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Comparing child subjective well-being in South Korea and the UK: Testing an ecological systems approach

Abstract

This paper draws on Bronfenbrenner's (1992) ecological systems theory to explore links between various domains of children's subjective well-being and their overall subjective well-being, comparing South Korea and the UK. Data are drawn from the Children's Worlds study (www.isciweb.org), which surveyed children in diverse national contexts. A model of subjective well-being is proposed which our analysis indicates is comparable across the two countries, including children's ratings of their well-being in the domains of their local community, school, family, their family's economic situation, and their overall subjective well-being. The model is a stronger predictor of subjective well-being in South Korea than in the UK, suggesting that these variables better capture the factors influencing variation between children in the South Korean context. However, the comparability of the models indicates that there is a core of similarity between the lives of children in these two very different contexts. This supports the value of studies such as the Children's Worlds survey as enhancing our understanding of the meaning and experience of childhood in diverse contexts.

Background

Subjective well-being is a field of growing policy and academic interest, but efforts to measure subjective well-being and especially to collect data from children on their own subjective well-being are relatively new. The Children's Worlds study (www.isciweb.org) represents one of the first efforts to measure children's subjective well-being in an internationally comparable manner, covering well-being in a range of domains as well as global measures of subjective well-being. This article will use data from the first wave of the Children's Worlds survey to compare subjective well-being amongst children in the UK and in South Korea, drawing on an ecological model of child development to explore how subjective well-being in various domains of children's lives impacts their overall sense of well-being.

- *Why measure child subjective well-being?*

The measurement of subjective well-being as an alternative or complementary indicator to GDP of national performance arose in a context of increased interest in social indicators more broadly (Stiglitz Commission, 2009) and research findings indicating that GDP increases above a certain level do not necessarily equate to improvements in the happiness of nations (Easterlin, 1974). Whilst efforts to measure subjective well-being are now incorporated into some national (eg. Cameron, 2010) and international (eg. OECD, 2013) policy agendas, such efforts have tended to focus on the well-being of adults. In the context of a large and growing body of literature which stresses the importance of incorporating indicators of child welfare and well-being into research, Ben Arieh et al (2001) highlights the necessity of developing and improving the measurement of subjective well-being among children. This aligns with the spirit of the United Nations Convention on the Rights of the Child, which stresses the importance of participation, protection and provision rights for children (Reynaert et al, 2009), and of prioritising child well-being in national and international policy agendas.

Recent years have seen a growing body of evidence in relation to the measurement and understanding of child subjective well-being (eg. Rees et al, 2010; Bradshaw et al, 2013). Cognitive and affective aspects of subjective well-being are differentiated, with cognitive measures reflecting a concern with appraisals of life satisfaction, and affective measures reflecting emotional experiences (eg. Rees et al, 2013). Measures of the cognitive aspects of subjective well-being tend to be preferred due to their increased stability over time (Park, 2004). Another manner in which measures vary is whether they are concerned with global well-being – ie. overall life satisfaction, measured using one or more questions concerned with life as a whole – or with domains of well-being – ie. satisfaction in various aspects of life, which may then be amalgamated into overall measures but which more directly encompass different domains (see Casas and Rees, 2015, for a discussion of the use of global and domain-based measures in international context). The ecological model of child development, discussed next, offers an approach to conceptualising well-being which may offer insight into how different domains of children's lives interact and contribute to overall subjective well-being.

- ### *The ecological model of child development*

The issue of domains of well-being raises the question of which domains should be included. Different approaches have been taken to this question, ranging from those which draw on theoretical or adult-centric models of well-being (eg. the Personal Well-being Index-School Children, see Cummins and Lau, 2005) to those which develop domains based on consultation with the population of interest (eg. Rees et al, 2010). Additionally, the rationale behind the choice to include certain domains and not others in assessments of subjective well-being is not always clear. Bronfenbrenner's (1992) ecological model offers a model for understanding child well-being which stresses the importance of different kinds of biological, psychological, social, cultural, political and economic systems, and interactions between these systems, in shaping children's worlds (see Garbarino, 2014). These systems vary in their proximity to the child, with biological and psychological systems representing internal processes (albeit that they are mediated by and interact with external processes); social systems representing direct experiences and relationships the child encounters (such as family and peers); and cultural, political and economic systems representing the macro context in which the child lives. Shimomi and Ben Arieh (2013), for example, draw on the ecological perspective in their analysis of child subjective well-being in Israel.

In this analysis we draw on and develop the approach taken by Shimomi and Ben Arieh (2013), using children's assessments of their subjective well-being in a range of contexts – including self, family and home, material situation, school, and community - to apply the ecological model of child development to children's subjective well-being, comparing children in South Korea and the UK.

- ### *Why South Korea and the United Kingdom? National contexts*

A central aim of this research was to assess whether the ecological approach to child development provides a model which can be used to assess and examine children's subjective well-being in diverse contexts. The Children's Worlds study covers a wide range of countries and cultures and provides a unique opportunity to use data supplied by children themselves concerning their subjective well-being, which has been designed to be comparable internationally. The selection of South Korea and the UK was made based on the quality of data (both countries drew a nationally representative sample of children, something which was not true for all countries in the early waves

of the Children's Worlds study), and on the diversity of national context. Table 1 shows some of the characteristics of South Korea and the UK.

Table 1 : Social, economic and political indicators in SK and UK

	SK	UK	Year	Data resources[1]
GDP per capita (international $)	31	36	2012	World bank
Gini coefficient (0-100)	31	36	2003 - 12	World bank
Youth unemployment rate (%)	9.0	20.0	2012	World bank
Family benefits public spending	0.937	3.970	2011	OECD
Life expectancy (years)	81	81	2012	UNDP
Median age (years)	40	41	2015	UNDP
HDI rank(1-187)	15	14	2013	UNDP
Urban population (%)	84	80	2013	UNDP
Internet users (%)	84	87	2012	Word bank
Some secondary education (% aged 25+)	83	100	2005 - 12	UNDP

In terms of inequality, both of the countries experience relatively high levels of inequality in comparison to other OECD countries. While UK is higher has higher levels of income inequality, SK has a higher child poverty rate. However, there is a big difference between two countries in public spending for family benefits. Public spending on families is almost four times higher in the UK than in SK, but recent policy changes in the UK (see Hood and Phillips, 2015) may result in this gap beginning to narrow.

The UK national context

The UK is a developed Western nation representing the third largest economy in Europe, with a GDP per capita of US$37,300 (CIA World Factbook, 2014). The welfare state had roots in pre-Second World War policies but the bulk of provision, including significant improvements in the conditions of children, were established as part of the raft of policies introduced in the aftermath of the War (Hendricks, 1997). Welfare provision fits into Esping Andersen's Liberal typology, incorporating largely means-tested provision with limited social insurance provision (1998). Primary and

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[1] Sources:

Row 2, 3, 4, 10: http://databank.worldbank.org/data

Row 6, 7, 8, 9, 11: http://hdr.undp.org/en/data

Row 5: https://data.oecd.org/socialexp/family-benefits-public-spending.htm

secondary education (up to the age of 18) are provided free at the point of delivery, and educational participation is compulsory for children under 16. Provision for children and families which exists through a suite of social transfers and service provision has been reduced under recent austerity measures, instigated following the Great Recession of 2008 (Reed and Portes, 2014). The anchored child poverty rate remains high (25.6% in 2012, up from 24.0% in 2008; UNICEF, 2014); and the current Conservative government have begun the process of repealing the 2010 Child Poverty Act which committed the government to eradicating child poverty by 2020.

The South Korean national context

South Korea, or the Republic of Korea, was established as a democracy after the Second World War. The economy has developed rapidly over the past four decades, resulting in a GDP per capita of US$33,200 (CIA World Factbook, 2014). Studies of welfare state typologies have tended to neglect less advanced welfare states such as that of South Korea (Ebbinghaus, 2012). Ahn and Lee (2012) stress that the welfare state is still in development and to date can primarily be understood in functionalist terms, as developing in response to social changes resulting from industrialisation (for example increasing levels of unemployment and an ageing population). In relation to children, full-time compulsory education starts at six years in primary school and ends at 14 in middle school. The primary school is for 6 years. Children move to middle school at age 12. Middle school is for 3 years. Provision for children and families which exists through a suite of social transfers and service provision has been ranked at the bottom of OECD countries since 2000. The anchored child poverty rate reduced from 16.8% in 2008 to 13.4% in 2012 (UNICEF, 2014).

Measurement of subjective well-being in the UK and South Korea

The measurement of child subjective well-being, especially in comparative contexts, has been a relatively recent phenomenon and has largely focused on European countries. The UK also uniquely benefits from a national programme run by a charity – The Children's Society - focused on measuring and understanding child subjective well-being. Details of this programme can be found at www.childrenssociety.org.uk/what-we-do/research/well-being. Work undertaken through this programme has helped to inform national research and practice interventions within the UK (see details on the website) and international research such as the Children's Worlds survey. In South Korea there have been two programmes aimed at measuring child subjective well-being. The Institute for Social Development Studies (2011) focused on child happiness, while KIHASA (2014) focused on life satisfaction. However, the data collected for this article (detailed below) provides a unique opportunity to compare the two countries.

The comparison between South Korea and the UK therefore offers an interesting opportunity to examine the structure of child subjective well-being in diverse national contexts, using representative samples. It is hoped that this comparison will be extended to include a broader range of countries as later waves of the Children's Worlds data including representative samples from a wider range of countries become available.

Research questions

The above context leads on to our three research questions:

- Does the ecological systems approach provide a valuable method for examining and theorising about the drivers of children's subjective well-being?
- How does the structure of an ecological systems approach compare in South Korea and England? And:
- What lessons for policy and for further research can be drawn from this?

Methods and data

- *Children's Worlds data*

This study uses data from the Children's Worlds survey, an international study of children's subjective well-being in 15 diverse countries by self-administered questionnaire. The study has collected representative data on topics relating to children's lives and daily activities, their time use, and in particular their own perceptions and evaluations of their well-being. One of the requirements for countries to participate in the study was to gain full ethical clearance from a relevant committee in their countries. The survey in England covered a representative sample of over 3,000 children in Year 4, 6, and 8 in schools. The survey in Korea also covered a representative sample of over 7,500 children in same age groups. For this analysis, we use data from school Year 8 in both countries, the year in which the mean age of children is 12, resulting in 2,602 South Korean children and 1,141 children from the UK. There is a slight gender bias in the data which is similar in both countries, with girls making up 58% of participants in both the South Korean and the UK data.

- *Indicators*

Several indicators were used in the analysis, based on the various domains corresponding to the systems in the ecological perspective. Indicators were selected based on their reflection of satisfaction with the context, rather than with relationships in that context (so for example we include a 'family' domain, but rather than use children's ratings of their satisfaction with relationships with specific family members, we use ratings of satisfaction with the family context overall).

Subjective Well-Being: Huebner's Students' Life Satisfaction Scale (SLSS) was employed as a measure of overall individual subjective well-being, representing individual satisfaction and taken to be an indicator at the micro level. The SLSS is a seven-item self-report measure that has been used with children aged 8-18. The items and overall scale provide a global (ie. context-free) measure of life satisfaction. The response format comprises a 5-point Likert scale ranging from 0=Strongly disagree to 4=Strongly agree. Scalability of the items were tested using Cronbach's Alpha and were found to be similar and satisfactory in both countries, with a coefficient of 0.80 for South Korea and 0.82 for the UK.

Satisfaction with family/home life: Satisfaction in this domain was assessed using 2 items: satisfaction with the house of flat where you live, and satisfaction with the people who you live with. Both items were measured on an 11-point Likert scale ranging from 0=completely dissatisfied to 10=completely satisfied.

Material well-being: One question was used to assess material well-being; children were asked to rate their satisfaction with 'all the things you have?' on 11-point Likert scale from 0=completely dissatisfied to 10=completely satisfied.

Satisfaction with school: Satisfaction in this domain was measured using 3-items, comprising satisfaction with the school you go to, satisfaction with other children in your class, and satisfaction with your school marks. These were measured on 11-point Likert scales ranging from 0=completely dissatisfied to 10=completely satisfied. The overall Cronbach's alpha coefficients were 0.67 for South Korea and 0.71 for the UK.

Satisfaction with community: This was measured using 3 items comprising satisfaction with the local police in your area, satisfaction with the outdoor areas children can use in your area, and satisfaction with the area you live in general. Each of these was rated on an 11-point Likert scale ranging from 0=completely dissatisfied to 10=completely satisfied. The overall Cronbach's alpha coefficients were 0.79 for South Korea and 0.79 for the UK.

Controls: In addition to subjective well-being measures, we controlled for the gender of the child and the number of adults they lived with in their first or only home. Gender is often found to be associated with subjective well-being (eg. Bradshaw et al, 2010), and number of adults is considered by many authors to be an indicator of social/financial capital (see Ferguson, 2006, for a review; UNICEF, 2007; Mai, 2014).

- *SEM methods*

In this study, latent mean analysis (LMA) using structural equation modelling (SEM) was performed. Item parcelling was applied to obtain observed indicators for the latent variable child's subjective well-being (Little et al. 2002). Within this approach, the first step is to establish the uni-dimensionality of the underlying construct via exploratory factor analysis. Next, parcels are constructed according to the common factor loadings by combining higher loading items with lower loading items to maximize the balance of the parcels in terms of homogeneous loadings on the latent construct (Hall et al, 1999).

Using structural equation modelling to explore models across different groups requires that certain kinds of invariance are established (Hong et al, 2003) – that is, for comparisons to be meaningful, the underlying data and patterns must have certain similarities across the groups being compared, and the extent to which such patterns are similar dictates the kinds of comparison which can be reasonably drawn. Without establishing invariance, it is not clear whether the same indicators are measuring the same constructs in the groups being tested; this compromises the meaning of comparisons, since for models to be compared, it must be established that the same underlying constructs are being measured.

Types of invariance include:

- *Configural or measurement invariance:* this is the weakest type of invariance, and is necessary for any comparisons between groups as a lack of configural invariance indicates that fundamentally different underlying constructs are being measured. Without configural invariance, no other types of invariance can be achieved (Bollen, 1989). To achieve configural invariance, models must fit the data for all groups under consideration, and the number and pattern of factors must be the same in the comparison groups. That is, the same variables must load onto the same factors.

- *Metric or loading invariance:* if configural invariance is achieved, metric invariance can be tested. To achieve metric invariance, factor loadings of observed variables onto latent variables must be similar across the groups under examination. That is, the structure of the factors must be similar for the different groups, indicating that not only are the same constructs being measured, but that these constructs have similar meanings for the groups. In order to compare factor loadings and intercepts across groups, metric invariance must be achieved (Steenkamp & Baumgartner, 1998).
- Scalar or intercept invariance: if metric invariance is achieved, scalar invariance can be tested. To achieve scalar invariance, the mean scores on the underlying constructs must be the same across the different groups. That is, a mean score of 5 on one underlying construct for one group means the same as a similar mean score on the same construct for the other group/s. Scalar invariance must be achieved if the mean scores are to be compared between groups (Meredith, 1993).

As indicated above, these types of invariance form a hierarchy, with later forms only being tenable if earlier forms are achieved. Therefore the model was tested in this this order. Various model fit indices were used to assess goodness of fit, including RMSEA, NFI, TLI and CFI.

The multi-group option of Amos 18.0 was used for all analyses.

Findings

- *Descriptive statistics*

First, we present descriptive statistics for the contextual variables used in our model – gender, number of adults living with the child, and family type in the child's first or only home. These are presented for South Korea and the UK separately, in table 1.

Table 2 : Descriptive statistics showing characteristics of data between SK and UK

		SK (%)	UK (%)
Gender	Boy	41.6	41.7
	Girl	58.1	58.3
Number of adults living with child	1	7.8	15.7
	2	79.4	79.9
	3 or more	12.8	4.4
Family type in first home	Two parents	89.0	84.3
	Lone mother	7.1	13.9
	Lone father	2.9	1.8
	Other	1.0	.0

The gender balance is skewed towards girls in both countries, with about 58% girls and 42% boys in the sample. Most children – about 79-80% in both countries – live with two adults, and in two parent households (89% in South Korea and 84% in the UK). There are more children living in households containing three or more adults in the Korean sample than in the UK sample.

Next, the well-being variables included in the model were tested for significant differences between children in South Korea and the UK.   Results are shown in table 2.

Table 3: Descriptive statistics and t-tests showing differences between mean scores on key variables

	Country	N	Mean(SD)	t-value
Child subjective well-being	SK	2565	16.6(4.7)	-13.35***
	UK	1139	18.7(4.2)	
Satisfaction with community	SK	2591	19.0(6.1)	-13.51***
	UK	1136	22.0(6.1)	
Satisfaction with school	SK	2585	19.7(5.6)	-20.65***
	UK	1135	23.6(5.0)	
Satisfaction with family and home	SK	2596	16.6(3.6)	-.79
	UK	1125	16.7(16.7)	
Satisfaction with material situation	SK	2543	7.9(1.9)	-17.21***
	UK	1140	9.0(1.5)	

Significantly different mean scores were found for all of the variables other than satisfaction with family and home; in all cases (ie. for overall life satisfaction, satisfaction with community, and satisfaction with school), the mean scores of children in the UK were higher than the mean scores of children in South Korea.

- ***Models***

Test of configural invariance, metric invariance and scalar invariance

We set up a multi-group structural equation model to test our hypotheses regarding the effects of children's satisfaction with family and home, material status, school and community on their subjective well-being. First, we tested whether a baseline model fit the data for both South Korea and the UK reasonably (see table 3). The purpose of this model is to test for configural invariance (see above).

Table 4: Goodness-of Fit Indexed for two-group structural model

	X^2(DF)	CFI	NFI	TLI	RMSEA
SK	779.582(122)	.963	.956	.948	.046
UK	468.781(122)	.954	.939	.935	.050

The baseline model proved a reasonable fit for the data for both countries, indicating that one common model is plausible across the two countries. Configural invariance is attained, supporting the idea that the pattern of fixed and nonfixed parameters is identical across the countries. In the next step the measurement model was tested. The factor pattern coefficients were constrained to

be equal, resulting in an increase in χ^2 values from 1248.4 to 1424.1, and gaining 13 degrees of freedom. As a result of the nesting of the metric invariance model within the baseline model, a χ^2 test was performed, with a result of χ^2=175.7, df=13, P>.1. This supports metric invariance (shown in table 4). Although the χ^2 test is widely used to compare the fit of nested models, it has been observed that one should not rely exclusively on the χ^2 difference test as it suffers from the same well-known problems as the χ^2 test for evaluating overall model fit (Anderson & Gerbing, 1988; Marsh & Grayson, 1990; Steenkamp & Baumgartner, 1998). Thus, RMSEA, NFI, TLI and CFI were also considered. These indices confirmed metric invariance across SK and the UK. That is, the measurement model based on metric invariance was supported as a better fit than the baseline model, indicating that different groups respond to the items in the same way and thus to compare meaningfully ratings obtained from different groups.

Following our tests based on metric invariance, we tested a scalar invariance model. This was done by constraining the intercepts of the four indicators to be the same across the two groups, which would indicate that group differences in the means of the observed items should stem from differences in the means of underlying constructs. As above, a χ^2 test was used to establish whether the scalar invariance model was supported. Results were χ^2=1741.7 (df=26, p=.000). The significance of the difference of χ^2 statistic indicates that scalar invariance is not supported (see model 3 in table 4).

The Lagrange Multiplier test can be used to establish which indicators have non-invariant intercepts, and performing this test revealed that the significant increase in χ^2 value was down to a lack of scalar invariance in the 'satisfaction with economic situation' indicator. Therefore, the constraint on this indicator was relaxed in a fourth model (see model 4 in table 4), yielding a substantial and statistically significant improvement in fit compared to the full scalar invariance model. This partial scalar invariance model was then evaluated against the metric invariance model, using the χ^2 difference test. Because the χ^2 difference (χ^2=1470.1, df=25, p>.1) was not statistically significant, partial scalar invariance was supported. This model also yielded a substantial improvement in RMSEA, NFI, TLI and CFI as compared to the full scalar invariance model. Thus, analysis was continued on the basis of the partial scalar invariance model.

Table 5: Fit Indices for invariance tests and χ^2 difference tests

	χ^2 (DF)	NFI	TLI	CFI	RMSEA	χ^2	df	Decision
Baseline model (model1)	1248.4 (244)	.95	.94	.96	.03			
Full metric invariance model (model 2)	1424.1 (257)	.94	.93	.95	.03	175.7	13	Accept (model 1 vs model 2)
Full scalar invariance model (model 3)	2990.1 (283)	.88	.86	.89	.05	1741.7	26	Reject (model 2 vs model 3)

Partial scalar invariance model (model 4)	2889.0 (282)	.88	.87	.89	.05	1464.9	25	Accept (model 2 vs model 4)

Comparison of differences in children's subjective well-being models between South Korea and the UK

Given that the assumptions of configural, metric and scalar invariance were satisfied, the next step was to test for differences between the two countries. Since we knew form preliminary analyses that children in the UK tend to report higher subjective well-being and satisfaction in school, community and economic situation than children in SK, this part of analyses examines more specific results including of the power of statistics and comparing the effect sizes between indicators in each country.
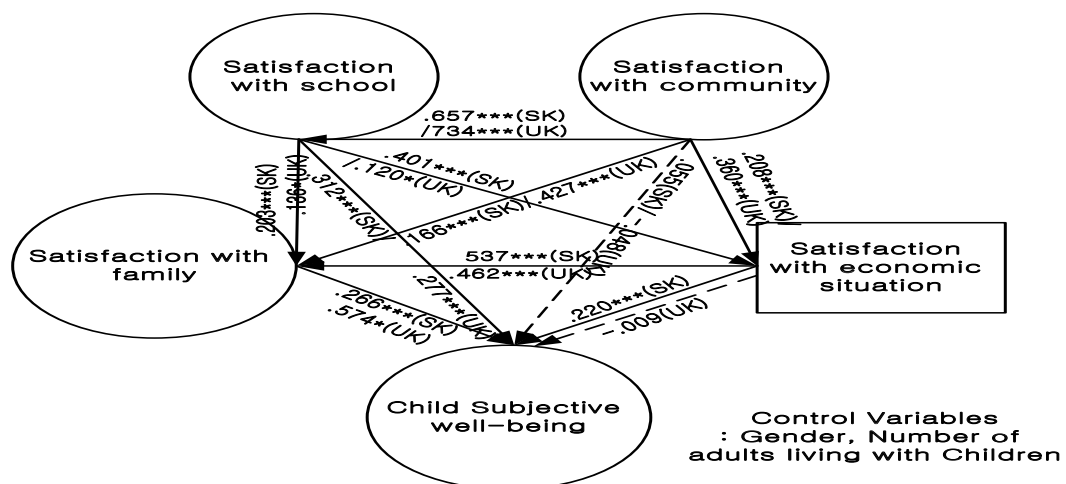
- Figure 1. Partial scalar invariance model

Satisfaction in the domains of family and school are significantly associated with child subjective well-being in both countries. However, the sizes of this effect are different. In terms of the effect of satisfaction with family, this is stronger in the UK (at .574) than in SK (at .266). Turning to the effect of satisfaction in school, the direct effect is stronger in SK (at .312) than in the UK (at .277). However, there are also indirect effects within the model. For example, looking at the path from satisfaction with school, via satisfaction with family, to child subjective well-being, the effect is stronger in the UK (at .136+.574=.710) than in South Korea (at .203+.266=.469). Turning to another path of satisfaction with school, via satisfaction with economic conditions, to subjective well-being, we can see a stronger effect in SK (of .401+.220=.621) than in the UK (of .120+-.009=.111). Thirdly, satisfaction with school can be traced via satisfaction with economic conditions then via satisfaction with family to subjective well-being, again showing a stronger association in South Korea (at .401+.537+.266=1.204) than in the UK (at .120+.462+.574=1.156). The effects of the various domains on subjective well-being, then, appear to be present in both countries but much stronger in

South Korea than in the UK. Similarly, the effects of children's satisfaction with their economic situation are significant in both countries (although the direct effect of satisfaction in this domain is not significant for the UK), but the effect size is much larger in South Korea than in the UK. Indeed, the only non-significant links in the model are the direct effect between satisfaction with their economic situation and overall subjective well-being for children in the UK, and the direct effect between satisfaction with their community and overall subjective well-being for children in both countries. The indirect effects between community satisfaction and overall subjective well-being, however, are significant in both countries.

In terms of the control variables, boys are happier than girls in UK. However there is a no significant gender difference of CSW in SK. Analysis of a later wave of the Children's Worlds study found that there was little evidence of a consistent gender pattern, with some countries tending to have slightly higher scores for girls and other countries tending to have slightly higher scores for boys (Rees & Main, 2015). Cultural factors may have an impact on the association between gender and subjective well-being – for example in the UK it has been suggested that media influences promoting unrealistic body image for young women may result in girls reporting lower levels of CSW than boys (e.g. see Palmer, 2015). However, a more detailed exploration of the role of gender in predicting variations in children's subjective well-being is beyond the scope of this article.

Discussion

The purpose of this article was to use data gathered from children themselves about their overall subjective well-being, and their satisfaction in various domains of their lives, to examine and compare the structure of child subjective well-being in South Korea and the UK. Bronfenbrenner's ecological systems approach was used to inform the structure. Community, school, economic and family well-being were used as predictors of overall subjective well-being, using a structural equation model to test the type and structure of associations between these domains within and between the two countries.

Overall support was found for our model which draws on Bronfenbrenner's (1992) ecological systems theory. Significant associations were found between all of the variables, with the exception of direct relationships between satisfaction with their communities and overall subjective well-being for children in both countries, and satisfaction with their economic situation and overall subjective well-being for children in the UK. This suggests that despite the striking cultural and economic differences between the two countries, there is a core aspect of 'childhood' which is experienced similarly across both contexts. Regarding the differences in relation to the impact of children's satisfaction with their family's economic situation, the lack of a direct effect in the UK compared to a relatively strong effect in SK might reflect the difference in social spending on families in the two countries, where (until recent policy changes) families with children were prioritised in the UK whilst spending in SK was comparatively limited. See table 1 for more details of these differences. Recent changes to the UK's 2010 Child Poverty Act (Duncan Smith, 2015) may result in an increased effect in the UK, if this interpretation is correct. These findings stress the importance of a strong social safety net for children and their families, to mitigate the effects of economic and material deprivation on children. This is not to say that these factors are not important: in both cases indirect effects were found. In terms of comparing the two countries, the structure of this model of subjective well-being was supported across the two countries. This indicates that it is possible to compare the strength of

the associations in the model, based on children's reports of their satisfaction in these domains of their lives in the two countries. Interestingly, in most cases the strength of the effect was greater in South Korea than in the UK. This may as previously represent the different policy contexts of the countries, in terms of a greater social investment in children in the UK compared to South Korea. Differences in the education systems, such as the amount of time spent in school each day, may also influence the stronger effects of variables in South Korea. However, further research with children in the two national contexts is indicated to develop a better understanding of why these factors appear to have more importance to variation in CSW in SK than in the UK. Findings point to the importance of public spending on families, but further research is needed to better understand the ways in which policy can help to improve CSW.

The findings presented in this paper draw on children's own reports of their subjective well-being. Given that the Children's Worlds study represents one of the first efforts at collecting data from children directly in diverse national contexts, to date we have a relatively limited understanding of how children in diverse national and cultural contexts interpret experiences of their lives and how those experiences may be mediated through their differences and embedded in a diversity of social and structural environments. That such reports allow for the construction of a statistically valid model, based on a theoretical understanding of children's lives (Bronfenbrenner's framework), and is comparable across diverse countries contributes to multiple debates in the field of childhood studies. Firstly, the study of children's lives in a global context is supported (Ben-Arieh, 2006): whilst the models differ between the two countries in terms of the strengths of association, a similar structure of child subjective well-being is found which suggests commonalities between children's lives despite the diverging national and cultural contexts represented by South Korea and the UK. Secondly, the value of studying child subjective well-being, drawing on children's own perspectives and reports on their lives, is emphasised (Ben-Arieh, 2004).

It is important to note the limitations of this research, and areas where future developments would be valuable. Firstly, it should be noted that only children in mainstream schools, aged 12, were included in this model. Secondly, the results only apply to South Korea and the UK. The Children's Worlds project has now been expanded to include another wave of data with representative samples from 15 countries aged 8, 10 and 12, and a valuable next step would be to explore the potential to construct a model which applies to children of these broader age ranges and national contexts. Research with children outside the mainstream school setting would also be a welcome development. In terms of understanding the reasons why the model differs in South Korea compared to the UK, further qualitative research with children would be useful in exploring why the different domains impact overall subjective well-being differently; and the inclusion of a wider range of domains and variables in the model may facilitate an understanding of which aspects of children's lives have a stronger impact in the UK.

References

Ahn, S. H. and Lee, S. S. (2012) 'Explaining Korean welfare state development with new empirical data and methods'. In *Asian Social Work and Policy* vol.6 no.2 pp67-85.

Ben Arieh, A., Kaufman, N. H., Andrews, A. B., Goerge, R. M., Joo Lee, B. and Aber, J. L. (2001) *Measuring and monitoring children's well-being*. Netherlands: Springer.

Ben-Arieh, A. (2004) 'Where are the children? Children's role in measuring and monitoring their well-being'. In *Social Indicators Research* vol.74 pp573-596.

Ben-Arieh, A. (2006) *Measuring and monitoring the well-being of young children around the world*. Background paper prepared for the 'Education for all global monitoring report 2007'. Available online from http://unesdoc.unesco.org/images/0014/001474/147444e.pdf.

Bollen, B. A. (1989). *Structural equations with latent variables*, New York: Wiley.

Bradshaw, J., Keung, A., Rees, G. and Goswami, H. (2010) 'Children's subjective well-being: International comparative perspectices'. In *Children and Youth Services Review* vol.33 no.4 pp548-556.

Bradshaw, J., Martorano, B., Natali, L. and de Neubourg, C. (2013) *Children's subjective well-being in rich countries*. UNICEF Working Paper WP-2013-03. Florence: UNICEF Innocenti Research Centre.

Bronfenbrenner, U. (1992) 'Ecological Systems Theory'. In Vasta, R. (Ed) *Six theories of child development: Revised formulations and current issues*. London: Jessica Kingsley Publishers.

Cameron, D. (2010) *PM Speech on wellbeing*. Delivered on 25th November 2010 at the Cabinet Office. Available online at https://www.gov.uk/government/speeches/pm-speech-on-wellbeing.

Casas, F. and Rees, G. (2015) 'Measures of children's subjective well-being: Analysis of the potential for cross-national comparisons'. In *Child Indicators Research* vol.8 no.1 pp49-69.

Cummins, R. A. and Lau, A. L. D. (2005) *Personal Wellbeing Index-School Children (PWI-SC)*. Available online at http://www.deakin.edu.au/research/acqol/instruments/wellbeing-index/pwi-school.pdf.

Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In Paul A. David and Melvin W. Reder (Eds.), *Nations and Households in Economic Growth: Essays in Honour of Moses Abramovitz* (pp. 89-125). New York: Academic Press, Inc.

Ebbinghaus, B. (2012) 'Comparing welfare state regimes: Are typologies an ideal or realistic strategy?'. Paper presented at the *European Social Policy Analysis Network ESPAnet* conference, in Edinburgh on 6-8 September 2012. Available online from http://www.cas.ed.ac.uk/__data/assets/pdf_file/0005/89033/Ebbinghaus_-_Stream_2.pdf/

Esping-Andersen, G. (1998) *The three worlds of welfare capitalism*. Princeton: Princeton University Press.

Garbarino, J. (2014) 'Ecological perspectives on child well-being'. In Ben-Arieh, A., Casas, F., Frones, I. and Korbin, J. E. (Eds) *Handbook of Child Well-being*: *Theories, methods and policies in global perspective*. Netherlands: Springer.

Hall, R. J., Snell, A. F., & Foust, M. S. (1999). Item Parceling Strategies in SEM: Investigating the Subtle Effects of Unmodeled Secondary Constructs. *Organizational Research Methods,* Vol. 2. No. 3, 233-256

Hendricks, H. (1997) *Children, childhood and English society, 1880-1990*. Cambridge: Cambridge University Press.

Hong, S., Malik, M. L., & Lee, M. (2003). Testing Configural, Metric, Scalar, and Latent Mean Invariance Across Genders in Sociotropy and Autonomy using a Non-Western Sample, *Educational and Psychological Measurement*, 63, 636 – 654

Hood, A. and Phillips, D. (2015) *Benefit spending and reforms: The Coalition government's record*. London: Institute for Fiscal Studies.

Lee, Ahn, Yoo and Kim (2014) What does composite well-being Index of children tell us about Korean children's quality of life?, Save the children

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question weighing the merits. *Structural Equation Modeling, 9,* 151-173

Meredith, W. (1993). Measurement invariance, factor analysis and factorial invariance. *Psychometrika,* 58, 525-543

OECD (2013) *How's Life? 2013: Measuring well-being*. OECD Publishing. DOI: 10.1787/9789264201392-en

Palmer, S. (2015) *Toxic Childhood*. London: Orion Publishing Group.

Raynaert, D., Bouverne-de Bie, M. and Vandevelde, S. (2009) 'A review of children's rights literature since the adoption of the United Nations Convention on the Rights of the Child'. In *Childhood* vol.16 no.4 pp518-534.

Reed, H. and Portes, J. (2014) *Cumulative impact assessment: A research report by Landman Economics and the National Institute of Economic and Social Research for the Equality and Human Rights Commission*. Equality and Human Rights Commission Research Report 94. Available online from http://www.equalityhumanrights.com/sites/default/files/publication_pdf/Cumulative%20Impact%20Assessment%20full%20report%2030-07-14.pdf.

Rees, G., Goswami, H. and Bradshaw, J. (2010) *Developing an index of children's subjective well-being in England*. London: The Children's Society.

Rees, G., Goswami, H., Pople, L., Bradshaw, J., Keung, A. and Main, G. (2013) *The Good Childhood Report 2013*. London: The Children's Society.

Shimoni, E. and Ben Arieh, A. (2013) *Children's relations and their subjective well-being in an ecological perspective*. Presentation for the 4rd Conference of the International Society for Child Indicators, presented in Seoul, May 29th-31st 2013.

Steenkamp, J. B. E. M., & Baumgartner, H. (1998). Assesseing measurement invariance in cross national consumer research. *Journal of Consumer Research, 25*, 78-90

Stiglitz, J. E., Sen, A. and Fitoussi, J. P. (2009) *Report by the Commission on the Measurement of Economic Performance and Social Process*. OECD.

UNICEF (2014) *Children of the recession: The impact of the economic crisis on child well-being in rich countries.* Innocenti Report Card 12. Florence: Innocenti Research Centre.