Personality and Individual Differences 49 (2010) 863-868

Contents lists available at ScienceDirect



Personality and Individual Differences

journal homepage: www.elsevier.com/locate/paid

It's not only what you hold, it's how you hold it: Dimensions of religiosity and meaning in life

Tamás Martos^{a,*}, Barna Konkolÿ Thege^b, Michael F. Steger^c

^a Semmelweis University, Institute of Mental Health, Hungary

^b Semmelweis University, Institute of Behavioral Sciences, Hungary

^c Colorado State University, Department of Psychology, USA

ARTICLE INFO

Article history: Received 22 February 2010 Received in revised form 2 July 2010 Accepted 15 July 2010 Available online 30 August 2010

Keywords: Religiosity Post-Critical Belief Scale Meaning in life Search for meaning Personality traits

1. Introduction

Meaning in life has been a focal point of psychological thinking about positive human functioning and mental health since the pioneering thoughts of Frankl and the existential psychotherapists (Frankl, 1963; Yalom, 1980). Meaning in life, that is, the subjective experience of meaningfulness in one's life, is typically seen as a distinct dimension of well-being, more related to what was called psychological or eudaimonic well-being than to hedonic or subjective well-being (McGregor & Little, 1998; Ryan & Deci, 2001). Supporting theories that meaning in life is a vital ingredient of human flourishing (Ryff & Singer, 1998), research has found associations between meaning in life and a variety of health indices, like lower mortality rate (Boyle, Barnes, Buchman, & Bennett, 2009; Skrabski, Kopp, Rozsa, Rethelyi, & Rahe, 2005) and better self-rated health (Steger, Mann, Michels, & Cooper, 2009).

Religiosity has been considered an important part of how some people construct meaning (Batson & Stocks, 2004; Park, 2005; Silberman, 2005; Yalom, 1980). Support for this notion can be found in positive associations between meaning in life and various measures and indices of religiosity (Chamberlain & Zika, 1988; Dezutter, Soenens, & Hutsebaut, 2006; French & Joseph, 1999; Pöhlmann, Gruss, & Joraschky, 2006). More direct evidence can be found in the fact that individuals often consider religious and spiritual beliefs

* Corresponding author. Tel.: +36 309649935.

E-mail address: tamas.samson@enternet.hu (T. Martos).

ABSTRACT

Previous research has linked meaning in life and religiosity, usually relying on simplistic unidimensional models. The present study revisited these relations, viewing both religiosity and meaning as multidimensional constructs. Dimensions of religiosity (Inclusion of Transcendence and Symbolic Interpretation) were assessed in two adult Hungarian samples (*Ns* 330, 437) and associations were assessed with presence of meaning (Studies 1 and 2) and search for meaning (Study 2), controlling for personality traits (Study 2). Inclusion of Transcendence was positively related to presence of meaning, and Symbolic Interpretation was positively related to search for meaning. Differing patterns of relations across explicit and implicit measures of presence of meaning suggested potentially important distinctions between *whether* people believe and *how* they believe. Together, results show that life appears more meaningful when religiosity is complex and open.

© 2010 Elsevier Ltd. All rights reserved.

and experiences as important sources for their life meaning (Fletcher, 2004; Schnell & Becker, 2006). People also appear to reflect upon their religiosity when asked to estimate the meaningfulness of their lives (Hicks & King, 2008). Finally, meaning in life appears to be an important factor that links religiosity to mental health and wellbeing (George, Ellison, & Larson, 2002; Steger & Frazier, 2005).

While both religiousness and meaning in life are often studied as one-dimensional phenomena, more detailed conceptualizations of religiosity and meaning in life suggest that both constructs may have multiple dimensions. Moreover, these distinctions may affect the pattern of the associations both theoretically and empirically (cf. Hackney & Sanders, 2003). However, the empirical investigation of multidimensional associations between these constructs is largely missing.

1.1. Dimensions of religious attitudes

A recent social-cognitive model of religious attitudes suggests that a person's approach towards religion may be characterized by two underlying and independent bipolar dimensions (Duriez, Dezutter, Neyrinck, & Hutsebaut, 2007). Inclusion (vs. exclusion) of Transcendence (IT) refers to the content of beliefs, specifically whether people accept or reject the possibility of a transcendent reality. Symbolic (vs. literal) Interpretation (SI) refers to the cognitive processing of these religious contents, whether they are approached on an open and complex way or in a rigid way. Within this model, one can distinguish between believers with an open,

^{0191-8869/\$ -} see front matter @ 2010 Elsevier Ltd. All rights reserved. doi:10.1016/j.paid.2010.07.017

complex belief system and believers with a closed, rigid belief system. Nonbelievers can also be typified as open or rigid. These two dimensions of religiosity – the *whether* and the *how* – were found to be uniquely associated with several individual differences. People high on the IT dimension preferred structure and predictability (Duriez, 2003), and were less sensitive to external stimulation (Fontaine, Duriez, Luyten, Corveleyn, & Hutsebaut, 2005). People high on the SI dimension were also higher on openness, agreeableness (Duriez, Soenens, & Beyers, 2004), empathy (Duriez, 2003).

1.2. Dimensions of meaning in life

In much the same way that religiosity research has been dominated by unidimensional approaches, meaning in life research has also focused almost exclusively on the degree to which people judge their lives to be meaningful or not. This "whether" dimension of meaningfulness has been termed the *presence* of meaning dimension (Steger, Frazier, Oishi, & Kaler, 2006). This dimension is obviously important, as numerous reviews attest (e.g., Steger, 2009), yet recent scholarship has drawn attention to another, much less studied dimension of meaning. The search for meaning was important to early scholars (e.g., Crumbaugh, 1977; Frankl, 1963), but lags in terms of recent empirical inquiry. Search for meaning, which refers to people's desire to enhance the meaningfulness of their lives, was found fairly independent from the experience of the presence of meaning (Steger et al., 2006). In the few instances when studied, search for meaning was found to be unrelated to intrinsic and extrinsic religiosity (Steger et al., 2006).

1.3. The present study

The aim of the present study is to extend our existing knowledge about the relations between religiousness and meaning in life by examining both phenomena multidimensionally. Individual religiosity is conceptualized as an intersection of two underlying dimensions, acceptance (vs. rejection) of religious beliefs (IT) and the symbolic (vs. literal) way how religious questions are approached (SI). People's subjective experience of life's meaningfulness of one's life also will be approached multidimensionally, including several conceptualizations and measures of presence of meaning and a measure of search for meaning.

The following hypotheses were tested in the present study:

- (1) We expect positive relationship between IT and multiple indices of presence of meaning. Any variations in the magnitude of relations across measures of presence of meaning will be identified, as well.
- (2) Previous research suggests that SI is connected to more healthy psychological functioning and more open cognitive style (Dezutter et al., 2006). Therefore, we expect a positive relation between measures of presence of meaning and SI.
- (3) Although there have been several investigations into the role of religiosity in experiencing meaning in life, similar research on the search for meaning dimension has lagged behind. Search for meaning may represent an uncertainty that is less congruent with deeply held religious beliefs (i.e., higher IT). It also may represent an accepting and flexible attitude that is more consonant with a symbolic interpretation of religiosity. Therefore we assume that IT and search for meaning will be negatively related. In contrast, we assume that a more symbolic approach to religious contents would positively associate with the search for meaning dimension, since both of them are related to openness and flexibility (Duriez et al., 2004; Steger, Kashdan, Sullivan, & Lorentz, 2008).

Two cross-sectional studies were conducted on convenience samples of Hungarian adults to test these assumptions. Study 1 tested the link between dimensions of religiosity and multiple measures of the presence of meaning. Study 2 extended this focus with the dimension of search for meaning. Moreover, since personality traits were found to be correlates for both religiosity (Henningsgaard & Arnau, 2008) and meaning constructs (Halama, 2005; Schnell & Becker, 2006; Steger et al., 2008), the five factor model of personality was assessed in Study 2 to control for possible confounding effects.

Both studies were conducted with respect to the ethical standards of the Hungarian Psychological Association. SPSS 13.0 statistical program pack was used throughout the analyses.

2. Study 1

2.1. Method

2.1.1. Sample and procedure

Participants were 330 Hungarian speaking adults, 158 males (mean age 32.9 ± 13.9 years) and 172 females (mean age 33.1 ± 15.3 years), from various types of settlements, including the capital of the country and its surrounding. Most of the sample was Catholic (51.8%), followed by other Christian (19.8%), non-affiliated religious (7.3%), non-Christian (1.2%), and non-religious (19.7%), with five missing cases, roughly reflecting the proportions of denominations in the Hungarian population. Education was assessed in years (8–25 years, M = 14.61, SD = 2.86). Participants were psychology students enrolled in an introductory personality psychology course and volunteer participants they recruited among their friends and relatives as partial fulfillment of the course requirements. Responses were anonymous and confidential.

2.1.2. Measures

2.1.2.1. Purpose in Life Test. The Purpose in Life Test (PIL; Crumbaugh & Maholick, 1964) is the most often used measure of life meaning. Research has supported the reliability and convergent and divergent validity of the PIL (e.g., Reker & Fry, 2003). Psychometric properties of the Hungarian version were also found to be appropriate (Konkolÿ Thege & Martos, 2006). Cronbach's alpha was .90 in this sample.

2.1.2.2. Existence Scale. The Existence Scale (ES; Längle, Orgler, & Kundi, 2003) is a measure of the four basic elements of the existential perspective: perception, recognition of values, competence for decision-making, and responsibility. These elements represent the personal abilities thought to be the most important personal competencies for existence. The shortened 8-item version of the scale was validated in a Hungarian sample (Konkolÿ Thege & Martos, 2008). A total scale score was derived with acceptable internal consistency in the present sample (alpha .74).

2.1.2.3. Post-Critical Belief Scale. The shortened 18-item Hungarian version (Martos, Kézdy, Robu, Urbán, & Horváth-Szabó, 2009) of the Post-Critical Belief Scale (PCBS, Hutsebaut, 1996) was used to measure two dimensions of religiosity. To directly obtain scores for IT and SI, we followed the procedure developed by Fontaine, Duriez, Luyten, and Hutsebaut (2003) for PCBS. Accordingly, we performed PCA with Procrustes rotation using the Hungarian average structure (Martos et al., 2009) as a target matrix. Tucker phi indices indicated an excellent fit of the actual data with the target matrix (.99 for the first and .97 for the second component), also proving the reliability of our measure. Transformed component scores (M = 0) were used as variables representing the Inclusion vs. Exclusion of Transcendence dimension and the Symbolic vs. Lit-

eral Interpretation dimension. Higher scores mean more accepting attitudes towards the transcendent reality (i.e., IT), and a more symbolic processing of religious contents (i.e., SI), respectively.

2.2. Results

Basic descriptive statistics as well as zero order correlation coefficients were calculated for the variables in the study (Table 1). The PIL and ES correlated strongly, demonstrating both scales measure a similar construct. In support of Hypotheses 1 and 2, both scales correlated positively with IT and SI, with a stronger correlation between IT and the PIL vs. IT and the ES (Fisher-z = 2.44, p < .05).

Hierarchical multiple regression analyses were run for both life meaning measures with gender, age and years in education in the first step and with IT and SI in the second step (see Table 2). Demographic characteristics explained 4% of the variance of both PIL and ES with females experiencing lower meaning. Religiosity dimensions explained an additional 8% and 4% of the variance of PIL and ES, respectively. Both religiosity dimensions contributed to both meaning scales. Thus, being open to transcendent religious beliefs, and holding an open, symbolic interpretation of that religious perspective may support life's apparent meaning. Conversely, a rigid, narrowing approach to religion - both in terms of belief and unbelief - may diminish meaning in life.

3. Study 2

3.1. Method

3.1.1. Sample and procedure

We ran a cross-sectional questionnaire study with the procedure presented in Study 1 on a convenience sample from the middle part of Hungary. Four-hundred and thirty-seven Hungarian speaking voluntary participants, 169 males (mean age 28.7 ± 11.2 years) and 268 females (mean age 30.2 ± 12.9 years) participated in this study (years of education 8-24 years, *M* = 14.99, SD = 2.45, religious affiliation: 58.1% Catholic, 16.5% other Christian, 6.4% non-affiliated religious, .9% non-Christian, and 18.1% non-religious).

3.1.2. Measures

3.1.2.1. Big Five Questionnaire. For assessing personality traits, the Hungarian version (Rózsa, Kő, & Oláh, 2006) of the Big Five Questionnaire (BFQ; Caprara, Barbaranelli, Borgogni, & Perugini, 1993) was applied. Altogether 120 items assess energy (extraversion, alpha .77), agreeableness (.74), conscientiousness (.73), neuroticism (.86) and openness (.71).

3.1.2.2. Post-Critical Belief Scale. The same 18-item version of the Post-Critical Belief Scale (PCBS) as well as the same analytic proce-

Table 2

Hierarchical regression analysis for predicting meaning constructs, Study 1.

Predictors		Standardized	beta weights
		PIL	ES
Step 1	Gender	15**	11*
	Age	.00	.10
	Education (years)	.10	.09
	ΔR^2	.04	.04
	ΔF	5.03**	4.39**
Step 2	IT	.22***	.12*
	SI	.20***	.16**
	ΔR^2	.08	.04
	ΔF	15.27***	6.67**
Total <i>R</i> ² for e	quation	.13	.08
Total F for ec	juation	9.39***	5.40***

Notes: coefficients are from the final model.

_____ p < .05.

p < .01. p < .001.

dure was used as in Study 1. Tucker phi indices indicated an excellent fit (.99 for the first and .99 for the second component).

3.1.2.3. Existence Scale (ES). The same version of ES was used as in Study 1 (alpha .79).

3.1.2.4. Meaning in Life Questionnaire. The Meaning in Life Questionnaire (MLQ) was developed to directly assess the presence and search for meaningfulness in life (Steger et al., 2006). A Hungarian version of this 10 item scale was developed using the translation-back-translation procedure (Brislin, 1986) for this study (alphas .89 and .85 for Presence and Search, respectively).

3.2. Results

Bivariate correlations are presented in Table 3. The correlation between the MLQ-Presence (MLQ-P) and the ES was higher than any other correlation for these two scales, but was lower than the correlation between PIL and ES in Study 1. MLQ-Search (MLQ-S) correlated with both MLQ-P and ES negatively, but moderately. Both presence of meaning measures correlated positively with the IT, although only the ES correlated with SI. Because of several significant correlations between personality traits and both meaning measures and dimensions of religiosity, in the subsequent hierarchical linear regression analyses personality was also controlled for.

Three hierarchical multiple regression analyses were performed with the three meaning variables as dependent variables in turn (see Table 4). Demographic variables were entered in the first step, personality traits in the second step, and IT and SI were entered in

Table 1			
Descriptive statistics and	l bivariate correlations	of the variables in S	Study 1.

		Total		Zero orde	Zero order correlations					
		М	SD	1	2	3	4	5		
1	Age	32.98	14.60	-						
2	Education (years)	14.61	2.86	05	-					
3	IT	0.00	1.00	.07	.07	-				
4	SI	0.00	1.00	03	.21***	.00	-			
5	PIL	103.25	16.82	.01	.18**	.21***	.22***	-		
6	ES	37.01	6.57	.10	.14*	.12*	.17**	.77***		

p < .05.

p < .01.

p < .001.

Debenip	the statistics and sive	nute corre		the fullable	eo in otaay i	5.								
		Μ	SD	1	2	3	4	5	6	7	8	9	10	11
1	Age	29.60	12.31											
2	Education (years)	14.99	2.45	08										
3	Extraversion	77.44	10.65	12*	.06									
4	Agreeableness	83.30	9.44	13**	.12*	.07								
5	Conscientiousness	80.12	9.74	04	.10*	.27***	.12*							
6	Neuroticism	73.60	13.30	07	08	.04	18***	.01						
7	Openness	81.52	9.84	12*	.24***	.47***	.33***	.27***	06					
8	IT	0.00	1.00	.04	.01	00	.21***	.14**	.04	.05				
9	SI	0.00	0.99	14**	.19***	.10*	.25***	.14**	03	.26***	02			
10	ES	35.44	6.75	.11*	.20***	.28***	.34***	.26***	42***	.33***	.11*	.25***		
11	MLQ-P	24.82	6.89	.10*	.10*	.15**	.24***	.18***	33***	.22***	.21***	.00	.53***	
12	MLQ-S	20.90	7.75	15**	.05	.11*	.04	.10*	.30***	.14**	.09	.17***	21***	26***

Table 3

 Descriptive statistics and bivariate correlations of the variables in Study 2

^{∗∗} p < .01.

**** p < .001.

the final step. In this sample, age was found as consistent significant predictor for all meaning measures, with higher age predicting higher ES and MLQ-P and lower MLQ-S.

The full model accounted for 42% of the variance in ES scores, with personality accounting for most of the variance (35%). Religiosity dimensions significantly accounted for additional 2%. ES was positively predicted by extraversion, agreeableness and conscientiousness, and negatively predicted by neuroticism. After controlling for demographics and personality, only SI positively predicted ES.

The full model explained 24% of the variance in MLQ-P scores. Personality accounted for roughly half of the variance in MLQ-P scores (17%) as it did for ES scores. Again, religiosity dimensions explained a significant amount of additional variance (3%). Similar to ES, MLQ-P was also predicted by extraversion, agreeableness and conscientiousness (positively) and by neuroticism (negatively). In contrast to the ES, after controlling for demographics and personality, MLQ-P was positively predicted by IT, but not SI.

The full model explained 16% of the variance in MLQ-S scores. Neuroticism was the only personality trait that predicted MLQ-S scores (positively). After controlling for demographics and personality traits, religiosity dimensions still explained a significant

Table 4

Hierarchical regression analysis for predicting meaning constructs, Study 2.

Predictors		Standardiz	Standardized beta weights							
		ES	MLQ-P	MLQ-S						
Step 1	Gender	.06	04	08						
	Age	.17***	.12**	09^{*}						
	Education (years)	.09*	.04	.00						
	ΔR^2	.06	.03	.03						
	ΔF	8.38***	4.99**	4.16**						
Step 2	Extraversion	.22***	.10	.02						
	Agreeableness	.17***	.13**	.00						
	Conscientiousness	.13**	.11*	.04						
	Neuroticism	40^{***}	29***	.33***						
	Openness	.08	.10	.09						
	ΔR^2	.35	.17	.11						
	ΔF	49.61***	18.03***	10.73***						
Step 3	IT	.06	.17***	.09						
	SI	.13**	07	.14**						
	ΔR^2	.02	.03	.02						
	ΔF	6.36**	9.47***	5.77**						
Total R ² fo	or equation	.42	.24	.16						
Total F for	equation	30.72***	13.12***	8.06***						

Notes: coefficients are from the final model.

* *p* < .05.

p < .01.

**** p < .001.

amount of variance (2%). MLQ-S was positively predicted by SI, but not IT.

4. Discussion

The present study provided a much-needed multidimensional examination of the relations between religiosity and meaning in life. In particular, we were interested in the role that religiosity may play in the subjective experience of life's meaningfulness. In two studies, significant relations were found, supporting previous research. Unlike much previous research, we controlled for five factor model personality traits in Study 2, showing a link between religiosity and meaning above and beyond basic personality. Moreover, basic demographic characteristics were also controlled for. Thus, our initial assumption about religiosity as independent correlates of life meaning was confirmed. In addition, new and potentially important insight into this relationship was gleaned from the multidimensional approach of the current study.

4.1. Dimensions of religiosity and meaning

Previous research on religion and meaning has focused on the single dimension of strengths of religious commitment or beliefs. We used the Post-Critical Belief Scale to assess this dimension (Inclusion of Transcendence, IT) as well as the flexibility and openness with which those beliefs are held (Symbolic Interpretation, SI), allowing the opportunity to try to understand meaning in life in terms of both *whether* people believe and also *how* they believe. We also used three different measures to assess two basic dimensions of meaning in life, presence of meaning and search for meaning. Among our measures, MLQ-Presence represents the most clean and explicit measure of people's judgments of their lives' meaningfulness (Steger et al., 2006). In contrast, the Existence Scale (ES) assesses sources of meaning - the ingredients people use to build a meaningful life - similar to the notion of implicit meaning (Wong, 1998). The PIL includes elements of both explicit meaningfulness and the ingredients that create implicit meaning (Crumbaugh & Maholick, 1964). Significant relations were found across all measures, with variations that shed light on which aspects of religiosity appear to support which aspects of meaning in life. In regression analyses, the MLQ-P was related only to IT; the ES was related only to SI; the PIL was related to both dimensions of religiosity. Thus, pure strength of belief seems most related to pure meaning in life judgments, and flexibility of beliefs seems most related to the way in which people build meaning in life.

This interpretation is sustained by the differential pattern of correlations revealed for the second dimension of meaning in life,

^{*} *p* < .05.

search. Search for meaning was related only to SI. Search for meaning refers to people's restless quest to seek greater meaning in life. Because SI is associated with more mature identity styles (Duriez et al., 2004) and more deeply internalized religious activities (Neyrinck, Vansteenkiste, Lens, Duriez, & Hutsebaut, 2006) the relation between the two variables may indicate that searching for meaning is part of a mature approach to religiosity. This interpretation is also in line with the notion that having a "questing" orientation distinguishes mature religiosity (cf. Batson, Schoenrade, & Ventis, 1993). Like religious quest, however, search for meaning is a complex variable, positively related to neuroticism and anxiety on the one hand, and to greater curiosity and less dogmatism on the other (Steger et al., 2006, 2008), thus, search for meaning in religious contexts may indicate both struggle and growth.

Finally, comparison of results of the two studies suggests a cleaner discrimination along religiosity dimensions for the multidimension approach (presence of meaning and search for meaning) of the MLQ, in contrast to the equal association of unidimensional meaning in life measures (PIL, ES) with both religiosity dimensions.

4.2. Limitations

Our study has certain limitations that have to be considered while interpreting the results. First, as a cross-sectional study, direct causality can not be inferred from the studies. Second, several background variables were not assessed in our studies, although they may play a role both in religiousness and meaning in life (e.g., health status, stressful life events, religious conversion). Third, it is unclear whether our non-representative convenience samples are generalizable to other samples. This concern may be supported by the opposite patterns found for the associations with gender and age in multivariable analyses of Studies 1 and 2.

4.3. Conclusions

"For many, the most salient core psychological function of religion is to provide a sense of meaning and purpose in life" (Batson & Stocks, 2004, p.149). The present study gives some support to this assertion showing that religious individuals may experience greater meaning, especially when their religiosity is complex and mature, with an open, searching attitude toward the sacred (cf. Pargament, Magyar-Russell, & Murray-Swank, 2005). Research should therefore shift away from simplistic confirmations of relations between religion and meaning, and move toward greater understanding of the complex ways in which interpreting and engaging with religiosity and meaning influence each other. The present study points toward one way of doing so.

Acknowledgments

This research was partly supported by the Hungarian Scientific Research Fund (OTKA) under the Grant Numbers T042574 and K68019. The authors are also thankful to OS Hungary and Sándor Rózsa for computing the scores and reliability estimates for the subscales of the BFQ.

References

- Batson, C. D., Schoenrade, P., & Ventis, W. L. (1993). Religion and the individual. A social-psychological perspective. London: Oxford University Press.
- Batson, C. D., & Stocks, E. L. (2004). Religion: Its core psychological functions. In J. Greenberg, S. L. Koole, & T. Pyszczynski (Eds.), Handbook of experimental existential psychology (pp. 141–155). New York: Guilford Press.
- Boyle, P. A., Barnes, L. L., Buchman, A. S., & Bennett, D. A. (2009). Purpose in life is associated with mortality among community-dwelling older persons. *Psychosomatic Medicine*, 71, 574–579.

- Brislin, R. W. (1986). The wording and translation of research instruments. In W. J. Lonner & J. W. Berry (Eds.), *Field methods in cross-cultural research* (pp. 137–164). Newbury Park: Sage.
- Caprara, G. V., Barbaranelli, C., Borgogni, L., & Perugini, M. (1993). The "big five questionnaire": A new questionnaire to assess the five factor model. *Personality* and Individual Differences, 15, 281–288.
- Chamberlain, K., & Zika, S. (1988). Religiosity, life meaning and wellbeing: Some relationships in a sample of women. *Journal for the Scientific Study of Religion*, 27, 411–420.
- Crumbaugh, J. C. (1977). The seeking of noetic goals test (SONG): A complementary scale to the purpose in life test (PIL). *Journal of Clinical Psychology*, 33, 900–907.
- Crumbaugh, J. C., & Maholick, L. T. (1964). An experimental study in existentialism: The psychometric approach to Frankl's concept of noogenic neurosis. *Journal of Clinical Psychology*, 20, 200–207.
- Dezutter, J., Soenens, B., & Hutsebaut, D. (2006). Religiosity and mental health: A further exploration of the relative importance of religious behaviors vs. religious attitudes. *Personality and Individual Differences*, 40, 807–818.
- Duriez, B. (2003). Vivisecting the religious mind: Religiosity and motivated social cognition. Mental Health, Religion and Culture, 6, 79–86.
- Duriez, B. (2004). Taking a closer look at the religion-empathy relationship: Are religious people nicer people? *Mental Health, Religion and Culture*, 7, 249–254. Duriez, B., Dezutter, J., Neyrinck, B., & Hutsebaut, D. (2007). An introduction to the
- Duriez, B., Dezutter, J., Neyrinck, B., & Hutsebaut, D. (2007). An introduction to the post-critical belief scale: Internal structure and external relationships. *Psyke and Logos*, 28, 767–793.
- Duriez, B., Soenens, B., & Beyers, W. (2004). Personality, identity styles, and religiosity: An integrative study among late adolescents in Flanders (Belgium). *Journal of Personality*, 72, 877–910.
- Fletcher, S. K. (2004). Religion and life meaning: Differentiating between religious beliefs and religious community in constructing life meaning. *Journal of Aging Studies*, 18, 171–185.
- Fontaine, J. R. J., Duriez, B., Luyten, P., Corveleyn, J., & Hutsebaut, D. (2005). Consequences of a multidimensional approach to religion for the relationship between religiosity and value priorities. *International Journal for the Psychology* of *Religion*, 15, 123–144.
- Fontaine, J. R. J., Duriez, B., Luyten, P., & Hutsebaut, D. (2003). The internal structure of the post-critical belief scale. *Personality and Individual Differences*, 35, 501–518.
- Frankl, V. E. (1963). Man's search for meaning: An introduction to logotherapy. New York: Vintage Books.
- French, S., & Joseph, S. (1999). Religiosity and its association with happiness, purpose in life, and self-actualization. *Mental Health, Religion and Culture*, 2, 117.
- George, L. K., Ellison, C. G., & Larson, D. B. (2002). Explaining the relationships between religious involvement and health. *Psychological Inquiry*, 13, 190– 200.
- Hackney, C. H., & Sanders, G. S. (2003). Religiosity and mental health: A metaanalysis of recent studies. *Journal for the Scientific Study of Religion*, 42, 43–55.
- Halama, P. (2005). Relationship between meaning in life and the big five personality traits in young adults and the elderly. *Studia Psychologica*, 47, 167–178.
- Henningsgaard, J. M., & Arnau, R. C. (2008). Relationships between religiosity, spirituality, and personality: A multivariate analysis. *Personality and Individual Differences*, 45, 703–708.
- Hicks, J. A., & King, L. A. (2008). Religious commitment and positive mood as information about meaning in life. *Journal of Research in Personality*, 42, 43–57.
- Hutsebaut, D. (1996). Post-critical belief: A new approach to the religious attitude problem. Journal of Empirical Theology, 9, 48–66.
- Konkolý Thege, B., & Martos, T. (2006). Az Életcél Kérdőív magyar változatának jellemzői [The psychometric properties of the Hungarian version of the purpose in life test.]. *Mentálhigiéné és Pszichoszomatika*, 7, 153–170. Konkolý Thege, B., & Martos, T. (2008). Reliability and validity of the shortened
- Konkolý Thege, B., & Martos, T. (2008). Reliability and validity of the shortened Hungarian version of the existence scale. *Existenzanalyse*, 25, 70–74.
- Längle, A., Orgler, Ch., & Kundi, M. (2003). The existence scale. A new approach to assess the ability to find personal meaning in life and to reach existential fulfillment. *European Psychotherapy*, 4, 135–151.
- Martos, T., Kézdy, A., Robu, M., Urbán, Sz., & Horváth-Szabó, K. (2009). Újabb adatok a Kritika Utáni Vallásosság Skála alkalmazásához – elmélet és módszertan [New data for the post critical belief scale – Theory and methodology.]. Magyar Pszichológiai Szemle, 64, 643–669.
- McGregor, I., & Little, B. R. (1998). Personal projects, happiness, and meaning: On doing well and being yourself. *Journal of Personality and Social Psychology*, 74, 494–512.
- Neyrinck, B., Vansteenkiste, M., Lens, W., Duriez, B., & Hutsebaut, D. (2006). Cognitive, affective and behavioral correlates of internalization of regulations for religious activities. *Motivation and Emotion*, 30, 321–332.
- Pargament, K. I., Magyar-Russell, G. M., & Murray-Swank, N. A. (2005). The sacred and the search for significance: Religion as a unique process. *Journal of Social Issues*, 61, 665–687.
- Park, C. L. (2005). Religion and meaning. In R. F. Paloutzian & C. L. Park (Eds.), Handbook of the psychology of religion and spirituality (pp. 295–314). New York: Guilford Press.
- Pöhlmann, K., Gruss, B., & Joraschky, P. (2006). Structural properties of personal meaning systems: A new approach to measuring meaning of life. *The Journal of Positive Psychology*, 1, 109–117.
- Reker, G. T., & Fry, P. S. (2003). Factor structure and invariance of personal meaning measures in cohorts of younger and older adults. *Personality and Individual Differences*, 35, 977–993.

868

Rózsa, S., Kő, N., & Oláh, A. (2006). Rekonstruálható-e a Big Five a hazai mintán? (Is it possible to reconstruct Big Five in a Hungarian sample?). Pszichológia, 26, 57–76.

Ryan, R. M., & Deci, E. L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. Annual Review of Psychology, 52, 141-166.

- Ryff, C. D., & Singer, B. (1998). The role of purpose in life and personal growth in positive human functioning. In P. T. P. Wong & P. S. Fry (Eds.), *The human quest* for meaning. A handbook of psychological research and clinical applications (pp. 213–235). Mahwah, NJ: Lawrence Erlbaum Associates.
- Schnell, T., & Becker, P. (2006). Personality and meaning in life. Personality and
- Individual Differences, 41, 117-129. Silberman, I. (2005). Religion as a meaning system: Implications for the new
- millennium. Journal of Social Issues, 61, 641–663. Skrabski, A., Kopp, M., Rozsa, S., Rethelyi, J., & Rahe, R. H. (2005). Life meaning: An important correlate of health in the Hungarian population. International Journal of Behavioral Medicine, 12, 78–85.
- Steger, M. F. (2009). Meaning in life. In S. J. Lopez (Ed.), Oxford handbook of positive psychology (2nd ed., pp. 679-687). Oxford, UK: Oxford University Press.

- Steger, M. F., & Frazier, P. (2005). Meaning in life: One link in the chain from religiousness to well-being. Journal of Counseling Psychology, 52, 574-582. Steger, M. F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life
- questionnaire: Assessing the presence of and search for meaning in life. Journal of Counseling Psychology, 53, 80–93.
- Steger, M. F., Kashdan, T. B., Sullivan, B. A., & Lorentz, D. (2008). Understanding the Steger, M. F., Nashada, J. B., Sunivan, D. A., & Dorne, D. (2009). (2009) the search for meaning in life: Personality, conditive style, and the dynamic between seeking and experiencing meaning. *Journal of Personality*, *76*, 199–228.
 Steger, M. F., Mann, J. R., Michels, P., & Cooper, T. C. (2009). Meaning in life, anxiety, depression, and general health among smoking cessation patients. *Journal of Parsenal of Parsenal Cell 2019*, 262–263.
- Psychosomatic Research, 67, 353-358.
- Wong, P. T. P. (1998). Implicit theories of meaningful life and the development of the personal meaning profile. In P. T. P. Wong & P. S. Fry (Eds.), The human quest for meaning. A handbook of psychological research and clinical applications (pp. 111–140). Mahwah, NJ: Lawrence Erlbaum Associates.
- Yalom, I. D. (1980). Existential psychotherapy. New York: Basic Books.