Patterns of individual responses on 0-10 scales used to measure satisfaction and other well-being constructs: a comparison of usage in different surveys

Abstract: [**Draft only**: New paper: 27 January 2017: last updated 11 July 2018]

When asked to indicate their levels of satisfaction, anxiety and happiness using (mainly) 0-10 rating scales, individual respondents differ widely in the number, centring and spread of points used. During statistical analysis, this could present problems for comparing individuals or groups, and when searching for underlying structure, but little or no attention is paid to this problem in published work, especially in the fields of economics and psychology.

This paper examines individual response patterns in (mostly) 0-10 scales used to measure self-reported a) satisfaction with "life as a whole" and with selected life-domains b) levels of "happiness", "anxiety" and other constructs linked to Social Well Being (SWB). It specifically examines variables from the Unrestricted Access Teaching Data Set[1] derived from the April 2011 wave of the ONS Opinions Survey, Well-Being Module, April - August 2011, prepared by the Cathie Marsh Institute for Social Research and distributed by the UK Data Service (UKDS, Essex University).

Data sources used are:

SSRC Survey Unit Quality of Life in Britain surveys (1971-1975)
ONS Well-being survey, Unrestricted Access Teaching Data Set (April 2011)
ONS Well-being survey (merged data set April – August 2011)
British Social Attitudes (2008 and 2013)
European Social Survey (Wave 6, 2012)

Contents

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[1] The data set is based on the April 2011 wave of the ONS Opinions Survey, Well-Being Module, April - August 2011 which in turn is part of the regular UK government Opinions and Lifestyle Survey, run in various guises since 1990.

1: Measuring Quality of Life in Britain

There has been intense debate over the years on the definition, methodology and measurement of the concept "Quality of Life" and there is a variety of working definitions deriving from diverse academic disciplines and political perspectives.

In December 1970, long before Prime Minister David Cameron "discovered" Quality of Life, the late Claus Moser (Director of the then Central Statistical Office, precursor of the Office for National Statistics) wrote an article[2] making the case for such research to be taken seriously, even by government.

In October of the same year, the (UK) Social Science Research Council (SSRC) had set up their Survey Unit to provide advice and assistance to academics and others doing surveys on SSRC and other public funds, to develop survey methodology and to do research for Council and its Committees. The unit also had an internally funded research programme, in collaboration with colleagues in the USA[3], to develop survey-based subjective social indicators. The research (by Mark Abrams and John Hall) involved first, the design and bench-testing of questions to capture relevant constructs; second, the use of rating scales to measure satisfaction with "life as a whole" and with selected life domains (eg housing, neighbourhood, job, standard of living, health etc.); third, to test, on the general population, various other measures of psychological well-being.

In consultation with colleagues Angus Campbell (Director, Survey Research Center, ISR, Ann Arbor), Norman Bradburn (NORC) and Aubrey McKennell (Southampton) and in order to test for potential psychological intervening variables we also replicated short ISR scales to measure **Personal efficacy** and **Trust in others**, Bradburn's **Affect Balance Scale**, and (in 1971 and 1973) Srole-Christie **Anomy**. Other items measured symptoms such as clammy hands, sleep problems etc., all of which are indicators for **anxiety**. Items considered, but not used, included the Crowne–Marlowe **Social Desirability** scale[4], and items from the *Health Opinion Survey*[5] and *Stirling County Studies*[6][7].

To offer some "anchoring" for the subjective measures, we also included questions to capture self-reported "objective" or "experiential" data for each domain. This helped to test/demonstrate the validity of the approach. After all, what's the point of asking about satisfaction with the National Health Service if respondents (or their close family and friends) have little or no (recent) experience of it, or about satisfaction with personal health if you don't ask questions about current state of health or recent (ill-) health conditions and/or episodes? Since the 1970s, several surveys by other agencies have "borrowed" our questions and scales (some uncritically and without acknowledgment) and used them without any such anchoring.

In 1975 we also included items on sibling groups, birth order, pet ownership and (interviewer's) description of the outside view from the front door of the dwelling. Some meteorological data were added for weather stations nearest the PSUs (by a graduate student) but the data are now lost.

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[2] Measuring the Quality of Life (*New Society*, 10 Dec 1970)

[3] Survey Research Center, University of Michigan, Ann Arbor.
  See: Campbell, Converse and Rodgers, The Quality of American Life: Perceptions, Evaluations and Satisfactions (Russell Sage Foundation, 1976)

[4] Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. Journal of Consulting Psychology, 24(4) 349-354. doi: 10.1037/h0047358. See also Table 2.1 in OECD Guidelines on Measuring Subjective Well-being

[5] Allister M Macmillan, *The Health Opinion Survey*: *Technique for estimating prevalence of psychoneurotic and related types of disorder in communities* (Monograph Supplement 7, Psychological Reports, 1957, 3, 325-339, Southern Universities Press)

[6] Leighton**,** A. H. et al**:** *My Name is Legion***.** *People of Cover and Woodlot, the Character of Dange* r (Basic Books, 1959)

[7] Huppert et al, Measuring Well-being Across Europe: Description of the ESS Well-being Module and Preliminary Findings (Social Indicators Research, 2009) make no reference to this material at all, even though some of it duplicates the content if not the actual format.

Reports and working papers from this work (some not easily available, if at all, elsewhere) can be seen on SSRC Survey Unit Quality of Life in Britain surveys 1971 - 1975. For accessible accounts of the planning and main findings see Hall 1973[8] and Hall 1976[9].

Some theoretical underpinning was also derived from the "hierarchy of human needs" model originally proposed by Maslow[10] in 1943 and further developed over the next 30 years, as illustrated in the diagram below.

(Reproduced with kind permission of Saul McLeod[11])

2: Satisfaction with "life as a whole".

Questions about satisfaction with life have been asked in many surveys and in many countries. The wording of the questions, and the format of show-cards used, varies between the different surveys. In Britain, they were first asked in the Quality of Life in Britain surveys conducted between 1971 and 1975 by the Survey Unit of the then Social Science Research Council (SSRC, now ESRC). Two pilot surveys were conducted in 1971, the first national survey and two simultaneous local surveys in 1973 and a second national survey in 1975.) The questions used were;

1971   First pilot survey: 0-10 scale
   (Vertical ladder: 0 at bottom = Completely dissatisfied: 10 at top = Completely satisfied)

Q.2   I am going to read you a list of various groups of people. How dissatisfied would you say they are with things in general today? This is a scale of satisfaction with complete satisfaction at the top (POINTING) and complete dissatisfaction at the bottom (POINTING). As I mention each group of people could you tell me where you think they would be on the scale - (MOVE FINGER RAPIDLY UP AND DOWN SCALE) which step number?

   List of socio-economic groups here

Q.3   And whereabouts on the ladder would you put yourself?

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[8] Hall J F Measuring the Quality of Life Using Sample Surveys
   in Stober G and Schumacher D (Eds) **Technology Assessment and Quality of Life** (Elsevier, 1973)
[9] Hall J F Subjective measures of quality of life in Britain 1971 to 1975: Some developments and trends
(specially commissioned paper: reprinted from Thompson E [Ed], **Social Trends 7** (HMSO, 1976)
[10] Maslow, A. H. (1943). A Theory of Human Motivation. *Psychological Review, 50(4)*, 370-96.
[11] McLeod, S. A. (2016). Maslow's Hierarchy of Needs. Retrieved from www.simplypsychology.org/maslow.html

[**NB:** the question did not ask about "*satisfaction with life*", but about "*satisfaction with things in general in Britain today*". It did not ask "*satisfied or dissatisfied with*", but "*dissatisfied with*" (an extremely untypical design/printing error) so is not strictly comparable with later surveys]

1971   Second pilot survey: 1-7 scale to match USA questionnaire.
(Vertical ladder: 1 at bottom = Completely dissatisfied: 7 at top = Completely satisfied)

> K.3   We have talked about various aspects of your life. Now I want to ask you about your life as a whole.
>
> (a) All things considered, how satisfied or dissatisfied are you overall with your life as a whole these days?   STEP NO   (a)
>
> (b) And where would you put yourself as you were 5 years ago? (b)
>
> (c) And where do you expect you will be in 5 years time? (c)
>
> (d) And what do you feel is the right level for people like yourself - what do you feel people like yourself are entitled to? (d)

!973   First national survey: 0-10 scale
Simultaneous surveys in Stoke-on-Trent and Sunderland
(Vertical beads: 0 at bottom = Completely dissatisfied: 10 at top = Completely satisfied)

> Q.J7a)   All things considered, how satisfied or dissatisfied are you overall with your <u>life as a whole</u> these days?

1975   Second national survey: 0-10 scale: same electoral wards as 1973, different polling districts.
(Vertical beads: 0 at bottom = Completely dissatisfied: 10 at top = Completely satisfied)

> QG.4   a) All things considered, how satisfied or dissatisfied are you overall with your <u>life as a whole</u> these days?

European Social Survey[12]

The ESS core questionnaire includes the two most common measures of subjective wellbeing: HAPPINESS and LIFE SATISFACTION. These measures have been asked every two years since 2002/2003. It uses **extremely**, not **completely.**

> **B20.** *All things considered, how satisfied are you with your life as a whole nowadays? Please answer using this card, where 0 means extremely dissatisfied and 10 means extremely satisfied.*
>
> Extremely dissatisfied   Extremely satisfied
>
> 00   01   02   03   04   05   06   07   08   09   10

[**NB:** Scale is **horizontal**]

ONS (2011)

> *Overall, how satisfied are you with your life nowadays?*
> *(on a scale of 0-10, where 0 is not at all satisfied and 10 is completely satisfied)*

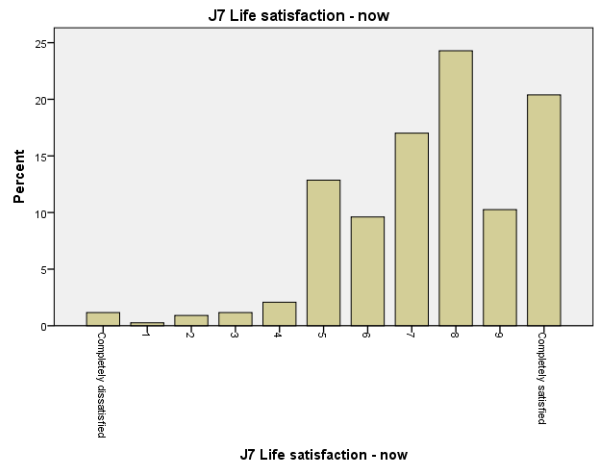(0 = **Not at all** satisfied: 10 = **Completely** satisfied)

[12] See: http://esswellbeingmatters.org/ and Measuring And Reporting On Europeans' Wellbeing: Findings from the European Social Survey (Waves 1 -6) also ESS Round 6 – Question Module Design Final Template

Distribution of satisfaction with "life as a whole" (0-10 scales only)
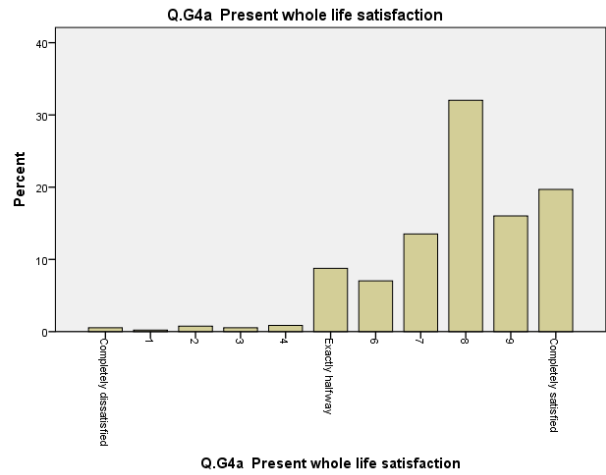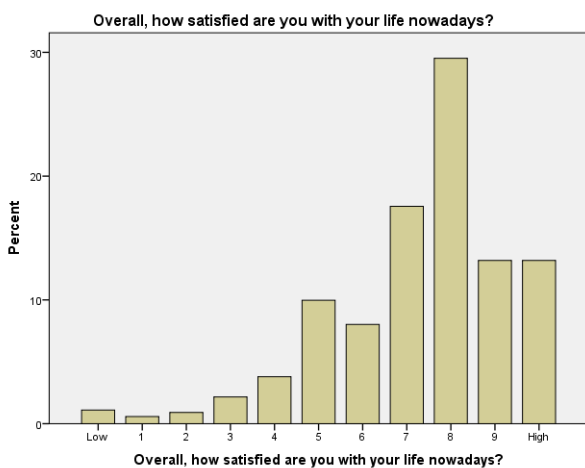
Stoke-on-Trent 1973
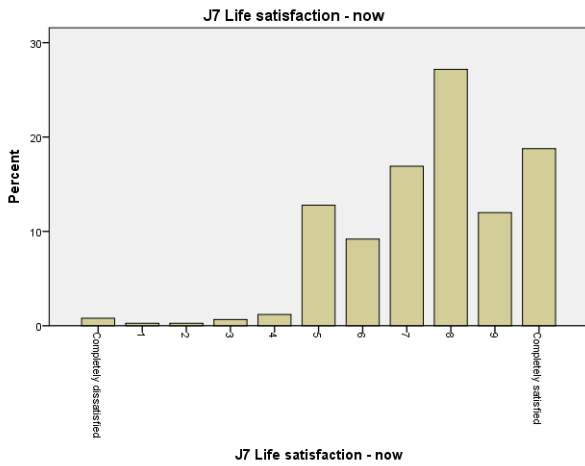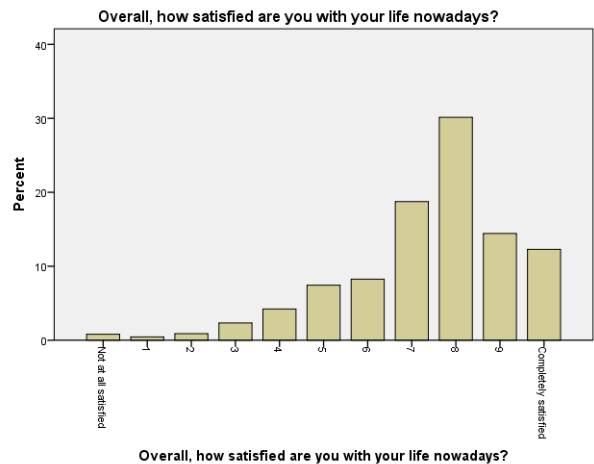

Sunderland 1973

Urban Britain 1973

Urban Britain 1975

ONS merged (April-Aug 2011)

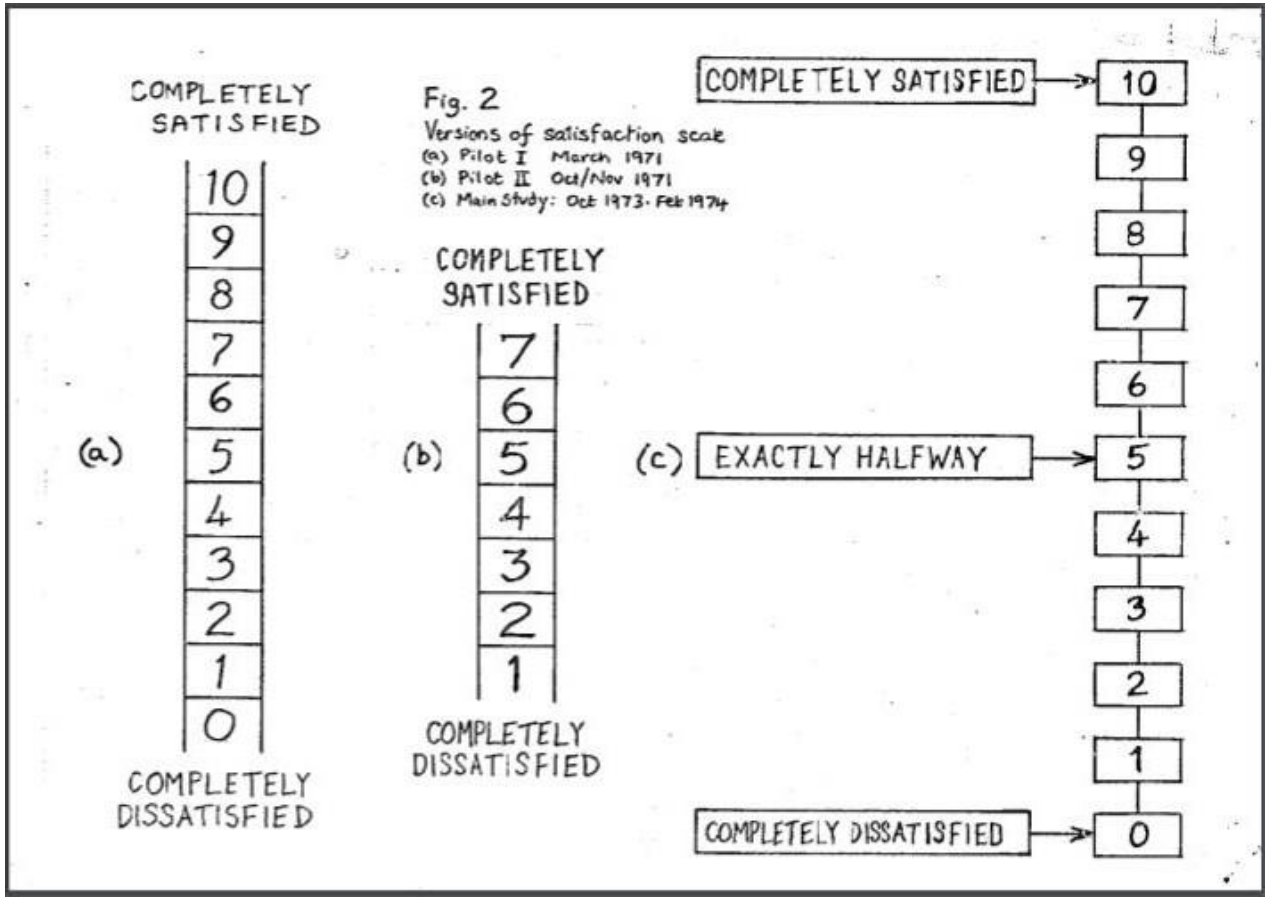## ONS Teaching (April 2011)

Satisfaction show-cards

The satisfaction scale show-cards[13] used in the SSRC surveys were:

Fig. 2

Versions of satisfaction scale
(a) Pilot I   March 1971
(b) Pilot II   Oct/Nov 1971
(c) Main Study: Oct 1973 - Feb 1974

Pilot 1: May 1971	Pilot 2: October 1971	Urban Britain	1973
		Stoke-on-Trent, Sunderland:	1973
		Urban Britain	1975[14]

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[13] See SSRC Quality of Life in Britain, page satisfaction scale show-cards

[14] In a 2005 communication with Rory Fitzgerald about the European Social Survey (ESS) I wrote:

   "The format for this and other cards was developed on advice from William Belson of LSE (boxed numbers and labels focus respondents' attention and links to indicate scaling) and Donald Monk of RSL (evaluative scales vertical, non-evaluative scales horizontal). Earlier surveys used simple ladder scales and unboxed labels. I remain unconvinced of the need for 0-10 scales (Mark changed them back from 1-7 at the last minute, even though the USA studies used 1-7) but at least they are comparable with ESS. I think they are too long (a metallurgist would compare the response distributions to a tension fracture in a steel rod) and would have preferred more research, particularly on 1- 9[14] and alternative formats."

   There is further relevant discussion on the National Centre for Research Methods thread:
   Single items for complex variables

Response patterns on 0-10 scales

It is evident from the Quality of Life (QoL) in Britain[15] and ONS surveys that, measured on 0 – 10 scales, distributions of self-reported satisfaction with life, and with various life-domains, are often quite "lumpy", with up to three "peaks", indicating different use of the show-cards by individual respondents, both in the range and number of points used.

In the discussion following the presentation of Hall and Ring 1974[16] at the ISA conference in Toronto, I cynically suggested that mean life-satisfaction measured on a 0 – 10 scale was a constant rather than a variable and that it would always be 7.6 or thereabouts: consequently governments and policy makers would always use this as an excuse not to improve things. Alex Michalos (Editor of *Social Indicators Research*) agreed.

Weighting the domain satisfactions by importance ratings made little if any difference to regression models either within or between domains. Aubrey McKennell said this indicated that the original satisfaction ratings could be used raw and that the perceived importance ratings added little or no accuracy and were therefore not necessary when accounting for overall satisfaction with domains or with life as a whole.

I did once try some analysis taking into account the number, centrality and range of points used by individual respondents. In January 1976, at a graduate seminar at ISR Michigan, I gave a short account of the SSRC/SU Quality of Life (QoL) research and gave details of what I termed "ipsatised" scores: Frank Andrews thought the approach very interesting, but SSRC had by then decided to close the Survey Unit in September 1976, making all staff redundant. I was therefore looking for another job and had no time to pursue the idea

In May 1976 I obtained a new post[17] to design and head up the first (and, as it turned out, the only ever) UK undergraduate degree in social research and was too busy working with the degree planning team as well as preparing data sets and documentation for all our surveys (for deposit with the then SSRC Survey Archive at Essex University) before the Survey Unit finally closed.

When the British Social Attitudes Survey (BSAS) was launched in 1983, and later the European Social Survey (ESS) I had many exchanges with Roger Jowell querying the format and number of points used on the satisfaction scales, now fixed in stone as 0 – 10. We also had many discussions on the use of mnemonic variable names[18], but I long ago conceded defeat on this. The juggernaut rolls on!

Hall 1976[19] has plenty of examples showing gradients of mean satisfaction ratings following (in the expected direction) differences in circumstances (including, in the case of Sunderland, some for Census and local planning data for the wards in which respondents lived).

The SSRC data sets include date and time of interview (allows checks for effect of major events?) and codes for primary sampling unit (same wards as 1973, but different PSU). The order of items in some batteries was randomly rotated to check for order effects.

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[15] SSRC Survey Unit Quality of Life in Britain surveys 1971 - 1975 is a website page containing detailed information (abstracts, variables, fieldwork, sampling, facsimile questionnaires, user-manuals, data sets, publications) on all "Quality of Life in Britain" surveys conducted between 1971 and 1975 by Mark Abrams and John Hall at the Survey Unit of the then Social Science Research Council (now the Economic and Social Research Council)..

[16] Hall J F and Ring A J Indicators of Environmental Quality and Life-Satisfaction: a subjective approach.
Invited paper to Research Cttee 26 (Social Ecology) International Sociological Association 8th World Congress of Sociology, Toronto, August, 1974

[17] Principal Lecturer in Sociology, Polytechnic of North London (PNL) to design and head up the **Social Planning and Research** option of a new 4-year vocational degree, **BA Applied Social Studies** (the other option was **Social Work**). The proposal was agreed first time by the Council for National Academic Awards (CNAA) and the first students were admitted in September 1977.

[18] See 1.3.1 Conventions for Naming Variables in SPSS

[19] See footnote 9

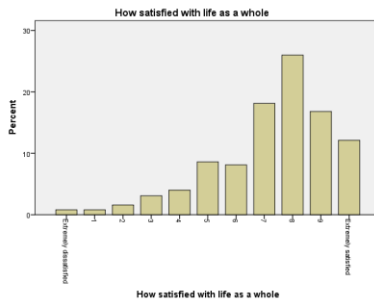**Distribution of responses for satisfaction with "life as a whole"**

[**NB:** Charts below are **barcharts** using **unweighted** data, displaying **percentage** of respondents.]

ONS
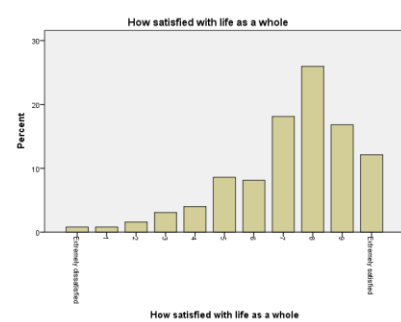
April 2011 only (0-10)	April-August 2011 (0-10)

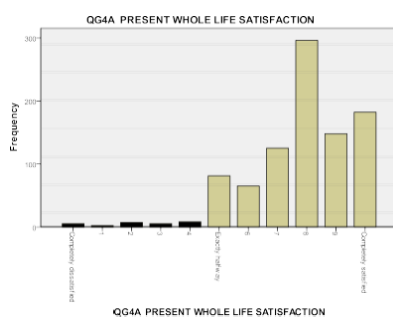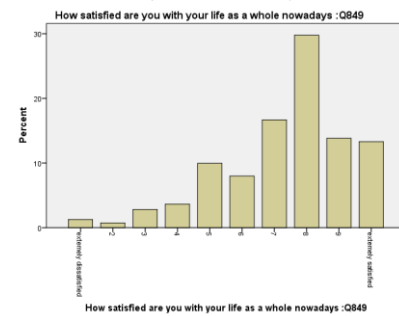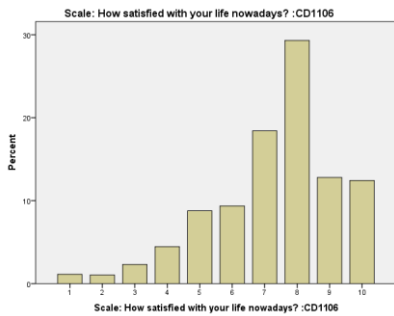**SSRC** (1973: 0-10 vertical)   **SSRC** (1975: 0-10 vertical)   **European Social Survey** (2006: 0-10 horizontal)

British Social Attitudes
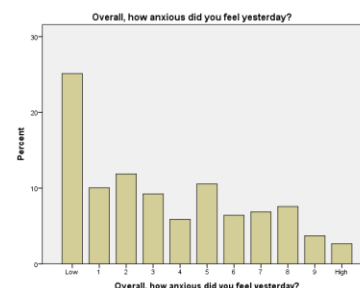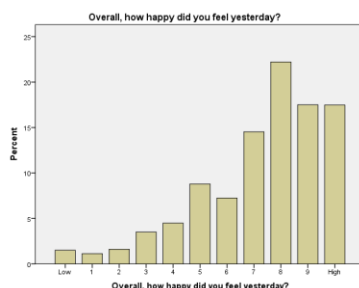
2008   (1-10 scale)   2013 (1-10 scale)

Other ONS 0-10 scales (April 2011)

Worthwhile   Happy,   Anxious

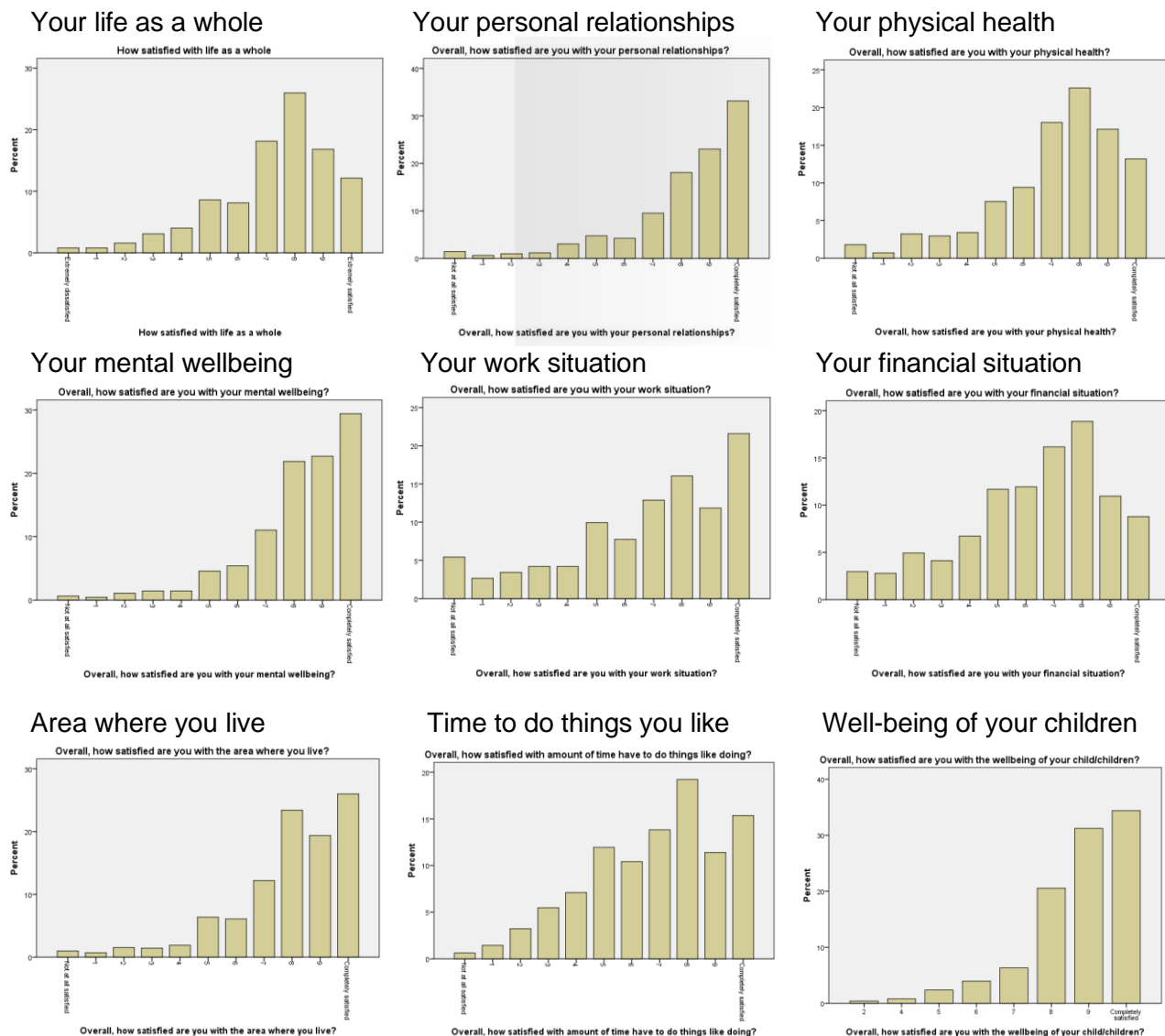## Distribution of other satisfaction scores: ONS April 2011

(9 items: 0-10)

MCZ_1	Ordinal	Overall, how satisfied are you with your life nowadays?

(0 = Extremely dissatisfied: 10 = Extremely satisfied)

MCZ_5a	Ordinal	Overall, how satisfied are you with your personal relationships?
MCZ_5b	Ordinal	Overall, how satisfied are you with your physical health?
MCZ_5c	Ordinal	Overall, how satisfied are you with your mental wellbeing?
MCZ_5d	Ordinal	Overall, how satisfied are you with your work situation?
MCZ_5e	Ordinal	Overall, how satisfied are you with your financial situation?
MCZ_5f	Ordinal	Overall, how satisfied are you with the area where you live?
MCZ_5g	Ordinal	Overall, how satisfied with amount of time have to do things like doing?
MCZ_5h	Ordinal	Overall, how satisfied are you with the wellbeing of your child/children?

(0 = Not at all satisfied): 10 = Completely satisfied

Distributions of satisfaction: MCZ_1 and MCZ_5a to MCZ_5h:

Your life as a whole   Your personal relationships   Your physical health

Your mental wellbeing   Your work situation   Your financial situation

Area where you live   Time to do things you like   Well-being of your children
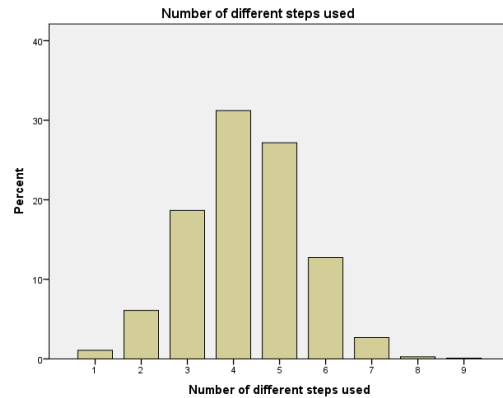
Number of different steps used on 0-10 satisfaction scales

When checks were made to see how many **different** steps were used by each respondent, it was clear that some respondents had used very few points (some only one: in nine cases none at all) and others had used up to nine. A count was made a) of the number of times each step was used for the nine satisfaction items MCZ_1 and MCZ_5a to MCZ_5h (**zeros** to **tens** below) and b) the number of **different** steps used each respondent **[steps1]**.

steps1 Number of different steps used

		Frequency	Percent
Valid	1	12	1.1
	2	68	6.1
	3	208	18.7
	4	348	31.2
	5	303	27.2
	6	142	12.7
	7	30	2.7
	8	3	0.3
	9	1	0.1
	Total	1115	100.0

Twelve respondents used only one scale point (in all cases 10). 68 people used only two, of whom two used only 0 and 10. A random sample of 40 cases illustrates the number of different steps used **[steps1]** and their pattern of distribution on the 0-10 scales **[zeros]** to **[tens]:**

```
zeros ones twos threes fours fives sixes sevens eights nines tens steps1

  2     0    1     0      1     0     0     1      2      0     2     6
  0     0    0     0      1     1     1     1      4      0     0     5
  0     0    1     0      0     2     1     2      2      0     0     5
  0     1    1     1      0     3     0     0      1      1     0     6
  0     0    0     1      0     1     0     0      5      1     0     4
  0     0    0     2      0     0     2     3      0      0     1     4
  0     1    1     0      1     0     3     1      0      1     0     6
  0     0    0     0      2     0     4     1      0      2     0     4
  0     0    0     0      1     0     3     2      1      2     0     5
  0     0    0     0      0     2     1     2      1      1     1     6
  0     0    0     0      2     0     2     3      0      1     1     5
  0     0    0     0      1     0     1     5      1      0     0     4
  1     0    0     0      0     1     0     1      0      4     1     5
  0     0    1     1      1     0     1     2      1      0     2     7
  0     0    0     0      0     2     2     2      2      0     0     4
  0     0    0     1      0     0     1     1      3      0     2     5
  0     0    0     0      0     1     2     1      2      1     1     6
  0     0    0     0      0     0     0     0      4      3     0     2
  0     0    0     0      0     0     1     1      3      1     2     5
  0     0    0     0      0     0     1     0      2      1     4     4
  0     0    0     1      0     1     0     2      1      2     1     6
  0     0    0     0      0     0     1     2      2      3     1     5
  0     0    0     0      1     0     0     2      4      1     0     4
  0     0    0     0      0     0     0     0      4      0     5     2
  0     0    1     1      2     1     0     0      3      0     0     5
  0     0    0     0      0     1     0     0      4      1     2     4
  0     1    0     0      0     1     3     1      2      0     1     6
  0     0    0     0      0     0     1     1      2      1     3     5
  0     0    0     0      0     0     1     1      3      1     3     5
  0     0    0     0      0     0     0     0      3      3     2     3
  0     0    0     0      0     1     1     0      2      3     1     5
  0     0    0     0      0     0     1     0      1      3     3     4
  0     0    0     0      0     0     1     2      2      3     0     4
  0     0    0     0      0     0     0     2      2      4     1     4
  0     0    0     0      0     0     0     1      1      4     2     4
  0     0    0     1      0     1     1     3      2      1     0     6
  0     0    0     0      0     0     0     0      1      2     5     3
  0     0    0     0      0     0     0     0      3      0     5     2
  0     0    0     0      0     0     0     0      0      0     8     1
  0     0    0     0      0     0     0     0      0      0     9     1

Number of cases read:  40    Number of cases listed:  40
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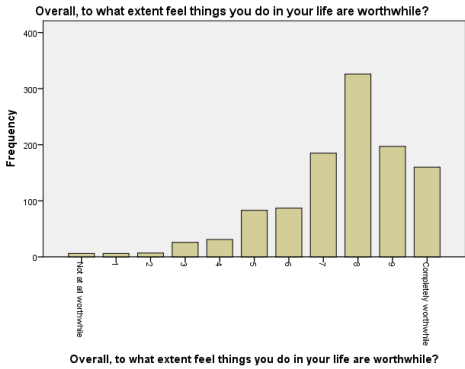
Other constructs

How worthwhile?

ONS: **[MCZ_2]**

> Overall, to what extent do you feel the things you do in your life are worthwhile?
> *(on a scale of 0-10, where 0 is not at all worthwhile and 10 is completely worthwhile)*

Overall, to what extent feel things you do in your life are worthwhile?

SSRC 1971 1st Pilot survey had an item in the 12-item SD scale for **My Present Life**

USELESS [ ] [ ] [ ] [ ] [ ] [ ] [ ] WORTHWHILE
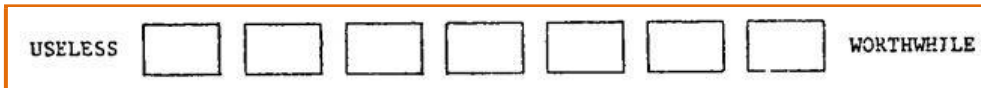
SSRC 1973 No exact equivalent, but item F in Q.J1 below (modified Srole Anomy] may partially cover it...

SHOW CARD O

Q.J1 I am going to read out some things people have said about life today. As I read each one, could you tell me which answer on the card comes closest to your own point of view?

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
F. You sometimes can't help wondering whether anything is worthwhile.	5	4	3	2	1

1971   **1973**

USELESS-WORTHWHILE

J1FANOMIE-WORTHWHILE-1 DISAGREE

11
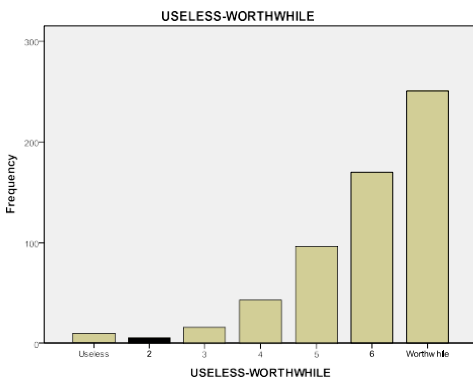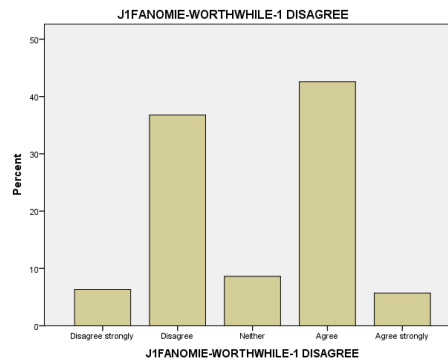
How happy?

ONS 2011 [MCZ_3]

> Overall, how happy did you feel yesterday?
> *(on a scale of 0-10, where 0 is not at all happy and 10 is completely happy)*

ESS [2006]

C1. *Taking all things together, how happy would you say you are?*

Extremely unhappy										Extremely happy
00	01	02	03	04	05	06	07	08	09	10

ONS 2011 (0-10)   ## ESS 2006 (0-10)

Overall, how happy did you feel yesterday?

How happy are you

SSRC 1973: [Q.J6]   1975 [Q.G3]

> Taking all things together, how would you say things are these days? Would you say you are: READ OUT VERY HAPPY / FAIRLY HAPPY / NOT TOO HAPPY
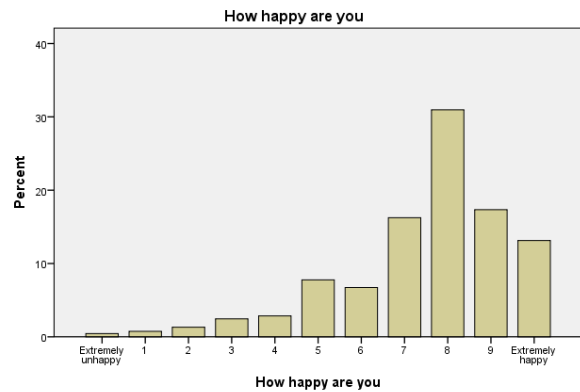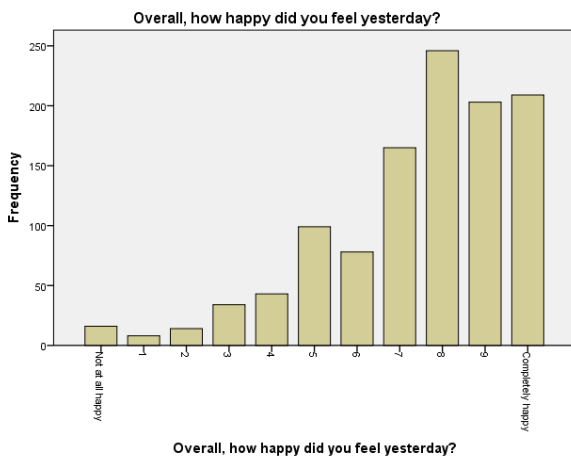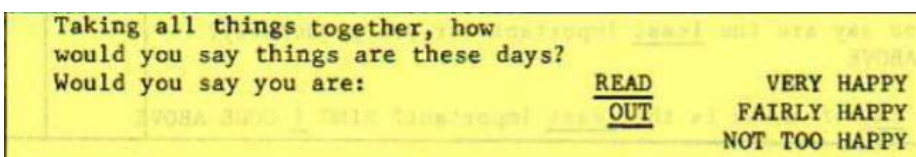
Are you very, fairly or not too happy these days?

	1973 %	1975 %
1 Not too happy	5.7	6.2
2 Fairly happy	52.1	55.7
3 Very happy	42.1	38.1
(n = 100%)	(965)	(926)

SSRC 1973 and 1975   **"My present life"**
(7-point self-completion semantic differential scale item)
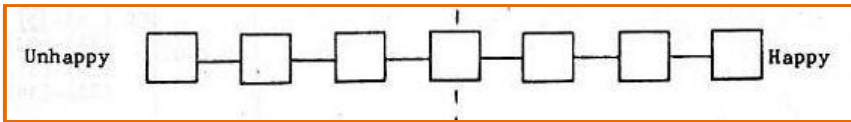
SSRC 1975b   **"My present life . ."**

1973	1975	1975b
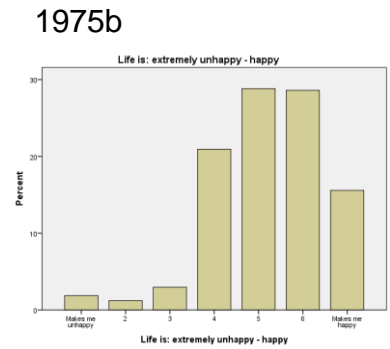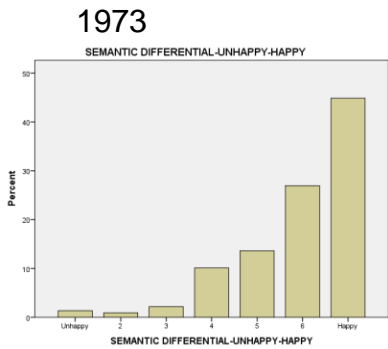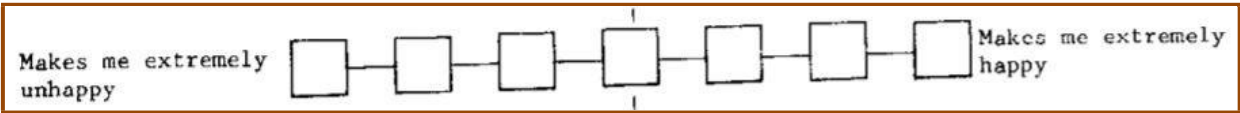
How anxious?

[ONS]

*On a scale where nought is 'not at all anxious' and 10 is 'completely anxious', overall, **how anxious did you feel yesterday**?*
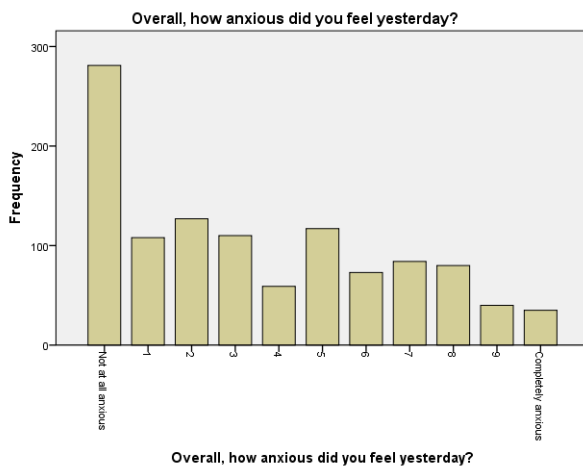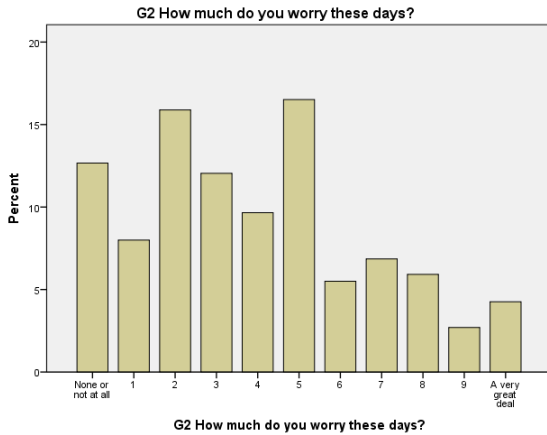
SSRC 1973 and 1975 (no exact equivalent)

(Scale 0-10: 0 = Not at all 10 = A very great deal)

1973 Q.G2   1975 Q.E17

G2 How much do you worry these days?

Q.E17 General worry these days
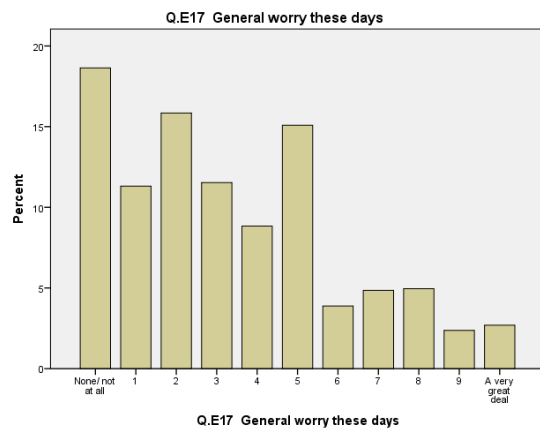
[SSRC 1975] Personal efficacy

QF.2a	Have you usually felt fairly sure your life would work out the way you want it to, to, or have there been times when you haven't been sure about it?	Fairly sure Haven't been sure	2 0	(7)
QF.2b	Do you think its better to plan your life a good way ahead, or would you say life is too much a matter of luck to plan ahead very far?	Plan ahead Too much luck to plan	2 0	(8)
QF.2c	When you do make plans ahead, do you usually get to carry things out the way you expected, or do things usually come up to make you change your plans?	Carry out plans Change plans	2 0	(9)
QF.2d	Do you think you have had a fair opportunity to make the most of your-self in life, or have you been held back in some ways?	Fair opportunity Held back	2 0	(10)

[**NB:** Not quite sure why coding was 0, 2 for this and Trust in others as only two values appear in frequencies for constituent items. The derived variables **EFFICACY** and **TRUST** weren't done with **COMPUTE** otherwise the scores would have been even numbers only. It could have been done with subsequent **RECODE**, or with **COUNT**: this needs to be checked]

QF.3a	Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?	Most people can be trusted	2	(11)
		Can't be too careful	0	
QF.3b	Would you say that most of the time, people try to be helpful, or that they are mostly just looking out for themselves?	Try to be helpful	2	(12)
		Look out for themselves	0	
QF.3c	Do you think that most people would try to take advantage of you if they got the chance or would they try to be fair?	Take advantage	2	(13)
		Try to be fair	0	

ISR/Campbell, Personal Efficacy [F2a - d]

Mean = 1.9
Std. Dev. = 1.166
N = 902

ISR/Campbell, Trust in Others [F3a,b code 2, F3c code 0

Mean = 1.81
Std. Dev. = 1.093
N = 927

15
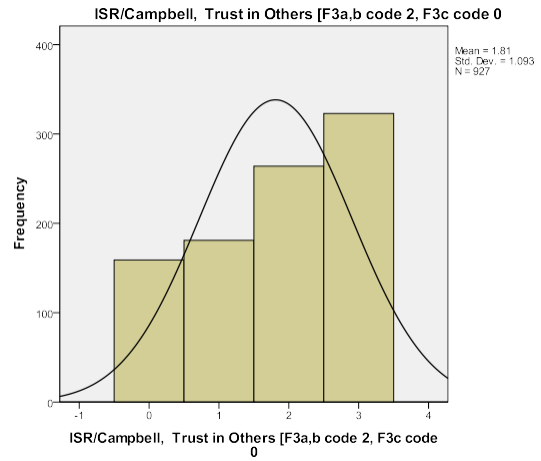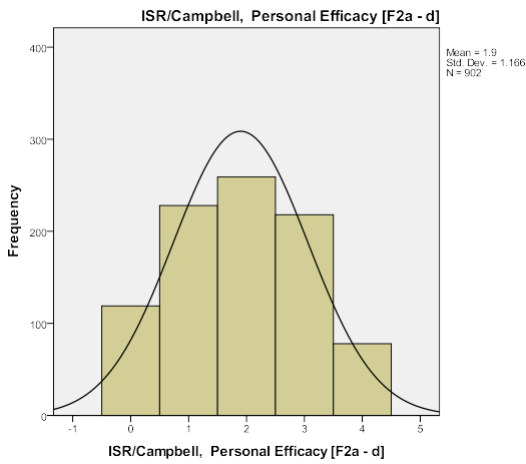
Bradburn Affect Balance Scale

[SSRC 1975]

		CODE		O.U.O.
	INTERVIEWER NOTE: SECTION F – "YOURSELF"			
	Now let's talk about something else. We are interested in the way people are feeling these days.			
QF.1	During the past few weeks, did you ever feel ------- (RING CODE)	YES	NO	
	a) Particularly excited or interested in something?	1	0	(64)
	b) So restless that you couldn't sit long in a chair?	1	0	(65)
	c) Proud because someone complimented you on something you had done?	1	0	(66)
	d) Very lonely or remote from other people?	1	0	(67)
	e) Pleased about having accomplished something?	1	0	(68)
	f) Bored?	1	0	(69)
	g) On top of the world?	1	0	(70)
	h) Depressed or very unhappy?	1	0	(71)
	i) That things were going your way?	1	0	(72)
	j) Upset because someone criticized you?	1	0	(73)

Bradburn Affect Balance

Mean = 1.38
Std. Dev. = 2.028
N = 924

Bradburn Affect Balance
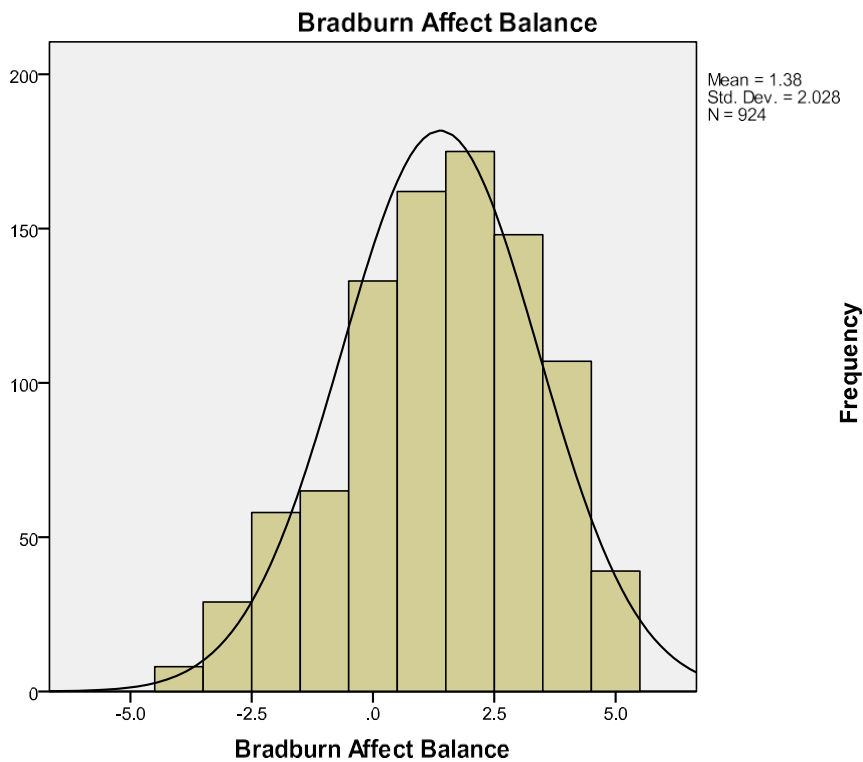
Self-completion semantic differential[20] scales

ISR and SSRC 1971

.4   MY PRESENT LIFE

Please tick [✓] whichever box applies in each line.

BORING	☐	☐	☐	☐	☐	☐	☐	INTERESTING
ENJOYABLE	☐	☐	☐	☐	☐	☐	☐	MISERABLE
EASY	☐	☐	☐	☐	☐	☐	☐	HARD
USELESS	☐	☐	☐	☐	☐	☐	☐	WORTHWHILE
FRIENDLY	☐	☐	☐	☐	☐	☐	☐	LONELY
UNHAPPY	☐	☐	☐	☐	☐	☐	☐	HAPPY
FULL	☐	☐	☐	☐	☐	☐	☐	EMPTY
DISCOURAGING	☐	☐	☐	☐	☐	☐	☐	HOPEFUL
SATISFYING	☐	☐	☐	☐	☐	☐	☐	UNSATISFYING
TIED DOWN	☐	☐	☐	☐	☐	☐	☐	FREE
DISAPPOINTING	☐	☐	☐	☐	☐	☐	☐	REWARDING
BRINGS OUT THE BEST IN ME	☐	☐	☐	☐	☐	☐	☐	DOESN'T GIVE ME MUCH CHANCE

---

[20] Self-completion semantic differential scales can be seen on:

My Present Life (1971)
My Present Life (1973)
My Present Life (1975)
My Present Life (Hall-Brown 1975)
ISR 1973 and SSRC 1973 and 1975 scales plus commentary

Please put a tick ☑ in whichever box applies in each line

| MY PRESENT LIFE |

Boring	☐ ☐ ☐ ☐ ☐ ☐ ☐	Interesting
Enjoyable	☐ ☐ ☐ ☐ ☐ ☐ ☐	Miserable
Tied Down	☐ ☐ ☐ ☐ ☐ ☐ ☐	Free
Rewarding	☐ ☐ ☐ ☐ ☐ ☐ ☐	Disappointing
Rough	☐ ☐ ☐ ☐ ☐ ☐ ☐	Smooth
Full	☐ ☐ ☐ ☐ ☐ ☐ ☐	Empty
Discouraging	☐ ☐ ☐ ☐ ☐ ☐ ☐	Hopeful
Easy	☐ ☐ ☐ ☐ ☐ ☐ ☐	Hard
Frustrating	☐ ☐ ☐ ☐ ☐ ☐ ☐	Fulfilling
Full of fun	☐ ☐ ☐ ☐ ☐ ☐ ☐	No fun at all
Controlled by others	☐ ☐ ☐ ☐ ☐ ☐ ☐	Under my control
Full of possibilities	☐ ☐ ☐ ☐ ☐ ☐ ☐	In a rut
Unsuccessful	☐ ☐ ☐ ☐ ☐ ☐ ☐	Successful
Brings out the best in me	☐ ☐ ☐ ☐ ☐ ☐ ☐	Doesn't give me much chance
Unhappy	☐ ☐ ☐ ☐ ☐ ☐ ☐	Happy

Please put a tick ☑ in whichever box applies in each line

MY PRESENT LIFE

Boring	☐	☐	☐	☐	☐	☐	☐ Interesting
Enjoyable	☐	☐	☐	☐	☐	☐	☐ Miserable
Tied Down	☐	☐	☐	☐	☐	☐	☐ Free
Rough	☐	☐	☐	☐	☐	☐	☐ Smooth
Full	☐	☐	☐	☐	☐	☐	☐ Empty
Easy	☐	☐	☐	☐	☐	☐	☐ Hard
Frustrating	☐	☐	☐	☐	☐	☐	☐ Fulfilling
Full of fun	☐	☐	☐	☐	☐	☐	☐ No fun at all
Unsuccessful	☐	☐	☐	☐	☐	☐	☐ Successful
Unhappy	☐	☐	☐	☐	☐	☐	☐ Happy

SSRC 1975 – (Hall-Brown scale)

This scale was constructed by John Hall in response to an internal memo from Colin Brown[21] commenting on the comparisons being made by the respondent when completing earlier versions and answering questions on satisfaction etc.

Please put a tick [✓] in whichever box applies in each line

MY PRESENT LIFE

Does not meet my needs in any way	Meets my needs in every way
Is very much worse than I deserve	Is very much better than I deserve
Makes me extremely unhappy	Makes me extremely happy
Is very much worse than it used to be	Is very much better than it used to be
Will get very much worse in the future	Will get very much better in the future
Makes me extremely dissatisfied compared to other people I know	Makes me extremely satisfied compared to other people I know
Other people think I am extremely dissatisfied with it	Other people think I am extremely satisfied with it
Makes me completely dissatisfied	Makes me completely satisfied

---

[21] See ISR 1973 and SSRC 1973 and 1975 scales plus commentary

Definitions of "Quality of Life"

[SSRC 1975]

Quest. No.			J.8909
	INTERVIEWER NOTE: SECTION C - LIFE IN BRITAIN TODAY		CC2
QC.1	There's a lot of talk these days about the "Quality of Life", in Britain and in other countries. Of course, "Quality of Life" means different things to different people. What does it mean to you - What sort of things do you think of now when you hear the words "Quality of Life" (WRITE IN BELOW) (PROBE FULLY): What do you mean by that? Anything else?		O.U.O. (29) (30)

Coding of open-ended responses

qol Frequencies

		Responses		Percent of Cases
		N	Percent	
Elements of quality of life[a]	Q-C1A*1* GENERAL CONTENTMENT, HAPPY ETC	179	9.9%	19.2%
	Q-C1A*2* REFERENCES TO HOMELIFE	215	11.9%	23.1%
	Q-C1A*3* SOCIAL RELATIONSHIPS	94	5.2%	10.1%
	Q-C1A*4* HOUSING,COMFORTABLE HOME	93	5.2%	10.0%
	Q-C1A*5* MONEY,COST OF LIVING ETC	167	9.3%	17.9%
	Q-C1A*6* STANDARD OF LIVING,COMFORT	159	8.8%	17.1%
	Q-C1A*7* CONSUMER DURABLES	31	1.7%	3.3%
	Q-C1A*8* WORK,EMPLOYMENT,JOB	80	4.4%	8.6%
	Q-C1A*9* VALUES,BEHAVIOUR PRIORITIES	148	8.2%	15.9%
	Q-C1A*0* EQUALITY,SOCIAL JUSTICE	16	.9%	1.7%
	Q-C1A*X* BEAUTY OF ENVIRONMENT	36	2.0%	3.9%
	Q-C1A*Y* PRESSURES OF MODERN LIFE	28	1.6%	3.0%
	Q-C1B*1* FREEDOM OF SPEECH ETC	61	3.4%	6.5%
	Q-C1B*2* EDUCATION,CULTURE ETC	33	1.8%	3.5%
	Q-C1B*3* LEISURE,HOLIDAYS,RELAXATION	59	3.3%	6.3%
	Q-C1B*4* HEALTH,SICKNESS,DOCTORS ETC	91	5.0%	9.8%
	Q-C1B*5* WORRIES,MENTAL HEALTH ETC	23	1.3%	2.5%
	Q-C1B*6* PHILOSOPHY AND BELIEFS	101	5.6%	10.8%
	Q-C1B*7* LIFE COMPARED TO PAST + ELSE	33	1.8%	3.5%
	Q-C1B*9* OTHER	29	1.6%	3.1%
	Q-C1B*0* DK,VAGUE,NO ANSWER	89	4.9%	9.5%
	Q-C1B*X* NEGATIVE STATEMENTS RE OTHERS	23	1.3%	2.5%
	Q-C1B*Y* ALTRUISTIC STATEMENTS	17	.9%	1.8%
Total		1805	100.0%	193.7%

a. Dichotomy group tabulated at value 1.

Perceived quality of life in other countries and in Britain

[SSRC 1975]

QC.2	Here is a scale to measure quality of life (SHOW CARD D). The highest quality of life is at the top (POINT TO 10) and the lowest quality of life is at the bottom (POINT to 0) and the other points are in between depending on how high or low you think the quality of life is.		
	I'm going to read you some names of countries. I'd like you to tell me whereabouts on the scale you think each one is in quality of life. The first one is........	ENTER BOX NOS.	O.U.O.
	a) India		(31)
	b) France		(32)
	c) Russia		(33)
	d) Germany		(34)
	e) Holland		(35)
	f) Australia		(36)
	g) Sweden		(37)
	h) United States of America		(38)
	j) Britain		(39)

India

QC2A QUALITY OF LIFE IN INDIA

France

QC2B QUALITY OF LIFE IN FRANCE

Russia

QC2C QUALITY OF LIFE IN RUSSIA

Germany

QC2D QUALITY OF LIFE IN GERMANY

Holland

QC2E QUALITY OF LIFE IN HOLLAND

Australia

QC2F QUALITY OF LIFE IN AUSTRALIA

Sweden

QC2G QUALITY OF LIFE IN SWEDEN

USA

QC2H QUALITY OF LIFE IN UNITED STATES
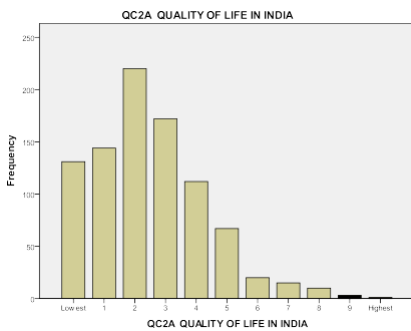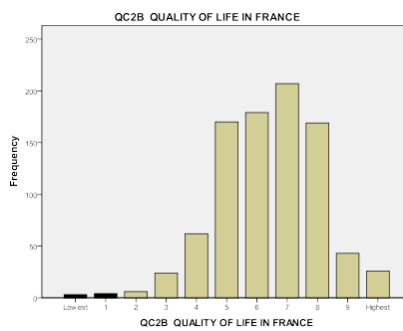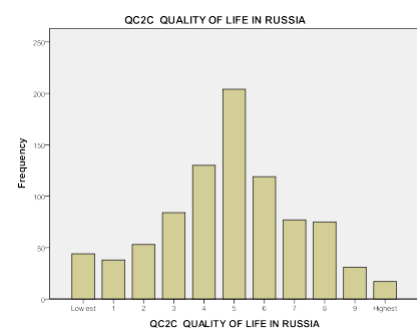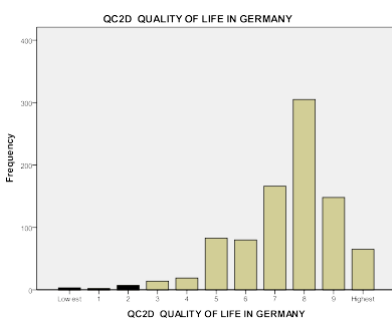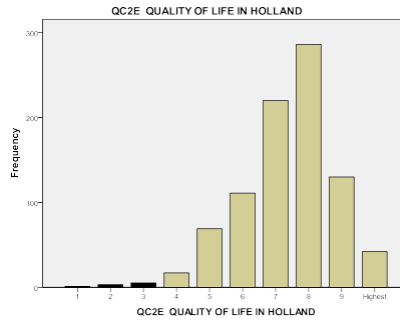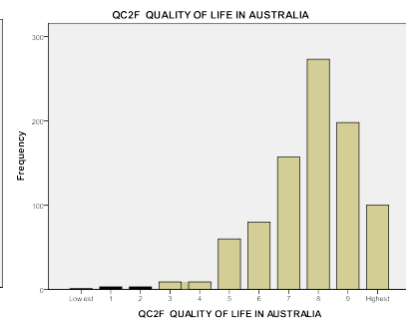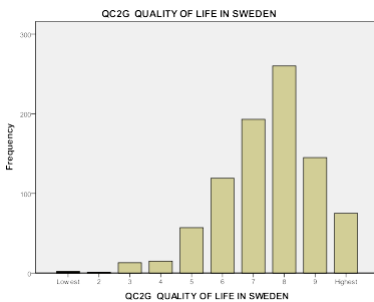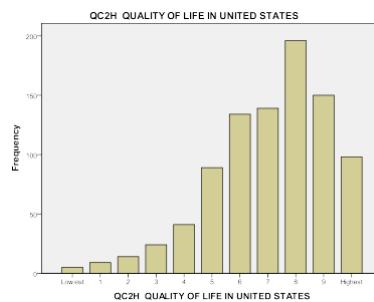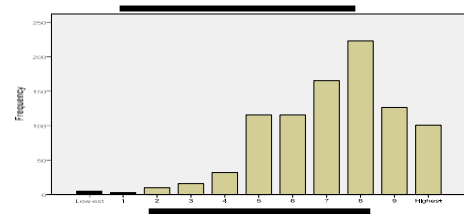
Britain

Past, future and entitled quality of life in Britain

[SSRC 1975]

QC.2k	..... and where would you say Britain was 5 years ago?		(40)
QC.2l	..... and where do you think it will be in 5 years time?		(41)
QC.2m	What would you say is the right level for Britain: What level of Quality of Life do you think Britain is entitled to?		(42)
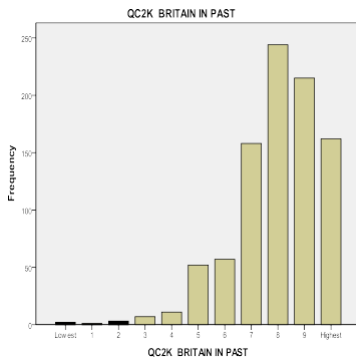
Britain 5 years ago	Britain in 5 years' time	Entitled level for Britain
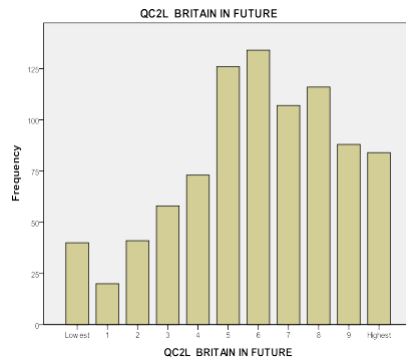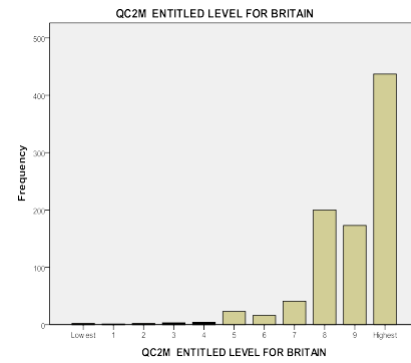
Present, past, future and entitled satisfaction with "life as a whole"

> (SHOW CARD C)
>
> QG.4
>
> a) All things considered, how satisfied or dissatisfied are you overall with your <u>life as a whole</u> these days?
>
> ENTER BOX NOS.
>
> (45)

[**NB:** Implications for question wording: "How satisfied or dissatisfied..."

> b) And where would you put yourself as you were five years ago?   (46)
>
> c) And where do you expect you will be in five years' time?   (47)
>
> d) And what do you feel is the right level for people like yourself - what do you feel people like yourself are entitled to?   (48)

QG4A PRESENT WHOLE LIFE SATISFACTION

QG4B PAST WHOLE LIFE SATISFACTION

QG4C FUTURE WHOLE LIFE SATISFACTION

QG4D ENTITLED WHOLE LIFE SATISFACTION
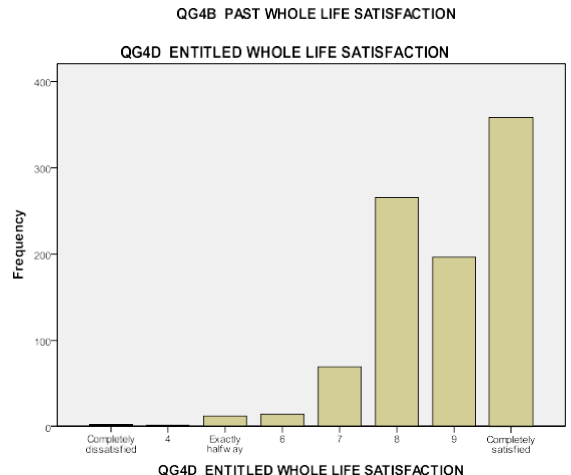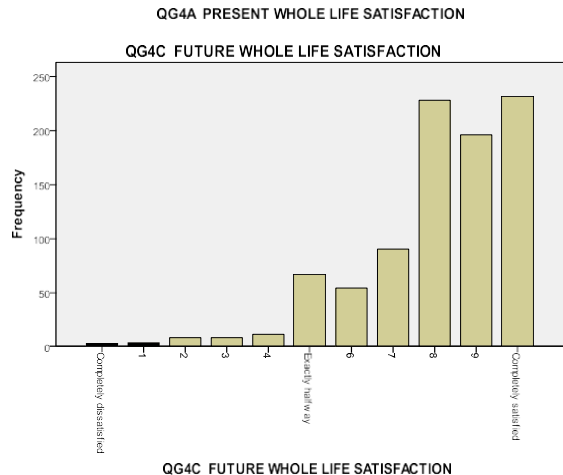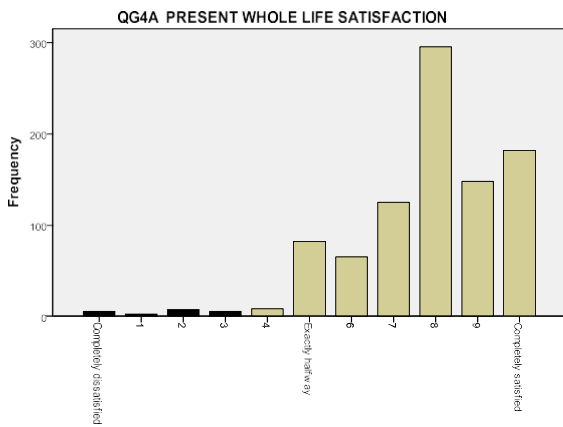
Other measures.

Facsimile questions below are scanned direct from the original questionnaires: analytical output is from SPSS for Windows (releases 19 to 24).

Things you want from life

SSRC 1973

| Q.J2 | We have talked about various aspects of your life, now I want to ask you about your life as a whole. When you think of the things you want from life now, would you say you were doing very well, fairly well, or not too well? | VERY WELL 3 FAIRLY WELL 2 NOT TOO WELL 1 |

SSRC 1975

| Quest. No. | - 23 - Finally, I want to ask you briefly about your life as a whole. | J.8909 CC5 |
| QG.I | When you think of the things you want from life now, would you say you were doing very well, fairly well, or not too well? (RING CODE) | Very well 3 Fairly well 2 (40) Not too well 1 |

How well doing in life?

	1973 %	1975 %
1 Not too well	10.7	10.5
2 Fairly well	71.4	68.8
3 Very well	17.9	20.7
(N=100%)	(965)	(926)

Choice and control over your life

SSRC 1973 Q.J3, 1975 QG.2a

Q.J3 | SHOW CARD E

Some people feel they have completely free choice and control over the way their lives turn out; yet other people feel that what they themselves do has no real effect on what happens to them. Please use the scale to indicate how much freedom of choice and control you feel you have had over the way your life has turned out for you. (PROMPT - Up to Now)

1973

J3 How much choice and control over life?

1975

Q.G2a Freedom of choice and control over your life
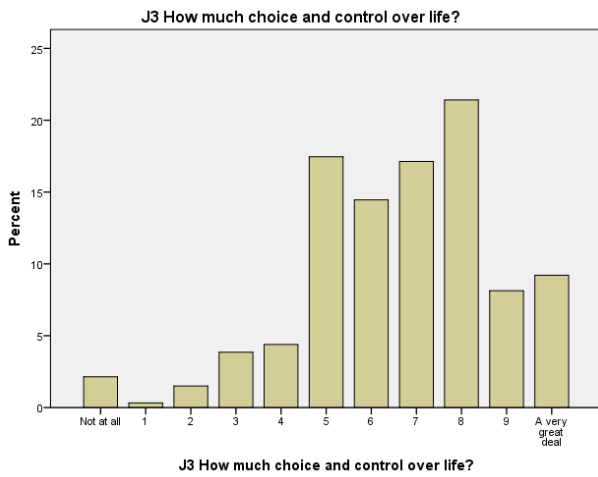
Wish to change your life

SSRC 1973 Q.J4, Q.J5   SSRC 1975 Q.G2b, Q.G2c

SHOW CARD E

Think of how your life is going now.
How much would you like to change your life as it is now?

SHOW CARD E

Now think of your life as it was in the past.
If you could have your life over again, how much would
you want to change any of it?
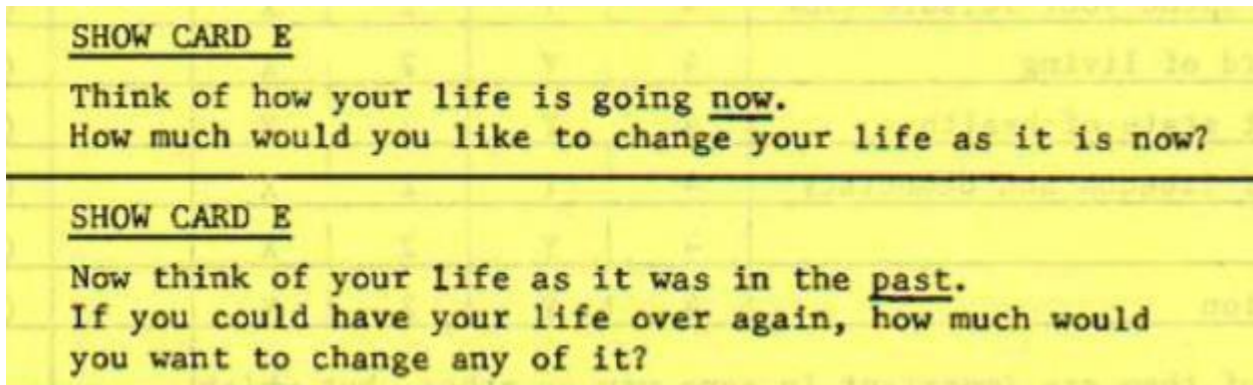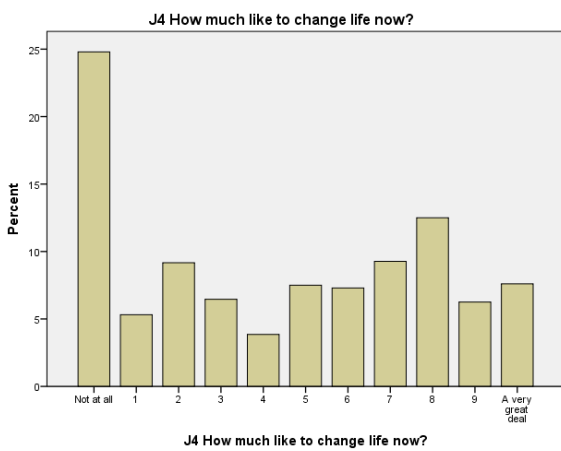
SSRC 1973 Q.J4

SSRC 1975 Q.G2b
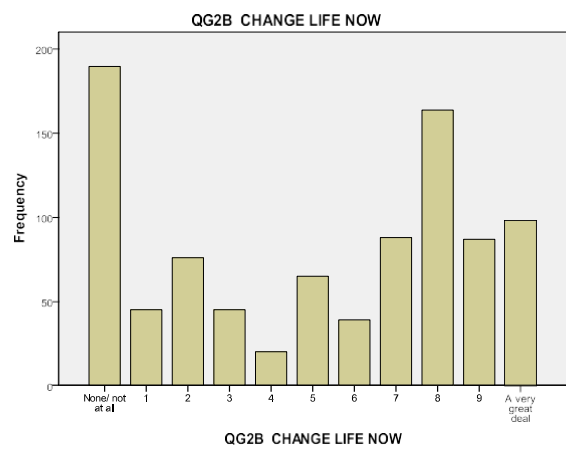
SSRC 1973 Q.J5
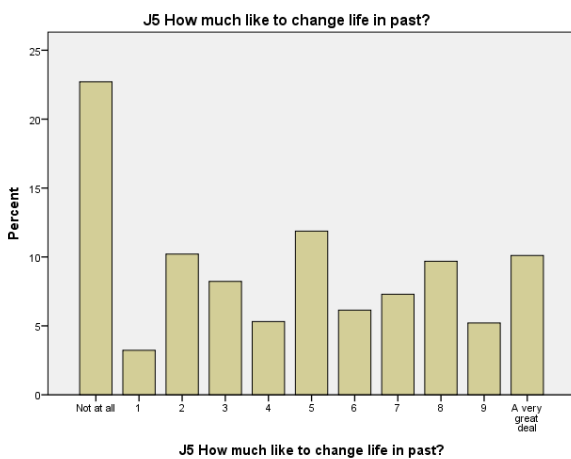
SSRC 1975 Q.G2c
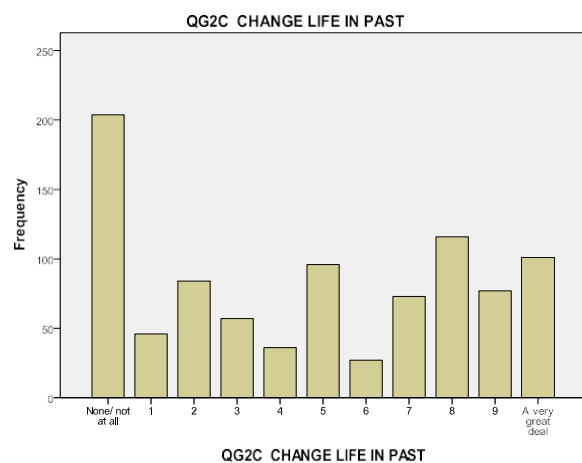
There was also some correspondence on the SPSS list a while back and I seem to remember Art Kendall suggesting that for Likert type items, 7 points were best (and the longest that most respondents can handle). However for satisfaction ratings some finer calibration is needed.

In the early 1970s, when I was doing development work with Mark Abrams on the Quality of Life in Britain (QoL) surveys, we debated whether to use 1-7 or 0-10 to measure satisfaction with life as a whole and with various life-domains, and also what format to use (ladder or linked boxes) on show-cards or self-completion pages. (Kilpatrick and Cantril had used matchstick figures on a mountain staircase) In the first pilot survey we used 0-10, but changed to 1-7 for the second pilot as we were collaborating with Angus Campbell et all (ISR Ann Arbor) for their US survey. Mark Abrams changed this back to 0-10 in our main survey (which to say the least makes comparison difficult!). We found that 0-10 scales tend to be tri-modal and 1-7 heavily skewed. (See Satisfaction scale showcards: May 1971: 0-10 ladder, Oct 1971: 1-7 ladder (as per USA survey) 1973 and 1975: 0-10 boxed beads). Ornauer et al used 1 -9[*] and obtained smoother distributions. We also considered Paul Sheatsley's smiley faces (as now used in the Understanding Society self-completion questionnaire for children).

The current ONS National Well-being programme uses 0-10, and I have exchanged views with them on this. My problem is individual differences in use of the scales and how to cater for these in analysis. I once joked that mean life-satisfaction on a 0-10 scale is a constant rather than a variable, and is always around 7.8.

Similar debates centred on the format of self-completion semantic differential scales.

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Frank M. Andrews: A Pioneer in Social Indicators and Social Reporting
Applied Research Quality Life (2014) 9: 779. doi:10.1007/s11482-014-9324-4

Moser C A Measuring the Quality of Life (*New Society*, 10 Dec 1970)

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There's also a very thorough discussion in OECD Guidelines on Measuring Subjective Well-being
(2013) but no actual question wording.

Appendix:

SSRC 1975: Satisfaction with 12 domains and life as a whole

Variable	Label
var149	Q.A14 Overall house satisfaction
var170	Q.A19 Overall satisfaction with district
var228	Q.B5 Overall satisfaction with family
var243	Q.C3a Overall satisfaction with britain
var269	Q.C6 Overall satisfaction with freedom and democracy
var319	Q.D2 Overall satisfaction with standard of living
var323	Q.D3d General financial situation
var372	Q.D11 Overall satisfaction with education
var411	Q.D13c Overall satisfaction with job
var412	Q.D13d Overall housewife satisfaction
var415	Q.D14c Overall satisfaction with leisure
var438	Q.E7 Overall satisfaction with health
var452	Q.E15 Overall satisfaction with nhs
var545	Q.G4a Present whole life satisfaction

steps1 Number of different steps used

		Frequency	Percent
Valid	1	7	0.8
	2	17	1.8
	3	101	10.8
	4	217	23.3
	5	280	30.0
	6	200	21.5
	7	82	8.8
	8	24	2.6
	9	3	0.3
	10	1	0.1
	Total	932	100.0
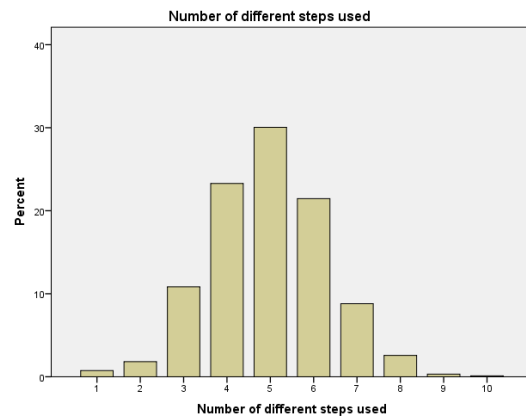
SSRC 1973: 62 satisfaction ratings on 0-10 scales.

The number of different points used by any respondent varies from one step to all eleven steps:

No of steps	%
1	.1
2	.1
3	.9
4	1.7
5	5.4
6	11.5
7	14.5
8	18.8
9	18.8
10	17.4
11	10.8
(n = 100%)	(966)
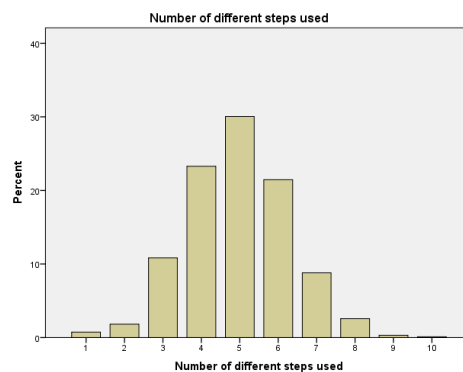
Mean number of times each point used on 0-10 scale across 62 items

zeros	ones	twos	threes	fours	fives	sixes	sevens	eights	nines	tens
1.90	.68	1.29	1.54	1.93	6.62	3.48	5.44	9.56	6.17	14.43

SSRC 1973: 62 satisfaction ratings on 0-10 scales

Number of times each point on the 0 – 10 satisfaction scale was used across all 62 items to which it applied. [NB: includes **job** and **being a housewife**, both of which will have significant n.a.]

Cases highlighted in **red** have used few points spread across the whole scale. Cases highlighted in **blue** have also used few points, but they are clustered (usually towards the top of the scale).

Listing of first 30 cases:

zeros	ones	twos	threes	fours	fives	sixes	sevens	eights	nines	tens	steps1	na
0	0	0	0	0	0	2	4	6	8	21	5	20
0	0	5	1	2	8	0	9	26	3	8	8	0
4	0	0	0	0	3	2	1	6	3	43	7	0
3	0	0	0	4	4	5	6	11	7	21	8	1
0	1	4	2	1	7	6	8	12	6	13	10	1
6	1	2	5	1	11	5	7	4	6	13	11	1
0	0	0	1	0	4	5	10	19	19	3	7	0
6	0	2	4	4	25	5	4	6	2	4	10	0
0	0	0	1	2	6	2	4	11	6	9	8	20
7	0	3	0	2	11	3	7	4	2	0	8	20
3	2	4	6	8	16	12	6	2	1	1	11	1
0	0	0	0	1	6	3	7	8	4	11	7	20
0	1	0	1	0	13	3	8	10	7	19	8	0
5	0	0	0	0	4	3	3	10	0	16	6	20
0	0	0	2	3	7	7	9	14	7	13	8	0
0	0	0	0	1	2	2	0	7	5	24	6	20
2	1	1	3	3	11	9	3	4	1	3	11	20
0	1	3	2	1	0	3	4	5	9	10	9	23
4	0	0	0	0	2	0	5	3	0	48	5	0
0	0	0	1	1	2	10	10	6	20	11	8	1
1	3	1	0	2	2	4	6	3	12	27	10	1
1	1	1	5	3	5	5	10	13	5	7	11	6
1	1	3	0	1	1	3	0	4	2	24	9	20
0	0	0	1	7	9	13	12	13	6	1	8	0
0	0	1	4	0	9	1	4	13	6	2	8	20
0	0	0	1	0	4	5	6	20	7	19	7	0
0	0	0	0	0	0	0	1	1	0	57	3	0
0	0	0	0	0	1	0	0	5	1	33	4	20
0	0	0	0	0	7	0	3	10	5	16	5	20
0	0	0	0	1	3	6	9	18	14	11	7	0

Number of cases read: 30   Number of cases listed: 30

0 - 10 scale response patterns when R uses few points.

[Quality of Life in Britain: main survey 1973]

The problem is how to treat responses when some are spread out across the scale and others are clustered. Do we assume everyone is using the scales in the same way and that the ratings are valid, or do we have to build in some statistical controls[22] to take account of the variations?

R uses three points only

zeros	ones	twos	threes	fours	fives	sixes	sevens	eights	nines	tens
3	0	0	0	0	7	0	0	0	0	52
2	0	0	0	0	2	0	0	0	0	36
7	0	0	0	0	18	0	0	0	0	13
0	0	0	0	0	0	0	1	1	0	57
0	0	0	0	0	0	0	1	5	0	34
0	0	0	0	0	0	0	1	7	0	33

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[22] I did one produce some hand-drawn graphs (no graphics in SPSS in 1975!) using transformations based on each respondent's scale use, but can't remember exactly how I did the analysis.

R uses 4 points only

zeros	ones	twos	threes	fours	fives	sixes	sevens	eights	nines	tens
3	0	0	0	0	12	0	0	11	0	36
3	0	0	0	0	5	0	0	0	1	30
6	0	0	0	0	3	0	0	1	0	31
5	0	0	0	0	6	0	0	1	0	29
1	0	0	0	0	5	0	0	9	0	46
9	0	1	0	0	16	0	0	0	0	15
1	0	0	0	0	8	0	0	8	0	24
0	0	0	0	0	1	0	0	5	1	33
0	0	0	0	0	7	0	1	1	0	31
0	0	0	0	1	0	0	0	4	14	22
0	0	0	0	0	0	0	1	7	6	27
0	0	0	0	0	0	0	1	1	12	27
0	0	0	0	0	9	0	1	0	1	51
0	0	0	0	0	1	1	0	0	2	56
0	0	0	0	0	0	0	1	6	4	29
0	0	0	0	0	6	2	0	23	0	5

R uses 5 points only

zeroes	ones	twos	threes	fours	fives	sixes	sevens	eights	nines	tens
4	0	0	0	0	2	0	5	3	0	48
8	0	0	0	0	7	0	0	1	1	45
2	0	0	4	0	0	3	0	7	0	24
14	1	0	0	0	13	0	3	0	0	10
16	0	0	0	0	8	0	1	1	0	15
16	0	1	0	0	13	0	0	2	0	8
2	0	0	0	0	15	0	3	2	0	40
0	0	0	0	0	0	2	4	6	8	21
0	0	0	0	0	7	0	3	10	5	16
0	0	0	0	0	0	9	12	11	14	10
0	0	0	0	0	0	1	2	2	1	35
0	0	0	0	0	1	0	1	12	12	35
0	0	0	0	0	10	3	11	13	0	4
0	0	0	0	0	5	0	1	11	4	41
0	0	0	0	0	1	0	1	2	1	36
0	0	0	0	0	0	8	10	18	12	14
0	0	0	0	0	1	0	2	4	14	20
0	0	0	0	0	0	5	14	36	5	2