"Social justice in Scotland: an examination of recent work on Happiness"

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Stewart Dunlop, Fraser of Allander Institute, University of Strathclyde, Glasgow

Introduction

The publication in 2009 of the Sarkozy Commissions report¹ has ignited further interest in the issue of happiness or wellbeing. The key argument made in the report is that economic policy should focus less on increasing our ability to consume more goods and services (by increasing GDP) and focus more more on increasing our overall wellbeing or 'happiness'. Among its key conclusions (see pages 10-16) were:

- "Measures of subjective wellbeing provide key information about people's quality of life"
- We, as a society, need to measure wellbeing per se"
- "Inequality itself matters"

While the Commission's report has undoubtedley helped bring the issue of happiness to a wider audience, there is in fact a substantial record of research in this area, dating from Easterlin's seminal (1974) work². We briefly review below what this research has identified as creating happiness, and then discuss some recent (2012) research on happiness in Scotland.

Happiness Research

The Easterlin paradox

Interest in happiness dates from Easterlin's seminal paper which introduced the so-called "Easterlin paradox". This is that the average reported level of happiness does not appear to increase as national income (typically measured by GDP per person) increases — being wealthier did not apparently make people feel better off.

¹ 'Report by the Commission on the Measurement of Economic Performance and Social Progress', Paris, 2009.

² 'Does Economic Growth Improve the Human Lot? Some Empirical Evidence' in P.A. David and M.W.Reder (eds.), Nations and Households in Economic Growth: Essays in Honour of Moses Abramowitz, Academic Press, New York and London (1974).

While Easterlin's research questioned whether an increased ability to consume goods and services made people happier, other researchers then began to ask what does make people happy. Research has proceeded by relating measures of happiness³ to a range of possible factors which might affect wellbeing, and we now briefly examine what might determine wellbeing, looking seprately at economic and other factors

Economic factors

Happiness research has examined three main economic factors, unemployment and two income measures (absolute income and measures of relative income (income inequality)).

Unemployment

In examining unemployment, research als focused on two main aspects – how does personal unemployment affect a person's wellbeing and how does general unemployment affect the overall wellbeing of a society?

Personal unemployment - The evidence on how becoming unemployed affects wellbeing is unambiguous – research shows that becoming unemployed reduces wellbeing more than any other factor income. Studies have also shown that there is "pure" effect of unemployment - while becoming unemployed clearly reduces income, joblessness itself substantially reduces wellbeing, even allowing for the loss in income.

General unemployment - People tend to exhibit lower wellbeing if there is general unemployment, even if in work themselves.⁵ Suggested reasons may be that they are unhappy about the fate of the unemployed or may be concerned that it could subsequently affect them. Research also shows that people become more concerned that general unemployment will affect them directly, in terms of greater crime or higher taxes, etc.

An important interaction has also been noted here (one that is also seen in other areas of wellbeing research) concerning reference groups – people tend to compare themselves with other people. Hence, the impact of being unemployed is lessened if people are not alone in

³ The most frequently used approach is a survey question which uses a point scale asking people how content they are with their lives. For example, people may be asked to rate happiness from 1 (Completely satisfied) to 5 (Completely unsatisfied).

⁴ .See Clark, Andrew E. and Andrew J. Oswald (1994) "Unhappiness and Unemployment". Economic Journal, 104(424), pp. 648–659.

⁵ Di Tella, Rafael, Robert J. MacCulloch and Andrew J. Oswald (2001) "Preferences over Inflation and Unemployment: Evidence from Surveys of Happiness". American Economic Review, 91(1), pp. 335–341.

this (i.e., if there is a higher level of general unemployment) probably because their self esteem is better preserved.

Income and wellbeing

Research has again examined two aspects of this – does happiness increase as income increases, and are people with a high income happier than those with a low income?

A general conclusion is, not surprisingly, that increasing income does increase wellbeing. However, while there is a positive impact, research also suggests that there are diminishing returns to income.⁶

Cross country studies also find that, on average, people in rich countries have a higher wellbeing level than those in poor countries. However, it has been suggested that the positive relationship between income and wellbeing seen in cross-country studies may be due to factors other than the level of income itself. For example, richer countries tend to have more stable democracies, so more developed democratic conditions may produced a higher level of wellbeing. However, cross sectional studies (which control for country-specific differences) show that national income per capita does increase reported subjective wellbeing.

Income inequality

The low proportion of difference in happiness explained by changes in income suggests that other factors are important in explaining why some people are happier than others. We therefore note that studies that include inequality measures (a relative income effect) suggest that this is important – studies find that, as the Sarkozy Commission argues "Inequality itself matters".

For example, an income increase for an individual may not increase his or her wellbeing if a relevant comparison group also receives an increase in income. Indeed, this was Easterlin's original explanation for his results – people's happiness does not increase even though they are better off because relative income (inequality) has not changed. If the relative income effect is greater than the absolute income effect, this would explain why happiness doesn't increase as everyone becomes better off. This also carries the implication that overall wellbeing may decrease even if GDP increases if inequality worsens at the same time.

⁶ A range of income effects are discussed in 'The Economics of Happiness Bruno S. Frey and Alois Stutzer World Economics, volume 3, Number 2, 2002.

The notion that people compare themselves to others - the absolute level of income matters less than one's position relative to other people – is undoubtedly correct. Frey and Stutzer, for example argue that "There appears to be little doubt that people do compare themselves with other people". The distribution of income clearly affects wellbeing. One interesting result to emerge from this type of analysis is that there may be a negative effect of inequality in Europe, but not in USA, suggesting that Europeans may have a greater degree of "inequality aversion" than Americans .

Other influences on happiness

Education

Frey and Stutzer note that "people with higher education indicate significantly higher wellbeing", and Blanchflower and Oswald's also show that the number of years of education positively affects a person's level of happiness. Note that they also allow for the probability that the effect of education may be due to higher education increasing earnings, so that the positive impact of education may be because educated individuals earn more. However, their findings show that education itself increases wellbeing - education plays a role independently of income. Those with higher levels of education are also seen to have suffered a greater reduction in wellbeing following unemployment. Dolan et al also reports that education increases wellbeing, although note that some studies report that the impact is greater in low income countries.

Health

Studies consistently show a strong relationship between wellbeing and both physical and psychological health. There is, however, also some evidence that individuals adapt to illhealth, in that the impact of disability on wellbeing falls over time.

Community and personal relationships

It is not surprising that an individual's reported level of wellbeing is affected by personal circumstances and, more generally, by the type of community in which he or she lives. The impact of such influences on has been discussed in a range of studies. For example, there is clear evidence that living in an unsafe or deprived environment reduces wellbeing, while the amount of time spent socialising with family and friends has positive effect on wellbeing. Other research has found a positive relationship between wellbeing and membership of

community organisations, and there is consistent evidence that regular engagement in religious activities significantly increases wellbeing.

Personal relationships also affect wellbeing, and, generally, being alone is worse for wellbeing than being part of a relationship. Perhaps more surprisingly, there is mixed evidence concerning having children – evidence suggests that having children has little significant effect on happiness, but has a positive effect on overall life satisfaction. This is argued to be because children may be both expensive and emotionally draining but many people consider it as an important contribution to overall life satisfaction. There is evidence that having children has a lesser positive effect on wellbeing in single parent households, if the family is poor and if the child is unwell.

Democratic conditions

It is to be expected that wellbeing is positively influenced by the extent of democracy – people living in democratic societies know that politicians are more likely to be motivated to rule according to their preferences, and several studies have found that political freedom is strongly correlated with wellbeing. A Swiss study undertaken by Frey, for example, found that extended participation in referenda and the existence of federal government structures both increase wellbeing, i.e., that there is a positive association between wellbeing and government decentralisation

The 2012 Scottish Study

The research on happiness discussed above helped to inform a recent study on this area in Scotland. This study was sponsored by Oxfam Scotland and the research was undertaken jointly by the New Economics Foundation (NEF) in London and the Fraser of Allander Institute (FAI) at the University of Strathclyde in Glasgow. The main aim of this research was to construct a "Happiness Index" for Scotland (see below).

The NEF's role was to identify and create weights for the range of factors that people in Scotland believed was important in increasing the wellbeing of people in Scotland, while the FAI were responsible to use this information to create the Scottish index.

An extensive data gathering process, undertaken in 2011, used the Sustainable Livelihoods Approach.⁷

, which identifies five key areas (or "domains") which it argues create prosperity (including emotional prosperity) or happiness. Specifically, the domains used by the SLA are:

- Social assets
- Human assets
- Natural assets
- Financial assets
- Physical assets

The SLA approach guided an extensive data gathering exercise which used the broad approach outlined in the SLA to generate data on happiness.

The data was gathered through a large scale consulation process, detailed in Table 1:

Table 1 – Data gathering stages			
	Number of Events	Number of participants	
Focus groups	11	124	
Community workshops	9	175	
Street stalls	11	452	
Questionnaire Survey	1	800	

In total, therefore, the NEF asked over 1,500 (1,551) people in Scotland to identify what made them happy and allowed them to live a fulfilling life. This procedure resulted in the NEF deriving a weighted set of elements of assets that people reported as affecting the ability to live well in their communities. These weights were then used to derive a 'Happiness Index' for Scotland – this index was then used to determine the change in happiness in Scotland over time and to examine differences in the level of happiness between Scotland as a whole and deprived communities in Scotland. This latter analysis both identifies the size of the deficit between deprived communities and Scotland and identifies the source of these.

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⁷ Originally developed by the Asian Development Bank.

NEF Weights

Table 2 shows elements derived by the NEF from the data gathered during the consolation process. The table shows both the elements themselves and the weighting for each element. This is probably the principal result of the project – it allows us to detail, for the first time in Scotland, a set of variables which those who took part indicated create happiness in their lives. It indicates, for example, that housing and health are equally valued and that both are valued more than other elements such as having satisfying work or having the correct skills to live a good life. Significantly, the results also indicate that monetary factors are not people's top priority and that sufficiency and security of income are more important than having a large income. Equally significant is that relative income (keeping up with others) was not mentioned. In total, people in Scotland appear to wish for 'ordinary' things, such as good housing, good health and good relationships with family and friends.

Table 2

Sub-domain	Weighting	Order
Affordable, decent and safe home	11	=1
Physical and mental health	11	=1
Living in a neighbourhood where you can enjoy going outside and having a clean and healthy environment	9	2
Having satisfying work to do (whether paid or unpaid)	7	=3
Having good relationships with family and friends	7	=3
Feeling that you and those you care about are safe	6	=4
Access to green and wild spaces; community spaces and play areas	6	=4
Secure work and suitable work	5	=5
Having enough money to pay the bills and buy what you need	5	=5
Having a secure source of money	5	=5
Access to arts, hobbies and leisure activities	5	=5
Having the facilities you need locally	4	=6
Getting enough skills and education to live a good life	4	=6
Being part of a community	4	=6
Having good transport to get to where you need to go	4	=6
Being able to access high-quality services	3	=7
Human rights, freedom from discrimination, acceptance and respect	2	=8
Feeling good	2	=8

Creating the Happiness Index

The FAI then used the values shown in Table 2 to define an Index of Happiness for Scotland. This was done this by matching the variables shown in Table 1 to measures of these variables for Scotland. The next section discusses the overall approach and the measures used in detail, including the extent to which it was possible, on the basis of published statistics, to obtain valid measures that corresponded to the elements identified as creating happiness.

Following this, we outline several variants of the Happiness Index. The indices outlined below measure happiness in Scotland and to then examine recent change in happiness. We then compare Scotland as a whole with deprived communities in Scotland, and identify areas where deprived communities are in deficit when compared with all of Scotland.

Measures used to create the index

Variable 1 - Affordable / decent home / a safe and secure home to live in

Clearly, this variable (which was given a high weight by the NEF) is intended to measure the satisfaction people obtain from the type of house they live in, and the three measures listed (affordability, the standard of a house and security) presumably match the most important qualities that people require from their house. However, it has to be noted that there are obvious difficulties in attempting to find one measure which satisfies all three of these requirements, and the data collected was not sufficiently rich to provide an individual weight for each of these three key measures.

Given this, we have used an overall measure of people's satisfaction with their housing situation. The specific measure used to evaluate this first variable was obtained from Scottish Government's "Scottish House Condition Survey", which provides data on whether respondents were satisfied with their home. We have used the figure for those reporting that they were Very Satisfied. In 2009-10, 54.1% of Scottish respondents reported that they were very satisfied with their house.

Variable 2- Being physically and mentally healthy

Being in good health, both physically and mentally was, as expected, found to rank highly in the overall NEF weighting. Given the well-known position regarding Scotland's health, one might have expected this measure to rank lowly on the overall score despite its importance within the NEF measures. However, we calculate that the health score in the overall Index (993) provides almost 20% (19.9%) of the total happiness score – i.e., almost 20% of overall happiness results from good health.

This is partly due to the way in which good health has been measured. The specific measure used was obtained from the Scottish Household Survey (SHS). The 2009/2010 Annual Report (Table 10.6) asks individuals to self-assess the state of their health at a point in time, the possible responses being "Very Good/Good", "Fair" and "Very Bad/Bad". We have used the proportion answering "Very Good/Good". Using this measure typically results in a high score for health - for example, 88% responded that their (self-assessed) health was good or very good in the 2007/08 survey and 93% did so in 2009/10. In turn, these figures do tend to suggest that most people are in fact satisfied with the state of their health, despite Scotland's well-known problems. The SHS figures are also available over time and the difference between 2007-08 and 2009-10 (93% compared to 88%) does point to an improvement in health over this period. Finally, the SHS provides this measure for both Scotland as a whole and for deprived communities in Scotland, and allows us to compare these groups.

Variable 3 - Living in a neighbourhood where you can enjoy going outside/Having a clean and healthy environment

This is measured by another SHS indicator. Table 4.3 (various years) asks respondents to consider aspects of their neighbourhood that they particularly like. One option is that they feel that they live in a "Pleasant environment", and we believe that this corresponds closely to the sense of the NEF variable. In 2009-10, 59% of people in Scotland felt that they lived in this kind of environment, and this figure was used to calculate the score for this variable for that year.

4- Having satisfying work to do (paid or unpaid)

This is measured by a statistic published in the 2010 Scottish Social Attitudes Survey (SAS). Table 3.4 of this reports mean scores for satisfaction with different aspects of life in 2010, and we have used the reported mean scores for respondent's satisfaction with their job. The SAS does not, however, report whether the work involved was paid or unpaid.

5 - Having good relationships with family and friends

One would expect that the quality of a person's relationships with friends and acquaintances would substantially affect the quality of their life as a whole - indeed, it might have been

expected that being part of a caring family and having close friendships would score more highly than it actually did.

However, actually attempting to measure the extent to which people have "good" relationships creates several problems. The first is simply that it is intrinsically difficult to measure. Ideally, we would like a relationship score running from, for example, 1 (= a not very good relationship) to 10 (= a very good relationship), which would require us to scale the quality of relationships — unfortunately, however, no data exists which allows this. Secondly, the variable refers to good relationships with both family and friends. It would seem likely that family relationships are relatively more important, but we have no way of distinguishing the relative importance of either.

More important is that there appears to be no data source that currently measures how good (or bad) any relationships in Scotland are, and it is simply not possible to include a direct measure of this variable in the Index. In principle, this variable could be measured (for example, as part of the biennial Scottish Household Survey) and we would urge the Scottish Government to consider doing so.

The measure used does partly assess the extent to which people in Scotland are able to *sustain* close relationships. It is usual in economics to consider that people choose between work time and leisure time on the basis of wage rates, with a higher wage meaning that the opportunity cost of leisure increases – the measure used (see below) assumes that the less time people spend at work the more they are able to sustain close relationships of the sort described. We would accept that this corresponds at best tangentially to the meaning of variable in the NEF weights.

The Office for National Statistics (ONS) publication "Regional labour market statistics" provides data on the average working week in Scotland and shows that people work, on average 86.2% of a forty-hour week. We have used the time spent not working as a measure of the extra time available for time with family and friends, and entered this in the Index. This gives a low overall score to this variable - it contributes 1.8% of the total Index score – which we feel also reflects the quality of the measure used.

6 - Feeling that you and those you care about are safe

A reasonable approximation for this was readily available, again from the SHS. Table 4.3 (see above) also asks respondents whether they feel they live in a safe area, and the response for Scotland as a whole was entered into the main Index. It is interesting to note that this question tended to receive a low score across all groups - for example, only 20% of respondents to the 2009-10 survey felt they lived in a safe area (up from 19% in 2007/08). Feeling safe therefore scores low in most of Indices discussed below. However, one reason why some rural areas (see the discussion of differences between Local Authorities below) is much higher proportions reported feeling safe in these areas, and this is one reason why some areas tend to score highly when we compare areas within Scotland.

7 -Access to green spaces / access to wild spaces /social /play areas

The SHS again provided a readily available and acceptable correlate for this variable. Table 7.6 (various years) surveyed both the availability of play areas available in a neighbourhood and whether respondents lived close to a natural environment or wooded area, and we have used these figures to calculate the local availability of both.

8 - Work / Secure work / suitable work

As in the discussion of Housing (see above) this actually measures more three factors relating to the work variable. Given the obvious difficulties this presents, we focused on what is likely to be the key issue, whether people are in employment or not. Specifically, we have calculated the probability that an individual picked at random in an area (e.g., Scotland) is in employment or not, and entered this into the total Index.

This does mean that a high score is attached to the work variable, and some may argue that this does not reflect the current economic situation in Scotland. However, it is the case that the majority of the workforce is currently in employment and, given that people obtain satisfaction from working, this does suggest that we should attach a high score to this. Also note that the change in unemployment is captured when we examine the change in the Index between 2007-08 and 2009-10.

9 - Having enough money to pay the bills and buy what you need

How people are managing financially likely to be greatly affected by whether they are in employment or not, and there is almost certainly some relationship between this and variable 8 (Work/Secure work /suitable work) above. However, we have treated these separately for two reasons. Firstly, being in work will itself provide some satisfaction irrespective of how much this pays, because working increases both personal pride and social status. Secondly, working and managing financially were treated separately by respondents to the data collection exercise underlying this project, so we assume that respondents themselves feel there is some difference.

The data is again drawn from the SHS. Table 6.1 (various years) asks households to respond to the question "How the household is managing financially this year", and this appears to correspond very closely to the NEF variable (Having enough money to pay the bills and buy what you need). For 2009-10, 49% answered "Very Well" compared to 52% in 2007-08. This relatively modest reduction in this measure between these two periods also appears to back up our decision to use unemployment as a proxy for variable 8 (Work/Secure work /suitable work) since the actual change in employment corresponds closely to the relatively small reduction in those who say they are managing well.

10 - Having a secure source of money

All measures used except this are level measures, meaning that they measure a variable at a point in time. Security is the only change measure, since we wish to assess how this has changed in the period immediately prior to the Index was constructed. Financial security has been proxied by employment security, and we have calculated the *increase* in the probability, compared to the previous year, that a person picked at random will be unemployed. The relatively low figure again reflects the fact that the majority of the workforce remains in employment.

11 - Access to arts / culture / interest / stimulation / learning / hobbies / leisure activities

The SHS includes two responses which measure participation in both sport and culture (Table 13.1: Participation in any cultural activity and Table 13.10: Participation in any sporting activity). Scottish participation in both activities was used to construct an overall measure for this variable.

12 - Having the facilities you need available locally

It is clearly not easy to assess exactly which "facilities" should be included here and, as in dealing with Housing (see above) we settled on a response which seemed to address this issue at a general level. Table 4.3 of the SHS also asks respondents to assess whether they feel, that their neighbourhood has "good amenities" and we have used this to assess the quality of local facilities.

13 - Getting enough skills and education to live a good life

We proxied this variable by measuring the proportion of all populations (Scotland as a whole, deprived communities in Scotland and Local Authorities) who have a degree and/or a professional qualification. While it may be argued that this relates only to "high - level" skills (which, strictly speaking, may be more than required to "live a good life"), this measure allows us to examine differences in education over time and between areas. Similar differences were also evident from using the only other available measure, (degree/professional qualification) plus (Higher National Certificate/ Higher National Diploma or equivalent).

14 - Being part of a community

Table 4.3 of the SHS also asks respondents whether they feel their area has a "Sense of community/friendly people", which appears to capture the essential meaning of this variable.

15 - Having good transport to get to where you need to go

and

16 - Being able to access high-quality services

Both were proxied by SHS figures. Table 11.1 of the SHS (various years) provides details on the proportion of people very or fairly satisfied with the quality of public services delivered (local health services, local schools and public transport). Satisfaction with Transport was used for Variable 15 Transport) and satisfaction with all Services for variable 16 (High Quality services)

17 - Human rights/freedom from discrimination/acceptance/respect

Our reading of this is that it measures the extent to which people in Scotland are tolerant of other cultures, opinions and lifestyles. This does not, perhaps surprisingly, appear to be something which is measured regularly, and we could only obtain one acceptable measure, taken from the findings of a special report by the Scottish Social Attitudes Survey (SAS). The 2010 SAS reported the results of a poll which asked whether people felt that "Scotland should get rid of all prejudice" (see Table 2.1). 66% of respondents agreed, and we have used this to measure the extent of tolerance across Scotland.

18 - Feeling good

This was measured from response to another SHS question (Table 10.10) where people were asked to rank "Satisfaction with life as a whole nowadays" on a 1-10 scale. We report the proportion scoring seven or above. We also note that there was very little variation between these rankings across all areas discussed here.

The Index of Happiness for Scotland - 2009-10⁸

Table 3 below details the initial Index, measured in 2009-10, which was constructed by joining the NEF weights with the measures for each variable as discussed above.

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⁸ Note that we have renamed the variables in order to make the tables more legible.

Table 3: 2009-10 Happiness Index for Scotland

Sub domain (by order of	Weight	Measure	Score
contribution)			
Housing	11	54.1	578
Health	11	93.0	993
Neighbourhood/Environment	9	59.0	516
Work Satisfaction	7	70.8	496
Good relationships	7	13.2	90
Safety	6	20.0	117
Green Spaces	6	43.5	253
Secure/Suitable Work	6	91.6	534
Having enough money	6	49.0	285
Financial Security	5	-10.2	-50
Culture/Hobbies	5	61.0	296
Local Facilities	4	45.0	175
Skills and Education	4	26.0	101
Community Spirit	4	72.0	280
Good Transport	4	75.0	291
Good services	3	64.9	189
Tolerance	3	66.0	192
Feeling Good	2	81.0	157
Total	L		5,492

The overall score (5,492) is not significant in itself - we could easily rescale it to 5.492, 100, 1 or any other number. Its principal use is to examine how different variables create happiness and differences in happiness, both over time and between different communities, and we discuss this below.

Table 4 below shows the relative contribution of each variable to overall happiness. The relative weight of each result both from its weight as reported by the NEF and the level of that variable as detailed in the Scottish findings. For example, a variable like health which has both a high weight (11) and a high score (93%) will make a significant contribution to overall happiness and as noted health is calculated to contribute 18% to total happiness.

Table 4: 2009-10 Happiness Index for Scotland

Sub domain	% Contribution
Health	18
Housing	11
Secure/Suitable Work	10
Neighbourhood/Environment	9
Work Satisfaction	9
Green Spaces	5
Having enough money	5
Culture/Hobbies	5
Community Spirit	5
Good Transport	5
Local facilities	3
Good Services	3
Tolerance	3
Feeling Good	3
Good relationships	2
Safety	2
Skills and Education	2
Financial Security	-1
Total	100

One important finding in Table 4 is the relatively low contribution of "economic" variables (Work, Work Satisfaction, Having Enough Money and Financial Security). This primarily reflects the overall weight given to these by the NEF - these three variables contribute about 22% of the total weight value and 23% of the total Index score. Overall, therefore the Index seems to present some support for arguments regarding the relative importance of economic variables to overall welfare, the key thrust of the Sarkozy report discussed above.

Another key point is the importance of "local" measures, particularly those relating to people's immediate neighbourhood. The majority of the variables that respondents specified in the various data collection exercises contributed to their happiness related to local issues⁹. These local issues contributed 35% of the total weights generated by the NEF and 33% of the total Index score. However, while there are high scores for several neighbourhood variables (such as living in a neighbourhood where you can enjoy going outside/clean environment, where 59% of people appeared satisfied) other local variables score much lower. For example, only 45% of respondents felt that their area had good amenities and there were low scores on access to the natural environment and, particularly, on safety. Feeling safe ranks as accounted for 6% of the NEF weights, but for only 2.1% of the overall Index score. As discussed above, it was very common for a low proportion of respondents across almost all categories to report feeling safe in their local area¹⁰.

Changes from 2007-08

Table 5 details the Index in 2007-08¹¹. The first point to note is that happiness increased between 2007-08 and 2009-10, albeit by a relatively minor 1.2%. In the broad terms which we are considering the issue here, where happiness is measured by across the whole range of areas that people value, Scotland does appear to have become marginally happier. As we shall see, positive changes mainly resulted from change in non-economic variables while those measuring economic change deteriorated

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⁹ Living in a neighbourhood where you can enjoy going outside/Having a clean and healthy environment, /Feeling that you and those you care about are safe/Access to green spaces / access to wild spaces /social /play areas/Having the facilities you need available locally/Being part of a community/Having good transport to get to where you need to go/Being able to access high-quality services.

¹⁰ Only 20% of respondents across Scotland as a whole reported felt that they lived in a safe environment. (See SHS, 2009-10, Table 3.4)

¹¹ Note that some measures (Work Satisfaction, Good Relationships, Tolerance, and Feeling Good) have not changed over the two periods since these were only available for one year (2009-10).

Table 5: 2007-08 Happiness Index for Scotland

Sub domain	Weight	Measure	Score
Housing	11	54.1	578
Health	11	88.0	940
Neighbourhood/Environment	9	58.0	507
Work Satisfaction	7	70.8	496
Good relationships	7	13.2	90
Safety	6	19.0	111
Green Spaces	6	41.5	242
Secure/Suitable Work	6	94.8	552
Having enough money	6	52.0	303
Financial Security	5	-3.9	-19
Culture/Hobbies	5	62.0	301
Local Facilities	4	43.0	167
Skills and Education	4	24.0	93
Community Spirit	4	66.0	256
Good Transport	4	72.8	283
Good services	3	61.8	180
Tolerance	3	66.0	192
Feeling Good	2	81.0	157
Total			5,428

As mentioned, what is more interesting is to compare the results in Tables 3 and 5 to examine the reasons behind this change.

In total, the index increased by 64 points between 2007-08 and 2009-10. However, this overall change of incudes both positive increases (which increased happiness) and negative changes (which reduced it). Positive change (which increased the Index by 136 points) obviously exceeded negative change (which caused the Index to fall by 72 points).

Table 6: Happiness for Scotland

Negative Changes (2007-08 - 2009-10)	% Contribution
Housing	0.1
Health	
Neighbourhood/Environment	
Work Satisfaction	
Good relationships	
Safety	
Green Spaces	
Secure/Suitable Work	26
Having enough money	24
Financial Security	43
Culture/Hobbies	7
Local Facilities	
Skills and Education	
Community Spirit	
Good Transport	
Good services	
Tolerance	
Feeling Good	
Total	100

We look firstly at those variables which fell over the period and which therefore decreased happiness. Table 6 above shows, for variables which fell between 2007-08-2009-10, the proportionate contribution of each to the total reduction (72 points). There was a very small deterioration in Housing – the data from Scottish Housing Statistics shows that satisfaction with housing fell from 54.132% to 54.126%, so there was effectively no change in this measure. Otherwise, what emerges very clearly from Table 6 is that almost all (93%) of the reduction in happiness arose from deteriorations in economic variables. This result plainly reflects changes in economic situation in Scotland over the period, and the fact that the Index

picks this up so clearly strengthens the argument that it reflects actual changes in issues that affect what people feel influence their happiness¹².

The actual change in both the number in work and the number finding it more difficult to manage financially, reflected in Table 6, almost certainly reflect an actual deterioration in the economy. However, the largest negative effect comes from a reduction in financial security, which contributed 43% of the total. As noted, this is measured as increase in the probability of becoming unemployed. Our reading of why this contributes so much to all negative change is that it is likely to reflect headline news about rising unemployment which has contributed to an increased fear of unemployment, even among those who remain in work.

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¹² The only other change was a small decrease in the number participating in sports and hobbies.

Table 7: Happiness Index for Scotland

Positive Changes (2007-08 - 2009-10)	% Contribution
Housing	
Health	39
Neighbourhood/Environment	6
Work Satisfaction	
Good relationships	
Safety	4
Green Spaces	9
Secure/Suitable Work	
Having enough money	
Financial Security	
Culture/Hobbies	
Local Facilities	6
Skills and Education	6
Community Spirit	17
Good Transport	6
Good services	7
Tolerance	
Feeling Good	
Total	100

Table 7 details positive changes between 2007-08 and 2009-10, where happiness increased due to increases in some of the measures that created happiness. The most important change is clearly due to better health, which contributed almost 40% (39.3%) of all positive changes - as noted above, this results from the high weight on health in the NEF scaling, and the increase in those reporting "Very Good/Good" Health between the two periods. The other major change is in "Community Spirit", which contributed 17% of the total increase, due to an increase in the proportion of respondents who felt that their neighbourhood possessed a "Sense of community/friendly people" people between 2007-08-2009-10. We have no explanation why this occurred, and the increase over such a short period does seem large.

Otherwise, most of the increases appear to be due to a better provision of public services - if we include health, then we estimate that over 70% of increased happiness is attributable to improved public services (Health/Safety/Green Spaces/Skills/Education/ Transport/Services). There was a small improvement in the score for safety, due to a 1% increase in those reporting feeling safe between 2007-08-2009-10.

Comparisons with Deprived Communities

Table 8 below details the Index for deprived communities, as defined by the Scottish Index of Multiple Deprivation). Note that it is assumed that all variables are given the same weight in both deprived communities variables and in Scotland as a whole, and the overall difference in happiness consequently comes only from differences in the magnitude of the measures between deprived communities and the national picture.

Table 8 - Happiness Index for Deprived Communities (2009-10)

Element	Weights	Measure	Score
Housing	11	50.2	537
Health	11	87.0	929
Neighbourhood/Environment	9	45.0	393
Work Satisfaction	7	70.8	496
Good relationships	7	13.2	90
Safety	6	9.0	52
Green Spaces	6	32.5	189
Secure/Suitable Work	6	89.9	524
Having enough money	6	32.0	186
Financial Security	5	-5.8	-28
Culture/Hobbies	5	50.5	245
Local Facilities	4	41.0	159
Skills and Education	4	18.5	72
Community Spirit	4	58.0	225
Good Transport	4	80.4	312
Good services	3	67.5	197
Tolerance	3	66.0	192
Feeling Good	2	78.5	152
Total			4,923

Table 8 - Happiness Index for Deprived Communities (2009-10)

Sub-domain	Weights	Measure	Score
Housing	11	50.2	537
Health	11	87.0	929
Neighbourhood/Environment	9	45.0	393
Work Satisfaction	7	70.8	496
Good relationships	7	13.2	90
Safety	6	9.0	52
Green Spaces	6	32.5	189
Secure/Suitable Work	6	89.9	524
Having enough money	6	32.0	186
Financial Security	5	-5.8	-28
Culture/Hobbies	5	50.5	245
Local Facilities	4	41.0	159
Skills and Education	4	18.5	72
Community Spirit	4	58.0	225
Good Transport	4	80.4	312
Good services	3	67.5	197
Tolerance	3	66.0	192
Feeling Good	2	78.5	152

The first point to note is that deprived communities score significantly below Scotland – on the figures in Table 8, Scotland as a whole is 12% more prosperous than deprived areas. We now examine in more detail the reasons behind this disparity.

Table 9: Happiness Index for Scotland (2009-10)

All Scotland v Deprived communities	% Contribution
(Scotland above Deprived)	
Housing	7
Health	10
Neighbourhood/Environment	20

Work Satisfaction	
Good relationships	
Safety	10
Green Spaces	10
Secure/Suitable Work	2
Having enough money	16
Financial Security	
Culture/Hobbies	8
Local Facilities	3
Skills and Education	5
Community Spirit	9
Good Transport	
Good services	
Tolerance	
Feeling Good	1
Total	100

Table 9 shows areas where deprived areas are in deficit compared to Scotland. What is immediately clear is that deprived communities score lower across a wide range of measures – there appears to be no single reason, or even set of reasons, that contribute to their overall lower level of happiness. Deprived communities come off worse on twelve of the fifteen variables where we were able to measures differences between the two communities.

As discussed above, the major influences on happiness across all communities, as identified by the NEF, relate to more immediate local issues such being able to enjoy going outside, living in a healthy environment, the availability of green spaces and local amenities. Together, these contributed more than one-third of the total weight, and it is therefore no great surprise that the main differences occur with respect to neighbourhood variables. The major disparities are in terms of whether people are able to enjoy going outside/having a clean and healthy environment, access to green spaces/play areas and safety, which together account for just over 40% of the difference between deprived communities and all Scotland. Deprived communities are also less likely to feel they are part of a community, and overall the majority of the deficit thus arises from differences in the quality of life in the local area.

As noted above, the indices also pick up on differences in health, which accounts for 10% of the difference in scores. The other key difference is that deprived communities are more likely to struggle financially, which accounted for 16% of the total deficit compared to Scotland.

Deprived communities do outscore Scotland on a relatively limited number of measures, and Table 10 details the areas where deprived communities appear to do better. However, the results in Table 9 do require careful interpretation.

The most important measure is better financial security. Table 10 shows that happiness in the deprived communities increased due to better financial security, which accounted for more than 40% of their higher position relative to all of Scotland. However, this arises because Scotland has a whole suffered more than deprived communities from increased unemployment in 2009-10 and, given an already high level of unemployment in deprived areas, this simply means that Scotland came closer to the position that deprived areas already occupied. While deprived communities do therefore come off better, this is only because the situation has improved relatively – as detailed above, Scotland as a whole has seen a very substantial fall in financial security in the last few years.

Table 10: Happiness Index for Scotland (2009-10)

Positive Changes (2007-08 - 2009-10)	% Contribution
Housing	
Health	
Neighbourhood/Environment	
Work Satisfaction	
Good relationships	
Safety	
Green Spaces	
Secure/Suitable Work	
Having enough money	
Financial Security	43
Culture/Hobbies	
Local Facilities	
Skills and Education	
Community Spirit	
Good Transport	42
Good services	15
Tolerance	
Feeling Good	
Total	100

The other key difference (Transport) also requires interpretation. The measure used here was satisfaction with Public Transport –given that access to cars is almost certainly higher across Scotland as a whole, higher satisfaction with public transport may simply reflect greater use, and those living in deprived areas may simply be more likely to express an opinion.

Conclusions

The Happiness Index is an attempt to measure prosperity not just in terms of consumption, but in terms of a wide range of measures which combine to determine people's welfare or happiness. As a measure of those aspects of life that people value and identify as important to them, the index has several implications for the conduct of policy, both economic and other policy areas.

One policy prescription derives from the weights alone – these allow government to prioritise areas of policy which people have identified as being most important in contributing to their overall welfare – the index provides a form of roadmap that can be used to help identify policy priorities.

This is clearly useful in itself, and we also note that the weights as derived actually throw up some interesting and useful results. For example, they identify areas not previously recognised as contributing to a good life, particularly the importance of good relationships with family and friends and the sense of community spirit in the local area.

Secondly, there is no evidence that it is a major concern of people in Scotland is that they should outdo others in the income scale, Easterlin's original explanation of his paradox. Indeed, income variables rated relatively low on the overall scale of priorities, below housing, health, having satisfying work and feeling safe. Indeed, what the weights appear to show is that what people in Scotland value most are 'ordinary' things, such as housing, good health having close relationships and living in a nice area.

Finally, and perhaps most important of all from a public policy perspective, it is notable that many of things that people value are, in the UK at least, public goods - this includes health, education, safety, transport and even access to culture.

In addition, if we accept that happiness should be the primary focus of government policy, we clearly need some means by which we can track this. Measuring happiness through the index also allows us to measure changes in welfare over time. One interesting result, for example, is that overall happiness in Scotland increased despite the onset of recession in 2008, which appears to help support the case that we should focus less on increasing economic growth as a means of increasing the welfare of a society.

The index itself also has policy prescriptions. For example, it allows us to measure the extent to which priorities are being satisfied. The best example of this is probably seen by comparing health with safety. Both of these rank are have high weights (1st and 4th respectively), but while most people appear satisfied with health – 93% of people reported that there health was good or very good - satisfaction with safety is much lower, with only around 20% of people reporting that they felt safe in their local area. Measuring happiness by an index also allows us to track how well priorities are being

satisfied over time - for example, in comparing the index for the two time periods, we found a significant increase in those reporting good health and a small increase in the number reporting that they felt safe in their local area.

In terms of social justice, the index for deprived communities shows us how they compare on this wider measure of prosperity. There is clear evidence that the most deprived areas lag behind the rest of Scotland and that they do so across a wide range of factors, with no one measure predominating.

In summary, the index shows that we can both measure what matters to people in terms of living a good life and, by constructing an index of happiness or prosperity, measure the extent to which we are making progress towards meeting people's objectives. It also allows us to measure the extent to which we are failing those in deprived communities and would also allow us to track progress towards building a more just society, both by identifying how much those in deprived communities are in deficit compared to society as a whole and by identifying where we need to do better to close the gap between deprived communities and society as a whole.