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RESEARCH PAPER

Synergistic Paths to Happiness: Findings from Seven Countries

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Abstract Four individual profiles of ways toward happiness were found on a Slovene sample: Full, Empty, Pleasurable, and Meaningful life types. The present study aimed to validate these four types in samples from seven different countries ($N = 3690$) utilising four different languages. Participants completed the Orientation towards Happiness Scale and measures of hedonic and eudaimonic well-being, and ill-being. A two-step cluster analysis was performed with each of the seven country samples. A highly congruent, highly internally replicable four-cluster solution was found in all seven samples. Full and Empty life individuals have high and low scores on all three orientations to happiness, respectively. Pleasurable and Meaningful types reflect two traditional philosophic orientations: Pleasurable life individuals scored high on pleasure, average on engagement and low on meaning orientation, while Meaningful life individuals had high scores on meaning, average on engagement, and low scores on pleasure orientation. The four types differed in subjective happiness and psychological well-being with full life type characterized by the highest scores on subjective happiness and psychological well-being, and Empty life by the lowest scores. On the other hand, depressive symptoms were likely to be the lowest in the Full life type and the highest in the Empty life type. Meaningful and Pleasurable life types were characterized by moderate well- and ill-being, but the two types tended not to differ from each other on the measures used.

Keywords Paths to happiness · Satisfaction with life · Psychological well-being · Depressive symptoms · Typological approach

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1 Introduction

Seligman (2002) offered three possible ways to achieving happiness; through pleasure, meaning, or engagement. Though each of these three orientations presents a possible and appropriate path to happiness, individuals usually manifest a pattern of all three orientations to some degree in their search of a good life and happiness (Peterson et al. 2005). Using a person-centred approach, four possible patterns of the three orientations within individuals (i.e. OTH types) were empirically derived from a large Slovene sample (Kavčič and Avsec 2014). Although replicability of the types within the sample was high, an established universality of these clusters across countries would add substantially to the current knowledge of the combinations of paths individuals pursue in their search of happiness and the effects of these combinations.

1.1 Combinations of Paths to Happiness within Individuals

Since the introduction of the three orientations to happiness, a possible co-variation of them within individuals was presumed (Peterson et al. 2005). These authors posited a theoretically driven and empirically supported notion that the best-off individuals are leading the Full life, i.e., they are high in all three orientations to happiness. They examined this premise by investigating the effects of all possible interactions among the three orientations on well-being. In addition to main effects of individual orientations to happiness, their analysis revealed significant, though small, effects of the three-way interaction between the orientations (but not any of the two-way interactions). This effect was replicated by later studies (e.g., Chen 2010). The small effect sizes of the interaction obtained in these studies may have been due to the reduced statistical power after accounting for first-order effects (Cohen et al. 2003), leading to an underestimation of real-world effects. Moreover, it is often impractical to model all higher-order interactions of interest, so a person-centred statistical approach can be used as an alternative way to examine possible co-existing effects of the three orientations to happiness.

The basic assumption of the person-centred (or typological) approach is that dimensions (in our case, the three orientations to happiness) should be studied simultaneously since a pattern of specific dimensions within individuals adds valuable information about their functioning (for an overview see Hofstee 2003). With the person-centred approach, groups of individuals who have similar configurations of specific dimensions and thus share the same basic psychic structure and dynamics can be identified. Although the predictive power of types in psychology studies is usually not higher than the predictive power of dimensions (Costa et al. 2002; Hart et al. 2003), a person-centred approach offers other benefits. As mentioned, this approach addresses the intra-individual structure of personality. In addition, it can facilitate the search for moderator variables, since their effect can often be identified by a differential response of a group of individuals to environmental influences or interventions. Another possible advantage of a person-centred approach is that it could add some valuable insights into research problems faced in a dimension-centred paradigm. Moreover, the person-centred approach provides information on types of individuals, which is easier to understand than information on specific dimensional scores. Thus, the person-centred approach is user-friendly and advantageous in communicating findings regarding well-being to the wider public.

Using a person-centred approach, four highly internally replicable OTH types (i.e., groups of individuals with specific combinations of three orientations to happiness) were

identified and labelled Full, Empty, Pleasurable, and Meaningful life (Kavčič and Avsec 2014). The Full life type participants reported relatively frequently engaging in activities that contribute to a greater good, that benefit others and that serve a higher purpose (orientation to meaning), involve enjoyable, exciting and positive experiences (orientation to pleasure), and are engrossing, absorbing and challenging (orientation to engagement). The smallest cluster of participants was characterized by low expressions of pleasure, meaning, and engagement orientations, thus leading a so-called Empty life. These two OTH types have been found in previous studies (e.g., Peterson et al. 2005) within the dimension-centred approach with calculating a three-way interaction among three OTH orientations. Two additional types derived presented intuitively reasonable patterns of orientations to happiness and are consistent with traditional philosophical approaches to happiness (Ryan and Deci 2001). Both of these types were characterized by moderate orientation to engagement, but the opposite patterns of meaning and pleasure orientations. Thus the Pleasurable life type included individuals who seek happiness primarily through pleasurable activities, thus pursuing hedonic life, while they seem rather disinterested in meaningful activities. In contrast, the Meaningful life type included individuals whose pursuit of happiness seems to rely mainly on eudaimonia, searching for meaning and self-fulfilment, and not pursing pleasure.

Additional types obtained in the study by Kavčič and Avsec (2014) were the Pleasurable and Meaningful life types, both characterized by moderate levels of engagement: the individuals leading a meaningful or pleasurable life may be quite engaged in their frequent meaningful and pleasurable activities, respectively. As Waterman (1993) pointed out, the cognitive-affective state of flow is composed of hedonic and eudemonic features thus engagement could be a companion to pleasure and to a meaning orientation. It could be assumed that the engagement orientation may refer to a specific quality of experiences—while meaning and pleasure indicate what individuals do, engagement denotes how they do something as Waterman (1993) has argued. Therefore, it may not be surprising that a group of individuals with engagement as a dominant orientation did not appear as a type per se. Henderson and Knight (2012) similarly doubt the reasonableness of the inclusion of an engagement pathway as a distinct orientation. They suggest that flow can be considered as an experience that can accompany some hedonic and eudaimonic pursuits, rather than it being distinct from hedonia and eudaimonia. The results of a person-centred study could thus add a new aspect to the discussion about the appropriateness of engagement as an independent path to happiness.

Although we did not find any other studies, using a person-centred approach to group individuals on the OTH scores, Park et al. (2009) did use a clustering procedure to classify 27 nations based on nation-level aggregated OTH scores. They revealed three clusters, similar to those obtained in the clustering of individuals (Kavčič and Avsec 2014): one group of cultures was characterized by relatively high endorsement of seeking pleasure and engagement, the second group by relatively high pursuing of meaning and engagement, and the third cluster by relatively low endorsement of all three ways of seeking happiness. Therefore, a nations' prototypical profile of orientations to happiness that would be comparable to the Full life pattern did not emerge, potentially for reasons such as these nations may not exist, are small/isolated, and/or not populated by Internet users (data in the study was collected via online survey methodology). It is also interesting that there were no clusters with high endorsement of an engagement orientation, which is again congruent with Waterman's (1993) view on flow/engagement. The clusters obtained did not reflect either geographical proximity or similarities in individualism versus collectivism, but the

authors proposed religiousness and per capita GNP as possible causes for grouping of countries.

1.2 Outcomes of Following the Three Paths to Happiness

Most OTH studies have focused primarily on the predictive validity of the OTH dimensions for well-being. Authors of the OTH (Seligman et al. 2005a, b) assumed that each orientation is a possible and appropriate path to happiness. Their study showed that all three orientations significantly contribute to satisfaction with life, although the meaning and engagement orientations were found to be more robust predictors compared to the pleasure orientation. Several other studies have also suggested that meaning and engagement contribute more to individuals' well-being than pleasure (Chen 2010; Chen et al. 2009; Kumano 2011; Park et al. 2009; Ruch et al. 2010; San Martín et al. 2010; Vella-Brodrick et al. 2008). However, these results seem to be in contrast to theoretical and empirical conceptualization of hedonia and eudaimonia (Ryan and Deci 2001), and might indicate psychometric issues with the pleasure scale. For example, more studies (e.g., Anić 2012; Henderson et al. 2014; Huta and Ryan 2010; Vittersø and Søholt 2011) have found engagement in hedonic activities a stronger predictor of life satisfaction than engagement in eudaimonic activities. Moreover, Vittersø and Søholt (2011) suggested that a pleasure orientation and satisfaction (e.g., with life) are both elements of hedonic well-being and their main function is to reward goal achievement and mentally indicate the homeostatic stability of the body. Only a few studies have examined the relationship of the three orientations to happiness with eudamonic well-being, which is expected to be highly associated with the meaning orientation. The study by Kavčič and Avsec (2014) found higher correlations of a pleasure orientation with positive affect than with psychological and social well-being, while the meaning orientation correlated stronger with psychological and social well-being as indicators of eudaimonic well-being than with positive affect and satisfaction with life as indicators of hedonic well-being. These results are in accordance with the theoretical assumptions (e.g., Seligman 2002) and support the validity of the pleasure and meaning scales.

The aforementioned psychometric issues of the pleasure orientation could be further elucidated by applying the person-centred approach as individuals usually practice more than one orientation to happiness. Kavčič and Avsec (2014) investigated the differences in dissimilar aspects of well-being among the four OTH types described above. For the Full life individuals, the highest levels of emotional, psychological, and social well-being was found, while for the Empty life individuals, the lowest well-being was found. The two types of interest with regard to the question of validating the pleasure orientation, i.e. the Pleasurable and the Meaning life, were characterized by moderate levels of well-being. However, higher emotional well-being was found in members of the Pleasurable life type than in members of the Meaningful life type. On the contrary, social well-being was higher in the Meaningful life group compared to the Pleasurable life group. Supposedly, attaining social well-being is not achieved best by pursuing pleasure and choosing activities considering only one's own pleasure and needs regardless of the pleasure and needs of a reference group. Psychological well-being was not higher in the Meaningful life group compared to the Pleasurable life group. The authors concluded that leading a Pleasurable life with at least moderate engagement could enable individuals to obtain psychological well-being, which is considered an indicator of eudaimonia. The results of the previous study using the person-centred approach (Kavčič and Avsec 2014) support theoretical assumptions (e.g., Seligman 2002) about the importance of a pleasure orientation for

(emotional) well-being. Nevertheless, the clusters were obtained on Slovene data ($N = 1142$) that showed the highest associations of emotional well-being with the pleasure orientation, a result not consistently found in other studies (e.g., Peterson et al. 2005; Park et al. 2009).

1.3 The Present Study

The purpose of the present study was two-fold. First, using data from seven different countries we aimed to replicate the four OTH types as found by Kavčič and Avsec (2014). Second, in order to extend previous findings on differences between OTH types in criteria variables we included measures of hedonic (only the cognitive aspect—satisfaction with present life was included) and eudaimonic well-being and ill-being. We expected to find significant associations between OTH types obtained and criteria measures such that individuals following all three pathways to happiness were expected to have the highest well-being and the lowest ill-being. Conversely, individuals following none of the three pathways were presumed to fare the worst. Based on theoretical postulations (Seligman 2002), the group of individuals searching mainly pleasure was anticipated to exhibit at least equal levels of well-being as the individuals predominantly searching meaning in life.

2 Method

2.1 Participants and Procedure

The present study included 3690 participants aged 18–50 years from seven countries worldwide. Table 1 presents numbers of participants from each country, gender distribution, and age of participants. Age differences between participants from different countries were statistically significant ($F = 56.72$, $p < .001$) with the USA, New Zealand, and Australian samples being older than the Mexican, UK, and Hungarian samples, and the Czech sample the youngest on average. The gender distribution also differed statistically significantly across countries ($F = 3.40$, $p < .01$), though the effect of the country was negligible and none of the paired comparisons (Sheffe's post hoc test) show statistically significant differences.

The participants completed the questionnaires on a website (www.wellbeingstudy.com) after they gave informed consent to participate. All participants completed the questionnaires in their native tongue. The respondents were not paid for their participation, but

Table 1 Gender and age of participants from seven countries

Country	N	% Male	M age	SD age
Australia	206	16	34.5	9.3
Czech Republic	209	17	27.2	8.9
Hungary	930	15	29.6	8.3
Mexico	234	23	31.3	9.8
New Zealand	1235	15	34.7	8.8
UK	324	22	29.7	9.1
USA	552	18	35.0	9.4

were offered feedback on their personal well-being scores after completing the questionnaires.

2.2 Measures

2.2.1 Orientations to Happiness Questionnaire

The OTH (Peterson et al. 2005) was used as a measure of three possible paths to happiness: orientation to meaning, to pleasure, and to engagement. The questionnaire includes 18 items, six assessing each of the three orientations. Using a 5-point Likert rating scale (1 = not at all like me, 5 = very much like me), the participants report how they actually live their life. Scale scores are obtained by summing ratings on respective items. Construct validity of the OTH was previously confirmed in many languages, e.g., originally in English (Peterson et al. 2005), and later in Spanish (San Martín et al. 2010) and Hungarian (Szondy and Martos 2014). The three scales were previously found to be reliable (alphas over 0.62), and have predictive validity for life satisfaction (e.g., Avsec and Kavčič 2012; Peterson et al. 2005; Ruch et al. 2010; Schueller and Seligman 2010). In addition, empirical evidence shows satisfactory temporal stability across 6-months and good convergence between self- and peer-report for all three scales (Ruch et al. 2010). Alpha coefficients of internal consistency for the samples in the present study are displayed in Table 2. The structural equivalence of factor structure across samples was examined by means of calculating a Tucker's phi coefficient of congruence, following a procedure by Fischer and Fontaine (2010) with the USA data used as a target (the OTH was originally developed in the USA). With the exception of the Engagement scale between the Mexican and USA data ($\phi = 0.77$), all the congruence coefficients ranged from 0.93 to 0.99 across countries and the three scales, which according to Lorenzo-Seva and ten Berge (2006) is considered as fair (0.85–0.95) to good (above 0.95) similarity among factors obtained in different countries.

2.2.2 Ryff's Psychological Well-Being Scales (RPWB)—Short Version

The RPWB—short version (Ryff and Keyes 1995) was used to measure eudaimonic aspect of well-being. It consists of 18 items which are rated using a 6-point Likert rating scale (1—Strongly disagree, 6—Strongly agree). The RPWB provides a measure of total psychological well-being and have six dimensions: Environmental Mastery, Self-Acceptance, Positive Relations, and Purpose in Life, Personal Growth, and Autonomy. Previous research provided evidence on construct validity of the six dimensions of the questionnaire and differential predictive validity of each psychological well-being dimension (Ryff 2014), but it also suggests one second-order factor due to high intercorrelations among six scales (e.g., Cheng and Chan 2005; Kállay and Rus 2014; Sirigatti et al. 2013), so we decided to use a total score. A total score as a measure of psychological well-being is also in accordance with the theoretical and empirical work of Keyes (2002, 2007) who supposed that the three second-order factors of emotional, psychological, and social well-being provided the best representation of the hierarchical structure of well-being.

Alpha coefficients of internal consistency for the total score of psychological well-being for the samples in the present study are also reported in Table 2. Tucker's congruence coefficients between the USA data (country of the original version of RPWB) and the other six samples ranged from 0.97 to 0.99, which according to Lorenzo-Seva and ten Berge (2006) indicates that the factors can be considered as equal.

Table 2 Descriptive statistics and internal consistency coefficients for the measured variables

	N	OTH Pleasure		OTH Engagement	OTH Meaning			RPWB		TSWLSp		CES-D	
		M (SD)	α	M (SD)	α	M (SD)	α	M (SD)	α	M (SD)	α	M (SD)	α
Australia	206	17.4 (5.2)	0.78	17.0 (4.2)	0.67	20.3 (5.7)	0.79	101.0 (13.7)	0.77	23.7 (7.3)	0.87	12.8 (11.2)	0.91
Czech Republic	209	18.2 (5.1)	0.78	17.1 (4.2)	0.67	19.3 (5.1)	0.79	98.5 (11.7)	0.77	21.8 (6.1)	0.87	14.1 (10.2)	0.91
Hungary	930	17.7 (4.9)	0.79	18.6 (4.1)	0.68	21.1 (5.0)	0.78	99.9 (12.1)	0.81	20.1 (7.5)	0.90	14.1 (10.8)	0.92
Mexico	234	18.3 (4.7)	0.73	17.6 (3.8)	0.52	23.0 (4.7)	0.77	102.2 (12.9)	0.78	25.5 (6.7)	0.90	15.3 (11.9)	0.92
New Zealand	1235	17.5 (5.1)	0.81	16.7 (4.0)	0.67	19.3 (5.7)	0.83	98.5 (13.9)	0.82	22.4 (7.5)	0.91	14.7 (11.2)	0.92
UK	324	16.6 (5.2)	0.78	16.1 (4.0)	0.62	18.9 (5.4)	0.82	96.5 (15.1)	0.85	21.9 (7.8)	0.92	16.6 (12.6)	0.93
USA	552	17.5 (5.0)	0.80	16.5 (3.8)	0.63	21.5 (5.2)	0.82	100.6 (13.2)	0.82	22.4 (7.7)	0.91	13.8 (10.3)	0.91

OTH Orientation to Happiness Questionnare, *RPWB* Ryff's Psychological Well-Being Scales, *TSWLSp* Temporal Satisfaction with Life Scales—present, *CES-D* The Center for Epidemiological Studies Depression Scale

2.2.3 The Temporal Satisfaction with Life Scale

The TSWL (Pavot et al. 1998) measures the cognitive component of subjective well-being. It was developed to assess individual's global judgement of life satisfaction as a whole in the past, present, and future. The scale includes 15 items (5 for each subscale). Respondents use a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) to indicate the extent to which they agree with a specific item. Authors reported alpha reliabilities from 0.91 to 0.93 for the total score, and test–retest reliability coefficients from 0.82 and 0.88. A principal component analysis using a varimax rotation suggested a three-factor solution. Further studies (e.g. McIntosh 2001) reported the distinctiveness among past, present, and future life satisfaction scales. In the present study, the present life satisfaction score was used. Alpha coefficients of internal consistency for the samples in the present study are displayed in Table 2. Tucker's congruence coefficients between the USA data (TSWLS was first developed and validated in USA) and the other six samples were all estimated as 1 indicating good structural equivalence.

2.2.4 The Center for Epidemiological Studies Depression Scale

The CES-D (Radloff 1977) is a 20-item self-report scale designed to measure depressive symptoms over the past week in the general population. A 4-point response scale is used, which ranges from "none or almost none of the time" (0) to "all or almost all of the time" (3). Even though Radloff (1977) reported the best fit for four components, she argued that a total score should be used because all of the scale items were conceptually related to depression. The total score is a sum of item scores and ranges from 0 to 60, with higher scores indicating a higher frequency and severity of depressive symptoms and this score was used in our study. Radloff (1977) showed high internal consistency of the scale in the general population and patient sample, and satisfactory validity as established by patterns of correlations with other self-report measures, by correlations with clinical ratings of depression, and by relationships with other variables. High reliability and construct validity were also supported in latter studies (e.g., Knight et al. 1997). Alpha coefficients of internal consistency for the samples in the present study are displayed in Table 2. Tucker's congruence coefficients between the USA data (the CES-D was first developed and validated in USA) and the other six samples ranged from 0.94 to 1, suggesting fair to good similarity among factors obtained in different countries according to the criteria suggested by Lorenzo-Seva and ten Berge (2006).

2.3 Data Analysis

The first aim of the study was to investigate how specific orientations to happiness combine within individuals in each of the seven samples, i.e., to examine OTH types. In order to derive OTH types, we applied a procedure described by Asendorpf et al. (2001) for deriving personality types. This procedure involves a two-step cluster analyses. First, Ward's hierarchical clustering procedure was performed with z-scores of the three orientations to happiness and squared Euclidean distances were used as measures of dissimilarities among individuals, resulting in the ordering of participants into clusters. Means of the obtained scores for the three orientations were calculated for each cluster and used as initial cluster centres in the non-hierarchical k-means cluster analysis in the second step.

This procedure was repeated for each of the seven samples. Based on the previous study of OTH types (Kavčič and Avsec 2014), we expected to find a four cluster solution.

The replicability of the cluster solution in each sample was evaluated following a double-cross validation procedure also described by Asendorpf et al. (2001). With data for each country, the full sample was randomly split into two halves. The two-step clustering procedure was applied to each half, and the dyads of each sub-sample were assigned to their primary clusters. Next, the participants were assigned to their secondary clusters, with the input for the k-means analysis being the initial centres derived through Ward's method for the other sub-sample. The two solutions (primary and secondary cluster classifications for each participant) were then compared for agreement with Cohen's kappa (κ). When necessary, the clusters were reordered so that the content of all the clusters in the first sub-sample corresponded to the content of clusters in the second sub-sample. The two resulting kappas were then averaged. This procedure was repeated 10 times with different random splits of the full sample from each of the seven countries. The obtained 10 average kappas were then again averaged into a replicability coefficient with the value of at least 0.60 considered as acceptable by Asendorpf et al. (2001).

A similar procedure was used to evaluate the consistency of types across countries. Following a procedure described by De Fruyt et al. (2002), individuals in each country were classified into their original types and into types based on a clustering procedure with initial centres from another country used in the second step. The original and new classifications were compared resulting in a kappa coefficient. According to Landis and Koch (1977), kappas up to 0.20 represent slight agreement, kappas between 0.21 and 0.40 fair, between 0.41 and 0.60 moderate, between 0.61 and 0.80 substantial and between 0.81, and 1.00 almost perfect consistency, while Asendorpf et al. (2001) consider kappas above 0.60 as acceptable.

3 Results

Table 2 presents descriptive statistics for the three orientations to happiness and measures of well- and ill-being for each of the seven countries. All alpha coefficients were over 0.60, except for poor internal consistency of the engagement scale in the Mexican sample ($\alpha = 0.52$).

3.1 OTH Types Across Countries

In order to investigate how the three orientations to happiness combine within individuals, a two-step clustering procedure was performed in each of the seven countries. The profiles of mean z-scores on the three OTH scales in each country are presented in Fig. 1. In all seven investigated countries, the members of the four OTH types obtained were statistically significantly different in their mean score on all three OTH scales, as was also evident from the results of ANOVAs performed.[1]

In all seven countries investigated, the Full life and Empty life clusters emerged, with all three orientations high (above 0.5) and low (below −0.5), respectively (see Fig. 1), consistent with findings by Kavčič and Avsec (2014). Nevertheless, the Full life profile was somewhat less pronounced with Czech (the average orientation to meaning score was under 0.5) and UK (the average orientation to engagement score was under 0.5) samples,

[1] Detailed results are available from authors on request.

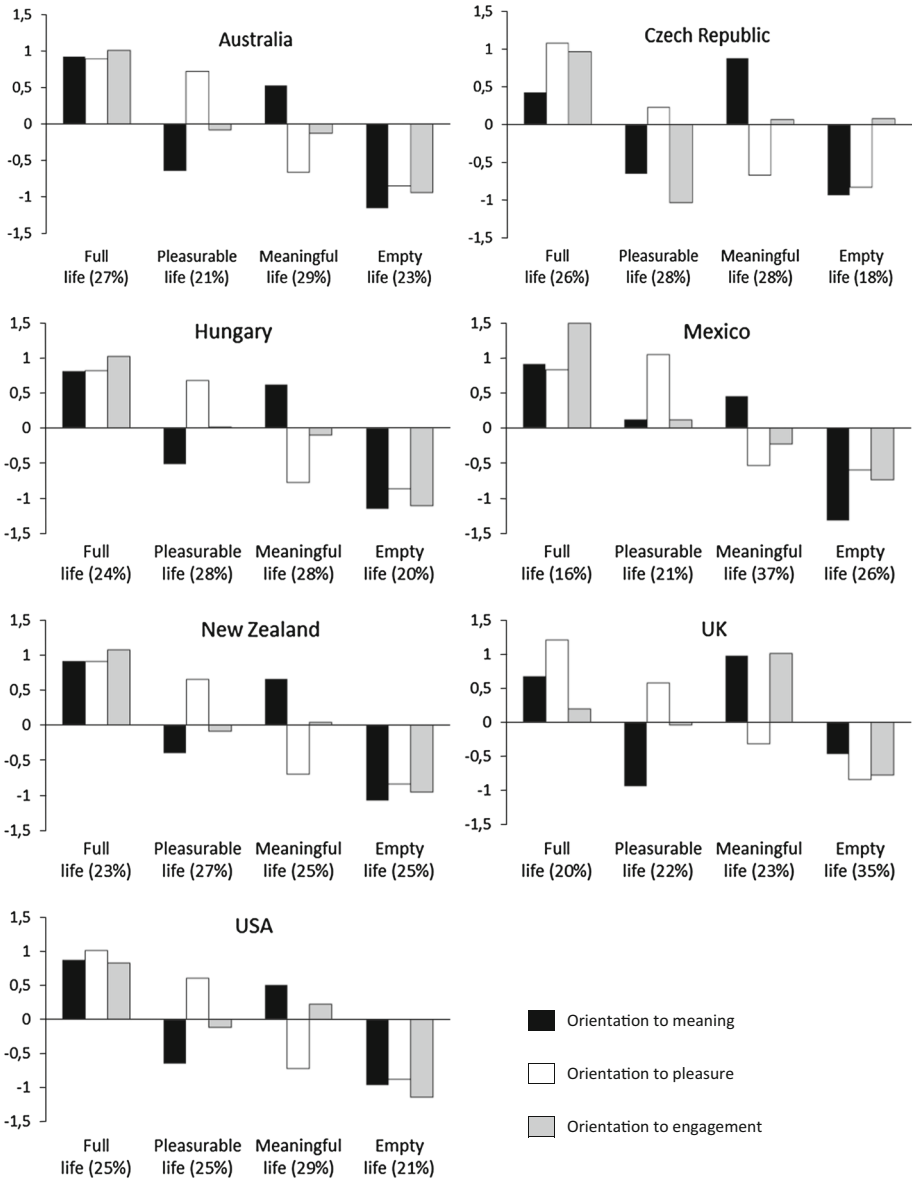

Fig. 1 Four OTH types characterized by profiles (mean z-scores) of the three OTH dimensions in the seven countries. Percentages of participants from each country classified in each OTH type are specified in parenthesis

and the Empty life profile diverged slightly from the expected one with the Czech participants (the average orientation to engagement score was under 0.5).

Previously, two other OTH types were identified, i.e., the Pleasurable life type with low meaning orientation, high pleasure orientation and moderate engagement orientation, and the Meaningful life type with high meaning orientation, low pleasure orientation and

moderate engagement orientation (Kavčič and Avsec 2014). These two types were replicated with the Australian, Hungarian, New Zealand, and USA sample. However, the two patterns of orientations to happiness emerged as somewhat different in other countries. Specifically with Czech participants, a distinct Meaningful life type was found, while the Pleasurable life type was characterizes by lower mean pleasurable orientation score than expected (below 0.5) and unexpectedly low engagement orientation scores. With the UK sample, as anticipated the Pleasurable life type was found, while the Meaningful life type was characterized not only by high orientation to meaning but also by high orientation to engagement. With the Mexican participants, the patterns of mean results that emerged on the three OTH scales resembled the expected Pleasurable and Meaningful life types, but were somewhat less pronounced. More precisely, the Pleasurable life type was characterized by a high pleasure orientation and mean meaning and engagement orientations, and the Meaningful life type was characterized by a somewhat lower meaning orientation that expected (0.45).

The consistency of types across countries was assessed by calculating congruency coefficients. Kappa coefficients obtained indicated high resemblance of the patterns of orientations to happiness across Australia (kappas ranging from 0.78 to 1.00, mean kappa was 0.90), Hungary (kappas ranging from 0.86 to 0.96, mean kappa was 0.93), New Zealand (kappas ranging from 0.93 to 0.98, mean kappa was 0.96), and USA samples (kappas ranging from 0.88 to 1.00, mean kappa was 0.96). According to Landis and Koch (1977), these coefficients reflect substantial to almost perfect consistency. Somewhat lower kappas were obtained for the Mexican data, though the types showed substantial consistency with the types in all other countries (kappas ranging from 0.67 to 0.81), except for moderate consistency with the UK data (kappa = 0.42). The consistency of profiles of Czech and UK participants with types obtained in other countries was lower, though still moderate according to the standards described by Landis and Koch (1977), i.e., kappas ranged from 0.52 to 0.60 for the Czech sample and 0.39 to 0.74 for the UK sample. All of the kappa coefficients calculated were statistically significant at $p < .001$.

3.2 Differences Among OTH Types in Well-Being and Ill-Being

Psychological well-being, present satisfaction with life, and depressive symptoms were compared using a one-way ANOVA across the four patterns of orientations to happiness (see Table 3). In all seven countries, OTH types differed significantly regarding all criteria measures, except for depressive symptoms in Mexican and Czech samples. The effect of types was largest on psychological well-being with type membership explaining from 7 to 22 % in well-being scores (see the column η^2 in Table 2) across countries, an effect defined by Cohen (1988) as moderate ($0.058 < \eta^2 < 0.139$) to high. Across countries, OTH type membership explained from 4 to 11 % of variance in present life satisfaction, and from 3 to 9 % in depressive symptoms, thus having a small to moderate effect on these two measures.

With regard to well-being, individuals from all seven countries classified into the Full life type reported the highest psychological well-being (except for the UK participants) and the highest present life satisfaction. Both aspects of well-being were the lowest in participants within the Empty life type, though this finding was not replicated in the Czech sample. With respect to ill-being, the reverse pattern emerged in the Australian, Hungarian, Mexican, New Zealand, and USA samples with Full life individuals reporting the least, and Empty life individuals reporting on the most frequent, depressive symptoms. The results were again inconsistent with the Czech and UK samples. Post-hoc comparisons did not

Table 3 Differences between full life, pleasurable life, meaningful life, and empty life OTH types in well-being and ill-being across the seven countries

	Full	Pleasurable	Meaningful	Empty	One-way ANOVA		Post-hoc[a]
	M (SD)	M (SD)	M (SD)	M (SD)	F (*df*)	η^2	
Psychological well-being							
Australia	108.1 (9.3)	100.1 (13.0)	103.5 (11.2)	90.7 (15.4)	16.46*** (3, 104)	0.22	F > P > E; M > E
Czech Republic	102.3 (9.8)	94.8 (11.2)	100.2 (12.1)	96.3 (12.6)	4.90** (3, 205)	0.07	F > P
Hungary	105.5 (9.6)	101.2 (10.3)	101.3 (10.2)	89.6 (13.6)	59.86*** (3, 486)	0.20	F > M, P > E
Mexico	107.9 (11.0)	103.0 (10.3)	104.7 (10.9)	94.3 (15.2)	9.69*** (3, 109)	0.14	F, M, P > E
New Zealand	104.8 (10.5)	98.8 (12.8)	101.0 (12.7)	89.8 (14.8)	70.99*** (3, 682)	0.15	F > M, P > E
UK	100.9 (11.8)	92.3 (16.6)	102.6 (11.3)	92.3 (16.0)	12.83*** (3, 167)	0.10	F, M > P, E
USA	106.6 (10.8)	96.6 (13.4)	104.2 (10.3)	93.4 (14.0)	32.62*** (3, 289)	0.16	F, M > P, E
Satisfaction with present life							
Australia	27.2 (6.4)	23.7 (7.7)	23.1 (6.6)	20.5 (7.2)	8.43*** (3, 202)	0.11	F > M, E
Czech Republic	24.3 (6.3)	20.5 (5.4)	21.0 (6.2)	21.3 (6.0)	4.54** (3, 205)	0.06	F > M, P
Hungary	22.4 (7.2)	20.8 (7.8)	19.9 (6.9)	16.7 (7.0)	23.26*** (3, 499)	0.07	F > M > E; P > E
Mexico	28.4 (6.1)	26.2 (5.5)	26.1 (6.0)	22.4 (7.7)	6.23** (3, 109)	0.09	F, M, P > E
New Zealand	24.7 (6.8)	23.5 (7.1)	22.4 (7.5)	19.2 (7.6)	32.19*** (3, 682)	0.07	F, M, P > E; F > M
UK	23.3 (7.1)	22.3 (8.3)	23.3 (7.1)	20.0 (8.1)	3.99** (3, 324)	0.04	M > E
USA	24.9 (6.8)	21.1 (8.3)	23.8 (6.8)	18.9 (7.5)	17.89*** (3, 294)	0.09	F, M > P, E
Depressive symptoms							
Australia	8.5 (8.0)	12.5 (12.2)	13.0 (11.6)	18.1 (10.9)	8.65*** (3, 104)	0.09	F < E
Czech Republic	12.6 (9.8)	16.8 (10.6)	13.7 (10.1)	13.1 (9.8)	1.91 (3, 205)	0.03	/
Hungary	10.6 (8.9)	13.0 (10.3)	14.7 (10.7)	18.9 (10.7)	21.56*** (3, 492)	0.07	F < P, M < E
Mexico	12.3 (11.2)	16.0 (12.5)	14.1 (10.7)	18.2 (13.0)	2.35 (3, 234)	0.03	/
New Zealand	12.0 (9.6)	13.5 (10.3)	13.7 (10.1)	19.3 (13.1)	21.09*** (3, 680)	0.06	F, P, M < E
UK	16.2 (12.6)	16.5 (11.0)	13.1 (11.6)	19.2 (13.6)	3.65* (3, 324)	0.03	M < E
USA	10.7 (9.3)	16.1 (10.8)	12.3 (9.1)	17.1 (11.2)	11.95*** (3, 292)	0.06	F, M < P, E

* $p < .05$, ** $p < .01$, *** $p < .001$

[a] Scheffé's post hoc test, the differences between OTH types at $p < .05$ are indicated. *F* full life, *E* empty life, *P* pleasurable life, and *M* meaningful life type

show statistically significant differences in self-reported well- and ill-being of the participants with the Meaningful life type and those with the Pleasurable life type. Nonetheless, well- and ill-being of the Pleasurable life and Meaningful life participants tended to be less favourable in comparison to the Full life participants and more favourable in comparison to the Empty life participants.

4 Discussion

Using the person-centred approach, our study supports meaningful co-variation of the three orientations to happiness within individuals as suggested in a previous study (Kavčič and Avsec 2014). Using the same statistical procedure (a two-step clustering analysis), the present study revealed the same four types (Full life, Empty life, Pleasurable life, and Meaningful life) of individuals with distinct patterns of the three orientations to happiness (pleasure, meaning, and engagement) found in a previous study (Kavčič and Avsec 2014) in all seven countries investigated. The congruency of the clusters across the seven countries is very high, indicating probable existence of universal combinations of the three orientations to happiness.

4.1 OTH Types Across Cultures

With samples from Australia, Hungary, New Zealand, Mexico, and the USA the results showed four clusters with comparable patterns of the three orientations to those found previously: Full life and Empty life clusters with high and low expression of all three orientations, respectively, and the Pleasurable and Meaningful life types. Based on previous theoretical and empirical reports (e.g., Chen 2010; Peterson et al. 2005), the Full and Empty life types were expected.

Distinct Pleasurable and Meaningful life types were found in Australia, Hungary, New Zealand, Mexico, and the USA samples. They represent intuitively reasonable patterns of orientations to happiness and are consistent with traditional philosophical approaches to happiness–hedonia and eudaimonia (Ryan and Deci 2001). Both types were characterized by moderate orientation to engagement, but quite the opposite patterns of meaning and pleasure orientations. Specifically, the Pleasurable life type included individuals who seek happiness primarily through pleasurable activities, thus pursuing hedonic life, while they seem rather disinterested in meaningful activities. In contrast, the Meaningful life type includes individuals whose pursuit of happiness seems to rely mainly on eudaimonia, searching for meaning and self-fulfilment, and not pursing pleasure. These results are in accordance with previously examined flow as a cognitive-affective state, which involves a mixture of eudaimonic and hedonic features (Waterman 1993). The method used in Waterman's study was different from ours as it examined specific activities, while the present study relied on retrospective general evaluations of an individual's life, which is more subject to socially desirable responding than the former method (Kahneman 1999). Nevertheless, the participants in the present study endorsed meaningful or pleasurable activities together with engagement. Our results suggest that both combinations are possible.

The four OTH types obtained in five of the seven samples partially resemble Watermań's typology (2008) of activities based on the presence of hedonia and eudaimonia. He proposed three (not four) categories of activities: those that are experienced as hedonic and

eudaimonic (resembling our Full life OTH type), those that are experienced as neither hedonic or eudaimonic (comparable to the Empty life type) and those that are experienced as hedonic and not eudaimonic (equivalent to the Pleasurable life type). He argued that eudaimonia is a sufficient, though not necessary, condition for hedonic happiness, thus the combination of experiencing eudaimonia without hedonia (analogous to our Meaningful life type) should be a null category. On the other hand, Delle Fave and Bassi (2009) argue that there are many situations where an individual can function well (high eudaimonic well-being), but not feel well (low hedonic well-being). The Meaningful life type, found in all of the samples in the present study is thus consistent with Delle Favés theorising given that it incorporates individuals who strongly neglect hedonic or pleasurable orientations and emphasize obtaining happiness through meaningful or eudaimonic orientation.

To recapitulate, the four patterns of three orientations previously identified with a Slovene sample (Kavčič and Avsec 2014) were replicated with five of the seven samples investigated. The two remaining samples (from the Czech Republic and the United Kingdom) showed somewhat inconsistent levels of engagement in each of the four styles, but consistent levels of meaning and pleasure. In the Czech sample, Full and Meaningful life types were similar to those found in the other five samples. However, the Pleasurable life type was characterized by an unexpectedly low orientation to engagement combined with low meaning orientation and high pleasure orientation, thus describing a group of individuals with very passive or unengaged pleasurable life. The last cluster with the Czech participants was characterized by low pleasure and meaning orientations, and moderate engagement, a pattern that could be hardly defined as an Empty life type. This latter type was not revealed in any other sample, but it does seems in accordance with the original theorizing by Peterson et al. (2005) that engagement/flow can be pursued in itself irrespective of a pleasure or meaning orientation. It is quite unlikely that these two clusters, found in the Czech sample, reflect some cultural specifics, although the factors such as importance of religion or gross national product may have played some role (Park et al. 2009). More likely, the specifics of the sample could be the source of variation. For example, the Czech sample included the youngest participants which may have led to the finding of a more passive pleasurable life type and lower meaning in the Full life type. In addition, the Czech sample was one of the smallest in our study, comprising approximately 50 individuals in each type and thus data from a larger sample is needed to replicate or rebut the specific patterns found in this sample.

The patterns of orientations to happiness found in the UK sample also showed a deviation from those found in the other six samples. The Empty life and Pleasurable life clusters were characterized by the expected patterns of the three orientations to happiness, but the Full life type had average (not above average) engagement and the Meaningful life type had very high (not average) engagement. Thus, the levels of meaning and pleasure orientations within types found in the Czech and UK samples are comparable to those found in other samples, but the level of the engagement tended to deviate. In the UK sample, the highest engagement was distinctive of the Meaningful life and not the Full life type, while the combinations of high engagement and high meaning with low pleasure was not demonstrated in other samples. In the study clustering 27 nations (Park et al. 2009), the UK sample was classified in a group of nations with low results on all three orientations, but this could not affect the possible combinations of the three orientations within the country. With regard to the sample characteristics, the mean age of the UK participants is comparable to the mean age of most of the other samples in our study. Nevertheless, the size of the UK sample ($N = 324$) could be a reason for the somewhat specific OTH types obtained as it is possible that the sample incidentally included a slightly specific group of

individuals very engaged in practicing meaningful, but not hedonic, activities, e.g. particularly religious individuals.

4.2 Orientations to Happiness and Well- and Ill-Being

The most important convergent and discriminant validity indicator of the OTH scales is their relation to measures of well-being. As expected, the results of the present study showed that groups of individuals with different patterns of orientations to happiness (OTH types) reported different levels of well- and ill-being. Significant differences among the four OTH types obtained were found in all three criteria measures with all seven samples, except for depressive symptoms in the Czech and Mexican samples. Relatively small differences between the four OTH types in depressive symptoms found with the Mexican sample could reflect somewhat unsatisfactory psychometrical properties of the OTH scale in this sample (unsatisfactory internal consistency and low factor congruency for the engagement scale). However, this cannot explain a similar pattern of results with the Czech participants as the OTH scale showed suitable psychometric properties with this sample.

Previous studies of the OTH correlates (e.g. Chen 2010; Chen et al. 2009; Park et al. 2009; Ruch et al. 2010; Vella-Brodrick et al. 2008) tended to include only indicators of hedonic well-being (e.g. satisfaction with life, positive–negative affect, subjective happiness). However, eudaimonic well-being completes the whole spectre of well-being (Ryff 1989). For this reason, our study included satisfaction with life as an indicator of the cognitive component of hedonic well-being and psychological well-being as an indicator of eudaimonic well-being. With respect to satisfaction with life, small to moderate differences among OTH types were found. On the other hand, moderate to large differences among clusters emerged in psychological well-being. Thus, pursuing both pleasure and meaning seems more important for individual's psychological well-being than for his/her satisfaction with life.

Ill-being has not been a central interest in OTH studies. However, many positive psychology researchers are involved in the development of positive psychotherapy (Seligman et al. 2006) and thus, it is important to understand how the positive constructs relate to negative aspects of functioning. In our study, the differences among clusters in depressive symptoms were smaller than the differences in well-being measures. Using the variable-centred approach, Schueller and Seligman (2010) reported lower correlations of the three orientations to happiness with depressive symptoms than with indicators of well-being. They also found that the interaction of the three orientations predicted positive indicators of well-being, but not a composite of positive and negative indicators of well-being. Together, this suggests that the variation in ill-being is slightly less dependent on the three orientations to happiness than the variation in well-being.

Across the seven samples, post hoc tests in our study generally revealed significant differences in well- and ill-being measures between the Full life type and the Empty life type. The mean level of well- and ill-being in the Pleasurable and the Meaningful life types individuals tended to be in-between the levels of the Full life type and the Empty life type. The Full life type exhibited the highest levels of both indicators of well-being and the lowest of the ill-being indicator. On the other hand, neglecting all three paths of achieving happiness, i.e. leading an empty life, contributed to the lowest psychological well-being, the lowest satisfaction with life and the highest level of depressive symptoms. These results are in accordance with variable-centred studies reporting on important contributions of the interaction between the three orientations to individuals' well-being (e.g. Chen 2010; Peterson et al. 2005).

The present study did not reveal statistically significant differences in well-being between the Meaningful and the Pleasurable life type individuals in any of the countries investigated, with the exception of UK (significant differences in psychological well-being) and USA (significant differences in all criteria measures). Results obtained with the UK and USA samples are in accordance with theorizing that orientation to meaning should be the most related to eudaimonic well-being. However, this was not supported with the other five samples. Thus, in most countries individuals leading the pleasurable or the meaningful life reported on comparable levels of well-being. Actively engaging in pleasurable activities (with a moderate level of engagement) seems to enable individuals to achieve comparable psychological well-being as the individuals who focus on meaningful activities. Similar results were also found with the Slovene sample (Kavčič and Avsec 2014). Also noteworthy is the pattern of results in the Czech sample. With Czech participants, a very passive, non-engaged Pleasurable life type emerged and was associated with somewhat lower life satisfaction and psychological well-being, and rather higher level of depressive symptoms than membership of the Empty cluster (characterized by low pleasure but average engagement). In our opinion, these results suggest that pursuing mainly pleasure could lead to similar levels of well-being as focusing predominantly on meaningful activities as long as people are actively engaged—i.e., are in flow—in their pleasurable activities.

4.3 Conclusions

The three orientations to happiness (i.e. the two traditional philosophical approaches to happiness and the level of engagement) are expressed within individuals to a different degree. Nevertheless, the most frequent combinations of these three orientations to happiness seem to be more or less the same across different countries. More precisely, the four OTH types, reflecting Full, Pleasurable, Meaningful and Empty life, previously found with a large Slovene sample (Kavčič and Avsec 2014) were replicated across seven countries. Generally, the present study also replicated findings on the differences between OTH types in well-being, while expanding on them with regard to different well-being measures and measure of ill-being.

Some limitations of the present study should be noted. First, some of the samples of participants are rather small and partial with respect to gender, due to the availability of the participants and their willingness to participate. The samples are also restricted in age with participants' age ranging from 18 to 50 years and future studies are needed to replicate our findings in older populations. In addition, the data was gathered via an internet site, which has certain weaknesses (Smyth and Pearson 2008). Nevertheless, internet studies represent an important data collection method for large and diverse samples with relatively low costs (Birnbaum 2004). Moreover, pen-and-paper and internet versions of questionnaires generally show psychometric equivalence (e.g., Ruch et al. 2010). Next, a relatively low internal consistency of OTH scale Engagement was found, especially in one sample, which could lead to its lower validity, though the reliability–validity association remains an empirical question (McCrae et al. 2011). In addition, patterns of orientations to happiness could potentially be under the influence of different susceptibility of the OTH scales to social desirability. As Henderson et al. (2014) points out, the pleasure orientation is probably the most affected by socially desirable responding among all three orientations. Another limitation of the study is a rather modest list of the measures of well-being used. Namely, the emotional component of the hedonic well-being should be explored in future research, since our as well as most of the previous studies of orientations to happiness employed satisfaction with life or subjective

happiness as the criteria variable (e.g. Chen 2010; Chen et al. 2009; Kumano 2011; Park et al. 2009; Peterson et al. 2005; San Martín et al. 2010).

In our study, we determined the clusters of individuals based on their ratings of the three orientations to happiness in each sample separately. This procedure leads to somewhat different types across countries and therefore a comparison between countries with regard to the proportions of individuals classified in each OTH type is not possible. However, this approach enabled the search for possible universal OTH types and/or examination of potential country-specific combinations of the three orientations to happiness. Results of the study suggest that the Full life, the Empty life, the Pleasurable life and the Meaningful life type seem to be universal patterns of the three orientations to happiness. Nevertheless, somewhat specific OTH patterns were found with the Czech and the UK samples, which prevent us to generalise the proposed four types in all details. However, specific configuration found in the UK and the Czech samples allowed us to examine other possible combinations of orientations to happiness and their relation to well-being.

Future studies of OTH patterns and their predictive validity should include larger samples from numerous countries, which would enable investigation of several questions remaining open. For example, this would enable a more detailed investigation of replicability and universality of OTH types obtained in this and previous studies (Kavčič and Avsec 2014). In addition, including samples from more countries and using a different methodology (e.g., qualitative analysis) would allow for an examination of common types across countries and the differences in types' capaciousness between the countries. Furthermore, such a study would benefit by including potentially relevant country-level variables, though it remains rather elusive which variables this could be. A common variable for distinguishing among countries/cultures is a dimension of individualism-collectivism (Hui and Triandis 1986; Taras et al. 2014). However, one previous study clustering 27 nation-level aggregated OTH scores (Park et al. 2009) found the nations' membership to OTH clusters not related to individualism-collectivism. Our findings could be further validated by examining patterns of ways to happiness based on actual activities people engage in, for example by relying on methods like the Daily Reconstruction Method (Kahneman et al. 2004) or Experience Sampling Method (Csikszentmihalyi and Larson 1987).

One of the important advantages of using the person-centred approach is that the results are easier to communicate to lay people. Thus, it is not surprising that many self-help books base their explanations on person-centred approach and present instructions for each personality type. Types, found in our study, remarkably resemble the four types of individuals or archetypes described by Ben-Shahar's (2007) popular book Happier. Ben-Shahar proposed that the combinations of two orthogonal dimensions, labelled future and present but resembling meaning and pleasure orientation, respectively, result in four possible types: rat race (comparable to our Meaningful life type), hedonism (i.e., Pleasurable life), nihilism (i.e., Empty life) and happiness (i.e., Full life). Although Ben-Shahar warns the readers that each individual expresses all four possible patterns of finding happiness over time, the proposed typology fits quite well to the patterns of orientations to happiness found in the present study.

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