92). We do not examine the less stable subscales but refer to the SOC-13 sum score due to its good internal consistency.

Big Five Personality Traits

To measure personality traits, we used an instrument resembling the big five in a 15-item short version, the BFI-S in German language (Dehne and Schupp 2007), which was derived from the original BFI by John, Donahue and Kentle (1991). The instrument includes all five dimensions [i.e., extraversion (E), agreeableness (A), conscientiousness (C),

neuroticism (N) and openness to experience (O)], using self-descriptive items. Each item is prefaced by “I see myself as someone who....” Then, the five dimensions are represented by three sentence completions each, i.e., “gets nervous easily,” “worries a lot,” “relaxed, handles stress well (N),” “is inventive and introduces new ideas (O),” “is talkative (E),” “works thoroughly (C)” and “is considerate and kind with others (A).” Each subscale included also inversely scored items. All items were answered on a 7-point Likert scale, ranging from 1 = “no, do not agree at all” to 7 = “yes, totally agree.”

We computed the reliability of all five personality factors. As we used a short scale with only three items per dimension, Cronbach’s α ranged from $\alpha = .42$ – $.67$ (A: $\alpha = .42$; N: $\alpha = .64$; C: $\alpha = .65$; O: $\alpha = .67$; E: $\alpha = .67$). As there were “possibly heterogeneous” items integrated by the authors, to cover the full spectrum of respective facets (Gerlitz and Schupp 2005, p. 21), reliability values may seem satisfactory for conceptual reasons though less for methodological (statistical) aspects. In addition, the correlations of personality traits and religiosity/spirituality reported later in this study are comparable to a meta-analysis by Saroglou (2009), indicating their suitability.

Statistical Analysis

Descriptive analyses, first-order correlations and regression models were computed with *IBM SPSS 23*. Testing of hypothesized indirect effects and moderation analysis was conducted using *IBM SPSS-Macro PROCESS*, computed by Hayes (2013), and by applying simple slope analysis (Aiken and West 1991).

Results

The majority of participants were 45–54 years old and 74.9 % were male (Table 1). Mean values and standard deviations of the studied variables are given in Table 2.

Correlational analysis of the integrated variables is reported in Table 3.

Table 1 Sample description

Variables	%
Gender	
Men	74.9
Women	25.1
Age	
<25	.1
25–34	6.1
35–44	14.5
45–54	31.3
55–64	23.1
65–74	12.9
75–84	10.3
>85	1.7

Table 2 Mean values of studied variables

	<i>M</i>	<i>SD</i>
Neuroticism	3.95	1.21
Extraversion	4.79	1.13
Openness	5.10	1.12
Conscientiousness	5.53	.98
Agreeableness	5.38	.87
Religious trust	4.35	.56
Daily spiritual experiences	4.13	.84
Sense of coherence	65.09	9.84

Table 3 Correlations of study variables

	E	N	O	A	C	SOC	RT
N	-.167**						
O	.350**	-.084**					
A	.037**	-.201**	.080**				
C	.170**	-.089**	.208**	.222**			
SOC	.182**	-.459**	.106**	.265**	.263**		
RT	.096**	-.111**	.102**	.174**	.184**	.237**	
DSES	.117**	-.210**	.157**	.164**	.127**	.310**	.519**

** $p < .01$ (Pearson r)

Test of Hypothesis 1

In the second step of this analysis, we tested Hypothesis 1a to determine which personality factors would best predict SOC. This was done by using the first regression model, reported in Table 4.

Overall, the big five factors accounted for 30 % of the variance in SOC. Neuroticism was the best (inverse) predictor of SOC, while extraversion, conscientiousness and agreeableness were weak positive predictors. Not significantly related was openness for

Table 4 Prediction of sense of coherence by the big five personality factors

Personality factors	β
Neuroticism	-.41***
Extraversion	.09***
Openness	-.01
Conscientiousness	.19***
Agreeableness	.15***
Model summary	
Model F	541.733***
df	6306
R^2	.30

Beta weights are significant at *** $p < .001$

experiences. These findings align with Hypothesis 1a (except for openness), where it was assumed that personality traits would predict SOC. Hypothesis 1b, which referred to the specific negative influence of neuroticism on SOC, also appears admissible, thus leading to Hypothesis 2.

Test of Hypothesis 2: The Case of Religious Trust

To test the focal research hypothesis, we computed the effect of RT as operationalized by RGH as a moderator on the relationship between neuroticism and SOC. SOC was the dependent variable, predicted by the interaction between neuroticism and RT. The interaction between neuroticism and RT on SOC was significant (Table 5). The moderation model accounted for 25 % of the variation in the dependent variable SOC with.

To further expound the interaction between neuroticism and RT, conditional regression effects for the predictor neuroticism were estimated (Table 6). SOC differed according to neuroticism, as depicted in Fig. 2. High neuroticism was associated with low SOC and vice versa. This pattern was moderated by RT. In both groups of neuroticism, RT was a significant moderator.

Test of Hypothesis 2: The Case of Daily Spiritual Experiences

Hypothesis 2 refers to the buffering influence of DSES, which is concerned with experiences of the transcendent in daily life. To test this hypothesis, we computed DSES scores as a moderator for the relationship between neuroticism and SOC. SOC was again the dependent variable, predicted by the interaction between neuroticism and DSES. The interaction between neuroticism/DSES/SOC was significant (Table 7). In this case, the moderation model accounted for 28 % of the variation in the dependent variable SOC.

Conditional regression effects for the predictor neuroticism were also estimated for DSES scores (Table 8). At all levels of neuroticism, DSES significantly moderated the interaction between neuroticism and SOC. As depicted in Fig. 3, SOC was higher, when neuroticism was low and vice versa. Then, in both neuroticism groups (low and high) the impact of neuroticism on SOC was moderated by DSES. In both groups, the influence of neuroticism on SOC was buffered by DSES. In comparison with RT, the effect was slightly stronger.

Table 5 Main effects of the moderation model

Dependent variable: SOC	β	SE	<i>t</i>	<i>p</i>	BootLLCI	BootULCI
Constant	73.57	3.04	24.24	<.001	67.65	79.52
RT	1.16	.68	1.70	.090	-.18	2.50
Neuroticism	-5.85	.71	-8.27	<.001	-7.23	-4.46
RT \times <i>N</i>	.53	.16	3.33	<.001	.22	.85
Model summary						
Model <i>F</i>	625.65					
<i>df</i>	5499					
<i>R</i> ²	.25					

Table 6 Conditional effects of neuroticism on SOC at values of the moderator RT

	β	SE	<i>t</i>	<i>p</i>	<i>BootLLCI</i>	<i>BootULCI</i>
RT						
-1 SD	-3.82	.13	-29.23	<.001	-4.08	-3.57
Exact mean	-3.52	.09	-37.80	<.001	-3.71	-3.34
+1 SD	-3.22	.13	-25.19	<.001	-3.48	-2.97

Fig. 2 Interaction between neuroticism, religious trust and sense of coherence

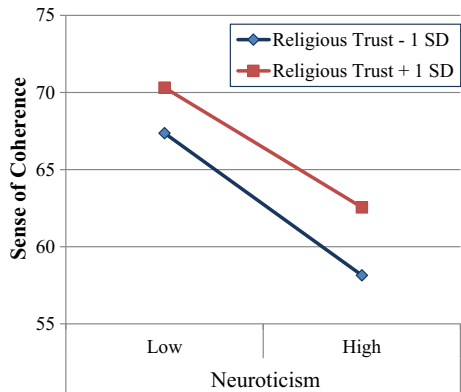


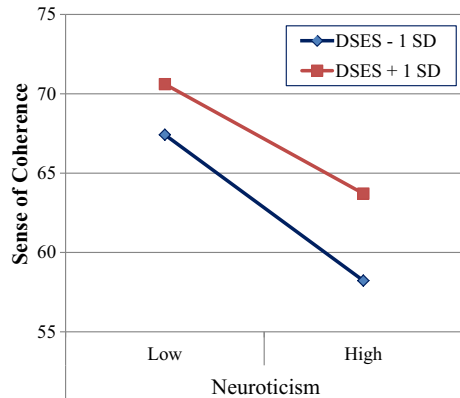
Table 7 Main effects of the moderation model

Dependent variable: SOC	β	SE	<i>t</i>	<i>p</i>	<i>BootLLCI</i>	<i>BootULCI</i>
Constant	76.72	1.77	43.42	<.001	73.25	80.18
DSES	.34	.41	.84	.40	-.46	1.15
Neuroticism	-5.69	.40	-14.08	<.001	-6.47	-4.89
DSES × <i>N</i>	.57	.10	5.94	<.001	.38	.76
Model summary						
Model <i>F</i>	813.71					
<i>df</i>	6290					
<i>R</i> ²	.28					

Table 8 Conditional effects of neuroticism on SOC at values of the moderator DSES

DSES	β	SE	<i>t</i>	<i>p</i>	<i>BootLLCI</i>	<i>BootULCI</i>
-1 SD	-3.80	.12	-32.64	<.001	-4.03	-3.58
Exact mean	-3.33	.09	-38.21	<.001	-3.49	-3.16
+ 1 SD	-2.85	.12	-23.75	<.001	-3.08	-2.62

Fig. 3 Interaction between neuroticism, daily spiritual experiences and sense of coherence



Discussion

The goal of our investigation was to determine whether RT and DSE may function as helpful psychological resources. To evaluate the influence of RT/DSE, the relationships between the big five personality traits and SOC were tested among a sample of religious/spiritual persons. As an outcome variable, SOC was selected. This orientation to life has been shown to be a relevant predictor of health-related variables and well-being (Friedman and Kern 2014). Personality traits and SOC are usually highly correlated and comprise the negative impact of neuroticism on SOC (Feldt et al. 2007; Hochwalder 2012). We were interested in whether this interaction between neuroticism and SOC can be moderated by another psychological resource and orientation to life: RT and DSE.

First, we tested the influence of the big five personality traits on SOC in Hypothesis 1a. This hypothesis can be partially confirmed, as all personality traits were relevant predictors of SOC, excluding openness for experience. Neuroticism was the strongest predictor of SOC additionally predicting an impairment of SOC, confirming Hypothesis 1b.

Subsequently, the focal study hypothesis was tested: Are RT/DSE relevant moderators of the relationship and can they lessen the negative effect of neuroticism on SOC? Results showed that the negative relationship between neuroticism and SOC can be slightly buffered by the integration of RT and DSE. Interestingly, this moderation was stronger for those persons with higher values in neuroticism. It appears that the moderating influence was more effective when the negative interaction between neuroticism and SOC was stronger. This is an interesting finding because people with neurotic personality tendencies often struggle to find helpful methods of coping (McCrae and Costa 1986, p. 393). As this is, they may have found a helpful resource in the concepts of RT and DSE studied here.

With our sample of pastoral workers, we can overall replicate findings of other large-*N* studies that are concerned with personality factors in relation to measures of religiousness and spirituality: Saroglou (2009, p. 6) integrated 71 samples ($N = 21,715$) from 19 countries into a meta-analysis, investigating the main personality traits associated with religiousness and spirituality. Saroglou reported correlations of weighted means for spirituality/mature faith with $E = .14$, $A = .21$, $C = .14$, $N = -.07$, $O = .18$. Also the magnitudes of the regression weights in our study are in line with other topical contributions. Piedmont and Wilkins (2014, p. 297) conducted longitudinal studies for the link of personality and spirituality/religiousness, finding beta weights with $\beta < .25$.

Our findings also align with the results of prior studies of spirituality-related variables and psychological outcomes in this same sample. For example, the feeling of “Spiritual Dryness” as a form of spiritual crisis was associated with depressive symptoms, emotional exhaustion and perceived stress (Büssing et al. 2013). Perception of the transcendent in daily life has also been shown to be related to lower anxiety, depressive symptoms and somatization (Frick et al. 2015). Therefore, spirituality and religion may be a psychological resource for religious individuals who feel easily stressed as a result of their temperamental constitution.

Limitations

Personality traits, RGH, DSES and SOC were found to be related using the aggregated data from this study. However, reported first-order correlations were in all cases significant but in several cases of a marginal or small magnitude. It is a shortcoming of this study that longitudinal data were not currently available in order to test the temporal stability of the effects shown here. Also, a treatment-effect testing, integrating RT/DSE would be helpful to generate further insight. As well in order to test, whether the here assumed effectiveness of RT/DSE in coping strategies holds true. Future studies might examine other variables and components that may interact and co-influence the triangle proposed here. It may also be interesting to investigate divergent images of “God or spirits to rely on,” which are apparent in the studied individuals. These may be of influence in the efficacy of RT/DSE in the realm of health-related research areas.

Conclusion

Overall, this study has shed light on spirituality and trust in external, religiously connoted resources. First, we have replicated that individuals with higher neuroticism scores may experience a reduced SOC. Second, our results show that the relationship between the neuroticism and SOC is moderated by RT and DSE. Individuals who rely on RT and DSE as a psychological resource may restore their SOC and buffer the negative effects of instability on SOC. This holds true for both concepts of transcendence experiences that we studied here. When people experience RT and DSE, this may contingently result in a more and more operant cycle that helps to foster SOC. In this vein, transcendent experiences can be seen as helpful. This is particularly relevant because neurotic individuals generally struggle to adapt effective coping strategies. One might think about critical life events where coping is necessary. In this case, individuals may rely on their spirituality and their religious trust. Then, even under the impression of neurotic personality tendencies, the global perspective on life may be enhanced.

It is not our intention to motivate persons with emotional lability to pray or to request them to search for psychological health solely in spiritual practice. The fact that both RT and DSE have been shown to be related to personality traits and SOC may inspire further research in order to discover helpful resources for persons who are interested in a spiritual and religious orientation for their lives.

Acknowledgments This study was an investigator-initiated trial without any influence of Church authorities. All authors are members of the respective universities; three of the authors are Catholic priests (E. F., K. B. and C. J.) working at universities as researchers.

Compliance with Ethical Standards

Competing interest The authors disclose any financial or other competing interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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