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What brings meaning to life in a highly secular society? A study on sources of meaning among Danes

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This study presents psychometric properties of the Danish version of the Sources of Meaning and Meaning in Life Scale (SoMe-Da) and associations to socio-demographic and religious characteristics. Participants were 554 Danes, 66% women ranging in age between 15 and 91 years. Exploratory factor analysis (EFA) suggested a five factor structure for the 26 sources of meaning. Construct validity within the SoMe-Da and between mental health variables were established. Generativity associated most strongly with meaningfulness followed by spirituality, attentiveness, and explicit religiosity. We found religious characteristics to be more strongly associated with meaningfulness than socio-demographic variables. Finally, we found distinct patterns of preferred sources of meaning between Christians, agnostics, and atheists. Christians and agnostics seemed to be more motivated by self-transcendence, whereas atheists may be more motivated by self-actualization. Results indicate that the SoMe-Da appears to be a valid instrument for measuring the content and degree of personal meaning in life.

Key words: Meaning in life, crisis, sources of meaning, validation, mental health, secular.

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INTRODUCTION

Personal meaning in life and existential well-being are important elements of human life. They have become important topics in contemporary empirical research (Kreitler & Urbánek, 2014; McDonald, Wong & Gingras, 2012; Schnell, 2012), with substantially growing impact (for a review see Heintzelman & King, 2014). Related concepts like meaningfulness, sense of coherence, continuity, and purpose in life have been shown to be associated with better psychological health and functioning, (Haugan, 2014; Hedberg, Brulin, Aléx & Gustafson, 2011; Homan & Boyatzis, 2010; Steger, Mann, Michels & Cooper, 2009; Van der Heyden, Dezutter & Beyers, 2015), better physical health (Czekierda, Banik, Park & Luszczynska, 2017; Roepke, Jayawickreme & Riffle, 2014), and even longevity (Boyle, Barnes, Buchman & Bennett, 2009; Cohen, Bavishi & Rozanski, 2016; Hill & Turiano, 2014; Krause, 2009). Several mechanisms have been proposed to explain the health-promoting effect of meaningfulness. Life meaning has motivating and moderating functions, in that it encourages health behavior (Antonovsky, 1987; Homan & Boyatzis, 2010; Schnell, 2016) and serves as a buffer in stressful situations, thus influencing both psychological and the physiological reactions to the stressor (Hooker, Masters & Park, 2018; Schnell, 2016).

Thus, taking an existential outlook on health and what contributes to meaningful lives may enable health psychology to better prevent and treat physical and mental diseases, and may

have a powerful potential for enhancing public health and health care in general. Further, when faced with potentially traumatic events such as life-threatening illness or loss, existential needs may increase (Ausker, la Cour, Busch, Nabe-Nielsen & Pedersen, 2008; Boston, Bruce & Schreiber, 2011; Moadel, Morgan, Fatone *et al.*, 1999), and health personnel often report to be in need of skills and tools to address these needs (Strang, Strang & Ternstedt, 2001; Udo, Melin-Johanson & Danielson, 2011). However, research on existential dimensions such as personal meaning in life has suffered from the lack of shared concepts. Very often, the idea of existential well-being is closely associated with religiousness and/or spirituality (Koenig, 2008; la Cour & Hvidt, 2010; Park 2010; 2013; Salander, 2006). However, while this association might be obvious for culturally more religious societies, it provides only limited understanding in societies turning more secular (la Cour & Hvidt, 2010; Pedersen, Pedersen, Pargament & Zachariae, 2013). Meaning in life is a primary human concern. Sources of personal meaning can be found in many places and they will be of diverse nature, even for the religiously oriented. Thus, there is a need to operate with broader constructs of what brings meaning to life that are applicable in different cultures independent of religious/spiritual or secular views of life. Furthermore, meaning in life is often construed in a uni-dimensional way, that is, it only measures the degree of perceived meaning and purpose in life, but not the factors that contribute to this perception (Brandsätter, Baumann, Borasio & Fegg, 2012). Having multidimensional measures of personal

sources of meaning, may be especially relevant for health personnel operating with individuals in crisis due to sudden life change such as bereavement (Neimeyer, 2011), chronic or life-threatening illness (Guerrero-Torrelles, Monforte-Royo, Rodríguez-Prat, Porta-Sales, & Balaguer, 2017; Lin, Bauer-Wu, 2003; Vos, 2016), or traumatic events (Silver & Updegraff, 2013), who might have lost access to their primary source of meaning in life. Therefore, there is a need for multidimensional instruments that are able to address both dimensions, for example, experienced meaning in life as well as the sources that contribute to its experience.

The investigation into the multitude of sources of personal meaning has been the topic of the work of Tatjana Schnell (Schnell, 2009, 2011, 2016). Here, meaning is defined as an “appraisal of one’s life as coherent, significant, directed, and belonging” (Schnell, 2009, p. 487), and sources of meaning are defined as basic orientations; sources of meaning motivate commitment to and the direction of action in different areas of life (Schnell, 2009, 2011). Additionally to a sound theory of the concept of meaning, an instrument for measuring sources of meaning has been developed: the Sources of Meaning and Meaning in Life Questionnaire [SoMe; German: Lebe] (Schnell & Becker, 2007; Schnell, 2009). The instrument has been translated into 17 languages and been proven valid and reliable in languages such as English, French, Portuguese, Spanish, Bahasa, Norwegian, cf. Schnell, 2014. The SoMe may offer the possibility of making cross-cultural comparisons of personal meaning, and it is an instrument with promising possibilities for refining links between personal meaning and health – both mental and physical.

Furthermore, such a measure can contribute to the investigation of individual differences in motivation. It is likely that engagement in different sources of meaning varies with the individual’s view of life. Religiously oriented individuals could be hypothesized to engage more in sources of meaning such as community and generativity, since social affiliation and social responsibility have been found to be core values across religions (Cappellen, Frederickson, Saroglou & Cornielle, 2015; Minton, Kahle & Kim, 2015; Saroglou & Cohen, 2013). People having secular views of life, for example, atheists, may on the other hand engage more in self-actualization, such as individualism and achievement (Schnell & Keenan, 2011).

The purpose of this paper is twofold: (1) to investigate the structural validity, construct validity, and cross-cultural validity of the Danish version of the Sources of Meaning Questionnaire; and (2) to investigate possible associations between meaningfulness, sources of meaning and socio-demographic and religious characteristics, such as view of life and religious practice.

METHOD

The Danish version of the Sources of Meaning and Meaning in Life Questionnaire (SoMe-Da): Adaptation process

The translation and adaptation processes of the original SoMe into Danish included several steps. The single items of sources of meaning often consisted of wordings in which language nuances were of high importance to transfer the original content and purpose of the item. The questionnaire was first translated from

both the English and German versions to Danish by three independent translators co-authoring this article. When translations from English and German were not compatible, the item was then adjusted using the original (German) version. A common first version was agreed upon, and the instrument was then investigated in two target-groups (N = 8). Item comprehension, relevance, sequence and relevant associations were recorded and evaluated in focus-group interviews. The interview presented several contributions regarding the clarity, as well as grammatical, linguistic and semantic aspects of the items. All contributions were considered by the research team, and changes were made in several item wordings. Again, we mainly consulted the original German version to verify the modifications. The second, adapted version was then back-translated from Danish to German by a German native speaker. The original and the back-translated item versions were discussed and evaluated by the research team, in order to check for any meaning disturbances. Small changes and corrections were made, and the instrument was sent to the original author (Schnell, personal communication), who evaluated the back-translated version and listed 19 minor questions of doubts regarding different aspects of the items that were not made clear enough by the research team. After the final modifications, and after Schnell’s agreement (Schnell, personal communication), the questionnaire was considered ready for use.

Participants

Participants were invited to participate through different sources, such as personal and social media invitations, recruitment within social and educational institutions (especially students and the elderly), as well as a snowball technique (Patton, 1990). The responses in paper-and-pencil were obtained among medical students. In all, 554 responded, and a total of 91.4% completed the questionnaires on a web-based platform, whereas the remaining 8.6% responded to the questionnaire in the paper-and-pencil form.

Instruments

Sociodemographic information. Sociodemographic information covered gender, age, marital status (six options), children (yes/no), and educational level (ten options).

Religion variables. Five questions regarding religion were recorded: View of life (Agnosticism, Atheism, Buddhism, Hinduism, Humanism, Islam, Christianity, Other, Don’t know); if one consider oneself as a believer (yes/no); if one practices ones religion/view of life (yes/no); prayer frequency (five options); church attendance (five options).

Sources of Meaning and Meaning in Life Questionnaire (SoMe, Schnell & Becker, 2007; Schnell, 2009). The SoMe comprises 151 items in all with different subscales: 141 of the items cover 26 subscales of different sources of meaning (e.g., Unison with nature: “I feel very close to nature and the outdoors”), and, independently of these, a subscale of 5 items covering meaningfulness (e.g., “I lead a fulfilled life”), and a subscale of 5

items covering crisis of meaning (e.g., “I feel pain from finding no purpose in my life”). In a representative German study ($N = 603$), exploratory factor analysis (using both oblique and orthogonal rotations) of the 26 sources of meaning supported four higher-order dimensions: Self-transcendence, Self-actualization, Order, and Wellbeing and relatedness. For further theoretically and practically useful differentiation, the dimension of Self-transcendence was subdivided into two minor categories: vertical self-transcendence, which is related to aspects of religiosity and spirituality, and horizontal self-transcendence that taps various forms of commitment transcending self-related concerns. Items are rated on a six-point type-Likert scale (0 – totally disagree; 5 – totally agree). The psychometric properties of the SoMe were established in several samples (Schnell, 2009, 2014; Schnell & Becker, 2007). Besides the acceptable reliability indexes, the questionnaire presented high temporal stability and evidence for its construct, content, criterion, and factorial validity (Schnell, 2011, 2014).

Hospital Anxiety and Depression Scale (HADS) (Zigmond & Snaith, 1983). The HADS is a self-report rating scale of 14 items on a four-point scale (range 0–3). It is designed to measure anxiety and depression (7 items for each subscale) giving total scores ranging from 0 to 21 for each subscale and 0 to 42 for total distress. HADS is proven a valid and reliable instrument in Scandinavian languages (Bjelland, Dahl, Haug & Neckelmann, 2002).

Satisfaction with Life Scale (SWLS, Diener, Emmons, Larsen & Griffin, 1985). The SWLS is a 5-item scale (ranging from 1 – totally disagree to 5 – totally agree), which assesses satisfaction with life as a one-dimensional construct.

Data analysis

Structural validity and reliability. Due to cultural, welfare and health-related similarities between Denmark and Germany, we hypothesized that the Danish version (SoMe-Da) would prove reliable, valid and show a factor structure which is comparable to the original German four-factor structure. Therefore we used confirmatory factor analysis (CFA) to evaluate the model fit of the German four-factor structure (Schnell, 2009) in the Danish sample. However, the complex interplay of sources of meaning is expected to covary with cultural specifics. According to functional differentiation theory, societies vary in their kind and degree of system differentiation, which is a way of dealing with environmental complexity (Luhmann, 1997). Western societies are characterized by high degrees of differentiation, manifest in the large number of subsystems such as religion, politics, economy, family, health, leisure time, etc. Similarly, processes of differentiation of sources of meaning are likely to vary with culture, mentality, and history. Therefore, we also allowed for an exploratory factor analysis (EFA) using maximum likelihood with Varimax Kaiser Normalization method in the Danish sample, if the CFA should not find satisfying model fit values. Reliability was tested using Cronbach’s alphas which were calculated for each subscale. We hypothesized that the Danish version (SoMe-Da) would show acceptable reliability (> 0.70)

Construct validity. We examined construct validity of the SoMe-Da by employing the measures of mental health (HADS) and life satisfaction (SWLS). Pearson correlations were calculated between the 26 sources and dimensions of meaning, meaningfulness, and crisis of meaning. We define a correlation as small at 0.10, moderate at 0.30, and large at 0.50 or higher. On the basis of previous literature (Damásio, Koller & Schnell, 2013; Schnell 2009, 2011) we expected that all sources of meaning would show small to moderate positive correlations with meaningfulness, and that both horizontal and vertical self-transcendence dimensions would present higher positive correlation magnitudes, for example, moderate correlations with meaningfulness. Furthermore, we expected moderate correlations between the scales of meaningfulness, crisis of meaning, and HADS and SWLS, while the relationships between the dimensions of sources of meaning and HADS and SWLS were expected to be low to moderate since sources of meaning can be realized in more or less healthy and beneficial ways.

Meaning in life across different life situations and view of life

Meaningfulness and socio-demographic characteristics. From the literature, we would expect levels of meaningfulness to differ across life situations and personal characteristics (Schnell, 2009). Therefore we ran a set of t-tests and oneway ANOVAS to test possible differences in meaningfulness between men and women, between young and older participants, between participants having children and not having children, between being married versus all other marital statuses, and finally between groups with different educational levels. Age was turned into binary for T-tests using the median (27 years), and education was collapsed into 3 groups: primary school, secondary education, and higher education.

Meaningfulness and religious characteristics. Although religion might only be for a minority of Danes, religious belief may still be a powerful source of meaning: religion may give the individual a sense of belonging, being a part of something bigger, and having a sense of purpose (Pargament, 1997; Park, 2013). Furthermore, the literature has also found that generativity – that is leaving a mark on history and making the world a better place for the generations to come – is strongly connected to meaningfulness, and this factor is incorporated in the dimension of horizontal self-transcendence (Damásio, Koller & Schnell, 2013; Schnell, 2009). To test for this finding in the Danish sample, we applied a multiple regression analysis to evaluate which sources of meaning were most strongly associated with meaningfulness; we hypothesized that of the 26 sources of meaning, generativity would be most strongly associated with high meaningfulness, and that vertical self-transcendence sources, religion or spirituality, would be among the top five sources of meaning most strongly associated with meaningfulness.

We also tested possible differences in levels of meaningfulness based on participants’ view of life using oneway ANOVA. We hypothesized based on findings from Schnell and Keenan (2011) that without differentiating between types of atheists, we expected lower meaningfulness among atheists compared to participants specifying a religious affiliation. Furthermore, we also tested

whether participants declaring to be believers, and having a religious practice such as prayer and church attendance, would show higher levels of meaningfulness compared to participants without these practices, using simple *t*-tests and oneway ANOVAs.

Patterns of engaged sources of meaning based on participants' view of life. Finally, we applied a oneway ANOVA to test possible differences in scores on the 26 sources of meaning between three groups differing in view of life, namely atheists, agnostics, and Christians. We hypothesized that participants having a religious orientation (Christians) differed in their preferences of sources of meaning compared to those with secular orientations (atheists), especially in the engagement of self-actualization and self-transcending sources of meaning (Schnell & Keenan, 2011). If one group was found to differ significantly from the others in their score on a source of meaning, we controlled for gender, age, marital status, and having kids.

RESULTS

Participants

Participants were 554 Danish subjects (66% women), ranging in age from 15 to 91 ($M = 32.3$; $SD = 14.7$) years. Forty-two percent were single, 38.5% were married/living together, 17% were in a relationship (dating or engaged), and 2.3% were

divorced or widowed. Furthermore, 56.5% had a higher education, and 61.5% considered themselves to be believers, however there were many missing values regarding information on religious belief and practice ($n = 336$).

Validation of the Sources of Meaning and Meaning in Life Questionnaire

Structural validity and reliability. We tested the original German four-factor structure on the Danish sample using a confirmatory factor analysis (CFA). The model obtained poor goodness-of-fit indexes [RMSEA = 0.128 (90% C.I = 0.124; 0.132); SRMR = 0.119; CFI = 0.57]. Thus, we ran an exploratory factor analysis on the Danish sample.

The first exploratory factor analysis suggested a six-factor solution, but only the first five factors had both a theoretical meaningful structure and acceptable loadings for each subscale. Thus, we ran the analysis again with five fixed factors. The obtained five-factor structure is rather similar to the original structure by Schnell (2009) if the dimension of self-transcendence is subdivided into "horizontal" and "vertical" self-transcendence. However, some deviations were found. Results are presented in Table 1. Besides the original five sources of meaning, "Horizontal Self-transcendence" incorporated four other sources of meaning from other dimensions (*harmony* and *attentiveness* from

Table 1. Results from explorative factor analysis: Dimensions, sources of meaning, factor loadings, number of items per scale, and reliability indexes of the SoMe-Da ($N = 554$)

Sources of meaning	Dimensions					Number of items	Cronbachs Alpha
	STV	STH	SA	ORD	WBR		
Spiritualitet	0.815					5	0.77
Explicit religiosity	0.842					3	0.93
Social commitment		0.588				5	0.58
Unison with nature		0.549				5	0.85
Self-knowledge		0.662				6	0.86
Health		0.405				4	0.81
Generativity	0.338	0.520				6	0.74
Attentiveness	0.388	0.445				8	0.68
Harmony		0.701				8	0.90
Knowledge		0.556	0.369			5	0.57
Creativity		0.356				5	0.86
Challenge			0.692			5	0.65
Individualism			0.810			6	0.68
Power			0.680			5	0.66
Development		0.443	0.700			6	0.81
Achievement			0.610			4	0.76
Freedom			0.564			6	0.87
Tradition				0.725		6	0.72
Practicality				0.585		8	0.66
Morality				0.605		5	0.65
Reason				0.641		5	0.68
Community					0.520	5	0.74
Fun			0.316		0.692	6	0.67
Love					0.530	4	0.77
Comfort					0.627	6	0.69
Care		0.403			0.438	4	0.74
Alpha reliability	0.89	0.92	0.92	0.84	0.86		

Notes: Mazimum likelihood with Varimax Kaiser Normalization method. SA – Self-actualization; VST – Vertical self-transcendence; ORD – Order; WBR – Well-being and relatedness; HST – Horizontal self-transcendence. In bold, items with higher loadings on the factor, and considered in the factor structure. Results presented for loadings > 0.25.

“Well-being and Relatedness” and *knowledge* and *creativity* from “Self-actualization”). “Self-actualization” remained the same except for the aforementioned “knowledge” and “creativity”. “Order” remained the same, and “Vertical Self-transcendence” was the same. Finally, “Well-being and Relatedness” had five of the original seven sources of meaning. Reliability indexes were satisfactory ($\alpha > 0.7$) for the majority of the sources and acceptable ($\alpha > 0.6-0.7$) for some (individualism, challenge, power, attentiveness, reason, morality, practicality, fun, comfort, social commitment, knowledge). Reliability tests for Meaningfulness and Crisis of meaning showed Cronbach’s alphas of 0.71 and 0.89, respectively.

Construct validity. Pearson correlation analyses found that most dimensions and sources of meaning correlated positively with meaningfulness (see Table 2), except for four sources of meaning,

(i.e., individualism, freedom, fun, and comfort), which correlated negatively with meaningfulness. Correlations were large for the dimension of vertical and horizontal self-transcendence, which is higher than hypothesized. However, for many of the sources of meaning, the correlations with meaningfulness were either small, or so low (< 0.10) that they cannot be interpreted substantially. For crisis of meaning, all correlations were small, and in both positive and negative direction.

As presented in Table 3 the Danish meaningfulness scale showed small negative correlations with anxiety and depression ($r < 0.30$), and moderate correlations with life-satisfaction ($r > 0.30$). The crisis of meaning scale showed large positive correlations ($r > 0.50$) with depression and anxiety, and large negative correlations with life satisfaction. As hypothesized, all dimensions of sources of meaning scales showed small correlations with mental health measures.

Table 2. Pearson’s correlations between sources and dimensions of meaning and meaningfulness and crisis of meaning ($n = 554$)

Dimensions	Sources of meaning	Meaningfulness	95% CI	Crisis of meaning	95% CI
Vertical self-transcendence		0.64	0.59; 0.69	-0.05	-0.13; 0.03
	Spiritualitet	0.62	0.57; 0.67	-0.02	-0.10; 0.06
	Explicit religiosity	0.59	0.53; 0.64	-0.05	-0.13; 0.03
Horizontal self-transcendence		0.53	0.47; 0.59	-0.04	-0.12; 0.04
	Self-knowledge	0.33	0.25; 0.40	0.05	-0.03; 0.13
	Social commitment	0.29	0.21; 0.36	-0.05	-0.13; 0.03
	Generativity	0.61	0.55; 0.66	-0.14	-0.22; -0.06
	Unison with nature	0.32	0.24; 0.39	0.05	-0.03; 0.13
	Health	0.26	0.18; 0.34	-0.25	-0.33; -0.17
	Attentiveness	0.56	0.50; 0.61	-0.05	-0.13; 0.03
	Harmony	0.44	0.37; 0.50	-0.06	-0.14; 0.02
	Knowledge	0.19	0.11; 0.27	0.05	-0.03; 0.13
	Creativity	0.13	0.05; 0.21	0.07	-0.01; 0.15
	Self-actualization		0.07	-0.01; 0.15	0.04
Individualism		-0.01	-0.09; 0.07	0.12	0.04; 0.20
Challenge		0.03	-0.05; 0.11	0.06	-0.02; 0.14
Freedom		-0.07	-0.15; 0.01	0.12	0.04; 0.20
Development		0.21	0.13; 0.29	-0.08	-0.16; 0.00
Achievement		0.04	-0.04; 0.12	0.04	-0.04; 0.12
Order	Power	0.15	0.07; 0.23	-0.09	-0.17; -0.01
		0.19	0.11; 0.27	0.03	-0.05; 0.11
	Reason	0.04	-0.04; 0.12	-0.00	-0.08; 0.08
	Tradition	0.12	0.04; 0.20	0.11	0.03; 0.19
	Morality	0.28	0.20; 0.35	-0.02	-0.10; 0.06
Well-being and relatedness	Practicality	0.15	0.09; 0.25	0.04	-0.04; 0.12
		0.17	0.14; 0.30	-0.05	-0.13; 0.03
	Fun	-0.07	-0.15; 0.01	-0.01	-0.09; 0.07
	Comfort	-0.01	-0.09; 0.07	-0.03	-0.11; 0.05
	Love	0.23	0.15; 0.31	-0.02	-0.10; 0.06
	Community	0.25	0.17; 0.33	-0.14	-0.22; -0.06
	Care	0.22	0.14; 0.30	-0.04	-0.12; 0.04

Table 3. Pearson correlations among the Danish structure of the SoMe and anxiety, depression, and life satisfaction

SoMe-Da dimensions	Anxiety	CI 95%	Depression	CI 95%	Life satisfaction	CI 95%
Meaningfulness	-0.16	-0.24; -.08	-0.29	-0.36; -0.21	0.32	0.24; 0.39
Crisis of meaning	0.51	0.45; 0.57	0.55	0.49; 0.61	-0.64	-0.69; 0.59
Vertical Self-transcendence	-.02	-.01; .06	-.03	-0.11; .05	-.01	-.09; .07
Horisontal Self-transcendence	.07	-.01; 0.15	-0.17	-0.25; -.09	0.11	.03; 0.19
Self-actualization	.09	.01; 0.17	-.09	-0.17; -.01	0.12	.04; 0.20
Order	.05	-.03; 0.13	-.02	-.01; .06	.08	.00; 0.16
Well-being and Relatedness	.06	-.02; 0.14	-0.21	-0.29; -0.13	0.19	0.11; 0.27

Table 4. *Meaningfulness, socio-demographics, and religion variables*

Meaningfulness		N	Mean (sd)	Mean difference	CI 95%	<i>p</i>
Socio-demographics						
Gender						
	Male	186	3.1 (1.0)			
	Female	365	3.4 (0.8)	-0.3	(-0.4; -0.1)	0.002
Age*						
	27 or younger	248	3.1 (0.9)			
	28 or older	236	3.5 (0.9)	-0.5	(-0.6; -0.3)	0.001
Children						
	Yes	173	3.6 (0.8)			
	No	376	3.1 (0.9)	0.4	(0.3; 0.6)	0.001
Marital status						
	Single	230	3.1 (0.9)	0.6	(0.4; 0.9)	0.001
	Dating	95	3.1 (0.8)	0.6	(0.3; 0.9)	0.001
	Co-habiting	63	3.2 (0.9)	0.5	(0.2; 0.9)	0.001
	Widowed/Divorced	13	3.5 (0.8)	0.2	(-0.5; 0.9)	1.000
	Married (Ref)	150	3.7 (0.8)			
Education						
	Primary school	26	2.9 (0.6)	0.5	(0.03; 0.9)	0.032
	Secondary education	215	3.1 (0.9)	0.3	(0.2; 0.5)	0.001
	Higher education (Ref)	310	3.4 (0.9)			
Religion variables						
View of life						
	Agnosticism	71	3.2 (1.0)	-0.7	(-1.1; -0.2)	0.001
	Buddhism	10	3.4 (0.8)	-0.8	(-1.7; 0.1)	0.140
	Hinduism	4	3.0 (0.9)	-0.4	(-1.8; 1.0)	1.000
	Humanism	18	3.4 (0.9)	-0.8	(-1.5; -1.0)	0.006
	Islam	26	3.9 (0.7)	-1.3	(-1.9; -0.7)	0.001
	Christianity	244	3.5 (0.9)	-0.8	(-1.1; -0.5)	0.001
	Other	40	3.4 (0.9)	-0.9	(-1.4; -0.4)	0.001
	Don't know	40	2.8 (0.6)	-0.2	(-0.7; 0.3)	1.000
	Atheism (Ref)	97	2.6 (0.8)			
Believer						
	Yes	249	3.7 (0.8)			
	No	90	3.0 (0.9)	0.7	(0.5; 0.9)	0.001
Practicing religion						
	Yes	209	3.7 (0.8)			
	No	132	3.1 (0.8)	0.7	(0.5; 0.8)	0.001
Prayer						
	Daily	90	4 (0.6)	-1.1	(-1.6; -0.5)	0.001
	Weekly	29	3.8 (0.6)	-0.9	(-1.5; -0.3)	0.001
	Monthly	20	3.4 (0.7)	-0.5	(-1.1; 0.2)	0.323
	Yearly	17	3.5 (0.8)	-0.6	(-1.3; 0.1)	0.179
	Never (Ref)	14	2.9 (1.0)			
Church attendance						
	Daily	0				
	Weekly	43	4.2 (0.6)	-0.4	(-1.1; 0.3)	1.000
	Monthly	60	3.7 (0.7)	0.1	(-0.6; 0.8)	1.000
	Yearly	58	3.5 (0.8)	0.4	(-0.3; 1.0)	1.000
	Never (Ref)	9	3.8 (0.8)			

Note: *Age was dichotomized using the median = 27 years.

Meaning in life across different life situations and views of life

Turning to the investigation of SoMe-Da and associations to socio-demographic and religious characteristics, the distributions and test results are shown in Table 4.

Meaningfulness and socio-demographics. Looking at the demographic variables, significant differences were found for gender, age, marital status, having children, and education level. Concerning the size of the differences, marital status had the highest difference; the experience of meaning is larger among married than among singles, participants dating or cohabiting, but

not widowed or divorced participants. Second came educational level; participants with the highest educational level had higher levels of meaningfulness. The third was age, in that the elderly had higher scores on meaningfulness, and fourth was the presence of children; having children contributed to the sense of meaning in life. Finally, fifth was gender; women experience a little more meaningfulness than men in this Danish sample.

Meaningfulness and religious characteristics. We then examined which of the 26 sources of meaning were associated the most with meaningfulness using multiple regression analysis. As

Table 5. Mean scores on sources of meaning for agnostics, atheists, and Christians

Dimensions	Sources of meaning	Agnosticism N = 71 Mean (CI 95%)	Atheism N = 97 Mean (CI 95%)	Christianity N = 244 Mean (CI 95%)	<i>p</i>
Vertical self-transcendence		2.3 (2.0; 2.7)	1.0 (0.8; 1.1)	2.9 (2.8; 3.1)	0.001*
	Spirituality	2.6 (2.3; 2.8)	1.4 (1.2; 1.6)	2.8 (2.7; 2.9)	0.001*
	Explicit religiosity	2.1 (1.7; 2.6)	0.5 (0.4; 0.6)	3.0 (2.8; 3.2)	0.001*
Horizontal self-transcendence		3.3 (3.2; 3.5)	3.1 (3.0; 3.2)	3.2 (3.1; 3.2)	0.036
	Self-knowledge	3.8 (3.7; 4.0)	3.7 (3.5; 3.8)	3.6 (3.5; 3.7)	0.088*
	Social commitment	3.6 (3.4; 3.7)	3.1 (3.0; 3.3)	3.2 (3.1; 3.3)	0.001
	Generativity	3.3 (3.1; 3.5)	3.0 (2.8; 3.1)	3.2 (3.1; 3.3)	0.034
	Unison with nature	2.9 (2.6; 3.1)	2.6 (2.4; 2.8)	2.8 (2.6; 2.9)	0.219
	Health	3.1 (3.0; 3.3)	3.2 (3.1; 3.3)	3.2 (3.1; 3.3)	0.773
	Attentiveness	3.0 (2.9; 3.2)	2.7 (2.6; 2.9)	3.2 (3.1; 3.3)	0.001*
	Harmony	3.4 (3.2; 3.6)	3.2 (3.0; 3.3)	3.4 (3.3; 3.5)	0.060
	Knowledge	3.3 (3.2; 3.6)	3.3 (3.3; 3.6)	3.3 (3.2; 3.3)	0.105
	Creativity	2.9 (2.6; 3.2)	2.7 (2.5; 2.9)	2.8 (2.7; 3.0)	0.499
Self-actualization		3.2 (3.0; 3.3)	3.4 (3.3; 3.5)	3.1 (3.0; 3.1)	0.001
	Individualism	2.9 (2.7; 3.1)	3.4 (3.3; 3.5)	2.8 (2.7; 2.9)	0.001
	Challenge	3.1 (2.9; 3.2)	3.3 (3.2; 3.5)	3.0 (2.9; 3.0)	0.001
	Freedom	2.9 (2.7; 3.1)	3.3 (3.2; 3.5)	2.9 (2.8; 3.0)	0.001
	Development	3.8 (3.6; 3.9)	3.8 (3.6; 3.9)	3.6 (3.5; 3.7)	0.116
	Achievement	2.9 (2.7; 3.1)	3.4 (3.2; 3.5)	3.0 (2.9; 3.2)	0.001
	Power	3.4 (3.2; 3.5)	3.5 (3.3; 3.7)	3.3 (3.3; 3.4)	0.064
Order		2.8 (2.7; 2.9)	2.9 (2.8; 3.0)	3.0 (2.9; 3.1)	0.005
	Reason	2.8 (2.7; 3.0)	3.2 (3.1; 3.4)	3.0 (2.9; 3.1)	0.004
	Tradition	2.0 (1.8; 2.1)	2.0 (1.9; 2.2)	2.4 (2.3; 2.5)	0.001
	Morality	3.6 (3.4; 3.8)	3.6 (3.4; 3.7)	3.7 (3.7; 3.8)	0.420*
	Practicality	2.7 (2.6; 2.8)	2.9 (2.8; 3.0)	2.9 (2.8; 3.0)	0.036
Well-being and relatedness		3.4 (3.2; 3.5)	3.3 (3.2; 3.4)	3.4 (3.3; 3.4)	0.643
	Fun	3.2 (3.1; 3.4)	3.5 (3.4; 3.7)	3.3 (3.2; 3.4)	0.021
	Comfort	3.3 (3.1; 3.4)	3.6 (3.4; 3.7)	3.3 (3.2; 3.4)	0.004
	Love	2.7 (2.5; 3.0)	2.8 (2.6; 3.0)	2.7 (2.6; 2.9)	0.365
	Community	3.8 (3.6; 3.9)	3.7 (3.6; 3.8)	3.8 (3.7; 3.9)	0.608
	Care	3.9 (3.8; 4.1)	3.7 (3.6; 3.9)	3.9 (3.8; 4.0)	0.253

Notes: Oneway ANOVA: * = *p*-value for Kruskal Wallis test due to different stand deviations.

hypothesized, generativity was found to have the highest regression coefficient ($\beta = 0.334$, CI 95%: 0.313; 478, $p < 0.001$) followed by spirituality ($\beta = 0.248$, CI 95%: $p < 0.001$), attentiveness ($\beta = 0.199$, CI 95%: 0.162; 0.353, $p < 0.001$), explicit religiosity $\beta = 0.165$, CI 95%: 0.04; 0.128, $p < 0.001$), and fun, which had a negative regression coefficient ($\beta = -0.115$, CI 95%: -0.224; -0.052, $p < 0.002$).

Our hypothesis that atheists would score significantly lower on meaningfulness compared to all other groups having a religious affiliations was partly confirmed. No significant differences were found between atheists and Buddhists and Hinduists, but the number of participants in these two latter groups was small. Yet, both agnostics, Christians, and Muslims had significantly higher scores compared to atheists, with Muslims having the highest score. Furthermore, declaring to be a believer was significantly associated with higher meaningfulness, as was declaring to practice ones religion/view of life. Oneway ANOVA found participants declaring to pray daily or a couples of times a week had significantly higher scores on meaningfulness compared to participants declaring never to pray. Levels of meaningfulness did not differ between participants attending church versus not attending church.

Patterns of engaged sources of meaning based on participants' view of life. Due to low numbers in some of the categories of

view of life (Buddhism, Islam, Judaism, Hinduism, and Humanism) we only present results for those declaring to be oriented towards Christianity, Atheism, and Agnosticism. The results from the three different groups for all of the 26 sources of meaning and the 5 dimensions are displayed in Table 5. For a graphic illustration of the distribution of sources of meaning based on view of life, see Fig. 1.

The difference in scores on the dimension of Vertical self-transcendence and the source of meaning "explicit religiosity" were highly significant between all three groups, with Christians having the highest scores, and atheists the lowest scores; yet agnostics also scored significantly higher than atheists on this dimension. "Spirituality" was higher for both Christians and agnostics compared to atheists. Furthermore, we found Christians to have the highest score on the dimension "Order", especially the source of meaning "tradition" compared to the two other groups. Agnostics had the highest score on "social commitment", and atheists had the highest scores on the dimension "Self-actualization", specifically the sources of meaning "achievement", "individualism", "freedom", and also the sources "fun", and "comfort". Noteworthy is that a range of sources of meaning did not differ between the three groups as is seen illustrated in Fig. 1.

When controlling for age, gender, marital status, and having kids at the seven sources of meaning that were most engaged by

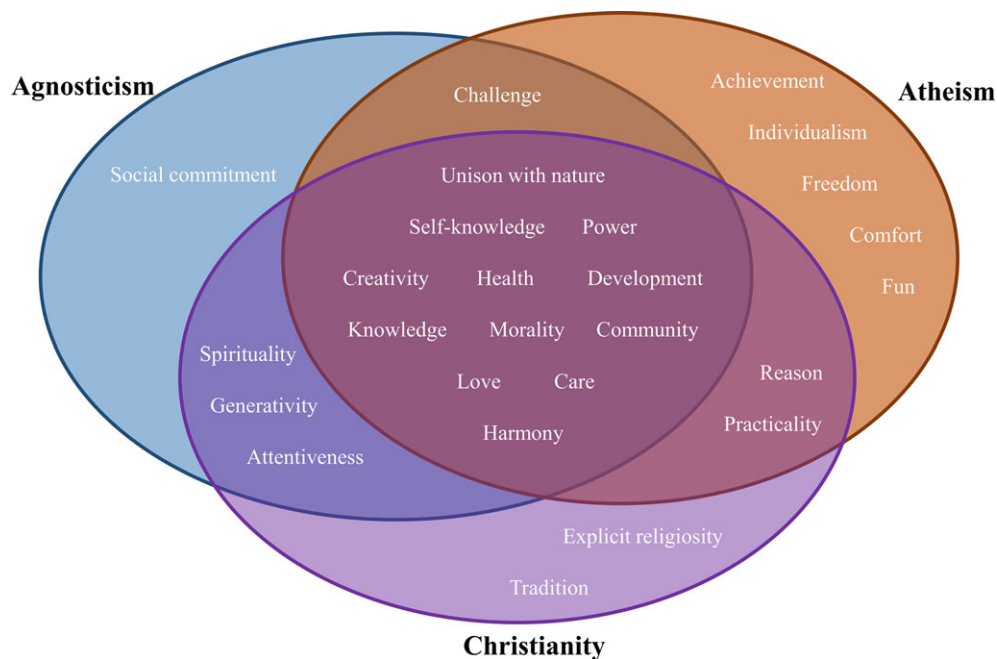


Figure 1. View of life and sources of meaning

only one of the three groups, Christians, atheists, and agnostics, we found that “achievement” were no longer significantly differently engaged for atheists. For “fun” and “comfort” atheists no longer differed significantly from either agnostics or Christians. Results are displayed in Appendix A.

DISCUSSION

In this study, we tested reliability, construct, criterion, and factorial validity of the Sources of Meaning and Meaning in Life Questionnaire. Furthermore, we investigated associations between meaning in life and different sources of meaning with measures of socio-demographic characteristics. Our main findings were that: (1) the SoMe dimensions and their sub-scales showed good internal consistency; (2) that the factorial validity of the SoMe-Da suggested a five-factor structure which overall was similar to the original version; (3) however some diversions were found between the Danish version and the original German SoMe and the confirmatory factor analyses did not reach satisfactory model fit indexes; (4) construct validity found dimensions of meaningfulness and crisis of meaning to be associated with measures of mental health in the hypothesized direction; (5) socio-demographics and religiosity were associated with meaningfulness; and (6) participants with different views of life (Christianity, agnosticism, and atheism) showed distinct patterns of engaged sources of meaning. Overall, the different validation approaches support our hypothesis that the SoMe is applicable in a Danish context. It appears to measure the same phenomena as in the original German study and is able to detect specific patterns of engaged sources of meaning between people having religious or secular orientations.

Structural validity and reliability

The CFA testing the original factor structure in this Danish sample did not reach satisfactory model fit. This may be due to

cultural differences. However, CFA is highly debated as a method for validating multidimensional instruments since small violations to simple structure have been found to lead to misfit in different indexes in studies on personality traits (Beauducel & Wittmann, 2005; Kenny, 2012; Marsh, Hau & Grayson, 2005). Since the dimensions of the SoMe have been associated with personality traits (Lavigne, Hofman, Ring, Ryder & Woodward 2013; Schnell & Becker 2006), some shared variance between dimensions due to underlying traits may blur the picture when applying CFA to such complex measures. Hence, the CFA cannot stand alone when testing the validity of a new instrument. We applied an EFA, which overall replicated the original factor structure with some diversions, and suggested a five-factor structure in which self-transcendence is subdivided into horizontal and vertical self-transcendence. This has also been suggested theoretically by Schnell and ascertained empirically (Damásio *et al.* 2013; Lavigne *et al.*, 2013; Schnell, 2009; 2011). The diversions found in the dimension of “Horizontal self-transcendence” were similar to results from the Canadian (Lavigne *et al.*, 2013) and Brazilian study (Damásio *et al.*, 2013) which both found “creativity”, “knowledge”, and “harmony” to be included in “Horizontal self-transcendence”. Furthermore, Schnell (2009) established double loadings for “knowledge”, “harmony”, and “attentiveness” on Horizontal self-transcendence. Thus, there seems to be some overlap between dimensions which suggest that some of the sources of meaning may better fit into the dimension of self-transcendence. This calls for further testing of the instrument and would preferably include a larger Danish sample in which the results from EFA could be verified by a CFA.

Construct validity

Analyses on construct validity supported our hypothesis that crisis of meaning would be correlated with indices of poor mental health (anxiety and depression) and more strongly correlated with

mental health measures and life satisfaction than meaningfulness. The correlations were larger than expected ($r < 0.50$). These findings corroborate the notion that meaningfulness may well be present in times of mental distress. A crisis of meaning, on the other hand, is associated with mental pain and a break-down of psychological resources, and therefore more strongly linked with poor mental health and low well-being (Schnell, 2016; Schnell, Gerstner & Krampe, 2018). Crisis of meaning may best be described as a state of suffering, while meaningfulness facilitates positive affect, but does not guarantee for subjective well-being nor prevent negative feelings (Schnell, 2014).

Investigating associations between the different sources of meaning and meaningfulness overall supported previous findings that sources of meaning are positively correlated with meaningfulness (Damásio *et al.*, 2013; Schnell, 2009, 2011). For crisis of meaning the pattern showed some inconsistency with both positive and negative correlations. Although it can be argued that mere absence or presence of a source of meaning is not necessarily associated with a crisis of meaning, findings may also be due to cultural differences and sample size. It may also express that if crisis of meaning is best characterized as a state, then some sources of meaning, for example, caring about one's health may protect against deterioration of mental health and the risk of developing a crisis of meaning. However, more investigation is needed on these matters.

Meaning in life across different life situations and views of life

Meaningfulness and socio-demographics. The examination of meaning in life among different groups of participants based on socio-demographic and religious characteristics may be discussed in the light of recent Danish findings on happiness, conducted as part of the World Values Survey (Gundelach, 2008). Although time and context are different for the studies, meaningfulness is correlated to marital status in our descriptive study (see Table 4), and it is also correlated to happiness in the value studies. Things turn a little different when it comes to the presence of children; it is a source of meaningfulness in our study, while it is not clearly connected to happiness in the value studies. This has been described as the parenthood paradox: having children provides rich sources of meaningfulness, but may also be associated with lower levels of happiness due to higher levels of demands and disturbed work-life balances (Glass, Simon & Andersson, 2016). The connection between family situation and meaningfulness may also be reflected in the results on which sources of meaning were most strongly associated with meaningfulness. We found the vertical and horizontal self-transcendent sources of meaning to relate the most to meaningfulness with generativity being the strongest associated factor of all 26 sources of meaning. This is in line with previous findings and our hypotheses (Damásio *et al.*, 2013; Schnell, 2011). We may speculate that engaging in generativity, for example, making the world a better place to live for generations to come, is likely to be a strong motive for parents, thereby contributing to their sense of meaning. However, this hypothesis was not tested in this present study.

Meaningfulness and religious characteristics. Interpreting further on the multiple regression testing the association between meaningfulness and the 26 sources of meaning, we found that both spirituality and religion came in among the five sources of

meaning most strongly associated with meaningfulness, whereas a more hedonistic source of meaning like fun was actually negatively related to meaningfulness in our sample. Thus, although Denmark is characterised as a secular society, having a religious or spiritual outlook and practice still seems to be a resource giving the individual a sense of purpose and belonging. This finding is supported if we look at the variable "self-declaring as a believer"; here we see that being a believer is clearly associated to meaningfulness in our study. Comparing with the results from the Danish study on values (Gundelach, 2008), being a believer is only marginally associated with happiness. Thus, as also suggested by Baumeister, Vohs, Aaker and Garbinsky (2013), experiencing a high level of meaningfulness is not the same as experiencing happiness, and the two dimensions must be considered as different constructs. It can also be noted that the variables on view of life and religious characteristics, in general, contributed more to the experience of meaningfulness than the socio-demographic variables. Hence, view of life may be a better predictor for experiencing meaningfulness than ones personal life situation (gender, age, family situation, educational level), although these dimensions may be mutually related.

Patterns of engaged sources of meaning based on participants' view of life. Finally, we found distinct patterns of engaged sources of meaning between agnostics, atheists, and Christians. Our hypothesis was partly confirmed: participants having a religious orientation (Christians) were less engaged in "Self-actualization" compared to participants having secular orientations (atheists), and they were more engaged in "Vertical self-transcendence" and some horizontal self-transcending sources of meaning, such as "generativity" and "attentiveness" compared to atheists. One reason for this pattern may be that individuals holding a religious view of life may to a higher degree try to live by the "Golden Rule", which is the principle to treat others as one would wish to be treated (Flew, 1979). The golden rule is seen across many different religions, not just Christianity. However, it may also be regarded as the very essence of a universal morality (Stace, 1937), and therefore people having religious worldviews may not per se be expected to present more social responsibility. Yet, studies reveal that religiosity to some degree is associated with more pro-social behavior (for a review see Preston, Salomon & Ritter, 2013), such as generosity and charity (Pichon, Boccato & Saroglou, 2007), cooperation (Ahmed & Salas, 2003), and non-retaliation (Saroglou, Corneille & Van Cappellen, 2009). Although not directly comparable, this may also be expressed in the sources "attentiveness" and "generativity" measured in this study. Similarly, a study by Altemeyer (2010) found atheists and agnostics to be less generous regarding charity when compared to more religious individuals. However, in the present study "agnostics" were actually found to be more engaged in in "social commitment" compared to both Christians and atheists, and they had higher scores on "generativity" and "attentiveness" compared to atheists. Surprisingly, agnostics were also engaged in "spirituality" and "explicit religiosity". One may speculate who these agnostics are and how they define their view of life? Agnosticism is defined as a view that the existence of God, of the divine or the supernatural is unknown or unknowable (Rowe,

1998). This does not necessarily leave out religious practice, belief, or spirituality. Yet, they seem to stand out from the group of Christians since they scored significantly lower on “tradition”, and may hold less conservative beliefs and practices. The third category, atheists, presented a predominant pattern of engagement in the dimension “Self-actualization”, especially “individualism”, “achievement”, “freedom”, but also in “Well-being- and relatedness”, namely “fun”, and “comfort”. This suggests a pattern of less social engagement, but driven more by hedonistic motives. This finding supports a previous study by Schnell and Keenan (2011). Expecting that not all atheists are alike, they identified three clusters of atheists based on their sources of meaning. The second largest cluster was termed “selfactualization type”. They were characterized by high degrees of “knowledge”, “freedom”, “development”, “individualism”, and “comfort”, but low levels of “tradition”, “attentiveness”, and “generativity”. It should be noted, however, that the selfactualizing type was only one of three types, while a broad-commitment type covered the majority of atheist participants in that study.

Summing up the worldview-based differences in the study at hand, Christians and agnostics seemed to be more motivated by Eudaimonia – living for others and a higher purpose, whereas participating atheists appeared to be more motivated by living in the here and now, striving for personal growth and also pleasure. However, when controlling for age, gender, marital status, and having kids we found that “achievement”, “fun”, and “comfort” may rather be explained by socio-demographics such as age and gender, than holding a specific view of life. Thus, differences in life situation may affect the pattern of engaged sources of meaning and is just as important factors to investigate as view of life. Still it is worthy of note that a range of sources of meaning were equally distributed among the three groups. This indicates that most of the sources of meaning are common human values and widely engaged in – regardless of whether one embrace a religious or secular view of life.

Strengths and limitations

This study has a high number of participants and fairly high amount of participants representing different views of life, which made the analyses of associations between meaningfulness, sources of meaning, and view of life possible. However, this study also has limitations. Using a snowball technique enables fast sampling, but the sample is not representative, and results are therefore not generalizable. This sample mainly consisted of women and had a high average level of education. Furthermore, we were not able to establish a clear factor structure supported by confirmatory factor analyses but only by exploratory factor analysis. Therefore caution should be taken when employing the five dimensions of sources of meaning. More research is needed to confirm this suggested factor structure in a Danish setting.

Another concern relates to the assessment of view of life, in that participants might not have had enough information on the different categories such as “Agnosticism” and “Humanism” to be able to characterize themselves as such, and a rather large group defined themselves as “Other” or “Don’t know” (n = 80). A short description of what is meant by the different categories

might have helped people characterize themselves more precisely. A probably even more reliable option would be to use dimensional measures of atheism, agnosticism, and humanism, as provided by the Dimensions of Secularity scales (DoS; Schnell, 2015). Here, individuals rate the degrees of their atheism, agnosticism, and humanism by indicating their agreement with different statements.

We also had a high number of missing on some of the variables regarding religious practice, and therefore these results should be interpreted with caution.

CONCLUSIONS

In conclusion, our study shows variables of religion to be highly associated with the experience of meaningfulness, even in the overall Danish secular context, where studies of religion are considered as minority studies. Furthermore, results from this study indicate that the SoMe-Da appears to be a valid and applicable instrument for measuring the content and the degree of personal meaning in life. To a great extent, the results are similar to findings from the original German study, making cross-cultural comparisons of sources of meaning and investigation of links between health measures and meaning in life possible, despite potential cultural differences between countries. Because the factorial validity was not unambiguously confirmed, we suggest at this point to interpret the 26 sources of meaning scales instead of the four or five dimensions of meaning when employing the SoMe-Da. Furthermore, we found distinct patterns of engagement in sources of meaning among agnostics, atheists, and Christians. This finding also underscores the relevance of the SoMe-Da in the field of individual differences by offering an instrument to investigate in more detail the engagement and motivation among religious or secular oriented groups. Future studies are most welcome to contribute to the knowledge of meaning in life and how the construct appears in real-life research.

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APPENDIX A

Table A1. Differences in sources of meaning between Christians, agnostics and atheists using multivariate regression analyses

	Unadjusted			Adjusted		
	Beta	95% CI	<i>p</i>	Beta	95% CI	<i>p</i>
Explicit religiosity						
Agnostic	−0.86	−1.3; −0.5	< 0.001	−0.73	−1.14; −0.32	0.001
Atheist	−2.50	−2.8; −2.2	< 0.001	−2.30	−2.70; −1.90	< 0.001
Gender				1.58	−0.26; 0.39	< 0.001
Children				0.06	−0.85; 0.10	0.696
Partner				−0.38	−0.13; 0.55	0.117
Age	2.99	2.80; 3.17	< 0.001	0.01	−0.00; 0.02	0.161
Reference				3.06	2.60; 3.54	< 0.001
Social commitment						
Agnostic	0.36	0.18; 0.54	< 0.001	0.39	0.20; 0.58	< 0.001
Atheist	−0.06	−0.22; 0.11	0.486	0.03	−0.16; 0.21	0.774
Gender				−0.09	−0.23; 0.06	0.262
Children				−0.05	−0.27; 0.16	0.631
Partner				0.24	0.09; 0.40	0.002
Age				0.01	−0.00; 0.01	0.089
Reference	3.20		< 0.001	3.1	2.90; 3.40	< 0.001
Achievement						
Agnostic	−0.16	−0.39; 0.08	0.183	−0.26	−0.50; −0.03	0.027
Atheist	0.32	0.11; 0.53	0.003	0.11	−0.12; 0.34	0.358
Gender				−0.03	−0.21; 0.16	0.781
Children				0.12	−0.15; 0.39	0.372
Partner				0.04	−0.16; 0.23	0.701
Age				−0.02	−0.03; −0.01	< 0.001
Reference	3.05	2.94; 3.16	< 0.001	3.1	2.73; 3.29	< 0.001
Individualism						
Agnostic	0.08	−0.10; 0.27	0.397	0.02	−0.18; 0.22	0.852
Atheist	0.56	0.39; 0.72	< 0.001	0.38	0.19; 0.58	< 0.001
Gender				−0.07	−0.22; 0.10	0.442
Children				0.11	−0.12; 0.34	0.341
Partner				−0.11	−0.28; 0.05	0.180
Age				−0.01	−0.01; 0.00	0.069
Reference	2.83	2.74; 2.92	< 0.001	2.9	2.66; 3.13	< 0.001

(continued)

Table A1 (continued)

		Unadjusted			Adjusted		
		Beta	95% CI	<i>p</i>	Beta	95% CI	<i>p</i>
Freedom	Agnostic	0.06	-0.18; 0.30	0.630	0.10	-0.15; 0.36	0.428
	Atheist	0.46	0.25; 0.68	< 0.001	0.41	0.16; 0.66	0.001
	Gender				-0.15	-0.35; 0.04	0.132
	Children				0.14	-0.15; 0.43	0.344
	Partner				-0.32	-0.53; -0.12	0.002
	Age				0.01	0.00; 0.02	0.046
	Reference	2.87	2.76; 2.99	< 0.001	3.1	2.78; 3.38	< 0.001
Tradition	Agnostic	-0.37	-0.56; -0.18	< 0.001	-0.36	-0.56; -0.15	0.001
	Atheist	-0.33	-0.50; -0.16	< 0.001	-0.37	-0.57; -0.17	< 0.001
	Gender				0.10	-0.06; 0.26	0.208
	Children				0.18	-0.05; 0.42	0.128
	Partner				-0.04	-0.21; 0.13	0.624
	Age				0.00	-0.00; 0.01	0.256
	Reference	2.40	2.26; 2.44	< 0.001	2.2	1.95; 2.43	< 0.001
Fun	Agnostic	-0.06	-0.26; 0.14	0.555	-0.15	-0.36; 0.06	0.156
	Atheist	0.23	0.05; 0.40	0.013	0.13	-0.07; 0.33	0.209
	Gender				0.29	0.13; 0.45	< 0.001
	Children				0.14	-0.10; 0.38	0.252
	Partner				-0.17	-0.34; -0.00	0.045
	Age				-0.00	-0.01; 0.01	0.450
	Reference	3.28	3.18; 3.37	< 0.001	3.1	2.86; 3.34	< 0.001
Comfort	Agnostic	-0.05	-0.23; 0.14	0.630	-0.13	-0.32; 0.07	0.203
	Atheist	0.26	0.09; 0.42	0.002	0.14	-0.05; 0.33	0.150
	Gender				0.29	0.14; 0.45	< 0.001
	Children				0.43	0.21; 0.65	0.252
	Partner				-0.05	-0.21; 0.11	0.566
	Age				0.01	-0.00; 0.01	0.136
	Reference	3.32	3.23; 3.40	< 0.001	2.9	2.67; 3.13	< 0.001

Note: Reference group is: Christian, female, having a partner, no children, and being 33 years old.