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LAY THEORIES OF HAPPINESS

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ABSTRACT. Over 230 young people completed a battery of questionnaires measuring personality, self-esteem, and happiness as well as one developed specifically for this study on their “theories of the causes of happiness”. The 36 causes factored into six internally coherent and interpretable factors. Self-reported happiness, extraversion and sex were correlated with the lay theory factors. Four of the six factors were modestly ($r < 0.20$) correlated with the Oxford Happiness Inventory (OHI) scores. Path analysis, using the OHI as the dependent variable, showed self-esteem, extraversion and neuroticism direct predictors of happiness but that among the lay theories, only lay theories about optimism and contentment were direct predictors. Personality and demographic variables did predict the lay theories but the latter did not act as moderator or mediating factors between the former and happiness. The role and function of lay theories with respect to happiness are discussed.

KEY WORDS: personality, self-esteem, happiness, lay theories, extraversion, optimism.

INTRODUCTION

This study set out to examine the structure and correlates of lay, as opposed to academic, theories of the causes of happiness. There is an extensive literature on lay theories of psychological phenomena, especially mental illness, but little or nothing on lay theories of the causes of happiness (Furnham, 1988). The study also set out to examine the relations between lay beliefs of causes of happiness, personality, and “actual” self-reported happiness.

The study of lay theories of happiness is important because it describes how people think about happiness which in turn may be related to specific behaviour directed at self and others that is aimed at increasing happiness.

Usually researchers have distinguished between three types of theories: *lay* theories which are thought of as personal and idiosyncratic; *folk* theories which are thought to be shared by certain subgroups; and *scientific* theories which are usually thought to be empirically and observationally derived and tested. Furnham (1988) has argued that research questions about lay theories seem to be concerned with six different issues: *Aetiology* (How do these theories develop? What factors seem to lead to the development of particular ideas?); *Structure* (What is



the internal structure of these theories? How is the mental architecture arranged?); *Relationships* (How are various theories about different topics grouped or linked? What is the underlying structure of lay theories in different areas . . . health, economics, education?); *Function* (What function do theories hold for the individuals themselves? What are the implications for change?); *Stability* (Do these theories change over time? What sort of things influence them?); *Behavioural Consequences* (How is social behaviour related to these different theories?).

Studies on lay theories have tended to concentrate on mental illness, therapy, and psychological problems (see Table I). It remains unclear as to why lay theories of happiness or well-being have been ignored.

Almost no studies have appeared to look lay theories at the opposite extreme to mental illness and distress such as mental well-being or

TABLE I
The lay theory papers

Mental Illnesses	
Alcoholism	Furnham and Lowick (1984a,b)
Anorexia nervosa	Furnham and Hume-Wright (1992) Furnham and Manning (1997)
Depression	Furnham and Kuyken (1991)
Delinquency	Furnham and Henderson (1991)
Heroin addiction	Furnham and Thomson (1996)
Neurosis	Furnham (1984)
Phobia	Furnham (1995)
Schizophrenia	Furnham and Rees (1988) Furnham and Bower (1992) Angermeyer and Matschuger (1996)
Therapy	
Psychotherapy/pists	Furnham and Wardley (1990) Furnham and Wong (1994)
Efficacy and prognosis	Furnham and Wardley (1991)
Lay vs Clinical psychology	Furnham, Wardley and Lillie (1992)
Overcoming problems	
Psychological problems	Furnham and Henley (1988) Henley and Furnham (1988) Knapp and Karabenick (1985) Pistrang and Barker (1992)
Psychosomatic illnesses	Furnham (1989)
Everyday problems	Furnham and McDermott (1994)
Cognitive problems	Furnham and Hayward (1997)
Sexual problems	Twohig and Furnham (1998)

happiness. Books and papers on the topic of happiness nearly all note how interested lay people are in the topic and how long there has been popular as well as philosophic (and latterly psychological) speculation about the causes of happiness (Campbell, 1976, 1981; Chekola, 1975; Csikszentmihalyi, 1975, 1999; Easterlin, 1974; Eysenck, 1983, 1990). There is also an extensive literature on subjective well-being (Bradburn, 1969; Clemente and Sauer, 1976; Costa and McCrae, 1980; Diener, 1984; Diener and Emmons, 1984; Emmons and Diener, 1985). Eysenck (1990) however argues that many lay theories about happiness are myths. "We have encountered numerous cases in which common-senses views have been disproved by psychological research" (p. 119). And later: "... our knowledge of happiness has moved well beyond the limited insights of common sense" (p. 125). Despite these assertions there do not appear to be any studies that have examined lay theories of the causes, or consequences of happiness or indeed how the theories are related to "trait" happiness. That is, no study has examined how a participant's level of happiness influences his or her ideas about the causes of the happiness of others.

There are a number of academic theories as to the causes of happiness (Diener, 1984). *Telic theories* maintain happiness is gained when some state, goal or need is fulfilled. *Activity theories* stress that happiness maybe achieved though social interaction, leisure or other specific activities. *Social comparison theories* postulate that happiness results from a comparison between some standard and an actual condition. Another theoretical approach distinguishes between *Top-Down versus the Bottom-Up theories* (Diener 1984). The *Top-Down approach* assumes that there is a global propensity to experience things in a positive way and therefore a person enjoys pleasure because he or she is happy. Personality traits are thought to influence the way a person reacts to events, not the situation they encounter or choose. The *Bottom-Up theory* suggests that happiness is the sum of many small pleasures. Those who maintain that it is a predisposition or trait suggest that happiness is not just experiencing happy feelings but a propensity to act in a happy way. Thus the *Top-Down* approach suggests that the happy person might vary in state-happiness while the *Bottom-Up* state approach suggests that a happy person is one who has experienced many happy moments. Various attempts have been made to test these theories (Argyle, 1987; Eysenck, 1990) but this study focuses not on academic, but on lay theories.

This study has three aims: first to look at the range and endorsement of beliefs about the causes of happiness in people in general; second, through factor analysis, to look at the structure of these beliefs and third, to examine the relationship between lay theories and “trait” happiness measured by psychometric valid measures of happiness. On the basis of previous research it seems that lay people would believe happiness is associated, or caused by, having social support, a particular personality profile, particular attitudes, and certain advantages in life. We also predicted that personality traits, rather than lay theories about the causes of happiness, would be stronger predictors of actual happiness. That is, while people may have coherent theories about the causes of happiness, there is no research to suppose they are more powerful than personality variables which have proven to be robust correlates of happiness (Argyle and Lu, 1990; Brebner, Donaldson, Kirby and Ward, 1995; Fordyce, 1977, 1983; Francis, 1999; Furnham and Brewin, 1990; Furnham and Cheng, 1997, 1999).

METHOD

Participants

233 participants completed the questionnaire, of which seventy five were male and one hundred and fifty nine were female. They ranged from fifteen to thirty five years old and attended various schools and colleges. The mean age was 18.23 years ($SD = 3.41$) and the sample were all English speaking. Most were final year school pupils who agreed to take part in various psychological studies of which this was a part. It was in essence a convenience sample rather than a representative sample.

Measures

Each participant was assured of the confidentiality of the investigation and subsequently received a booklet containing the following questionnaires which they were asked to complete:

1. *Eysenck Personality Questionnaire – Revised*: this questionnaire was produced by Eysenck, Eysenck and Barrett (1985) from the full Eysenck Personality Questionnaire (EPQ). It has Cronbach alpha coefficient reliabilities of between 0.73 and 0.90. It was used because of its widespread validity and prominence in personality research.

Most of the studies linking personality traits to happiness have used this measure. It is based upon forty eight questions with a YES-NO rating, scores for individuals are based on four scales; neuroticism, extraversion, psychoticism and lie scale.

2. *The Rosenberg Self Esteem Scale*: this scale was devised by Rosenberg (1965) and it rated on a four point scale from (1) strongly agree through to (4) strongly disagree, for ten statements designed equally to be positive and negative. It has a reproducibility index of 0.93 and a test-retest reliability of 0.85. It is one of the most well used measures to assess self-esteem because of the proven validity.
3. *The Oxford Happiness Inventory*: this inventory was designed by Argyle, Martin and Crossland (1989) and is a 29 item questionnaire, based on a seven point rating scale from (7) agree through to (1) disagree. It has a test-retest reliability of 0.78 and a Cronbach coefficient of between 0.64 and 0.87. Some of the items almost identical to the Beck Depression Inventory but reversed on content and it has sub-categories of personal achievement, enjoyment and fun in life, and vigour and good health, according to Furnham and Brewin (1990). It has a reported validity of 0.43 with friends ratings of happiness on a 10-point scale. It also correlates with positive affect, life satisfaction, and depression at 0.40–0.60. Nearly a dozen studies used it as a trait measure of happiness over the past decade (Brebner et al., 1995; Furnham and Cheng, 1997; 1999).
4. *The Causes of Happiness Questionnaire*: this questionnaire was designed to reflect on lay beliefs of the causes of happiness. It was headed “causes of happiness” consisted of thirty eight statements to be responded to on a seven point scale from 7 = important to 1 = unimportant. The items were derived from the literature (Argyle, 1987; Eysenck, 1990; Freedman, 1978; Maslow, 1954; Veenhoven, 1984) and from interviews with lay people about the causes of happiness. It followed essentially the methodology of the other papers on lay theories (Furnham, 1984, 1989, 1995).

In addition, participants were requested to fill out a demographic section which include sex, age, employment of parents, parental divorce, number of siblings etc.

Procedure

Participants were asked to fill out the questionnaire in their school environment whilst waiting for an interview. The confidentiality of the

questionnaire was stressed and the booklet took about half-an-hour to forty-minutes to complete. The response rate was 100%.

RESULTS

1. The General Responses of The Causes of Happiness Questionnaire (COHQ)

From 38 items that make up the questionnaire, the mean scores between 4.50 and 5.50 were viewed as *Agree*; over 5.50 *Strongly Agree* while those between 3.5 and 2.5 were regarded as *Disagree* and mean scores between 3.50 and 4.50 were considered *undecided* or “*Neutral*”.

Among these items, having loving parents, having friends (both by quality and quantity), self-esteem, freedom in choosing one's work and life style, having a brighter outlook on life (optimism) and being content with what one has were all believed by lay people as important causes of human happiness whereas being born happy, having a higher education, and being more intelligent were thought of as far less important.

2. The Structure and Determinants of the Lay Theories of Causes of Happiness

Various rotated factor analysis were performed on this data both oblique and orthogonal. There was comparatively little difference between the two hence the orthogonal rotation was reported.

A Varimax Rotated Factor Analysis was then performed to reveal orthogonal factor structure that underlies the responses. To prevent the correlation matrix suffering from multicollinearity, 3 items (numbers 6, 7, and 23) were omitted because of the high intercorrelations with other items (greater than 0.75). Table III shows the results. Items loaded 0.40 and above were included in each factor. The Scree Test used to determine which factors were to be retained and six factors emerged with Eigenvalues > 1.50 and accounted for 51.1% of the variance. Further, the alpha co-efficients were calculated for each factor and these showed five of the six were above the usual cut-off point of 0.70.

The factors were labelled individually according to their loadings. The first factor was labelled as *Mental Strength & Personality Traits* because it was concerned with being mentally strong and having self-control, whilst also possessing personality traits such as extraversion and being emotionally more stable. This accounted for nearly a quarter

TABLE II
Item, mean and *SD* on the beliefs of causes of happiness

People tend to be happy if . . .	<i>X</i>	<i>SD</i>	
1. They are born with "happy genes"	2.58	1.62	Disagree
2. They enjoy a good quality of life	5.41	1.40	Agree
3. They are in general healthier than other people	4.62	1.46	Agree
4. They live in a safe, spacious area	4.17	1.54	
5. They are financially well-off	4.03	1.67	
6. They live in good housing	4.23	1.48	
7. They have more luxurious leisure activities (eg. travel abroad)	3.80	1.65	
8. They are physically more attractive	3.63	1.73	
9. They have loving parents	5.72	1.26	S. Agree
10. They have close friends/confidants	5.90	1.11	S. Agree
11. They have more dates with partners	3.52	1.50	
12. They have many friends they like	5.76	1.14	S. Agree
13. They are loved and accepted by other people (at school, at the workplace or in the society)	5.71	1.21	S. Agree
14. They have higher education (college or higher)	3.09	1.55	Disagree
15. They have married those they love	5.41	1.68	Agree
16. They have healthy, clever and pretty children	3.70	1.59	
17. They have high self-esteem	5.61	1.42	S. Agree
18. They are free to travel	3.95	1.61	
19. They have achieved in life what they desired	5.49	1.35	Agree
20. They are well respected by others	5.15	1.23	Agree
21. They are free to choose their career or job	4.66	1.38	Agree
22. They have fully developed their potential	5.06	1.44	Agree
23. They are free to choose their own life style	5.35	1.28	Agree
24. They are free to live their own life as they wish	5.57	1.28	S. Agree
25. They have strong self-control	4.50	1.63	Agree
26. They are doing the work (job) they like	5.67	1.12	S. Agree
27. They are extraverts (sociable, outgoing people)	4.09	1.72	
28. They find their work allows their talents to be used	4.94	1.32	Agree
29. They are more intelligent than average	3.17	1.62	Disagree
30. They are emotionally more stable than the average	4.54	1.36	Agree
31. They have good social skills (confidence and ability to get on with others)	5.02	1.39	Agree
32. They have strong willpower (inner strength)	4.50	1.53	Agree
33. They have a pleasant personality (friendly and good sense of humour)	5.41	1.33	Agree
34. They are mentally mature	4.06	1.60	
35. They are more spiritual rather than material in their values	4.13	1.81	
36. They have a brighter outlook towards life	5.66	1.20	S. Agree
37. They are more independent	4.67	1.31	Agree
38. They take life as it is and are content with what they have	5.60	1.41	S. Agree

TABLE III
Factor analysis (Varimax) for the lay beliefs on the causes of happiness

Factor	Item	Loading	Eigenvalue	Variance
Mental Strength & Personality Traits $X = 32.04$ $SD = 7.21$ $\alpha = 0.80$	25. They have strong self-control	0.69	8.05	23.0
	33. They have a pleasant personality	0.66		
	27. They are extraverts	0.65		
	31. They have good social skills	0.65		
	32. They have strong willpower	0.69		
	34. They are mentally mature	0.46		
	30. They are emotionally more stable	0.42		
Personal Advantages $X = 21.07$ $SD = 6.81$ $\alpha = 0.80$	14. They have higher education	0.81	2.96	8.5
	16. They have healthy, clever and pretty children	0.72		
	29. They are more intelligent	0.60		
	8. They are physically more attractive	0.58		
	18. They are free to travel	0.58		
	11. They have more dates with partners	0.53		
	22. They have fully developed their potential	0.69	2.4	5.8
Achievement & Freedom in Life and Work	21. They are free to choose their own career and job	0.64		
	24. They are free to live their own life	0.63		

$X = 36.57$	19. They have achieved what they desired	0.60	
$SD = 6.16$	28. They find their work allows their talent to be used	0.54	
$\alpha = 0.81$	26. They are doing the work (job) they like	0.53	
	20. They are well respected by others	0.49	
Social Support & Self-esteem	13. They are loved and accepted by other people	0.79	4.8
$X = 28.75$	12. They have many friends they like	0.72	
$SD = 4.27$	10. They have close friends/confidants	0.71	
$\alpha = 0.74$	17. They have high self-esteem	0.50	
	9. They have loving parents	0.40	
Security	2. They enjoy a good quality of life	0.71	4.6
$X = 18.23$	3. They are healthier than others	0.66	
$SD = 4.56$	4. They live in a safe area	0.65	
$\alpha = 0.74$	5. They are financially well off	0.57	
Optimism & Contentment	35. They are more spiritual in their values	0.66	4.5
$X = 20.06$	36. They have a brighter outlook towards life	0.63	
$SD = 3.80$	38. They are content with what they have	0.56	
$\alpha = 0.56$	37. They are more independent	0.47	

of the variance. The second descriptive factor was labelled *Personal Advantages*, because the items were primarily concerned with being physical advantageous and having a higher education. It accounted for nearly 10% of the variance. The third factor was labelled *Achievement & Freedom in Life and Work* because it was concerned with an individual's freedom of choice within their lives. The fourth factor including having close friends in whom you can trust and esteem (self respect and respect from others) and was labelled as *Social Support & Esteem*. The fifth factor was revealed as an individual having *Security* in terms of finance and housing. Finally, the sixth descriptive factor identified was *Optimism & Contentment* with adopting a bright outlook and taking life as it is.

As can be seen from Table II that four factors were mainly believed to be important were factor 4 (*Social Support & Esteem*); factor 6 (*Optimism & Contentment*); factor 3 (*Achievement & Freedom in Life and Work*) and factor 1 (*Mental Strength & Personality Traits*) except two items (extraversion and being mentally mature which fall in the "neutral" category. Factor 5 (*Security*) was rather equivocal in that two items of the factor relating to one's health and quality of life were believed to be the important causes of happiness but other two concerning money and housing were not. Finally, factor 2 (*Personal Advantages*) was not believed to be the important cause of happiness with items such as having a higher education, being more intelligent, or being physically more attractive.

Although the item "They have married those they love" was believed to be important cause of people's happiness, it was included in the factor of *Personal Advantages* with a loading below 0.30.

Secondly, a factor analysis was again conducted (using Varimax Rotation). This time specifying a three factor solution. This represented as an attempt to get a more "synthesized" picture of lay theories of happiness and was based on an inspection of the scree test in the above analysis. Three factors were emerged with Eigenvalues > 2.0 and accounted for 37.3% of the variance. These three distinct factors reflect three theories in the area, namely the "Top-Down" theory; the "Folklore" or "popular beliefs"; and the "Interactional" theory. Factor one emphasizes traits as the cause of one's happiness (internal causes) with items of strong self-control, willpower, extraversion, high social skills, pleasant personality, mental maturity, emotional stability, and contentment with one's life. Factor two attributes the causes of happiness to the

“good fortune” (external causes) with items of being financially well-off, high education, having good children, being physically more attractive, being more intelligent, born happy, more healthy, and good quality of life. Factor three focuses on the relationship between self and others or the world (interactional causes) with items of having confidants, being loved and accepted, high self-esteem, achievement, happy childhood, esteem from others, work, and freedom in one’s life and career.

As can be seen from Table II, most items of factor one (reflecting the “Top-Down”) and factor three (reflecting the “Interactional” theory) were believed as important causes of human happiness. However, items in factor two (representing the “Folklore” views) were not thought of as relevant to happiness (being “neutral”) or disagreed by lay people as important causes of happiness except only two items concerning one’s health and quality of life.

3. Correlations between the Lay Theory Factors and Personality Traits, Positive and Negative Self-esteem, Happiness, and Demographic Variable

The six original, first order lay theory factors were correlated with personality, self-esteem, happiness as well as sex. Table IV shows the results. A sex difference was found that males believed more that *Security* (being financially well-off and having good housing) were contributors to happiness, while females believed less that *Personal Advantages* (higher education, intelligence, and physical attractiveness) were the important causes of happiness. Females however, believed more that *Social Support & Esteem* (having close friends and high self-esteem) was an important cause of individual happiness. Individuals who achieved a high score on the Oxford Happiness Inventory believed that *Social Support & Esteem*, *Optimism & Contentment*, *Security*, *Mental Strength & Personality Traits*, and *Achievement & Freedom in Life and Work* as well as *Personal Advantages* were all factors which caused happiness. In other words trait happiness was positively correlated with five factors at very much the same level. Extraverts had a tendency to believe more that *Achievement & Mental Strength*, *Social Support & Esteem*, and *Security* were the causal factors of personal happiness while introverts believed even less that *Personal Advantages* was an important factor of human happiness. However, neuroticism, psychoticism, and positive and negative self-esteem were not correlated with any of the six theories of causes of happiness.

TABLE IV
Correlations between the six lay theory factors and happiness (OHI), personality (EPQ), self-esteem (RSES) subscales, and demographic variable

Factors	Sex	OHI	Ext	Neu	Psy	Lie	SE1	SE2
Mental strength & personality traits	-0.02	0.14*	0.15	0.06	0.05	0.08	0.10	-0.04
Personal advantages	-0.22***	0.12	0.21**	-0.05	0.05	-0.04	0.00	-0.05
Achievement & Freedom in life and work	0.10	0.13*	0.13	0.02	0.13	0.15*	0.09	-0.02
Social support & esteem	0.12	0.19**	0.07	0.01	0.05	-0.04	0.12	0.04
Security	-0.15*	0.17**	0.10	-0.08	-0.08	-0.02	0.04	0.04
Optimism & contentment	0.07	0.19**	-0.01	-0.02	-0.01	0.04	0.10	0.05

Note: Introverts coded as "0", extraverts as "1"; Males as "1", females as "2"; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; OHI = Oxford Happiness Inventory; EPQ = Eysenck Personality Questionnaire; Neu = Neuroticism; Ext = Extraversion; Psy = Psychoticism; Lie = Lie scale; RSES = Rosenberg Self Esteem Scale; SE1 = Self-esteem subscale 1 (including the five positive items); SE2 = Self-esteem subscale 2 (including the five re-coded negative items).

4. Predicting Happiness from the Lay Theory Factors, Self-esteem Subscales, Personality, and Demographic Variables

Finally, to examine the causal relations between the lay beliefs of causes of happiness and the actual scores of perceived happiness, a path model was designed and a series of hierarchical regressions were performed. Figure 1 showed that using happiness (OHI) as dependent variable and four lay beliefs ($\beta < 0.07$), self-esteem subscales, personality, and demographic variables as independent variables, *Optimism & Contentment* was the only lay belief predictor of happiness ($\beta = 0.17$, $t = 3.02$, $p < 0.01$) suggesting that believing that having a brighter outlook towards life, and being content with what one has is related to happiness. Extraversion and neuroticism also showed the direct predictive power of happiness ($\beta = 0.24$, $t = 3.85$, $p < 0.001$; $\beta = -0.16$, $t = -2.35$, $p < 0.05$) and so did psychoticism ($\beta = -0.16$, $t = -2.30$, $p < 0.05$) indicating that taking lay theory factors, self-esteem, and demographic variables into account, personality traits were directly as well as indirectly predictive of perceived happiness.

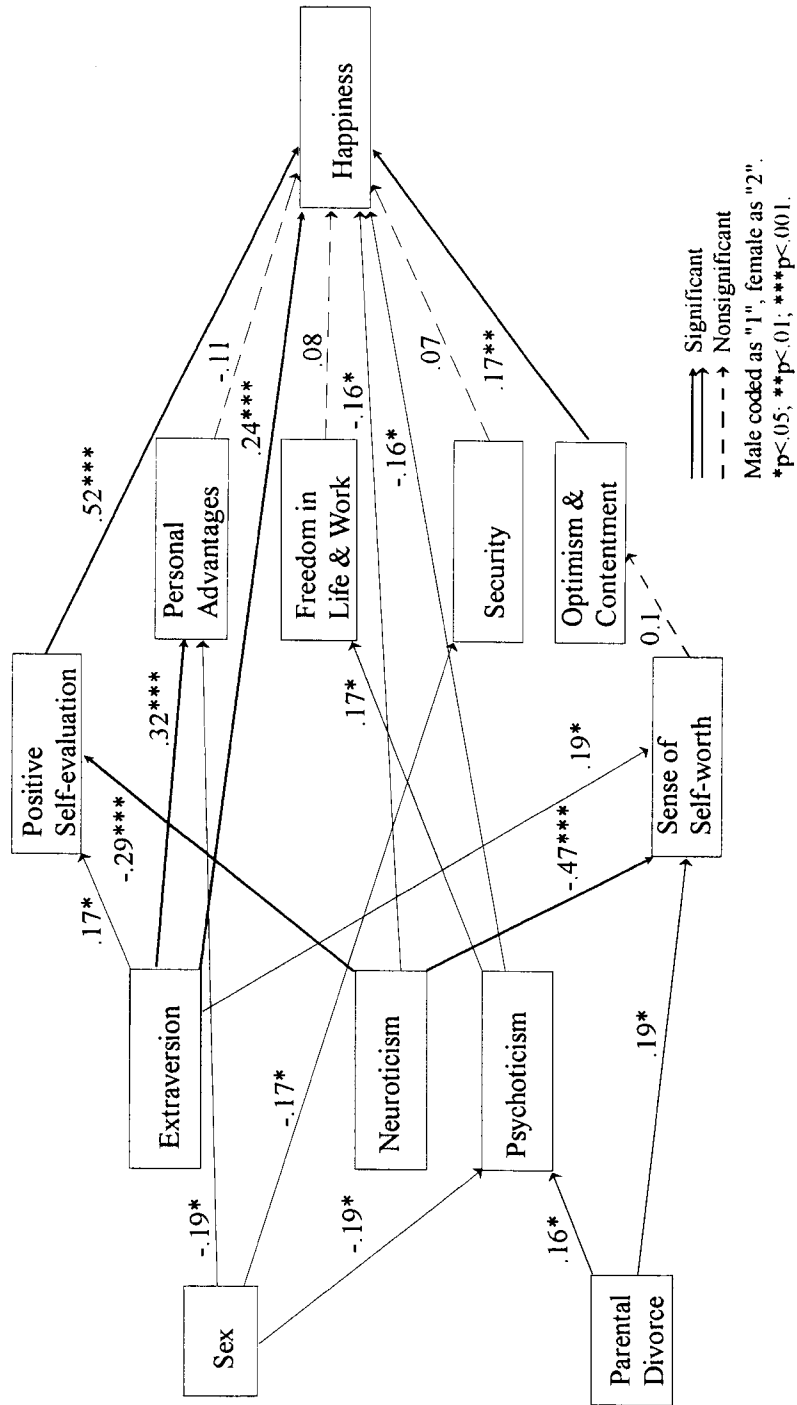


Figure 1. Path Model. Predicting happiness (OHI) from lay beliefs (COHQ factors), self-esteem (RSES subscales), personality (EPO), and demographic variables.

The positive part (but not the re-coded negative part) of self-esteem, *Positive Self-evaluation* was predictive of happiness ($\beta = 0.52$, $t = 8.41$, $p < 0.001$) indicating that taking into account the inter-correlation between the two subscales ($r = 0.49$), having a positive self-evaluation is more likely to increase happiness than merely having a sense of self-worth (or the absence of self-worthless as the actual items were worded). In relation to neuroticism, using self-esteem subscales as dependent variables respectively, neuroticism showed a stronger predictor to *Sense of Self-worth* than *Positive Self-evaluation* meaning that emotionally unstable individuals tend to have a particularly lowered sense of self-worth, let alone to give themselves credit on positive evaluation. Introverts, and also females, tend to believe even less *Personal Advantages* ($\beta = 0.32$, $t = 3.56$, $p < 0.001$; $\beta = -0.19$, $t = -2.27$, $p < 0.05$) and psychotics tend to emphasize more on *Freedom in Life & Work*, and males tend to believe more on *Security* such as being financially well off and enjoying a good quality of life.

DISCUSSION

This study showed six underlying factors which lay people believed the causes of happiness in self and others which covered various aspects including *Mental Strength & Personality Traits*, *Personal Advantages*, *Achievement & Freedom in Life and work*, *Social Support & Esteem*, *Security*, and *Optimism & Contentment*.

These results support much of the extant literature on the causes of happiness. It seems that what lay people believed the causes of happiness are much the same as the empirical evidence. For example, in the factor of *Social Support & Esteem*, having close friends and loving parents and having high self-esteem were believed to be important causes of happiness by lay people. This is what Argyle and Furnham (1983); Campbell (1976); and Larsen (1978) found that social networks (family and friends) was a major source of human happiness. Campbell (1976) also found that satisfaction with oneself (high self-esteem) was more strongly correlated with subjective well-being than any other variable. On the other hand, lay people did not believe that education and intelligence are the important causes of happiness. This is in line with the results of Clemente and Sauer (1976) which showed no significant

effect for education on happiness and Sigelman (1981) who found no evidence for intelligence as measured by IQ tests (using an intelligence test devised by Thorndike, 1942) being related to subjective well-being. Spirituality was believed to be another source of happiness and this was found by Argyle and Crossland (1987) as one of the main dimensions of positive emotions.

However, concerning the factor of *Mental Strength & Personality Traits*, although being emotionally more stable (as opposite to neuroticism) was believed by lay people as an important cause of being a happy person, extraversion was not. This is clearly not in correspondence with the empirical findings which shows there is a strong and stable positive correlation between extraversion and self-reported happiness. No weight was put on being born with “happy genes”, though it has been found that some individuals tend to ‘look on the bright side’ – which has been described as the ‘Pollyanna principle’ – and score high in almost all respects of life (Matlin and Gawron, 1979). In relation to Maslow’s (1954) need theory, apart from the biological needs (such as the need for food, air, and water) which were not included in the lay theory questionnaire, safety needs were covered in the factor of *Security*, social needs and esteem needs were combined in the factor of *Social Support & Esteem*, and self-actualization needs were included in *Achievement & Freedom in Life & Work* and were all regarded by lay people as the important causes of perceived happiness.

There were significant sex differences in that males believed that personal advantages such as higher than average intelligence and physical attractiveness and security in terms of being financially secure were more important than friends. Females believed that having social support through close friends and confidants was a more salient factor towards happiness. An explanation for this sex difference could be that females need a strong social network around them whereas for males, a good profession may be the consequence of higher education, whilst being wealthy and having good housing is a consequence of this attribute (Argyle, 1987). Males may need material possessions and physical attributes in order to define social status in this society and consequently they believe these will make them happy.

However, there is much evidence for the lack of association between wealth and happiness (Brickman et al., 1978; Csikszentmihalyi, 1999; Eysenck, 1990). There are many sound theoretical reasons why this may be so (Furnham and Argyle, 1998): these include adaptation level

theory (one soon adapts to wealth at any level), social comparison theory (one's comparison group changes so that one never feels rich) and the marginal declining utility of money. Yet the idea that money brings happiness remains pervasive.

Lay people included in their beliefs on the causes of happiness a category which was labelled *mental strength* and included strong willpower, strong self-control, emotional stability and being mentally mature. There are no explicit academic theories on why mental strength causes happiness, although the post and neo-Freudian associate ego strength with mental health and happiness. One explanation could be that it prevents mental breakdown, anxieties and insecurities, including paranoia which lead to depression. The fact that actual happiness is statistically related to beliefs about happiness is particularly significant. There might be a connection between one's beliefs, the pursuit of such beliefs, the achievement of what one pursued, and finally the satisfaction and joy from one's achievement, which in turn, strengthens the initial beliefs.

Perhaps the most interesting results however lay in the path analysis. This showed that, as before, personality and self-esteem were directly related to happiness. Thus stable, tender-minded, extraverts were more happy. The most powerful direct determinant was self-esteem followed by extraversion. Nearly every study in the area, using a variety of measures of personality, and happiness revealed the same result (Argyle and Lu, 1990; Brebner et al., 1995; Furnham and Brewin, 1990; Furnham and Cheng, 1997, 1999; Francis, 1999). Whilst two of the lay theory factors were predicted by personality factors (introverts believed less than extraverts that "personal advantage" led to happiness; tough minded more than tender minded people believed "freedom in life and work" led to happiness) and one demographic factor (males believed more than females that "security" was a causal factor in happiness), only one lay theory factor ("optimism and contentment") actually predicted happiness. This is particularly interesting given the positive confound due to overlap in the wording of the OHI and the lay belief questionnaire.

The lay theories acted neither as a moderater nor mediating variable. It seems that personality and self-esteem are the main predictors of happiness and that lay theories may be either epiphenomenal or perhaps a consequence of happiness. Thus both very happy or unhappy people may muse and speculate on the causes of their own and others happiness levels but that these do not have much impact on the actual levels of

happiness in the first place. Personality and self-esteem remain the most powerful direct predictors of trait happiness.

In this study only one of the lay theories of the causes of happiness factors was statistically related to self-reported (trait) happiness. Clearly this result needs to be replicated before any conclusions can be drawn about the role of lay theories. It may be that of the range of theories were extended to less self-evident explanations the relationships might be higher. Indeed it seems to be the case that lay theories of depression are fairly closely linked to self-reported depression (Furnham and Kuyken, 1991; Kuyken et al., 1992). On the other hand if lay theories are consequences of happiness rather than causes a different model needs to be constructed. In such a model personality and demographic factors would be seen as causally related to self-esteem which predicted trait happiness which in turn related to the range of lay theories about the causes of happiness in people in general.

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