

face interviews with adults aged 16 and over in their own homes. The surveys differed in relation to sampling strategy and how respondents provided their answers but contained the same 85 questions on the necessities of life. Forty six questions related to adults (33 items and 13 activities), 30 questions focused on children (22 items and eight activities), and a smaller set of questions (n=10) related to local servicesⁱⁱ. They were developed following a methodologically robust process involving national focus group research (Fahmy et al. 2013) and an expert review of previous survey indicators by the research team and international advisory board which were not only piloted but also cognitively tested. Those taking part in the shuffle card exercise (all British and half of Northern Ireland survey respondents) were asked the following question about the adult items and activitiesⁱⁱⁱ:

On these cards are a number of different items which relate to our standard of living. I would like you to indicate the living standards you feel all adults should have in Britain today by placing the cards in the appropriate box. BOX A is for items which you think are necessary – which all adults should be able to afford and which they should not have to do without. BOX B is for items which may be desirable but are not necessary.

Now, I would like you to do the same thing for the adult's activities on this set of cards– set H.

For Japan the data used is the 2011 Perception of Necessity Survey (*2011 Kurashi ni Kansuru Ishiki Chosa*) conducted by the National Institute of Population and Social Security Research (NIPSSR). The survey differs from the UK surveys in a number of respects; it is a postal survey involving questionnaires (rather than face-to-face interviews); respondents were aged 20 and above (rather than 16); and they were randomly selected from the survey company's monitors^{iv} all over Japan (rather than private households). However, all three surveys achieved similar response rates.^v It should be noted that the survey was conducted in July 2011, four months after the Great East Japan Earthquake which killed nearly 20,000 people. It is possible that a disaster of this magnitude may have affected people's perceptions of life's necessities temporarily and/or permanently. The question regarding the necessities of life is phrased as closely as possible to the question in the UK surveys in order to aid comparability. Translated, it reads as follows:

This question is about a standard of living for all people in Japan today. In order to live a modern life, what items do you think are necessary and should be able to be acquired by everybody? (A) Definitely Necessary (B) Desirable but not Necessary (C) Not necessary

The survey asked the above question for 67 adult items and activities and for 30 children's items and activities. The questions were developed from previous Japanese poverty survey (Abe 2004) but also attempted to match the UK study where possible.

Our comparative analysis sought to address three questions: (i) what are the differences in social perceptions of need between the UK and Japan ; (ii) identify, if any, needs which are 'common' between the two societies; and (iii) to analyze the factors which may account for any of the differences found. The first stage of the analysis involved a harmonization of the items and activities from the surveys. This involved assessing which items and activities could be included for comparative analysis based on how closely they matched; a process which finally yielded 26 adult items activities and 19 children's items and activities. Some items were considered an identical match (such as 'TV', 'car', and 'two meals a day) although even here the specific details of the items may differ. Other items were regarded as a very close match (such as the UK 'warm waterproof coat' which was a 'winter coat' in Japan). Underlying this process of harmonization was the extent to which the items and activities reflected the same need. Ideas about decency and the avoidance of shame common in both societies (see Sutton et al, in this Issue) resulted in the matching of the UK item 'an outfit to wear for social occasions' with the Japanese "*reifuku*" (formal suits for funerals, weddings, and other formal occasions). Some items differed in some of the minor details. For example, 'hair done regularly' in the UK was matched with 'going to get a haircut once a month for men, once in two months for women' in Japan. The Japanese item is more specific in terms of frequency but was considered to correspond to the UK item; both represent the need to be adequately groomed. After harmonizing items, we then combined the two dataset into a single dataset with a 1,896 sample from the UK and a 1,518 sample from Japan.

Results

Turning to the first question concerning differences in public perceptions of need, Tables 1 and 2 illustrate the percentage of the population in each country agreeing that the item or activity is necessary.

Table 1 Percent of the Population Perceiving an Adult Item/Activity as Necessary

#	description			Results of Logistic Regression controlling for age, sex, marital status & has child or not	
		UK % thinking Necessary	JAPAN % thinking Necessary	Coeff. For UK=1 (*)	Statistical significance (*2)
1	Replace worn out clothes	45.53%	60.91%	-0.6762	***
2	Hobby or leisure activity	69.36%	23.78%	2.0347	***
3	Attend weddings, funerals and other such occasions	77.54%	53.92%	1.2054	***
4	Going to cinema, theatre or music event	14.90%	9.26%	0.5197	***
5	To be able to pay unexpected cost for L500	55.24%	57.99%	-0.1336	*
6	household contents insurance	72.02%	41.27%	1.3122	***
7	Curtains or window blinds	69.76%	60.48%	0.3312	***
8	Table and chairs at which all the family can eat	66.45%	44.70%	0.9894	***
9	telephone	75.05%	65.62%	0.4566	***
10	Mobile phone	37.34%	20.87%	0.699	***
11	television	51.66%	65.51%	-0.6909	***
12	internet connection at home	37.67%	14.26%	1.285	***
13	washing machine	83.74%	83.79%	0.0299	X
14	car	44.98%	35.63%	0.4491	***
15	warm waterproof coat	80.35%	45.32%	1.5559	***
16	An outfit to wear for social occasions	38.03%	26.29%	0.4377	***
17	Appropriate clothes for job interview	67.16%	50.85%	0.6892	***
18	Two meals a day	91.83%	88.73%	0.3816	***
19	Meat, fish or vegetarian equiv.	76.47%	75.06%	0.1236	X
20	Fresh fruit and veg. every day	84.26%	74.61%	0.6719	***
21	Hair done or cut regularly	33.57%	33.30%	-0.061	X
22	All recommended dental treatment	81.99%	93.11%	-1.112	***
23	Holiday away from home, not staying with relatives	40.92%	16.29%	1.2646	***
24	Presents for family or friends	44.47%	26.16%	0.84	***
25	Meal out once a month	23.79%	12.00%	0.748	***
26	Drink out once a fortnight	16.96%	14.25%	0.1042	X

(*) The result of a logistic regression with a dummy variable of perception of necessity (=1 if the respondent answered the item is necessary, =0 if not) as dependent variable. Independent variable is the country dummy (=1 if Japan, =0 if UK). Control variables are sex, age (young (<35 old), old (>=65 old) or middle age (base)), has child (=1 if the respondent has a child less than 18), marital status (single, divorced, married as base), education attainment (low, middle-high, high and other. middle as base), income quintile measured with equivalent household income (quintile 1,2,4 and 5. Quintile 3 as base).

(*2) Coefficient is statistics statistically significant at 1% (***), 5% (**), 10% (*), not significant (X)

Table 2 Percent of the Population Perceiving a Child Item/Activity as Necessary

	2011 UK ONS Omnibus Survey Necessities of Life Module description	UK % thinking Necessary	JAPAN % thinking Necessary	Results of Logistic Regression controlling for age, sex, marital status & has child or not Coeff. For UK=1 (*) Statistical significance (*2)	
1	Outdoor leisure equipment, such as roller skates, football	58.93%	26.43%	1.3339	***
2	Three meals a day (child)	92.25%	89.48%	0.3297	**
3	Child celebration or special occasions	90.48%	44.10%	2.5853	***
4	Fresh fruit or veg once a day	95.33%	79.10%	1.719	***
5	Garden or outdoor space to play safely	91.52%	69.00%	1.6398	***
6	New properly fitting shoes	92.54%	41.65%	2.8417	***
7	Some new not second hand clothes	66.05%	22.86%	1.8273	***
8	Childrens clubs or activities such as drama or football training	74.42%	22.96%	2.2336	***
9	Pocket money	54.28%	43.49%	0.373	***
10	Enough bedroom for every children aged 10+	72.03%	22.72%	2.1833	**
11	Books at home appropriate for their ages	90.90%	61.08%	1.8615	***
12	Construction toys (lego, duplo etc.)	54.12%	16.30%	1.774	***
13	Bicycle	46.86%	38.78%	0.2705	***
14	MP3 player such as an ipod	7.95%	2.59%	1.0166	***
15	computer and internet for homework	66.19%	14.22%	2.4535	***
16			11.94%	2.6495	***
17	Mobile phone for children aged 11+	26.08%	5.07%	1.8435	***
18	Going away on a school trip at least once a term	53.87%	61.22%	-0.4165	***
19	Day trips with family once a month	59.66%	48.33%	0.3712	***

(*) The result of a logistic regression with a dummy variable of perception of necessity (=1 if the respondent answered the item is necessary, =0 if not) as dependent variable. Independent variable is the country dummy (=1 if Japan, =0 if UK). Control variables are sex, age (young (<35 old), old (>=65 old) or middle age (base)), has child (=1 if the respondent has a child less than 18), marital status (single, divorced, married as base), education attainment (low, middle-high, high and other. middle as base), income quintile measured with equivalent household income (quintile 1,2,4 and 5. Quintile 3 as base).

(*2) Coefficient is statistics statistically significant at 1% (***), 5% (**), 10% (*), not significant (X)

It is noteworthy that in both countries there is public support for items across a range of domains (such as clothing, housing, medical, and material), as well as activities and participation which allow individuals to fulfill their social roles and obligations. However, it is particularly striking that levels of support are almost invariably higher in the UK than the Japan; this being especially the case regarding the children's items. To see this visually, the percentage of the population answering 'necessary' has been plotted in scatter plot diagrams (Figures 1 and 2). Each dot represents an item and if it lies below the thin diagonal line, it indicates that a higher proportion of the UK population, compared to the Japanese population, perceives the item or activity as

necessary. The difference is particularly pronounced in relation to a few of the adult items such as a 'hobby or leisure activity' or a 'holiday away from home', and is especially marked for the children's items.

Figure 1 Percent of the Population Answering an Adult Item/Activity is Necessary

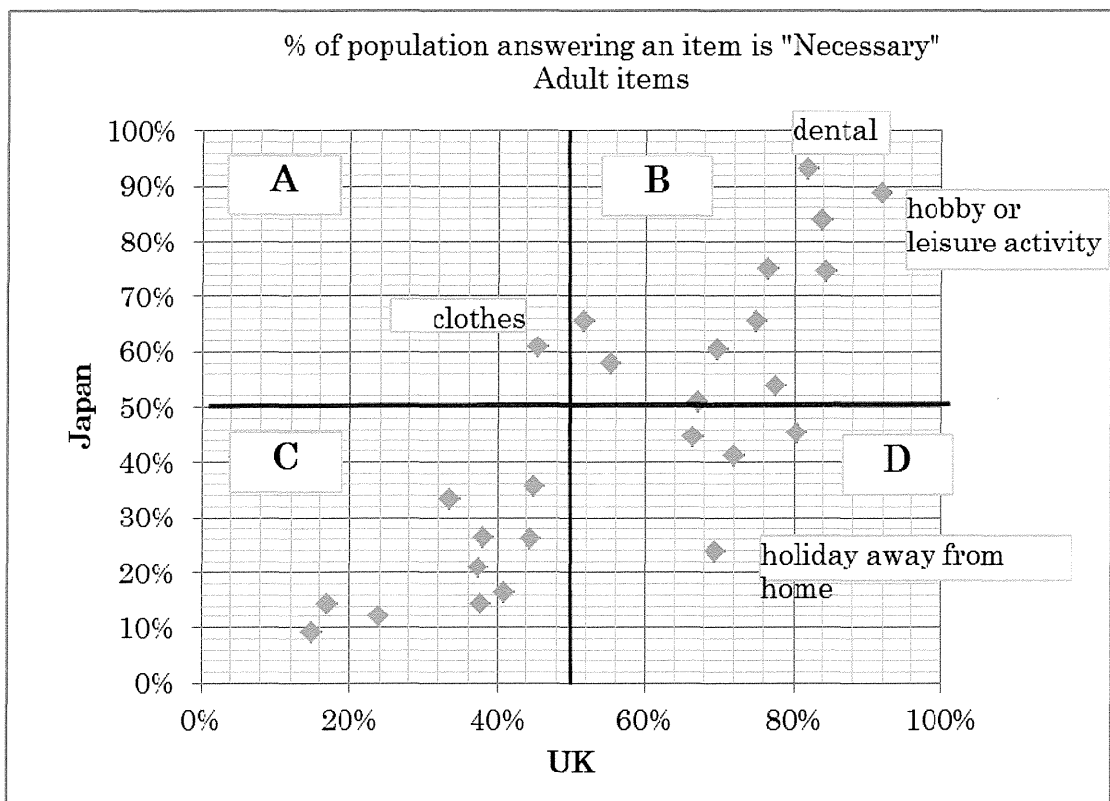
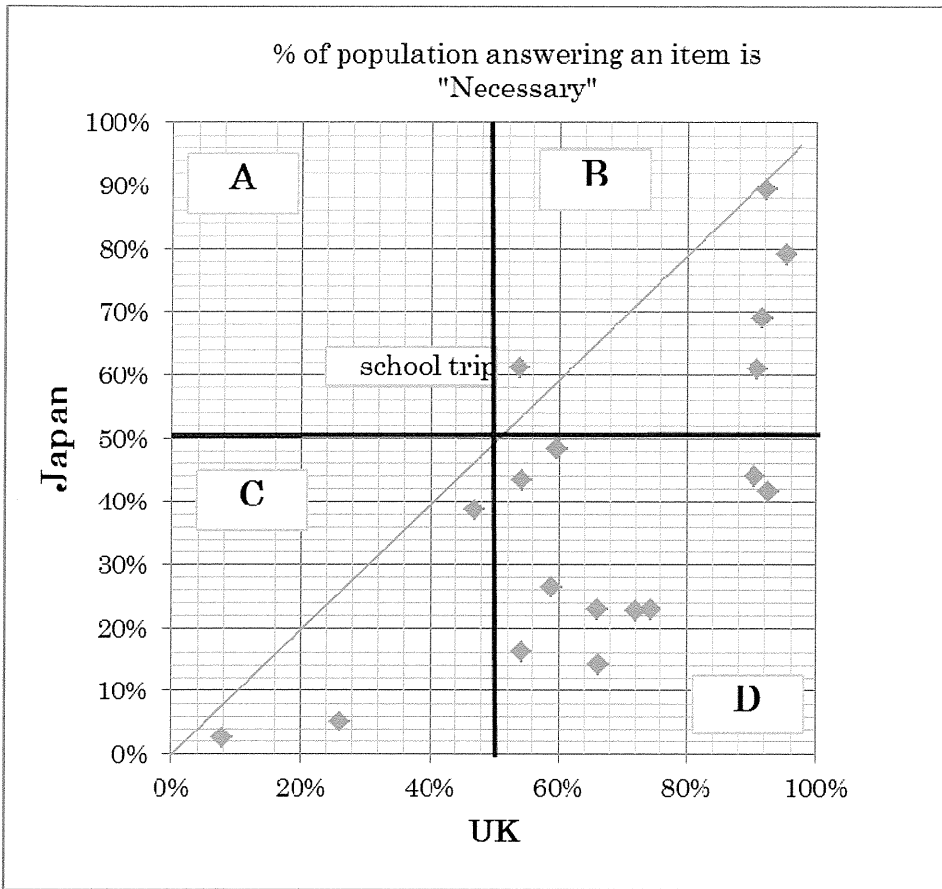


Figure 2 Percent of the Population Answering a Child Item/Activity is Necessary



These findings may reflect differences in the socio-demographic composition of the populations in two countries. Japan has an ageing population; nearly a quarter (23%) of its population is 65 years and older compared to the UK's 17% (Japan 2011, UK 2010 data, United Nations 2011). The difference in age composition alone can be the reason for the variation in the percentage of support for particular items, but differing socio-economic conditions of the two countries may also be relevant. The Gini coefficients of the UK is higher than that of Japan (0.323 for Japan and 0.345 for the UK), even though Japan's poverty rate is higher than the poverty rate of the UK (15.7% for Japan and 10.9% for the UK, late 2000's) (OECD 2011). In order to verify whether demographic and key socio-economic characteristics of the two populations might be driving the difference in the public's perception of necessities, logistic analysis was undertaken controlling for age, sex, marital status, education attainment, income quintile, and whether the respondent has a child or not.

These results are shown in the right most columns of Tables 1 and 2. The coefficient for the country dummy variable (Japan=1, UK=0) is shown with the statistical significance indicator. The coefficient is negative and significant in almost all items indicating that even after controlling for demographic differences the probability of a Japanese respondent thinking an item is a necessary is less than the probability of a UK respondent answering in the same way. The exceptions were four items ('replacing worn out clothes', 'paying for an unexpected cost', 'television', and 'dental treatment') for which the coefficient was positive and statistically significant, and one item ('hair done regularly') for which the coefficient was not significant - indicating there is no difference between the UK and Japan. The largest negative coefficients are found for children's items; all but one item ('going away on a school trip at least once a term') show statistically significant negative coefficients. Six items ('celebrations', 'new properly fitting shoes', 'children's clubs or activities such as drama or football training', 'enough bedroom for every children aged 10plus', 'computer' and the 'internet') have coefficient larger than minus two. The analysis indicates that there is fairly robust evidence that there are higher levels of support for items and activities (particularly those relating to children) among the UK public than in Japan, and that this does not arise just from differences in the demographic characteristics of population in the two countries.

The next part of our analysis examines whether there exists common 'socially perceived necessities' across the two societies. Following Mack and Lansley (1985), 'socially perceived necessities' are those which attract a majority support (50% or more). In other words, this is the threshold at which an item or activity is recognized as having achieved consensual support from the public. This is important because only items and activities attracting a majority public support are included in consensual measures of poverty. We can observe that even though there is a marked difference between the perception of necessities in the UK and Japan, there are only a handful of items which meet the 50% rule in one country and not in the other. These items occupy the quadrants A or D in Figures 1 and 2; for these items there is some disagreement between the UK and Japanese public on whether they are 'socially perceived necessities'. However, only five items on the adult list are in this category. Other items either fall into quadrant B or C, indicating that they are 'socially perceived necessities' in both countries or in neither country. Ten items in quadrant C can be considered as common 'socially perceived necessities' and they include both

physical and material needs, as well as social participation. The fact most of the items fall into either category C or B seems to suggest that there is some consensus between the two countries and that it may be possible to identify ‘universal’ necessities across countries. However, the same is not true for children’s items. They mostly fall into quadrant D, indicating they are ‘socially perceived necessities’ in UK, but not in Japan. Thus, it would be fairly difficult to produce a common list of ‘socially perceived necessities’ for children that can be used in the construction of a poverty measure for both countries. The actual list of items in each quadrant is shown in Table 3.

Table 3 Adult and Children’s Items and Activities in Quadrants A to D

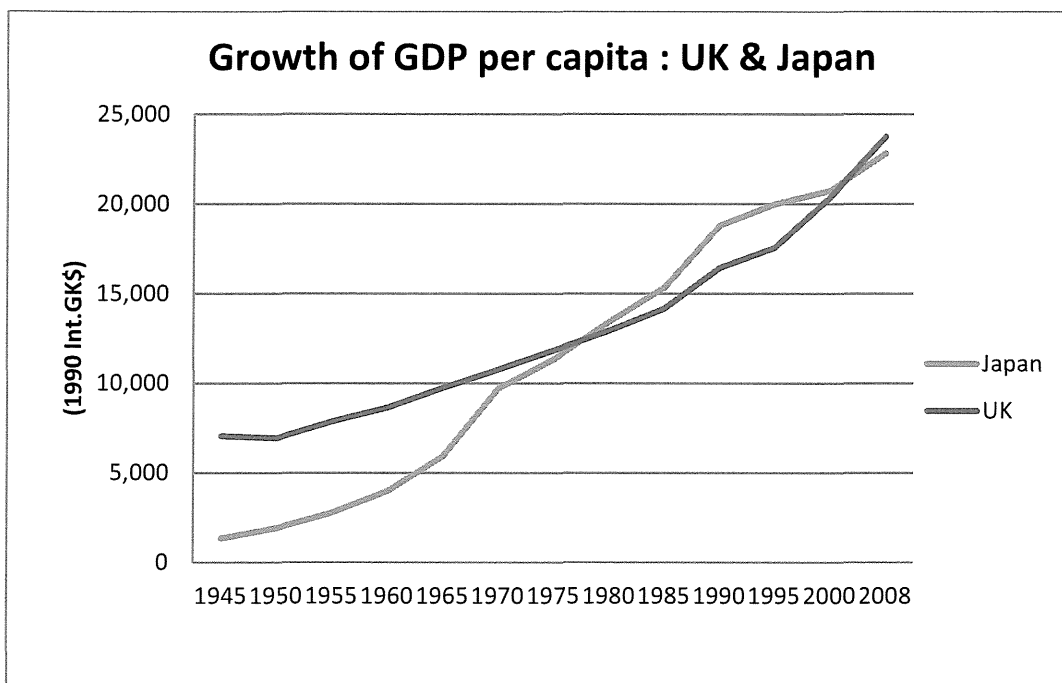
Table 4 The Items list in A through D (Red items are children’s items)

<p>Items that are necessity in JP but not in UK (A)</p> <p>New clothes</p> <p>Items that are not necessity in either UK & JP (B)</p> <p>Cinema, mobile telephone, internet, car, outfit for social occasions, haircut, holiday, gifts for family & friends, meal out once a month, drink out once a fortnight</p> <p>Bicycle, MP3 player, mobile phone</p>	<p>Items that are necessity in both UK & JP (C)</p> <p>Wedding (funerals), emergency savings, curtains or blinds, telephone, TV, washing machine, clothes for job interview, two meals a day, meat fish, vegetables, dentist</p> <p>Three meals a day, vegetables, garden or outdoor space nearby, books appropriate for age, school trip</p> <p>Items that are necessity in UK but not in JP (D)</p> <p>Hobby or leisure, fire damage insurance, dining table, winter coat</p> <p>Outdoor leisure equip, celebration, new shoes, new clothes, children’s clubs, pocket money, separate bedroom, construction toys, computer, internet connection, day trips with family</p>
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So far, we have established that there is a sizable difference in the public’s perception of what is necessary between the UK and Japan. The difference is significant even after controlling for demographic differences between the two countries. We can now consider the causes of the difference more closely.

One possible explanation for the cause of the difference is the perception of the older population. Earlier we established that the difference is significant even after controlling for the age structure of the populations. However, this estimate assumes that the effect of age is the same across the two countries. It is possible that the age effect is larger in Japan than in the UK. In other words, the difference between Japan and the UK might be caused not by the fact that the share of the older population is larger in Japan compared to the UK, but by the fact that Japanese older population tends to think that an item is less necessary compared to their British counter-parts. Japan had experienced very rapid economic development after the World War II, and its pace was much faster than the UK (See Figure3). Older Japanese generations have experienced the harsh realities of the war and have lived and grown up in the era when many of the niceties of modern society unavailable. It is possible that such harsh experiences have affected their perceptions so that they consider items such as a TV and mobile phone as unnecessary because they coped without having them in the past. Although this explanation could also be by extension applied to a large section of the UK's older population, historians note the collectivist sentiments which were invoked by World War II and the subsequent development of the post-war welfare state built upon the principle of solidarity. This may explain the UK older population's relative generosity with regards to how they define necessities (Pantazis et al., 2006).

Figure 3 Growth in Gross Domestic Product Per Capita: Japan and the UK

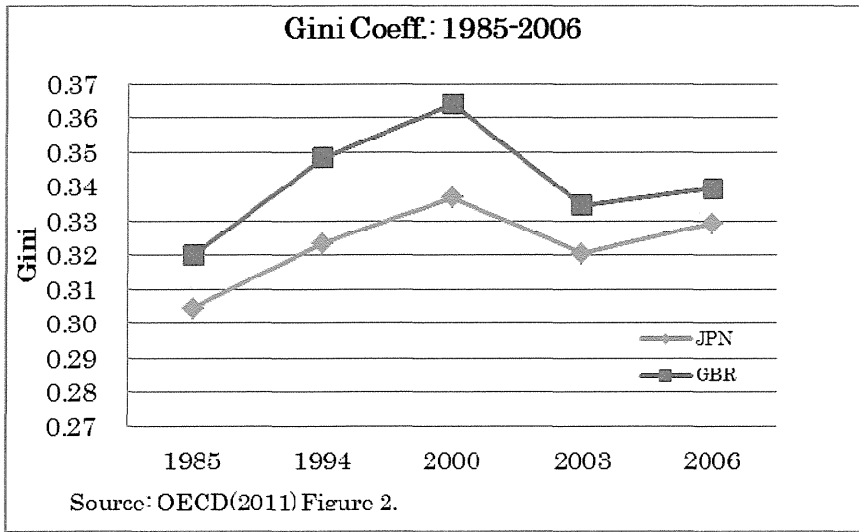


Source: World Economics Maddison Historical GDP Data

<http://www.worldeconomics.com/Data/MadisonHistoricalGDP/Madison%20Historical%20GDP%20Data.efp>
(access 2012/2/7)

Another possible explanation is the degree of stratification of the society. While there are contradictory analyses about the supposedly egalitarian nature of Japan, (see OECD 2008, OECD 2011, Abe 2010, Ballas et al. in this Issue), it is plausible that the socio-economic conditions of a country, including levels of inequality and poverty, impact on public attitudes towards the necessities of life. For example, those living in an egalitarian society may identify an item as necessary, for everyone in the society, because they perceive others as being similar to themselves. On the other hand, there may be a greater tendency for individuals living in a society with high level of inequality to believe that the ‘niceties of life’ that they themselves enjoy are privileges and not entitlements for everyone in the society. If that is the case, Japan, which had been more egalitarian in terms of income inequality compared to the UK (See Figure 4), will exhibit more consensus on public support for necessities.

Figure 4 Growth in Gross Domestic Product Per Capita: Japan and the UK



In order to examine these two hypotheses, we incorporated cross terms of country dummy variable with age and income variables into the following estimation model.

$$\begin{aligned} \ln \frac{p}{(1-p)} = & \alpha + \beta_1 C_i + \beta_2 S_i + \beta_3 (S_i \times C_i) + \beta_4 y_i + \beta_5 (y_i \times C_i) + \beta_6 O_i + \beta_7 (O_i \times C_i) \\ & + \beta_8 q1_i + \beta_9 (q1_i \times C_i) + \beta_{10} q5_i + \beta_{11} (q5_i \times C_i) + Z X_i \end{aligned}$$

p = probability of individual i answering the item is necessary

C_i = country dummy for individual i (UK=1, JP=0)

S_i = sex of individual i (man=1, woman =0)

y_i = dummy variable for young if individual i is less than 35 = 1, if not =0

O_i = dummy variable for old if individual i is over 65 = 1, if not =0;

$q1_i$ = dummy variable for quintile 1 (if individual i is in quintile 1 = 1, if not =0)

$q5_i$ = dummy variable for quintile 5 (if individual i is in quintile 5 = 1, if not =0)

X_i = control variables (marital status, has child less than 18 yrs old)

The coefficients that we are interested are the ones for the cross terms ($\beta_3, \beta_5, \beta_7, \beta_9, \beta_{11}$). For example, the coefficient β_2 indicates the overall effect of being a man (as opposed to the base category, women) on the probability of an individual answering the item is necessary, while β_3 captures any added effect of being a British man compared to being a Japanese man. The coefficient β_4 indicates the effect of being young (as opposed to the base category of 36 to 64 years old) and β_5 , the added effect of being British and young. β_8 indicates the overall effect of being in the poor (quintile 1) as opposed to being a middle-income earner (quintile 2 to 4) and β_9 , the added effect of being the poor and British.

Table 4 Results (Logistic Regression with cross terms) : Adult Items

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Coefficients (only those with statistical significant at 5% or less level) (only where there is significant enforcing or mitigating effects)

		Coeff. For country dummy (UK=1, JP=0)	man (B2)	man X UK (B3)	young (B4)	young X UK (B5)	old (B6)	old X UK (B7)	quintile1 (B8)	quintile1 X UK (B9)	quintile 5 (B10)	quintile 5 X UK (B11)
1	Replace worn out clothes	-0.7525 ***	0.1159 X	0.4833 ***							0.316 **	-0.4915 **
2	Hobby or leisure activity	1.9653 ***	0.0654 X	0.369 **								
3	Attend weddings, funerals and other such occasions	1.1701 ***					0.696 ***	-0.6247 ***			-0.2903 **	
4	Going to cinema, theatre or music event	0.8377 **					0.6728 ***	-0.8329 ***				
5	To be able to pay unexpected cost for L500	-0.2164 X	0.00178 X	0.3213 ***			0.1724 X	0.3868 **				
6	household contents insurance	1.6129 ***			0.1349 X	-0.4533 **	0.4129 ***	0.5774 **	0.1232 X	-0.5057 **		
7	Curtains or window blinds	0.0386 X	-0.2917 **	0.5479 ***			-0.1513 X	0.5011 ***				
8	Table and chairs at which all the family can eat	0.7499 ***	-0.0659 X	0.3379 **								
9	telephone	0.5667 ***							0.0723 X	-0.4211 **	0.0875 X	-0.4728 **
10	Mobile phone	0.6915 ***				+++	-0.5119 ***	0.5669 **				
11	television	-0.5199 ***									-0.1931 X	-0.4299 **
12	internet connection at home	1.6767 ***			0.7096 ***	-0.8786 ***					0.4826 **	
13	washing machine	0.3804 *					0.7567 ***	-0.9874 ***			0.00274 X	-0.6783 ***
14	car	0.5693 ***			0.3767 **	-0.4812 **			0.417 ***	-0.5943 ***		
15	warm waterproof coat	1.4032 ***	-0.5784 ***	0.3403 **			-0.2961 **	0.9426 ***			0.2807 **	
16	An outfit to wear for social occasions	0.4283 ***					-0.0538 X	0.4725 ***				
17	Appropriate clothes for job interview	0.5809 ***										
18	Two meals a day	0.1615 X			-0.4809 **	1.4628 ***						
19	Meat, fish or vegetarian equiv.	-0.1812 X	-0.4413 ***	0.558 ***	-0.3164 *	-0.4457 **	0.305 *	-0.4457 **				
20	Fresh fruit and veg. every day	0.8155 ***					0.6155 ***	-0.5633 **	0.2546 X	-0.5921 **		
21	Hair done or cut regularly	-0.3707 **										
22	All recommended dental treatment	-1.1994 ***										
23	Holiday away from home, not staying with relatives	1.4882 ***									0.3924 **	-0.4935 **
24	Presents for family or friends	0.8353 ***										
25	Meal out once a month	1.1095 ***			0.5777 ***	-0.5348 **					0.2753 X	-0.7152 ***
26	Drink out once a fortnight	0.1236 X										

(*) Coefficient is statistics statistically significant at 1% (***), 5% (**), 10% (*), not significant (X)

Table 5 Results (Logistic Regression with cross terms) : Children's Items

Coefficients (only those with statistical significant at 5% or less level) (only where there is significant enforcing or mitigating effects)

		Coeff. For country dummy (UK=1, JP=0)	man (B2)	man X UK (B3)	young (B4)	young X UK (B5)	old (B6)	old X UK (B7)	quintile1 (B8)	quintile1 X UK (B9)	quintile 5 (B10)	quintile 5 X UK (B11)
1	Outdoor leisure equipment, such as roller skates, foot	1.241 ***					-0.2751 *	0.5404 ***				
2	Three meals a day (child)	0.2308 X					0.5645 **	-0.7441 **	-0.4396 **			
3	Child celebration or special occasions	2.7056 ***										
4	Fresh fruitor veg once a day	1.7371 ***					0.2903 *	-0.7216 **				
5	Garden or outdoor space to play safely	1.5079 ***							-0.3688 **			
6	New properly fitting shoes	3.0751 ***										
7	Some new not second hand clothes	2.1018 ***			0.2372 X	-0.4895 **	-0.1587 X	0.5056 **				
8	Childrens clubs or activities such as drama or football	2.3511 ***										
9	Pocket money	0.3993 ***	0.057 X	0.3932 **	0.0132 X	-0.5519 ***	0.4458 ***	0.5907 ***			0.0703 X	-0.4887 **
10	Enough bedroom for every children aged 10+	2.2639 ***									0.0289 X	-0.5507 **
11	Books at home appropriate for their ages	2.1837 ***	-0.113 X	-0.4685 **								
12	Construction toys (lego, duplo etc.)	1.6021 ***										
13	Bicycle	0.283 *										
14	MP3 player such as an ipod	2.8181 ***			1.2573 **	-2.0598 ***	1.5934 ***	-1.5021 ***	1.2033 ***	-1.0071 **	1.2266 **	-1.8875 ***
15	Computer (for children over 12)	2.9269 ***					0.5594 ***	-0.801 ***				
16	Internet connection (for children over 12)	3.2726 ***					0.4369 **	-0.6638 ***				
17	Mobile phone for children aged 11+	2.4137 ***			0.8778 ***	-1.2006 ***						
18	Going away on a school trip at least once a term	-0.6515 ***	-0.314 ***	0.488 ***			-0.0594 X	0.5164 ***	-0.2896 **	0.4694 **	0.3149 **	-0.6376 ***
19	Day trips with family once a month	0.3343 **							-0.2904 **	0.4377 **		

(* Coefficient is statistics statistically significant at 1% (***), 5% (**), 10% (*), not significant (X)

Table 4 and Table 5 shows the highlight of the results. The numbers are the coefficients of variables. To simplify, we have shown only those coefficients that are statistically significant. Let us explain how to read results using the example of the first item, ‘to replace worn out clothes’. The coefficient for the overall sex variable was positive (+0.1159) but not significant. This indicates that overall across Japan and the UK, there is no statistically significant difference in the opinion of men and women. But notice that the cross term with the country dummy is positive and strongly significant (+0.4833***). This shows that UK men tend to think ‘replacing worn out clothes’ is more necessary compared to UK women. Thus the sex difference in the opinion is strong in the UK, but not in Japan. On the other hand, the coefficient for quintile 5 is positive and significant (+0.316**), indicating that overall across Japan and the UK that the rich tend to think this item is more necessary than middle-income earners (base category for quintile variables). But the cross term with the country dummy is negative and significant (-0.4915**), and its absolute value is greater than the quintile 5 variable. In another words, the UK effect entirely cancels out the income effect. This indicates that the rich in the UK tend to think the item is less necessary compared to middle-income earners, whereas the rich in Japan tend to think the item is more necessary compared to this group.

The first observation is that even after the introduction of cross terms, the coefficient for the country variable is still strong and mostly positive. This indicates that the difference in the perception of older people, the young, poor and rich does not explain the variance between Japan and the UK. In another words, the estimation model does not explain the difference of perception of necessity between the two countries. For some items, the coefficient became non-significant, even though the country coefficient was significant in Table 1 and 2 (‘unexpected cost’, ‘curtains/blinds’, and ‘two meals a day’ for adult items, and ‘three meals a day’ for children’s items). For these items, it can be said that the model explains the difference of perception between Japan and the UK.

The results for the effect of cross terms on the age variables are mixed. Looking at the cross terms of the country variable with the ‘old’ variable and ‘young’ variables (β_5, β_7), we see some which cancel out completely or partially the age effect (β_4, β_6) (for example, ‘attending weddings etc’, ‘going to cinema’, ‘mobile phone’, ‘internet connection’, ‘car’, etc.). For these items, there is a less pronounced disagreement between generations in the UK than in Japan. But for other items,

the disagreements between generations are greater in the UK than in Japan (for example, to be 'able to pay unexpected cost', 'household contents insurance', 'curtain/blinds', 'warm coat', 'two meals', 'meat, fish or vegetarian equivalent', etc.).

For the second hypothesis, we examined the poor and the rich variables with the cross terms. Interestingly, for many of the items, the coefficients for the poor and the rich variables (β_8, β_{10}) were not statistically significant, indicating that overall across the two countries, income does not influence people's perception of necessities. However, there are some exceptions. Looking at the coefficient for Quintile 1 (β_8), 'car' and 'MP3 player' shows positive and significant coefficients, indicating overall the poor tend to think these are necessary more than the middle-income earners. The coefficient is negative and significant for 'three meals a day (for children)', 'garden' and 'family day trip', indicating the poor tend to think these are less necessary. Looking at coefficient for Quintile 5 (β_{10}), the coefficient for 'replace worn out clothes', 'internet', 'warm coat', 'holiday away' and 'MP3 player' is positive, while that for 'attending weddings, etc.' is negative. This shows that the rich, compared to the middle-income earners, think these items are more necessary, while 'attending wedding, etc.' is less necessary.

However, the cross terms with country variable (β_9, β_{11}) were negative and significant for many items (nine adult items and four children's items). This shows that, at least for these items, the poor and the rich in the UK tend to think the item is less necessary compared to middle-income earners, whereas the influence of income is less evident in Japan. Especially notable is that the cross terms of the country variable with Quintile 5 variable (β_{11}) are strongly negative in many items. These show that, for these items, the rich in the UK tend to think these items are less necessary. The rich probably do have access to these items themselves, thus, the rich in the UK do not think these items are necessity for everybody. While in Japan, this is not the case. This can be interpreted as a evidence that our hypothesis, that the levels of inequality and poverty at least partially explain difference in the opinion of the public regarding what is necessary. The inequality has been higher in the UK than in Japan for some time, and this might be the cause that the difference in the opinion between the rich and the middle-income earners is greater in the UK than in Japan.

Conclusion

The identification of the necessities of life in modern societies using consensual approaches has been conducted in many countries, yet international comparisons between countries with diverse cultures and traditions has largely been absent from investigations. This paper sought to address this research gap by comparing public perceptions of need in the UK and Japan. Both societies may be characterized as strongly neo-liberal but they differ in their historical trajectories, cultures and demographic profiles which might suggest differing public attitudes on life's necessities.

Using harmonized micro-data from the UK and Japan, we first observed a significant difference in the perception of necessities between the two countries. The Japanese public tends to have a more restrictive notion of what a minimum standard of living should encompass, even after controlling for key variables. Nevertheless we found that a consensus existed between the two countries on the majority of adult items in terms of whether they constituted necessities or not – although this did not apply to the children's items. On this basis we argue that it would be difficult to produce a comparable child poverty measure using deprivation approach that could be used in both countries. We explored two hypotheses to explain differences in public perceptions. The first was that the difference come from older generation in Japan thinking an item is less necessary compared to the young generation in Japan, because of the country's rapid economic progress after the WWII. The result shows that this is the case for some items, but not others. The second hypothesis was that social stratification might be driving the difference. The results show that for many items, the difference in the perception of necessities between the rich and middle-income earners, especially, are observed in some items in the UK, but not in Japan. In the past, Japan was known to be an typical example of egalitarian society, and its level of inequality was low, even though it had been rising steadfastly since the 1980s. Our analysis shows that there is stronger consensus of what is considered necessary between people of difference income classes in Japan than in the UK. This might be the legacy of the past egalitarian society in Japan.

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ⁱ All technical details relating to the surveys can be found in NISRA (2012) and NatCen (2012).

ⁱⁱ The analysis presented in the article is based only on the adult and child items (not the service questions)

ⁱⁱⁱ Respondents were asked a similar question for children's items and activities and local services. Those taking part in Computer Assisted Interviewing (the other half of Northern Ireland survey respondents) keyed in their responses to the question. The potential impact of these differing procedures for respondents are being explored in a forthcoming working paper as part of the Poverty and Social Exclusion study (see: www.poverty.ac.uk)

^{iv} In Japan, survey companies often retain a large number of recruitees who are willing to answer surveys.

^v The response rate for the NatCen Survey was 51%, for the NISRA survey it was 53%, and for the Japanese survey 51%.