

The Hedonic and Eudaimonic Validity of the Orientations to Happiness Scale

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Abstract The orientations to happiness scale (OTH) was designed to measure three routes to happiness: pleasure (hedonia), meaning (eudaimonia) and engagement (flow). Past research utilising the scale suggests that all orientations predict life satisfaction, with meaning and engagement the stronger predictors relative to pleasure. However, these findings are inconsistent with other research; one plausible explanation being that the OTH scale lacks validity. This was tested by having participants ($N = 107$) complete the OTH scale and the Satisfaction with Life scale, prior to completing an online diary reporting actual instances of hedonic and eudaimonic behaviour. Although meaning predicted eudaimonic behaviour, the pleasure orientation was unrelated to hedonic behaviour. Further, hedonic behaviour was more strongly related to life satisfaction than eudaimonic behaviour; inconsistent with OTH scale results. These findings challenge the validity of the OTH scale, and subsequently bring into question those conclusions drawn from past research utilising the OTH scale.

Keywords Eudaimonia · Hedonia · Happiness · Validity · Well-being · Orientations · Pathways

1 Introduction

How to obtain and/or maximise one's experience of well-being and happiness has been of particular interest to researchers since the inception of positive psychology (Linley et al.

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2006; Peterson et al. 2005). Although scientific investigation of such questions remains in its infancy, philosophers have long debated such issues (Waterman 2008). Such debates have led to the postulation of multiple and, at times, opposing perspectives (Grinde 2012); the dominant of which being the philosophical traditions of hedonia and eudaimonia (Huta 2013). The hedonic perspective, which can be traced back to philosophers such as Aristippus, Epicurus, Bentham, Locke, and Hobbes (Keyes and Annas 2009; Waterman 2008), generally equated well-being with the positive emotional states that accompany desire satisfaction (Diener 2009). Maximising one's pleasurable moments through the satisfaction of one's desires was therefore considered the pathway to happiness (Kashdan et al. 2008). The eudaimonic perspective, often contrasted with hedonia, suggested that living a life of virtue, and actualising one's inherent potentials in the pursuit of complex and meaningful goals (both to the individual and society) was the pathway to well-being (Delle Fave et al. 2011a). The eudaimonic position was first explicated by Aristotle (1985); however, has also been linked to other eminent philosophers such as Plato and Zeno of Citium (Grinde 2012). These two philosophical traditions have since been translated to contemporary psychology (Deci and Ryan 2008).

The dissent that characterised philosophers also translated to psychological adaptations (Henderson and Knight 2012). Early psychological research investigating pathways to well-being generally took a unilateral approach, investigating either the hedonic or eudaimonic perspective in isolation (Delle Fave et al. 2011a). This approach has been increasingly criticised (Biswas-Diener et al. 2009), as it is now widely acknowledged that, although hedonia and eudaimonia are highly related, they remain distinct and contribute to well-being in unique ways (Ryan and Huta 2009; Waterman et al. 2008). This recognition led to more recent attempts to simultaneously investigate hedonic and eudaimonic pathways, the first of which was conducted by Peterson et al. (2005). Peterson et al. developed the Orientations to Happiness (OTH) scale, which required participants to rate whether they typically approach life in search of meaning, pleasure, and/or engagement. The pleasure and meaning orientations were developed specifically to measure hedonia and eudaimonia respectively, while the engagement orientation was designed to measure the concept of flow (Park et al. 2009). Flow was originally explicated by Csikszentmihalyi (1997), and is a term used to describe the psychological state that arises when the skill required and the challenge of an activity are well matched, both are high, and the self is lost in the activity (Csikszentmihalyi 1999).

Peterson et al.'s (2005) decision to include the engagement pathway as a *distinct* orientation was contrary to previous empirical research by Waterman (1993). Although Waterman hypothesised that flow was an inherent component of eudaimonia, results suggested that flow can be experienced when engaged in either hedonic or eudaimonic activities. Waterman concluded that flow is not distinct from hedonia and eudaimonia, but is a state that can characterise both hedonic and eudaimonic behaviour. Instead, Peterson et al. argued that flow was distinct as some pleasurable and meaningful activities are not necessarily experienced as engaging. This is a spurious argument, the flip side of which *can also* be used to argue that flow is not distinct from hedonia and eudaimonia. That is, although some meaningful or pleasurable activities may not induce flow, we would argue that activities that *do* induce flow would invariably be described as pleasurable and/or meaningful. A core aspect of flow is that it is experienced as "highly and intrinsically enjoyable" (Park et al. 2009, p. 274). Further, flow experiences are also often associated with such eudaimonic qualities as commitment, persistence, and achievement (Csikszentmihalyi 2003). Therefore, flow is best considered an experience that can accompany *some* hedonic and eudaimonic pursuits, rather than distinct from hedonia and

eudaimonia. For these reasons, the present study focuses predominantly on the hedonic and eudaimonic pathways of the OTH scale (i.e. the meaning and pleasure orientations).

Utilising the OTH scale, Peterson et al. (2005) found that although all three orientations were predictive of life satisfaction, meaning and engagement were more robust predictors, relative to pleasure. This research has been replicated with a variety of populations (e.g. students, teachers, the elderly) in over 27 nations, with consistent findings across studies (Chan 2009; Chen et al. 2010; Park et al. 2009; Ruch et al. 2010; Schueller and Seligman 2010, Vella-Brodrick et al. 2009). Combined, research utilising the OTH scale suggests that all three orientations are independent predictors of life satisfaction; however, that engagement and meaning are stronger predictors than pleasure. The implication of such conclusions is that to maximise life satisfaction, one should attempt to increase their pleasurable, meaningful, and engaging pursuits, yet maintain a preference for meaning and engagement. However, the limitations of research utilising the OTH scale have previously been underemphasised, and need to be highlighted.

Firstly, the retrospective cross-sectional nature of the OTH scale, which requires participants to make global cognitive judgment regarding how they *typically* live, is subject to recall error and social desirability bias. This method of questioning assumes that these cognitive judgements accurately reflect how the participants actually behave; however, the accuracy of such global judgements has been questioned (Gosling et al. 1998). Further, the findings from research utilising the OTH scale are inconsistent with other research. For example, the finding that engagement and meaning are better predictors of life satisfaction than pleasure runs counter to theoretical expectations (Vittersø and Søholt 2011), and is also inconsistent with much empirical research suggesting hedonia is a stronger predictor of life satisfaction than eudaimonia (e.g. Huta and Ryan 2010; Linley et al. 2009; Vittersø and Søholt 2011).

One possible explanation for the abovementioned inconsistent findings may be that the OTH scale lacks validity. Validity related research with the OTH scale has focussed primarily on the factor structure of the scale; confirming that the items load, as predicted, onto three separate factors (Peterson et al. 2005). These findings have been postulated as evidence that the scale does in fact measure the three distinguishable concepts of eudaimonia, hedonia, and flow. The problem with this conclusion is that the content, convergent and predictive validity of the scale are assumed. The content validity of the OTH scale has previously been challenged; Vittersø and Søholt (2011) arguing that the pleasure orientation items do not accurately reflect the theoretical construct of hedonia. In terms of convergent validity, Vittersø et al. (2006) found that the pleasure orientation correlated only weakly with other measures of pleasure. Consistent with this was Scheueller and Seligman's (2010) and Vella-Brodrick et al. (2009) findings, whereby pleasure was less strongly associated with positive affect than was engagement and meaning. This lack of convergent validity further challenges the content validity of the OTH scale, specifically for the pleasure orientation.

In regards to predictive validity, Ruch et al. (2010) assessed this by developing the *Orientations to Happiness-Situations* rating form. This required participants to read three short descriptions of leisure, work, and family-related situations; considered reflective of the orientations of pleasure (leisure), engagement (work), and meaning (family-related situations). Participants were asked to imagine activities they engaged in during each situation (e.g. hobbies for leisure time), and rate for each situation: (1) how much time they spend planning such activities; (2) how much time they spend pursuing such activities; and (3) whether they would primarily pursue such activities under ideal conditions. Leisure related responses were found to correlate with pleasure, while work and family responses correlated with both meaning and engagement. Ruch et al. concluded that this was evidence of the behavioural predictive validity of the scale; however, this method of assessing

predictive validity has major limitations. The design of the additional questions represents one such limitation, as again they were cross-sectional, hardly differing from the items of the OTH scale. Further, the assumption that the chosen situations would be universally and exclusively experienced as pleasurable, engaging, and meaningful is problematic; this is actually highly subjective. For example, many individuals may find their leisure activities to be highly engaging, such as sport or musical interests, while another individual might find their work highly meaningful. Further, this categorical approach ignores the fact that they are actually highly related experiences, with many pleasurable situations, for example, also experienced as engaging and/or meaningful. The limitations of Ruch et al.'s research means that the predictive validity of the OTH scale remains unknown, with further research necessary. Specifically requiring further investigation is whether the OTH scale predicts *actual* behaviour, not just responses on other cross-sectional surveys.

While the validity of the OTH scale remains questionable, we see a risk in proclaiming any one orientation as 'better', or more rewarding than another. From the limited data obtained, from cross-sectional research, it seems premature to be making such claims, especially considering that these may be interpreted by consumers as cautions against hedonia. Research into the validity of the OTH scale is now necessary to confirm or disconfirm the accuracy of previously postulated conclusions. Ideally, this research would measure actual instances of hedonic and eudaimonic behaviour, so that the ability of the OTH scale to predict such behaviour could be investigated. As the OTH scale is postulated to be a measure of *typical* behaviour, numerous instances of hedonic and eudaimonic behaviour would be aggregated to establish an indicator of *average* hedonic and eudaimonic behaviour. Further, this research would investigate the relationship between hedonia, eudaimonia and life satisfaction. Although past research utilising the OTH scale suggests that eudaimonia is a stronger predictor of life satisfaction than hedonia, this may simply be a product of the OTH scale lacking validity.

In this study, participants completed the OTH scale and the Satisfaction with Life scale, prior to completing a 4 day online diary. The diary required participants to report their activities over 4 days, and rate these in regard to how hedonic and/or eudaimonic their experience of each activity was. In light of the limitations and inconsistent findings cited above, we predicted that the pleasure orientation would be weakly or uncorrelated with actual hedonic experiences, and would therefore be a weak predictor of *average* hedonic behaviour. We hypothesised that the orientation to meaning would be strongly correlated with actual eudaimonic experiences, and would be a strong predictor of eudaimonic behaviour. Further, we predicted that the orientation of engagement would correlate with both hedonic and eudaimonic experiences, consistent with Waterman's (1993) findings. Finally, while we expected the OTH scale to demonstrate a similar relationship with life satisfaction as it has done in past research, with meaning and engagement demonstrating stronger associations than pleasure, we predicted that hedonic behaviour would be more strongly associated with life satisfaction than eudaimonic behaviour.

2 Method

2.1 Participants

Participants were 107 adults from the general population. Participants were recruited through various means, including social media, psychology interest group mailing lists, corporate mailing lists, retirement villages, letterbox drops, undergraduate psychology

students, and word of mouth. Participants were predominantly female (66.4 %) aged between 18 and 66 (mean = 34.37, SD = 12.76). Seventy five per cent had an undergraduate degree or higher and 81 per cent were employed. Although the study was not restricted to Australians, 97.2 per cent of the sample was Australian, with two participants from New Zealand and one participant from Turkey. No information regarding ethnicity was available.

2.2 Procedure

There were two components to the study: (1) the pre-diary questionnaires, and (2) the online diary. Participants accessed the pre-diary questionnaires via a web portal, where they answered demographic questions and completed the OTH scale and the Satisfaction with Life Scale. After completing the pre-diary questionnaires, participants were informed of their start date for the online diary, and were sent instructions detailing how to complete the diary component. The diary was completed for four consecutive days, which included a weekend and 2 week days; the rationale being that week days and weekends can vary in terms of the opportunities afforded for hedonic and eudaimonic activities. As the aim was to ascertain each participant's *typical* hedonic and eudaimonic behaviour, it was considered important to sample both work and leisure time. The goal of obtaining *typical* behavioural data was communicated to participants, and they were instructed to negotiate a new start date if they foresaw that their 4 diary days would be atypical for them (e.g. if they were on holidays, if they were unwell and bedridden, etc.). Participants were emailed a unique web link on each diary day at 6 am, restricting them from completing more than 1 day at a time. To improve recall accuracy, participants had a 6 h window (6 am–12 pm) to complete each diary day; diary entries completed outside this time were considered invalid. On successful completion of all 4 diary days, participants received a movie voucher, which served as an incentive to reduce attrition.

2.3 Measures

2.3.1 Orientations to Happiness Scale (Peterson et al. 2005)

The OTH scale was developed to measure an individual's orientations to happiness by the pursuit of pleasure, engagement, and/or meaning. The scale contains 18 items: six items measuring each orientation. Instructions to respondents are: 'All of the questions reflect statements that many people would find desirable, but we want you to answer only in terms of whether the statement describes how you actually live your life.' Ratings are made on a 5-point Likert scale (1 = 'not like me at all', through 5 = 'very much like me') and subscale scores are formed by averaging the responses relevant to the respective orientation. Example items include: 'life is too short to postpone the pleasures it can provide' (pleasure subscale), 'I am always very absorbed in what I do' (engagement subscale), and 'I have spent a lot of time thinking about what life means and how I fit into its big picture' (meaning subscale). Previous research has shown that these three subscales are reliable and empirically distinct, and that they are stable over time (Ruch et al. 2010). In the current study, the reliabilities of each subscale were satisfactory: $\alpha = 0.86$ for pleasure, $\alpha = 0.78$ for meaning and $\alpha = 0.79$ for engagement.

2.3.2 Satisfaction with Life Scale (SWLS; Diener et al. 1985)

The SWLS is a measure of global life satisfaction. It consists of five items, and for each item, respondents rate themselves on a 7-point rating scale (ranging from 1 = 'strongly disagree', through 7 = 'strongly agree'). Sample items include, 'I am satisfied with my life,' and 'If I could live my life over, I would change almost nothing.' Higher scores represent higher levels of general life satisfaction. Research has established excellent psychometric properties for the SWLS (Diener 1994), and the measure has been found to be highly reliable and has a large network of sensible correlates (Park et al. 2009). In the current study, this scale had a reliability of $\alpha = 0.87$.

2.3.3 Online Diary Component

The online diary developed for this study required participants to report their daily activities, and rate the degree to which each activity was experienced as hedonic and/or eudaimonic. This procedure was repeated for four consecutive days. The diary represented an amalgamation of parts of three well established research tools: the Day Reconstruction Method (DRM; Kahneman et al. 2004), the Australian Bureau of Statistics (ABS) time use research diary (ABS 2008), and the Hedonic and Eudaimonic Motives for Activities (HEMA) scale (Huta and Ryan 2010). The DRM was designed to collect data describing the experiences a person has on a given day, through a systematic reconstruction conducted the following day. In this way, participants retrospectively recall the previous day, by breaking it up into activities *or* episodes. Respondents answer structured questions regarding each episode: when it occurred (start and end times); what they were doing; where they were; with whom they were interacting; and how they felt. Kahneman et al. (2004) proposed that evoking the context of episodes reduced errors and biases of recall, as specific memories are elicited. The DRM is intended to reproduce the information that would have been obtained by probing experiences in real time. The gold standard in this regard has been experience sampling (ES), and DRM results have been found to strongly correlate with ES results (Dockray et al. 2010). Further, the DRM has substantial benefits over ES as it imposes less respondent burden; does not disrupt normal activities; and provides an assessment of a full day, rather than a random sampling of moments.

Despite perhaps being less burdensome than ES, the DRM can still take up to 75 min to complete in its paper pencil format. As participants in this study were completing the diary four times, it was considered vital to make the procedure as efficient as possible. Therefore, an online format was developed. In keeping with the DRM, participants were required to report all their activities in temporal sequence, from 6 am on the previous day until 6 am on the current day, and repeat this four times. To streamline the process of entering activities, the categories and activities from the ABS time use research diary were incorporated; the goal being to reduce the need for participants to type. In this way, participants first reported the start and end time of an activity, then chose from 14 activity categories (e.g. Personal Care, Employment, Shopping and Services, Social Life/Entertainment, etc.). Depending on the selected activity category, their choice of actual activities (e.g. laundry, walking the dog, cycling, cinemas, etc.) was restricted. If their specific activity was not included in the list they had the option of selecting 'Other' and manually typing the activity. Like with the DRM, participants also reported where they were, and who they were with. Despite these factors (i.e. the actual activity, the social context, and the location) not being of primary interest in this research, they were included to help create a richer context; evidenced to improve recall accuracy (Kahneman et al. 2004).

The one point where the methodology deviated from the DRM was in regards to the participants reporting on their experience of each activity. While the DRM asks participants about the degree they feel various emotions (e.g. warm/friendly, angry/hostile, etc.), the current research was interested in the degree to which participants experienced each of their activities as hedonic and/or eudaimonic. To assess this, a variation of the HEMA was utilised. In the HEMA, participants are asked to report their degree of hedonic and eudaimonic motives for activities on a seven-point rating scale (0 = 'not at all', through 6 = 'very much'). Eudaimonic motives include 'Seeking to pursue excellence or a personal ideal?', 'Seeking to use the best in yourself?', 'Seeking to develop a skill, learn, or gain insight into something?', and 'Seeking to do what you believe in?', while hedonic motives include 'Seeking enjoyment?', 'Seeking pleasure?', 'Seeking fun?', 'Seeking relaxation?', and 'Seeking to take it easy?'. The HEMA has been found to have good psychometric properties, and the hedonic and eudaimonic subscales have been found to correlate strongly with theoretically related constructs (e.g. the hedonic subscale has been found to be highly correlated with positive affect, while the eudaimonic subscale correlates strongly with meaning in life) (Huta and Ryan 2010). The wording of the HEMA was adapted so that participants reported on their actual experience of hedonia (e.g. 'please rate the degree to which this activity was enjoyable; pleasurable; fun; and/or relaxing') and eudaimonia (e.g. 'please rate the degree to which this activity allowed you to do what you believe in; use the best in yourself; pursue excellence or a personal ideal; and/or develop a skill, learn, or gain insight into something') for each activity, rather than their motives.

In keeping with validity recommendations from the coding procedures for the Multi-national Time Use Study (2012), only diary days with at least seven activities were accepted. Further, participants did not rate sleep as hedonic or eudaimonic. Lastly, when participants were breaking their days up into activities (or episodes) they were encouraged to base this on one of two guidelines: (1) when what they were doing changed (e.g. from eating breakfast to having a shower), or (2) when their experience of the activity changed (in terms of hedonia and eudaimonia), even if the activity did not (e.g. when watching T.V. for 2 h, and the first hour is mundane and the second hour is more enjoyable).

3 Results

Diary data was compiled at the activity level by multiplying the time spent engaged in an activity by the degree to which the activity was experienced as hedonic and/or eudaimonic. These products were aggregated for the 4 days, to represent the participant's *typical* hedonic and eudaimonic score. For example, a 2-h activity rated as '3' on eudaimonia and '6' on hedonia would contribute '6' to the participants' eudaimonic score and '12' to their hedonic score. Table 1 presents the intercorrelations between the different orientations to happiness, life satisfaction, and the hedonia and eudaimonia diary results (referred to simply as hedonia and eudaimonia hereafter). Both engagement and meaning were found to be significantly correlated with hedonia and eudaimonia, however both were more strongly related to eudaimonia ($r = 0.31$ and $r = 0.34$, $p < 0.001$) compared to hedonia ($r = 0.25$ and $r = 0.26$, $p < 0.01$). In contrast, pleasure was found to be unrelated to both hedonia and eudaimonia. Each orientation was found to be significantly correlated with life satisfaction; however, engagement and meaning were more strongly related to life satisfaction than pleasure ($r = 0.39$ compared to $r = 0.46$ and $r = 0.45$ for engagement and meaning, respectively). Although both hedonia and eudaimonia were significantly related

Table 1 Correlations between the orientations to happiness, hedonia and eudaimonia, and life satisfaction

	Engagement	Meaning	Hedonia	Eudaimonia	Life satisfaction
Pleasure	0.45**	0.29**	0.12	0.05	0.39**
Engagement		0.47**	0.25**	0.31**	0.46**
Meaning			0.26**	0.34**	0.45**
Hedonia				0.67**	0.36**
Eudaimonia					0.27**

* $p < 0.05$; ** $p < 0.01$

to life satisfaction, hedonia had a stronger relationship than eudaimonia ($r = 0.27$, $p < 0.01$, compared to $r = 0.36$, $p < 0.001$).

A hierarchical multiple regression predicting life satisfaction was conducted for two reasons: (1) to test the generalizability of the findings by checking whether the OTH scale in the current sample was operating in a similar way to in previous research, and (2) to see whether the addition of hedonia and eudaimonia explained more variance in life satisfaction after controlling for the OTH scale. Table 2 presents the results of this analysis, with the orientations to happiness entered at step 1, and hedonia and eudaimonia entered at step 2. Step 1 explained 31.7 % of the variance in life satisfaction, $F(3, 103) = 15.93$, $p < 0.001$. Consistent with the correlational analysis, engagement and meaning were stronger predictors of life satisfaction than pleasure, with meaning having the largest regression weight ($\beta = 0.28$, $p < 0.01$). The total variance explained with the addition of hedonia and eudaimonia was 36.7 %, $F(2, 101) = 11.73$, $p < 0.001$. After controlling for the OTH scale, hedonia and eudaimonia explained an additional five per cent of variance in life satisfaction, $\Delta R^2 = 0.05$, $F_{\text{change}}(2, 101) = 4.02$, $p < 0.05$. In this final model, hedonia was the strongest individual predictor of life satisfaction ($\beta = 0.28$, $p < 0.01$), while eudaimonia was not a significant predictor ($\beta = -0.08$). That is, hedonia was predominantly responsible for the significant R squared change in step 2, explaining unique variance unexplained by the three orientations.

Table 2 Hierarchical multiple regression predicting life satisfaction

	<i>B</i>	SE	β
Step 1			
Pleasure	1.48	0.65	0.21*
Engagement	1.98	0.85	0.23*
Meaning	2.21	0.72	0.28**
			$R^2 = 0.32^*$
Step 2			
Pleasure	1.42	0.64	0.20*
Engagement	1.75	0.85	0.20*
Meaning	1.99	0.72	0.26**
Hedonia	0.11	0.04	0.28**
Eudaimonia	-0.03	0.03	-0.08
			$R^2 = 0.37^{**}$

* $p < 0.05$; ** $p < 0.01$

Table 3 Multiple regression predicting hedonia

	<i>B</i>	SE	β
Pleasure	-0.16	1.87	-0.01
Engagement	3.63	2.46	0.17
Meaning	3.52	2.08	0.18

* $p < 0.05$; ** $p < 0.01$

Table 4 Multiple regression predicting eudaimonia

	<i>B</i>	SE	β
Pleasure	-3.13	2.35	-0.14
Engagement	7.03	3.09	0.25*
Meaning	6.67	2.61	0.26*

* $p < 0.05$; ** $p < 0.01$

To test the ability of the OTH scale to predict hedonic and eudaimonic behaviour, a further two multiple regressions were conducted. Table 3 presents the regression results predicting hedonia. This regression explained a small but significant amount of variance in hedonia, $F(3, 103) = 3.34$ $p < 0.05$. Despite this, there were no significant individual predictors of hedonia.

Table 4 presents the regression results predicting eudaimonia. This regression explained 16.2 % of the variance in eudaimonia, $F(3, 103) = 6.62$ $p < 0.001$. Meaning and engagement were both significant individual predictors of eudaimonia, with meaning the strongest predictor ($\beta = 0.26$, $p < 0.05$) relative to engagement ($\beta = 0.25$, $p < 0.05$).

4 Discussion

This study sought to investigate the validity of the OTH scale by testing its association with actual reports of hedonic and eudaimonic behaviour. As hypothesised, the OTH scale was found to operate similarly in the current sample as it has done in previous research (Peterson et al. 2005; Schueller and Seligman 2010; Vella-Brodrick et al. 2009). All three orientations were related to, and predictive of life satisfaction, however meaning and engagement were stronger predictors relative to pleasure. Therefore, it is reasonable to assume that findings from the present study are not unique to this sample, and that conclusions hereafter are generalizable to other past research that has utilised the OTH scale.

As predicted, findings did not support the validity of the pleasure orientation subscale. The pleasure orientation—developed specifically to measure *typical* hedonic behaviour—was found to be unrelated to reports of actual hedonic behaviour. No orientation was found to be a significant predictor of hedonia, with the pleasure orientation being the weakest predictor out of all three orientations. This lack of an association is consistent with past research, whereby the pleasure orientation has been found to be unrelated, or at best weakly associated with theoretically related constructs, such as positive affect (Schueller and Seligman 2010; Vella-Brodrick et al. 2009; Vittersø et al. 2006). Further challenging the validity of the OTH scale was the finding that hedonia was more strongly related to life satisfaction than eudaimonia; a result which was inconsistent with all past research

utilising the OTH scale (Peterson et al. 2005; Schueller and Seligman 2010; Vella-Brodrick et al. 2009). Despite being inconsistent with OTH scale research, this finding was consistent with other past research (e.g. Huta and Ryan 2010; Vittersø and Søholt 2011). This result suggests that the OTH does not adequately capture hedonia, nor its relationship with life satisfaction. The hierarchical regression results further supported this conclusion, whereby significant additional variance in life satisfaction was explained by hedonia, after controlling for the OTH scale. Combined, these findings strongly suggest that the pleasure orientation is a poor measure of hedonia.

The poor ability of the OTH scale to predict hedonic behaviour may be reflective of a lack of content validity. Indeed, many of the items contributing to the pleasure orientation do not appear to accurately reflect the construct of hedonia. For example, the items “life is too short to postpone the pleasures it can provide” and “I agree with this statement: life is short—eat dessert first” appear to more accurately be measuring impulsiveness and a lack of self-regulation than hedonia. Other items, such as “I go out of my way to feel euphoric” and “in choosing what to do I always take into account whether it will be pleasurable” appear to be measuring the attitude of pursuing pleasure for pleasure’s sake. None of these items are likely to capture those people that experience much of their lives as hedonic, without hedonia being the primary motivation for engaging in what they do. Findings suggest that many of the participants that did not endorse the pleasure orientation items still reported that their lives were full of hedonia, while other participants that did endorse the pleasure orientation items did not report their lives as being hedonic. Perhaps Victor Frankl’s (1988) adage may provide an explanation: “pleasure is missed when it is the goal, and attained when it is the side-effect of attaining a goal” (p. 34). Regardless, findings from the current study suggest that the pleasure orientation subscale of the OTH scale is not capturing what it was designed to capture: a hedonic life.

In contrast, meaning and engagement were found to be related to both hedonia and eudaimonia, though more strongly related to eudaimonia. Engagement and meaning were both significant predictors of eudaimonia, with meaning the strongest individual predictor. Therefore, despite the OTH scale lacking validity in regards to predicting hedonia, the scale does appear to be tapping eudaimonia. The finding that both meaning *and* engagement were significant predictors of eudaimonia could be interpreted in two ways. Firstly, the engagement orientation may actually measure some aspects of eudaimonia. While many of the engagement orientation items appear to purely reflect flow experiences (e.g. ‘whether at work or in play, I am usually “in a zone” and not conscious of myself’) some also seem reflective of typical eudaimonic constructs. For example, the item ‘I seek out situations that challenge my skills and abilities’ could easily be tapping the eudaimonic aspect of actualising one’s inherent potentials. An alternative explanation for the stronger association observed between engagement and eudaimonia could be that eudaimonic activities are superior at inducing flow than hedonic activities.

The strength of the current study lies in the sampling of actual hedonic and eudaimonic behaviour. This feature however, is also at the core of some of the limitations of the study. Firstly, the design of the study meant it was restricted to those individuals that had internet access, and in particular, had access between the hours of 6 am and 12 pm on four consecutive days. As such, the sample may be somewhat biased towards individuals in office jobs with convenient internet access, and perhaps from a higher socio-demographic, as reflected by the high education and employment rates reported. Further, the design of this study, which was onerous for participants, relative to other research designs, means replication of this research may be impractical in many settings. To promote future research in this area, the development of valid cross sectional measures of hedonia should

be of high priority. This will make on-going research both viable and valid. Further, while this study suggests that hedonia is more strongly associated with life satisfaction than eudaimonia, future research should further investigate the relationship between hedonia, eudaimonia and other measures of well-being, as well as psychological distress. Findings from such research could be useful in the development of targeted hedonic and eudaimonic based interventions.

The present study investigated the validity of the OTH scale by comparing the three orientations to happiness to actual reports of hedonic and eudaimonic behaviour. Findings suggest that the OTH scale is actually a poor predictor of hedonic behaviour, despite the pleasure orientation being specifically designed to sample *typical* hedonic behaviour. Indeed, very little in the OTH scale appears to actually be capturing hedonia. To address the issue of content validity, the items contributing to the pleasure orientation need to be scrutinised in terms of their reflectiveness of the construct of hedonia. Further, although previous research has proposed that pleasure is less important for life satisfaction than engagement and meaning, in the current study hedonia was found to be a stronger predictor of life satisfaction than eudaimonia. Therefore, previous proclamations that engagement and meaning are more rewarding or 'better' pathways to well-being than pleasure may actually be more reflective of the measurement lacking validity. Taken together, findings from the current study challenge past conclusions drawn from research utilising the OTH scale, and question the scale's on-going utility. While the meaning orientation appears to have some predictive validity, future research should focus on the development of more valid cross sectional measures of hedonia.

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