

Happiness as Stable Extraversion: Internal Consistency Reliability and Construct Validity of the Oxford Happiness Questionnaire Among Undergraduate Students

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Published online: 16 March 2010
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Abstract The Oxford Happiness Questionnaire (OHQ) was developed by Hills and Argyle (2002) to provide a more accessible equivalent measure of the Oxford Happiness Inventory (OHI). The aim of the present study was to examine the internal consistency reliability, and construct validity of this new instrument alongside the Eysenckian dimensional model of personality. The Oxford Happiness Questionnaire was completed by a sample of 131 undergraduate students together with the abbreviated form of the Revised Eysenck Personality Questionnaire. The data demonstrated good internal consistency reliability ($\alpha=.92$) and good construct validity in terms of positive association with extraversion ($r=.38$ $p<.001$) and negative association with neuroticism ($r=-.57$ $p<.001$). The kind of happiness measured by the OHQ is clearly associated with stable extraversion.

Keywords Oxford happiness questionnaire · Eysenck personality questionnaire revised · Happiness · Extraversion · Neuroticism

Introduction

Happiness is an important construct within positive psychology, and yet it remains elusive to define and problematic to assess. Within a potentially wide and diffuse literature, the Oxford Happiness Inventory emerged in the late 1980s as making an important contribution both to the definition and to the assessment of happiness

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(Argyle et al. 1989). Argyle and Crossland (1987) maintained that conceptually happiness comprises three components: the frequency and degree of positive affect or joy; the average level of satisfaction over a period; and the absence of negative feelings, such as depression and anxiety. The Oxford Happiness Inventory operationalised this construct through the development of a 29-item forced choice instrument. Each item contains four options, constructed to reflect incremental steps of happiness. In respect of each item respondents were invited to choose the one description that ‘best describes the way you have been feeling over the past week, including today.’ The psychometric credentials of the 29-item instrument reported by the test constructors include an internal reliability of .90 and a seven-week test-retest reliability of .78. Validity was established against happiness ratings reported by friends, and by correlations with measures of positive affect, negative affect, and life satisfaction.

In two papers published at the end of the 1990s, Francis et al. (1998) and Francis (1999) examined the construct validity of the Oxford Happiness Inventory within the framework of Eysenck’s dimensional model of personality (Eysenck and Eysenck 1991) and drawing on theory proposed by Eysenck (1983) that happiness is located within the personality quadrant defined as stable extraversion. In the second of these studies, Francis (1999) selected the straightforward descriptive title that affirms the construct expectations of the Oxford Happiness Inventory within the framework of Eysenck’s dimensional model of personality: ‘Happiness is a thing called stable extraversion.’ These empirical associations between scores recorded on the Oxford Happiness Inventory and both higher scores on Eysenckian extraversion scales and lower scores on Eysenckian neuroticism scales have also been confirmed by Argyle and Lu (1990); Furnham and Brewin (1990); Lu and Argyle (1991); Brebner et al. (1995); Furnham and Cheng (1999, 2000); Chan and Joseph (2000); Francis and Katz (2000); Lewis et al. (2002), and Cheng and Furnham (2003).

Although the Oxford Happiness Inventory has demonstrated good psychometric properties, there remains one significant disadvantage with the instrument. Since each of the 29 items has been developed with four fixed-response options, the instrument requires quite a lengthy questionnaire. In order to address this problem, Hills and Argyle (2002) proposed the development of the Oxford Happiness Questionnaire, an instrument which retained the same basic 29 items of the parent instrument, but re-expressed each issue in terms of the conventional Likert-type response format.

As yet, however, published studies have not reported on the location of scores recorded on the Oxford Happiness Questionnaire within the dimensional framework proposed by Eysenckian personality theory. The primary aim of the present study, therefore, is to examine the construct validity of this more recently proposed measure of happiness against the relevant Eysenckian personality constructs. The secondary aim of this study is to examine the internal consistency reliability of this measure.

Method

Sample

A sample of 131 undergraduate students was recruited by the third author inviting cooperation from fellow students occupying halls of residence. The project was

undertaken in fulfillment of course work and received a high level of co-operation. The sample comprised 71 males and 60 females. One third of the respondents (32%) were 18 or 19 years of age, 43% were 20 or 21 years of age, and the remaining 25% were over the age of 21.

Measures

Happiness was assessed by the Oxford Happiness Questionnaire (Hills and Argyle 2002). This is a 29-item measure. Each item was assessed by a five-point scale: agree strongly, agree, not certain, disagree, and disagree strongly. The test constructors reported an alpha coefficient of .91.

Personality was assessed by the abbreviated form of the Eysenck Personality Questionnaire Revised (Francis et al. 1992). Given the nature of the hypothesis being explored, the present study reports on three measures proposed by this instrument: six-item scales of extraversion and neuroticism and a six-item lie scale. The test constructors report the following alpha coefficients among students in the UK: extraversion, .82; neuroticism, .77; lie scale, .63.

Data Analysis

The data were analysed by SPSS, employing the following routines: frequencies, reliabilities, correlations, and partial correlations.

Results

Table 1 presents the scale properties of the four instruments employed in this study in terms of the alpha coefficients, and the means and standard deviations for males and for females separately. The alpha coefficients demonstrated that all the instruments functioned with satisfactory internal consistency reliability, in excess of the threshold of .65 recommended by DeVellis (2003).

Table 2 presents the items of the Oxford Happiness Questionnaire together with the item rest-of-test correlations and the percentage item endorsement. In this table the agree strongly and agree responses have been aggregated and expressed as ‘yes’, the disagree strongly and disagree responses have been aggregated and expressed as ‘no’; the

Table 1 Scale properties

Scale	Alpha	Men		Women		<i>t</i>	<i>p</i> <
		Mean	sd	Mean	sd		
Happiness	0.90	97.14	14.79	99.28	14.71	−0.83	NS
Extraversion	0.82	3.82	2.04	4.52	1.86	−2.04	.05
Neuroticism	0.76	3.06	2.02	3.50	1.84	−1.31	NS
Lie scale	0.68	1.97	1.65	1.98	1.80	−0.04	NS

This table shows that all scales function with acceptable internal consistency reliability

Table 2 The Oxford Happiness Questionnaire: item rest-of-test correlations and item endorsement

	<i>r</i>	yes %	? %	no %
I don't feel particularly pleased with the way I am*	.56	36	17	47
I am intensely interested in other people	.15	71	23	6
I feel that life is very rewarding	.67	67	21	12
I have very warm feelings towards almost everyone	.40	57	24	20
I rarely wake up feeling rested*	.43	47	18	35
I am not particularly optimistic about the future*	.59	19	18	63
I find most things amusing	.39	66	23	12
I am always committed and involved	.36	53	30	17
Life is good	.75	73	17	10
I do not think that the world is a good place*	.22	37	21	42
I laugh a lot	.50	83	11	6
I am well satisfied about everything in my life	.59	35	28	37
I don't think I look attractive*	.44	39	34	27
There is a gap between what I would like to do and what I have done*	.31	70	17	14
I am very happy	.81	55	28	18
I find beauty in some things	.27	94	4	2
I always have a cheerful effect on others	.49	51	33	16
I can fit in everything I want to in my life	.25	23	29	48
I feel that I am not especially in control of my life*	.43	36	25	39
I feel able to take anything on	.53	41	27	32
I feel fully mentally alert	.57	45	23	31
I often experience joy and elation	.59	71	16	13
I do not find it easy to make decisions*	.45	44	18	38
I do not have a particular sense of meaning and purpose in my life*	.61	27	18	56
I feel I have a great deal of energy	.52	58	16	26
I usually have a good influence on events	.57	57	34	10
I do not have fun with other people*	.38	5	9	86
I don't feel particularly healthy*	.31	26	17	57
I do not have particularly happy memories of the past*	.30	63	14	24
alpha	.90			

This table shows the correlation between each item and the sum total of the other items

*These items are reverse order to generate the correlations

uncertain responses have been expressed as '?' The item rest-of-test correlations demonstrated that the majority of items contribute in a satisfactory way to the overall scale score.

Finally Table 3 presents the correlation matrix for the measures of happiness, extraversion, neuroticism and the lie scale. These data clearly supported the construct validity of happiness assessed by the Oxford Happiness Questionnaire as associated with stable extraversion. When these associations were recalculated

Table 3 Correlation matrix

	OHQ	L	N
Extraversion (E)	+.38***	-.11	-.31***
Neuroticism (N)	-.57***	-.08	
Lie scale (L)	+.07		

*= $p < .05$; **= $p < .01$; ***= $p < .001$.

This table shows that happiness is associated with high extraversion and with low neuroticism.

lated as partial correlations controlling for sex differences, the picture remained unchanged: happiness and extraversion, $r = .38$, $p < .001$; happiness and neuroticism, $r = -.59$, $p < .001$.

Conclusion

The present study set out to examine the construct validity and internal consistency reliability of the relatively new measure of happiness, known as the Oxford Happiness Questionnaire, based on the longer-established Oxford Happiness Inventory. Data were provided by a sample of 131 undergraduate students who completed the Oxford Happiness Questionnaire together with the abbreviated form of the Eysenck Personality Questionnaire Revised. Three main conclusions emerged from this study.

First, the alpha coefficient ($\alpha = .90$) and the item rest-of-test correlations supported the internal consistency reliability of the instrument. Closer inspection of the item rest-of-test correlations, however, revealed that four items correlated with the sum of the other items at a level below the threshold of .30 (I am intensely interested in other people; I do not think that the world is a good place; I find beauty in some things; I can fit in everything I want to in my life). Future research, however, may find that a somewhat shorter instrument would also function as a more reliable instrument, omitting these items that report low item-rest-of-test correlations.

Second, the correlations with scores recorded on the abbreviated form of the Eysenck Personality Questionnaire Revised supported the construct validity of the instrument in light of two theoretical assumptions. The first assumption was that the Oxford Happiness Questionnaire accesses the same construct as the Oxford Happiness Inventory from which it was derived, and significant previous research has established the association between high scores on the Oxford Happiness Inventory and high scores on the Eysenckian extraversion scales and low scores on the Eysenckian neuroticism scales. The second assumption was that the association between happiness and both high extraversion and low neuroticism is theoretically consistent with the nature of happiness being accessed by this instrument. Future research, however, may wish to assess whether this conceptual link between happiness and extraversion rests on a real distinction between the levels of happiness experienced by introverts and by extraverts, or (at least to some extent) on different ways in which introverts and extraverts experience and express happiness.

Third, these conclusions concerning the internal consistency reliability and construct validity of the Oxford Happiness Questionnaire suggest that this relatively new, shorter and simpler instrument may be used in place of the longer-established and somewhat more cumbersome Oxford Happiness Inventory.

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