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Abstract	<p>In this chapter, we detail some of the main challenges of cross-cultural studies on well-being. We argue that these challenges revolve around underlying problems concerning the definition and assessment of well-being. Our specific focus is on three main challenges: (a) what to measure, (b) how to measure, and (c) the need for time- and cost-efficient measures. We argue that these challenges are relevant for an accurate analysis and understanding of cross-cultural differences in well-being. Finally, we describe the development of a new instrument designed to address some of the problems raised. The Pemberton Happiness Index, a brief measure of integrative well-being, taps into general, hedonic, eudaemonic, and social well-being and combines two methodologies to comprise both remembered and experienced well-being.</p>	

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Challenges in Current Cross-Cultural Research 6

The study of culture provides a fascinating window through which we can detect systematic factors (e.g., wealth, social inequalities, values, and social norms) associated with well-being. Several in-depth reviews describe the main findings on this issue (e.g., Diener et al. 2003; Diener and Suh 2000; Mesquita and Leu 2007; Suh and Koo 2008; Tov and Diener 2007). Yet, comparing nations or cultures with respect to an outcome such as happiness or well-being is problematic as there are methodological and conceptual issues that must be taken into account. 7 8 9 10 11 12 13

In this chapter, we focus on three specific challenges that are very pertinent to cross-cultural research on well-being and that have not received enough attention.¹ The first two issues tackle *what* and *how* to measure. That is, when we measure well-being in different nations and cultures, what are we measuring and what exactly should we measure? Once we decide what to measure, it is important to be aware that the methods we use may significantly affect the type of information we actually gather. The third issue has to do with the need for solid but brief indicators that are able to capture the complexity of well-being. 14 15 16 17 18 19 20 21

¹ A potential problem in cross-cultural research that we do not discuss here is the differential pattern of response styles among countries. For example, Vitterso et al. (2005) found that Norwegians and Greenlanders did not differ in their mean scores on a life satisfaction scale, but latent trait analyses showed that Greenlanders tended to answer all items of the questionnaire more randomly and more extremely. Kapteyn et al. (2010) described a similar effect when comparing life satisfaction estimations of American and Dutch participants: The Dutch were more avoidant of making extreme negative or positive evaluations. Other issues reviewed in the literature (e.g., order of items, item functioning, or scale numbers), although important independently (e.g., Deaton 2011), do not seem to substantially affect cross-cultural comparisons (see Oishi 2010).

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[AU1]

22 First Challenge: What to Measure

23 When attempting to compare well-being across cultures, we must clarify the concept
24 of well-being, which is implicitly or explicitly addressed by the measures used.
25 There is now consensus in this field of research that subjective well-being (SWB) is
26 composed of two components: life satisfaction and affect balance (a presence of
27 positive emotions alongside a low presence of negative emotions) (Diener 1984). [AU2]
28 One important difference between these two components is that judgments of life
29 satisfaction are more abstract and cognitive in nature than evaluations of emotional
30 state (Lucas et al. 1996). The distinction between cognitive and emotional components
31 of well-being is highly relevant to cross-cultural research as it has been shown that
32 life satisfaction judgments are global estimations of well-being and, therefore, are
33 more dependent on cultural norms and values than specific assessments (Diener
34 et al. 2010).

35 When comparing results on well-being among different countries, one should
36 consider the type of components being evaluated. For example, some countries
37 present relatively high scores on measures of life satisfaction but less high on positive
38 affect and vice versa: Laos ranks very high on enjoyment but comes in at 132nd
39 on more global measures of life satisfaction (cit. Oishi 2010). Furthermore, these
40 two well-being components correlate differentially depending on societal and
41 personal variables. For instance, whereas life satisfaction seems closely linked to
42 personal achievements and societal circumstances (e.g., a personal education or a
43 nation's wealth) (Diener et al. 2009; Kahneman et al. 2006), respondents' emotions
44 (e.g., joy or sadness) are more linked to daily circumstances and events (Diener
45 2010). It is crucial to be informed of these different facets of SWB to adequately
46 interpret cross-cultural data.² The mere consideration of these two components
47 makes it rather pointless to establish "ranks" of nations on well-being as these ranks
48 depend on indicators used.

49 To increase the complexity, cultural factors also influence how people report dif-
50 ferent types of affect. In a study of momentary assessment of affect with samples of
51 students from different cultures, Scollon et al. (2004) found greater cross-cultural
52 differences in positive emotions than in negative emotions. Consistent with this
53 finding, a meta-analysis of cross-cultural variation in emotions revealed more unex-
54 plained variance in assessments of positive compared to negative emotions (Van
55 Hemert et al. 2007). In their review on this topic, Scollon et al. (2001) examined
56 different hypotheses that may explain these differences. First, positive emotions are
57 rated as more desirable than negative ones in Western but not Asian cultures (Eid
58 and Diener 2001); on the other hand, a large percentage of respondents in countries
59 like China rated all negative emotions as desirable responses, but this was not the
60 case in Western countries (i.e., Australia and the USA). Second, ratings of desirability

² Furthermore, people can judge life satisfaction from a general perspective or through specific domains of satisfaction (e.g., with friends, family, education, neighborhood, or work) which may lead to different results (Diener et al. 2000).

correlate positively with the display of particular emotions (Eid and Diener 2001). Thus, cultural metacognition about the value of positive and negative emotions can contribute to regulate the expression of these emotions and the feelings and valuations associated with them.

Nevertheless, well-being is not limited to the exploration of SWB. Well-being concerns not only an optimal experience, which is fairly encompassed by the concept of SWB, but also eudaemonia or optimal psychological functioning (Ryan and Deci 2001). There have been recent discussions on whether eudaemonic variables are necessary to assess well-being. Some authors argue that SWB is related to both hedonic and eudaemonic well-being, and that evaluating other variables with SWB makes it difficult to differentiate predictors and outcomes of well-being (Kashdan et al. 2008). In contrast, authors of the eudaemonic tradition argue that any well-being measure without a eudaemonic component would be incomplete (Keyes and Annas 2009; Ryan and Huta 2009). In support of the latter assertion, some people can feel happy and report experiencing happiness yet lack other relevant features that characterize a psychologically healthy person (Ryan and Huta 2009). Individuals skilled at self-deception or with psychological disorders (i.e., mania), for example, could present a high level of SWB but exhibit a low level of daily functioning and self-realization at the same time.

An emphasis on eudaemonic components of well-being does not mean that SWB is a marginal component of a good life. On the contrary, as some authors have pointed out (Kashdan et al. 2008), life satisfaction and positive affect do not simply measure hedonic well-being. Research has demonstrated that these hedonic measures are also strongly associated with eudaemonic experiences (e.g., Ryan and Huta 2009; Waterman 2008) and optimal functioning (Lyubomirsky et al. 2005). Thus, an integrative assessment of well-being requires assessing both affect (including judgment of the global quality of one's own life) and overall functioning (Delle Fave and Bassi 2009; Keyes and Annas 2009; Tamir and Gross 2011).

Even after incorporating eudaemonic aspects, there is still one component lacking to complete the picture of well-being. Beyond the distinction between hedonic and eudaemonic well-being, some authors have expanded this individualistic perspective by including societal features related to personal feelings of well-being. In his influential proposal on optimal functioning and mental health, Keyes (1998) noted that "individuals remain embedded in social structures and communities, and face countless social tasks and challenges" (p. 122). According to this author, the appraisal of one's circumstances and functioning in society, what he calls "social well-being," is also necessary for integrative models of well-being.

Thus, the question is not what single variable we should assess but what components we should include in a multifaceted assessment of well-being. Measuring the latent construct of well-being implies the assessment of a wide range of elements such as life satisfaction, affect, positive functioning, and social well-being.

Beyond these arguments, there is another reason; it is important to include several facets when measuring well-being. Oishi (2010) recently discussed whether concepts like "happiness" or "well-being" are exactly equivalent in different languages and cultures. Although it seems plausible that most people in any culture are able to

106 assess their own emotional experiences and quality of life, it is likely that the
107 connotations of the labels used to describe these emotions and judgments are not
108 identical to those in published research (mostly lead by Western researchers). In fact,
109 some basic emotions have no identifiable labels in certain languages (Russell 1991).
110 For example, when asked to describe the meaning of “well-being,” American stu-
111 dents typically bring up feelings of “excitement” or heightened arousal, whereas
112 Chinese students mention feelings of “calm” or equilibrium (Lu and Gilmour 2004).
113 Furthermore, words such as “happiness” are spontaneously associated with positive
114 words by American college students, whereas their Japanese counterparts provide
115 associations with both positive and negative words. In a recent study using a lexical
116 probabilistic procedure with university samples from different countries (Chile,
117 Colombia, Germany, Palestine, and the USA), Vargas (2010) found that the idea that
118 “happiness” is difficult to obtain or transitory is negatively associated with self-
119 reported life satisfaction in students from Spain but shows no significant association
120 with life satisfaction in students from the USA. Interestingly, the concept of “happi-
121 ness” can vary not only across space (i.e., nations or cultures) but also time. As Oishi
122 (2010) points out, words such as “happiness” have undergone significant changes in
123 their official definition (e.g., in standard dictionaries) and use in the last century.³

124 Thus, differences on the concept of happiness or well-being among countries
125 constitute another reason to incorporate scales or items that do not explicitly include
126 these culturally unclear ideas into standard well-being or happiness measures.

127 **Second Challenge: How to Measure**

128 There are many different measures available for each component of well-being
129 addressed in the previous pages. Most of these measures have been subjected to scru-
130 pulous psychometric analyses, and some have also been validated in different coun-
131 tries and languages (see a review of measures in Lopez and Snyder 2003; Eid 2008).

132 Measures of well-being may differ not only in their content (e.g., hedonic and
133 eudaemonic components) and format (e.g., open-ended questions, interviews, or
134 questionnaires)⁴ but also with regard to time frame. In the vast majority of available

³ According to his review, in many countries, there has been a secular shift in the meaning of “happiness” from an emphasis on “lucky and fortunate conditions” to inner feeling states. Incidentally, Diener (2000) found that in countries where “happiness” is mainly used to define satisfaction of one’s goals and desires (e.g., Spain or Italy), happiness is seen as more desirable than in countries or regions where happiness is defined in terms of luck (e.g., East Asia, France, Germany, and Russia).

⁴ Most current measures of well-being are based on self-reports, even though self-reports of emotional states can be vulnerable to self-presentation biases, memory biases, and the ability to perceive and label emotions. Some authors have proposed alternative procedures based on reaction time to probe stimulus or in experimental measures to assess implicit beliefs (e.g., Diaz et al. 2009).

measures, participants are asked to report their well-being on a scale within a given 135
temporal framework (e.g., past week, past month, or in general). As such, most data 136
researchers that have gathered on well-being in the last fruitful decades have focused 137
on retrospective accounts of well-being (i.e., remembered well-being) (Kahneman and 138
Krueger 2006). These measures have been the basis for current theories of well-being, 139
and there is strong evidence that, beyond some methodological issues (e.g., linguistic 140
equivalence of terms), these measures effectively reflect emotional states. 141

Although retrospective judgments are standard for obtaining significant personal 142
information and have been extensively used in most areas of psychology, there is 143
also evidence that these judgments are affected by a number of cognitive and moti- 144
vational factors (Kahneman 1999). Interestingly, these factors may affect different 145
cultures in idiosyncratic ways. A number of studies have demonstrated that the 146
method used to assess psychological variables may in fact be a source of significant 147
cross-cultural differences in and of itself. 148

For example, Yamaguchi et al. (2007) found that American students had 149
significantly higher scores than Japanese students in explicit measures of self- 150
esteem (i.e., a standard questionnaire) as many other studies have found, but these 151
differences disappeared when using an implicit measure that does not require self- 152
report evaluations (e.g., the Implicit Association Test; see footnote #4). 153

More directly related to our field, Oishi (2002) compared well-being reports of 154
Asian and European Americans and found that although European Americans 155
reported a higher degree of well-being than Asians in retrospective global reports 156
(i.e., remembered well-being), there were no cultural differences in current well- 157
being assessed by a daily diary or using an online measure. In this study, the author 158
used Experience Sampling Methodology (ESM), which involves asking respondents 159
to report what they are currently doing and/or feeling.⁵ Oishi asked participants to 160
estimate their daily satisfaction level for seven consecutive days and to also respond 161
to random signals on how happy they felt at that moment (ESM) during the same 162
period. Results showed that although Asian Americans and European Americans did 163
not differ in their average satisfaction level, recorded daily in their diaries, European 164
Americans expressed higher satisfaction than Asian Americans in a global retrospec- 165
tive judgment of the week. The same pattern of results was found for the ESM part 166
of the study: Both samples did not differ in the proportion of random moments they 167
said they were happy, but Asian Americans reported having had less moments of 168
happiness than European Americans when asked to retrospectively estimate the fre- 169
quency of happy moments they had in the week of the data collection. 170

Similar memory biases have been found in other studies (Oishi and Diener 2003; 171
Wirtz et al. 2003). For instance, Wirtz et al. (2003) found no differences in average 172
daily satisfaction level over 21 days in European Americans, Asian Americans, 173

⁵ Although there are several types of ESM procedures (see Scollon et al. 2003), this approach has provided valuable online data, which are not subject to cognitive biases linked to retrospective accounts.

174 Japanese, and Koreans, but European Americans reported higher total scores than
175 Asian Americans on the Satisfaction with Life Scale (SWLS; Diener et al. 1985).
176 An ESM study by Scollon et al. (2004) presented an exception when the authors
177 found significant differences among Hispanic American, European American,
178 Japanese, and Indian participants in experienced positive emotions at random
179 moments but did not find memory biases in recalling the frequency of these
180 moments.

181 Along these lines, another artificial source of variance in cross-cultural well-being
182 is tied to the cognitive processes associated with retrospective judgments. When par-
183 ticipants from different nations are asked about their life satisfaction or happiness,
184 they may use different heuristics or cognitive strategies to arrive at a conclusion. There
185 is increasing evidence that these cognitive processes are rather complex and are
186 moderated by cultural norms and the perceived importance of emotions. In a study
187 involving five countries, Schimmack et al. (2002) found that people in individualistic
188 nations seem to depend more on their own current emotional states to make inferences
189 on their life satisfaction (i.e., correlations of emotions and life satisfaction were stron-
190 ger in individualistic nations than in collectivistic ones). Thus, people seem to judge
191 their life satisfaction based, at least in part, on how they value their emotions, and this,
192 in turn, is affected by cultural values (see Scollon et al. 2011).

193 Although the results are not entirely consistent, there is rather reliable initial
194 evidence suggesting that cross-cultural differences in well-being are, to some extent,
195 related to the use of different memory strategies or heuristics to make global judg-
196 ments of life satisfaction or happiness.

197 Importantly, retrospective does not necessarily mean more biased or less reliable.
198 Research has demonstrated that both retrospective and online measures can be used
199 separately to predict different outcomes (Scollon et al. 2003). Despite their apparent
200 generality, global reports covering extended periods of time can be useful in
201 predicting outcomes and behavioral choices. For example, Wirtz et al. (2003) inves-
202 tigated the differential ability of online experiences, retrospective recall, and expect-
203 ation to determine future behavior. In their study, vacationing students completed
204 self-reports measuring expectations of pleasure, online reports of pleasure, and retro-
205 spective recall of pleasure. Results indicated that only retrospective recall significantly
206 predicted the desire to take a similar vacation in the future. Thus, both types of
207 approaches should be considered necessary and complementary.

208 Unfortunately, alternative methodologies to assess well-being, such as the ESM
209 or DRM, are very costly and/or time consuming when it comes to generalized use
210 in cross-cultural research. A typical ESM study lasts 1–2 weeks with 2–12 daily
211 signals (Reis and Gable 2000) and can be very disruptive of daily activities. Although
212 DRM studies are not as expensive as ESM studies, they may take up to 1 h for each
213 participant to obtain a detailed description of what happened in the last 24 h. The
214 Gallup International survey has adopted a more modest strategy where measure-
215 ment of affect is based on whether respondents have experienced a number of posi-
216 tive feelings (i.e., enjoyment and smiling/laughter) or negative feelings (i.e., sadness,
217 anger, worry, and depression) over the past 24 h. Respondents are asked to remem-
218 ber if they experienced these feelings (yes/no responses), and an Affect Balance

score is calculated by averaging both scores and subtracting positive from negative experiences (Diener et al. 2010). Nevertheless, we should not forget that none of these methodologies are free of issues that affect all measures of well-being (e.g., number use, item functioning, cultural norms, response biases, and self-presentation biases) (Schwarz 1999).

In sum, apart from the *what*, *how* we measure well-being is also very relevant to ensure a sound exploration of cross-cultural differences in well-being. These differences may depend on the type of component we are measuring (e.g., satisfaction with life vs. emotional balance) and also on the measurement strategy used (e.g., retrospective vs. online).

Third Challenge: The Search for Efficient Measures 229

Results showing differences in well-being among countries have provided hints on how, for example, societal variables may affect individuals' well-being (e.g., Veenhoven 2000). To reach solid conclusions, cross-cultural studies need large samples of participants. Unfortunately, the larger the sample, the more difficult it becomes to conduct long interviews or implement well-validated questionnaires aimed at measuring specific facets of well-being. The more direct way to overcome this problem is with short but reliable and comprehensive measures of well-being. Consequently, the development of cost-efficient alternative methods that are relatively immune to culture-based biases is an important challenge for current research on well-being.

Most national and international surveys on well-being with large samples have relied on single items covering global satisfaction or happiness. This approach, however limited, has produced comparable and meaningful data (Oswald and Wu 2010; Veenhoven 2008, 2009), and these relatively simple indices have been linked to outcomes such as stronger social relationships and marital satisfaction (Diener and Seligman 2002), productivity (Lyubomirsky et al. 2005), physical and mental health (Vázquez et al. 2011), and even longevity (Diener and Chan 2011; Xu and Roberts 2010).

The time frame used to explore well-being is pertinent when using simple questions. When the time frame is wide (e.g., "All things considered, how satisfied are you with life as a whole these days?" or "Taking all things together, how would you say things are these days?: 1 – very happy, 2 – quite happy, 3 – not very happy, or 4 – not at all happy?"),⁶ it is more likely that a general knowledge of oneself influences answers, whereas what people actually did or felt may influence answers if the time frame is more narrow (e.g., "How did you feel yesterday?"). Although there is little direct evidence of this assertion, a study by Scollon et al. (2009) seems to support this argument. In their study, participants completed daily and retrospective

⁶ These questions are included in the World Values Survey.

257 measures of well-being for a 1-week period. The results demonstrated that partici-
258 pants' notion of "ideal well-being," which is shaped by culturally created values and
259 expectations, correlated more highly with retrospective measures than with momen-
260 tary measures of well-being. Thus, it is important to keep in mind that the type of
261 general questions typically illustrating cross-national differences, such as those in
262 the World Database of Happiness (Veenhoven 2011), can shape respondents'
263 answers as a function of their format.

264 Another interesting methodological issue concerns the distribution of scores each
265 scale yields. Many international comparisons of well-being are based on single items
266 that tap into the construct of global satisfaction with life. Yet interestingly, not all
267 items offer the same score distribution despite their apparent conceptual similarity.
268 For example, the Gallup study used two items to assess global perceptions of one's
269 own life: a measure of satisfaction with life using a scale from 0 (*dissatisfied*) to 10
270 (*satisfied*) and Cantril's Ladder Scale (Cantril 1965), which asks respondents to evalu-
271 ate their lives on a scale from 0 (*worst possible*) to 10 (*best possible*). Respondents are
272 required to select the step on the ladder where they believe they stand at the present
273 time. Notably, whereas the satisfaction-with-life item is negatively skewed (i.e., the
274 mean is well above 5, and there are many more individuals rating their lives above the
275 central point than below it; see also Cummins and Nistico 2002), the Cantril's Ladder
276 distribution is nearly normally distributed (see Helliwell et al. 2009).

277 The affective component of well-being has also been covered in international
278 studies such as the World Values Survey (<http://www.worldvaluessurvey.org>) where
279 "happiness" is measured with one item: "Taking all things together, would you say
280 you are?" – see above. The Gallup International survey, as previously described, [AU3]
281 measures affect by counting the number of positive or negative feelings experienced
282 during the past 24 h.

283 Thus, there are several simple ways to measure components of SWB that have
284 served to make sound cross-national comparisons, although in general, these studies
285 have mostly ignored other facets of well-being (e.g., eudaemonic or social well-
286 being) and have used a limited range of methods; for instance, no large-scale inter-
287 national study has implemented diaries or online methodologies despite the interest
288 in these types of approaches from a cross-cultural perspective.

289 Recently, various brief measures have been developed that tap into other aspects of
290 the multifaceted well-being construct. As an example, Diener and his team designed
291 the Flourishing Scale (FS; Diener et al. 2009) "to measure social-psychological prosper-
292 ity, [and] to complement existing measures of subjective well-being" (p. 144). The
293 FS is an eight-item scale covering aspects of social capital, flow, social relationships,
294 and a general sense of psychological prosperity (e.g., "I am a good person and live a
295 good life," "I lead a purposeful and meaningful life," and "People respect me"). This
296 new scale was aimed at measuring "flourishing" through a single index.

297 Another interesting new instrument is the Warwick-Edinburgh Mental Well-
298 Being Scale (WEMWBS; Tennant et al. 2007), designed primarily for use in large-

scale public policy analyses. This scale comprises 14 positively phrased statements covering both hedonic and eudaemonic aspects of positive mental health, including positive affect, satisfying interpersonal relationships, and positive functioning. Participants are provided with a general framework to make retrospective judgments on these aspects of well-being: “In the last two weeks, I’ve been feeling... (cheerful, good about myself, relaxed, useful, interested in other people, etc.)” The authors also recently published a seven-item version of the scale that seems to better fit a unidimensional structure of positive mental health (Stewart-Brown et al. 2009).

These two measures have two important features. First, they are short, making them apt for large-scale studies, and second, they include different components of well-being such as hedonic and/or eudaemonic constructs. However, they fail to include important components such as social well-being (both WEMWBS and FS), global life satisfaction (WEMWBS), and autonomy (FS). Thus, although there have been important advances in this field of measurement, the development of short and comprehensive indices of well-being remains a challenge for the future.

The Pemberton Happiness Index: Measuring Remembered and Experienced Well-Being

To respond to these challenges, we recently developed and validated a brief instrument to measure integrative well-being (Hervas and Vazquez 2011). Our objective was to create a brief scale that (a) covered different domains of well-being (i.e., general, hedonic, eudemonic, and social), (b) tapped into different approaches through which well-being is assessed (i.e., remembered and experienced well-being), and (c) was validated for a variety of languages (and countries) from its inception.

As distinctive characteristics of the scale’s construction process, the validation was conducted simultaneously in seven languages (English, German, Japanese, Russian, Spanish, Swedish, and Turkish) through the Computer-Assisted Web Interviewing (CAWI) technique with a relatively high number of participants (N=4,052).

Participants were recruited from research panels (i.e., groups of people that agree to regularly participate in social surveys) of Millward Brown, an international survey company with branches in each participating country. For the initial study, we selected nine countries from diverse linguistic, religious, and cultural backgrounds.

All participants responded to an initial pool of items covering different facets of well-being. These items were divided into two main areas: remembered well-being and experienced well-being.

1. *Remembered Well-Being.* We generated items that had similar content to those included in well-known validated measures of well-being. An initial pool of 21 items was created to assess four domains of remembered well-being (i.e., general, eudaemonic, hedonic, and social well-being). Each domain or subdomain (eudaemonic well-being has six subdomains, and hedonic well-being has two

339 subdomains) consisted of at least two items. Participants were asked to rate each
340 of the 21 statements using a scale from 0 (*fully disagree*) to 10 (*fully agree*). Item
341 translation followed standard translation and back-translation procedures.

342 (a) *General Well-Being*. We included two items related to global satisfaction
343 with life and one item of vitality as it is closely associated with eudaemonic
344 functioning (e.g., Ryan and Frederick 1997).

345 (b) *Eudaemonic Well-Being*. Items covering optimal psychological functioning
346 were derived from Ryff's psychological well-being model (Ryff 1989; Ryff
347 and Keyes 1995). We put together a set of 12 items addressing the following
348 subdomains equivalent to Ryff's six areas of psychological well-being: life
349 meaning, self-acceptance, personal growth, relatedness, perceived control,
350 and autonomy.

351 (c) *Hedonic Well-Being*. Affective state was assessed with items reflecting the
352 frequency of positive and negative affect in daily life with two items for each
353 affect type.

354 (d) *Social Well-Being*. Although there are several components of social well-
355 being (see Keyes 1998; Keyes et al. 2002), we selected two items that tap into
356 the global feeling of living in a society that promotes optimal psychological
357 functioning.

358 2. *Experienced Well-Being*. As previously mentioned, it is a challenge to create
359 reliable and efficient measures of experienced well-being. Following a strategy
360 similar to that of the Gallup-Healthways Well-Being Index (Harter and Gurley
361 2008), which in turn was based on the DRM (Kahneman et al. 2004), we gener-
362 ated a list of 16 items related to specific experiences that may have happened
363 the day before in any of the countries. Thus, participants were presented with
364 eight common positive events (e.g., "I did something fun with someone") and
365 eight negative ones (e.g., "Things happened that made me really angry") that
366 can be experienced by virtually anyone on a given day in different cultures.
367 Participants were simply asked to state whether or not any of these events
368 occurred the day before.

369 In an effort to establish a solid instrument, aside from this initial pool of 37 items
370 specifically generated for our scale (21 related to remembered well-being and 16
371 related to experienced well-being), participants also responded to a series of well-
372 known instruments assessing the areas of well-being covered by the items. These
373 measures, all included in the CAWI system, were used as criteria for the final selec-
374 tion of items for our new scale. We chose convergent validity as the main criterion,
375 so selected items were those that showed the highest mean correlations with their
376 respective validation measures across countries. Thus, rather than validating an over-
377 all score of the new proposed scale, we implemented an empirically based process to
378 select the items that would be included in the final scale, choosing items that pre-
379 sented the highest correlations with the scales or subscales that covered the relevant
380 content of well-being. For example, to tap into the facet of positive affect, we selected
381 the item demonstrating the highest correlation with the positive affect subscale from
382 the Positive and Negative Affect Schedule (PANAS; Watson et al. 1988).

3 Addressing Current Challenges in Cross-Cultural Measurement of Well-Being...

Type of measure	General domains	Specific facets	Criterion measures
REMEMBERED WELL-BEING	General well-being	Life satisfaction Vitality	<ul style="list-style-type: none"> • SWLS (Diener et al., 1985) • SHS (Lyubomirsky & Lepper, 1999) • Satisfaction With Domains of Life
	Hedonic well-being	Positive affect Negative affect	<ul style="list-style-type: none"> • PANAS (Watson, Clark, & Tellegen, 1988)
	Eudaimonic well-being	Self-acceptance Relatedness Autonomy Perceived control Personal growth Life meaning	<ul style="list-style-type: none"> • PWBS (Ryff & Keyes, 1995)
	Social well-being	Satisfaction with your country	<ul style="list-style-type: none"> • Satisfaction With Domains of Life • SWLS • SHS
EXPERIENCED WELL-BEING	Day-before experiences	Positive and negative experiences in the last 24 h	<ul style="list-style-type: none"> • Overall well-being the day before

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Fig. 3.1 Summary of the components of remembered and experienced well-being included in the PHI. The *second column* details the components, the *third column* presents the facets of our measure, and the *fourth column* illustrates the measures used as criteria to validate each specific facet

We included the SWLS (Diener et al. 1985), the Subjective Happiness Scale (SHS; Lyubomirsky and Lepper 1999), Satisfaction with Domains of Life (SWDL; participants rated their satisfaction with 12 domains of life selected from Cummins 2006; Diener et al. 1985; and Huebner et al. 1999), Psychological Well-Being Scales (SPWB; Ryff and Keyes 1995) to validate the items measuring eudaemonic well-being; the PANAS (Watson et al. 1988) to validate the items associated with hedonic well-being; and the SWDL item that assesses satisfaction with one’s own country, as well as total scores from the SWLS and SHS to validate the items related to global social well-being (see Fig. 3.1).

[AU4]

To validate our measure of experienced well-being (i.e., experiences that occurred the day before), we included a question aimed at assessing the participant’s overall well-being experienced the day before (i.e., “How did you feel yesterday?”) rated on a Likert scale from 0 (*very badly*) to 4 (*great*).⁷

Correlations between each of the 21 initial remembered well-being items and their respective comparison scales were calculated for each country to reach a

⁷Chi-square analyses were conducted between each item and the criterion (i.e., overall satisfaction with the day before). Items that showed the highest overall mean eta-squared values were selected for inclusion in the final scale.

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t1.1 **Table 3.1** Domains and subdomains of the Pemberton Happiness Index and their corresponding
 t1.2 items

Domains and subdomains	Item content
<i>Remembered well-being</i>	
<i>General well-being</i>	I am very satisfied with my life
t1.6	I have the energy to accomplish my daily tasks
<i>Eudaemonic well-being</i>	
t1.8	I think my life is useful and worthwhile
t1.9	I am satisfied with myself
t1.10	My life is full of learning experiences and challenges
t1.11	that make me grow
t1.12	I feel very connected to the people around me
t1.13	I feel able to solve the majority of my daily problems
t1.14	I think that I can be myself on the important things
<i>Hedonic well-being</i>	
t1.16	I enjoy a lot of little things every day
t1.17	I have a lot of bad moments in my daily life
<i>Social well-being</i>	I think that I live in a society that lets me fully realize
t1.19	my potential
<i>Experienced well-being</i>	
t1.21	Something I did made me proud
t1.22	I did something fun with someone
t1.23	I did something I really enjoy doing
t1.24	I learned something interesting
t1.25	I gave myself a treat
t1.26	At times, I felt overwhelmed
t1.27	I was bored for a lot of the time
t1.28	I was worried about personal matters
t1.29	Things happened that made me really angry
t1.30	I felt disrespected by someone

398 final scale with the highest possible concurrent validity for all countries. Items
 399 that presented the highest overall mean correlations with their corresponding criteria
 400 were chosen to be included in the final scale. The final items are presented in
 401 Table 3.1.

402 **Scoring Remembered and Experienced Well-Being in the PHI**

403 The Pemberton Happiness Index (PHI) was designed as a brief measure of overall
 404 well-being that includes both remembered *and* experienced well-being. Although
 405 data for these two types of well-being can be separately obtained in the PHI, a pro-
 406 cedure was designed to provide a combined well-being index. To obtain this overall
 407 index, the number of positive experiences is added to the number of absences of
 408 negative experiences (i.e., each positive experience of the day before is counted as
 409 “1,” and the sum of absences of negative experiences is added to this partial score).

With this procedure, a single overall score of experienced well-being can be calculated, ranging from 0 to 10 similarly to the previous items. Other researchers have used this method in the past to reach a single score based on positive and negative experiences of the day before (e.g., Diener et al. 2010).

Thus, the PHI can be utilized both as a measure of separate retrospective and remembered components and as a single indicator of well-being: (a) an 11-item measure that includes general, eudaemonic, hedonic, and social well-being rated on a scale from 0 to 10 and (b) a single score that results from the combination of positive and negative experiences from the day before, also on a scale from 0 to 10.

Table 3.1 shows the final items empirically selected for the PHI. It contains 11 items related to different domains of remembered well-being (i.e., general, eudaemonic, hedonic, and social well-being) and 10 items related to experienced well-being, which can be transformed into a single well-being index using the same scale as the other 11 items.

Psychometric Properties of the PHI 423

Initial psychometric data of the PHI are encouraging (Hervas and Vazquez 2011). In the preliminary validation study, the internal consistency of the scales (in both the 11-item version and 11 + 1-item version) was above .89 in all countries with the exception of the Turkey sample (Cronbach's alpha from .82 to .83). In the same study, the internal consistency values for the SWLS (Diener et al. 1985), although high (from .83 to .91), were generally lower than for the PHI. Thus, the PHI compares favorably with standard measures of life satisfaction, one of the main components of SWB.

Using a series of separate regression analyses, we determined the PHI's incremental validity when matched with recognized well-being scales. Sleep quality and perceived health, which often represent well-being (Hervas and Vazquez 2011), were implemented as criteria. Our results demonstrated that the PHI predicted sleep quality better than the SHS ($\Delta R^2 = .029, p < .001$), SWLS ($\Delta R^2 = .056, p < .001$), SPWB ($\Delta R^2 = .052, p < .001$), and PANAS ($\Delta R^2 = .040, p < .001$). The PHI also outperformed the SHS ($\Delta R^2 = .042, p < .001$), SWLS ($\Delta R^2 = .088, p < .001$), SPWB ($\Delta R^2 = .052, p < .001$), and PANAS ($\Delta R^2 = .051, p < .001$) in predicting perceived health.

Remembered Versus Experienced Well-Being 440

Discrepancies between remembered and experienced well-being are very intriguing. It is remarkable that in this study, participants from Japan presented significantly lower scores in both remembered and experienced well-being. More importantly, Japan is the only country in which scores on remembered well-being were significantly lower than scores on experienced well-being when using comparable metrics (Hervas and Vazquez 2010; see Fig. 3.2). This result is congruent with previous research conducted by Oishi (2002) who found that European Americans

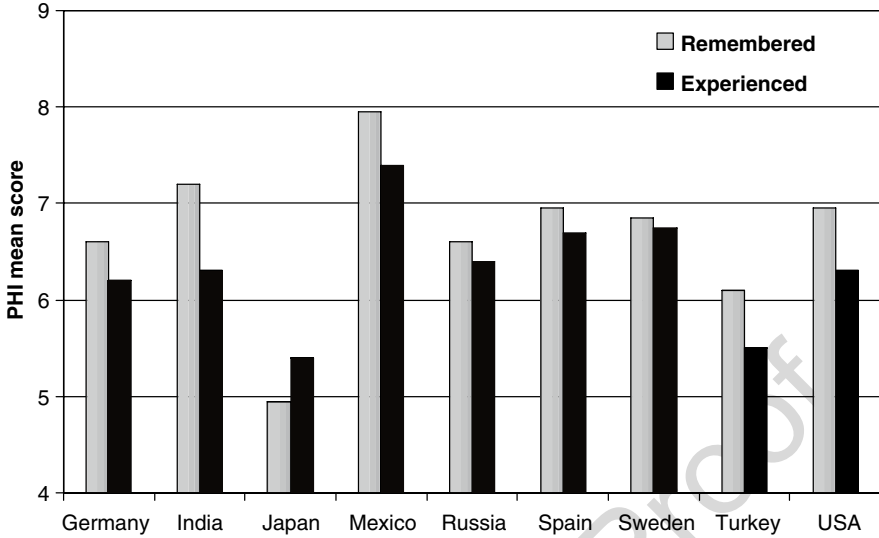


Fig. 3.2 A comparison of remembered and experienced well-being using the Pemberton Happiness Index scores

448 reported a higher degree of well-being than Asians in retrospective global reports of
 449 well-being (i.e., remembered well-being), but there were no cultural differences in
 450 current well-being assessed by a daily diary or using an online measure.

451 In sum, these initial results support the existence of differences between Western
 452 and Eastern countries regarding how well-being is measured, and further it consti-
 453 tutes additional evidence of the PHI’s construct validity.

454 **Conclusions**

455 It is already clear to researchers in the field of culture and well-being that it is neces-
 456 sary to move beyond understanding the demographics of happiness and its associa-
 457 tion with other variables (e.g., wealth and education) toward analyzing the specific
 458 mechanisms and causal influences of well-being (~~Diener and Biswas-Diener 2000~~).
 459 But it is also true that we still need good measures of well-being that can capture
 460 essential aspects of what constitutes a good life.

461 As we have demonstrated in this chapter, subtle methodological issues (e.g., ret-
 462 rospective vs. experienced well-being) may open new ways to identify critical cul-
 463 tural differences. As Oishi (2010) stated, “discrepancies between specific/online
 464 subjective reports and global reports of well-being seem to reflect the fact that
 465 subjective well-being is not a unitary construct” (p. 53). Well-being is a complex
 466 concept, and it would be naïve to think that single questions, notwithstanding their

importance in the development of the field so far, can thoroughly grasp human happiness. The measurement of well-being includes or should include not only multiple areas of assessment but also different time frames of measurement.

In this chapter, we have presented some initial data on the PHI, a new, short index with promising psychometric data that has been initially validated using data from different countries and languages. We are aware that this is only a modest contribution to the field, but we tackled both its construction and validation while keeping in mind some of the current methodological limitations of existing measures.

More importantly, our measure was intended to overcome each of the challenges raised in the first part of this chapter. First, the PHI was designed taking into account prevailing controversies on the eudaemonic versus hedonic distinction and other current, major proposals of well-being and positive mental health. In consequence, this instrument covers the main domains of well-being described in current theories and research in the area. Moreover, as the PHI is multifaceted, it overcomes the problem of relying on concepts that are not culturally consistent such as well-being or happiness. Second, it integrates the remembered versus experienced approach to overcome the problem of how the method affects well-being scores in Western versus Eastern countries. Third, the measure itself is relatively brief considering the wide range of content that it contains.

Beyond these aspects, the PHI also presents methodological features that deserve attention. For example, all items included in the scale were empirically selected after analyzing their correlations with widely used measures of each well-being domain. Furthermore, the study sample was also larger and more multicultural than previous validation studies of similar brief scales. It is too soon to know whether this new measure will be useful in detecting and exploring significant cultural differences in well-being. Yet overall, the initial data are very encouraging (Hervas and Vazquez 2011).

Relations between cultural and individual traits, behaviors, and emotions are particularly complex (see an excellent review in Benet-Martinez and Oishi 2008). The PHI is a measure that reflects a certain point of view on well-being, which is of course, one among many possibilities. As Helliwell and Barrington-Leigh (2010) have stated, each measure reflects the preferences of its proponents. It could be possible, for instance, to design measures with different components (e.g., measures of states of calm, relaxation, peace, pride, or guilt), which research on cross-cultural differences has shown weigh differently on personal happiness or life satisfaction in different cultures (Scollon et al. 2011; Tsai et al. 2006).⁸ Likewise, the concept and dimensions of social well-being (Keyes and Annas 2009) are richer

⁸ Pride and guilt are good examples of emotions that are relevant yet included neither in the PHI nor in many well-being scales. Using ESM, Scollon et al. (2004) found that Asian Americans, Indians in India, and Japanese in Japan all reported less pride and more guilt than European Americans and Hispanic Americans. Furthermore, whereas the authors did not find cross-cultural variability in sadness, the cross-cultural variability was three times greater for guilt and more than 10 times greater for pride.

505 than what is addressed by our scale. Thus, the PHI is perhaps a significant contri-
506 bution to the field but is in no way a definite measurement of well-being.

507 A final coda comments on the use of measures of well-being to establish rank-
508 ings of nations. First of all, no measure can be constructed from a value-free plat-
509 form. Researchers depart from different cultural traditions, and the selection of
510 items and the weight given to them can be critical in determining the scope and
511 sensitivity of the instrument. Furthermore, there are many alternative indices of
512 well-being that pay attention to political or social issues that are sometimes neglected
513 in current research in the field (e.g., ecological footprint) and may have a global
514 impact on the current and future well-being of humans (Abdallah et al. 2008).
515 We hope that this chapter can somehow contribute to this debate and that, above all,
516 it has helped the reader to be more sensitive to crucial issues that are still open on
517 the measurement of integrative well-being.

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[AU5]

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Author Queries

Chapter No.: 3 0001545685

Queries	Details Required	Author's Response
AU1	Please provide the name of the department in the affiliation.	Done
AU2	References Diener (1984), Oishi (2010), Diener (2010), Scollon et al. (2001), Veenhoven (2008), Diener and Seligman (2002), Helliwell et al. (2009), Diener and Biswas-Diener (2000), Diener (2000) have not been provided in the reference list. Please provide.	Done. (Diener and Biswas-Diener was deleted)
AU3	Please check if the word "happy" should be inserted in the sentence starting "Taking all things together..."	Corrected
AU4	Please check if edit made to the sentence starting "We included the SWLS..." is okay.	Done
AU5	Please provide in-text citation for References Deaton (2008), Morrison et al. (2011), Oishi and Schimmack (2010), Oishi et al. (2002), Schimmack et al. (2005), Vázquez et al. (2009), Vittersø; et al. (2005).	Inserted
AU6	Please update References Hervas and Vazquez (2011), Vázquez et al. (2011).	Done
AU7	Please provide the complete details of References Vargas (2010), Veenhoven (2011).	Done

Uncorrected Proof