

Social Class Inequalities in Children's Cognitive Test Scores: Comparing Similarities Test Scores in Two British Birth Cohort Studies

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Abstract: This paper contributes to the sociological understanding of social class inequalities in childhood similarities test scores. We undertake a comparative analysis of two cohorts of British children born 30 years apart. There is a similar negative relationship in both cohorts. Children born in families in the less advantaged social classes have lower childhood similarities test scores. This is consequential because these children enter secondary school with restricted capabilities in logical thinking, concept formation and abstract reasoning.

Keywords: Social Class, Cognitive Test Scores, Inequality, United Kingdom

Soziale Klassenunterschiede bei kognitiven Testergebnissen von Kindern: Vergleich verbaler Analogien in zwei britischen Geburtskohortenstudien

Zusammenfassung: Dieser Beitrag trägt zum soziologischen Verständnis von sozialen Klassenungleichheiten bei Vergleichbarkeit von Testergebnissen in der Kindheit bei. Wir führen eine vergleichende Analyse zweier Kohorten britischer Kinder durch, die im Abstand von 30 Jahren geboren wurden. In beiden Kohorten besteht ein ähnlicher negativer Zusammenhang. Kinder, die in Familien aus weniger begünstigten sozialen Schichten geboren wurden, erzielen auf Primarstufe niedrigere Testergebnisse. Das hat weitreichende Folgen, weil diese Kinder mit eingeschränkten Fähigkeiten in logischem Denken, Konzeptbildung und abstraktem Denken in die weiterführende Schule kommen.

Schlüsselwörter: Soziale Klasse, Kognitive Testergebnisse, Ungleichheit, Vereinigtes Königreich

Inégalités sociales dans les résultats de tests cognitifs pendant l'enfance : une comparaison des résultats de tests de similarité dans deux études de cohorte de naissance britanniques

Résumé: Cet article contribue à la compréhension sociologique des inégalités de classe sociale dans les résultats des tests de similarités pendant l'enfance. Nous procédons à une analyse comparative de deux cohortes d'enfants britanniques né·e·s à 30 ans d'intervalle. Il existe une relation négative similaire dans les deux cohortes. Les enfants né·e·s dans des familles appartenant aux classes sociales les moins favorisées ont des scores aux tests plus faibles. Par conséquent, ces enfants entrent à l'école secondaire avec des capacités limitées en matière de pensée logique, de formation de concepts et de raisonnement abstrait.

Mots-clés: Classe sociale, résultats aux tests cognitifs, inégalité, Royaume-Uni

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1 Introduction

Cognitive tests assess a person's ability to learn and remember information, to recognise concepts and their relations, and to apply this information (Neisser et al. 1996). Cognitive ability in childhood has a long history of being examined within psychology (for a review see Rutter 1985). By stark contrast, it is not a mainstream activity in sociology, even though it is associated with educational attainment, labour market outcomes, health and wellbeing across the lifecourse (see Nettle 2003; Deary et al. 2007; Vanhanen 2011). The absence of detailed sociological studies of general cognitive ability is especially surprising since general cognitive ability in childhood is known to be socially stratified from a very young age (see for example Duncan et al. 1998; Feinstein 2003; Gottfried et al. 2003; Cunha and Heckman 2009; Sullivan et al. 2013; Skopek and Passaretta 2021).

An important development in understanding general cognitive ability in childhood is the "Flynn effect". The "Flynn effect" describes a widespread set of empirical observations that there were substantial increases in population average intelligence test scores throughout the twentieth century (Neisser 1998; Flynn 2012). The "Flynn effect" is the initial theoretical catalyst for our investigation of the relative social class inequalities in cognitive test scores for children in two British birth cohorts born thirty years apart.

A characteristic of the "Flynn effect" is that average performance on different elements, or subtests, have changed at different rates (Wicherts et al. 2004). Over the course of the twentieth century there were large and often rapid improvements in population average performance on some subtests, whereas average performance on other subtests changed very little. Two subtests that showed the greatest gains were Raven's Progressive Matrices and the Similarities Test (Flynn 2012). Flynn theorises that these gains could be attributed to changing "habits of mind" of societies over time. This refers to the way in which people are required, or encouraged, to look at the world around them (Flynn 2012).

The Similarities Test is the focus of this article. In this test children are presented with a series of words, or concepts, and are required to identify what they have in common. For example when presented with the words "cupboard", "table" and "bed" it would be correct to state that these are all furniture.¹ This answer assumes that the child has been conditioned to look at the world scientifically, or conceptually (Flynn 2012). If a child was presented with the words "cupboard", "table" and "bed" and gave the answer that "these are all things you use", "these are things in the home" or "you can bump into them all", this would display that they had an inability to conceptually group these words. This inability would suggest that they

¹ This is an example of a simple test item. The test also includes more difficult items such as "Signature, Fingerprint, Face" where "proof of identity" would be an acceptable answer but "police use them" or "can be forged" would be incorrect responses.

have not mastered abstract conceptualisation, or that they have a more utilitarian outlook on the world. Flynn (2012) theorises that in contemporary societies we have moved beyond a reliance on "concrete thinking", and have effectively put on "scientific spectacles" which refocus how we view the world and interact within it.

Flynn's explanation for population average increases in Similarities Test scores strongly resonate with work in the sociology of education developed by Basil Bernstein. Bernstein (1971) theorised that working class children engaged in particularistic rather than universalistic orientation to meaning (see also Hasan 2002). More recently, Nash (2016) argues that these different linguistic patterns are ultimately social class based differences in the skills which allow the processing of symbolic information. Taken together, Flynn's theory which seeks to explain population average increases in similarities test scores and Bernstein's complementary theories which explain social class based inequalities in abstract conceptualisation present an empirical puzzle which this paper aims to address. If more recent cohorts of children are better equipped to handle abstract conceptualisation on average, how have relative social class inequalities in this skill changed? Understanding inequalities in this skill is important, as Nash (2001) notes that children who have become sensitised by differential linguistic and cognitive socialisation are going to have differential ability to respond to the demands of formal education.

The substantive focus of this article is to examine the relationship between parental social class and children's scores on similarities tests. The association between parental social class and children's cognitive test performance has been consistently documented, and a wealth of empirical evidence demonstrates that children from more advantaged families generally have better cognitive test scores (for example McCulloch and Joshi 2001; Feinstein 2003; Blanden et al. 2007; Goodman and Gregg 2010; Schoon et al. 2010; Schoon et al. 2011; Sullivan et al. 2013; Dickerson and Popli 2016). It is theoretically plausible that more socio-economically advantaged families have strategies at their disposal, which they are better able to deploy to maintain their children's advantage (Devine 2004). Sullivan et al. (2013) discuss possible explanations for the influence of socio-economic factors on children's cognitive test scores, these include parental cultural and cognitive resources, parenting styles and parenting activities (see also Bourdieu and Passeron 1977; Vincent and Ball 2007; Ermisch 2008; Kiernan and Mensah 2011; Lareau 2011; Washbrook 2011).

There is very limited previous research on the changing nature of relative socioeconomic inequalities in cognitive test scores between cohorts. One exception is Kagitcibasi and Biricik (2011) who studied performance on the Draw-a-Person test in 1977 and 2010 in the same area of Turkey. This study found clear socio-economic differences in the 1977 cohort, and these effects were only slightly reduced in the 2010 cohort. Connelly and Gayle (2017) investigated social class inequalities in general cognitive ability test scores over time using British birth cohort data from 1958 and 1970. They reported notable social class divisions in general cognitive ability when children were still at primary school, and that similar patterns were observed in each cohort.

This article makes a distinctive contribution in this area and reports the results of an original investigation of the changing nature of the effects of parental social class on children's similarities test scores in two nationally representative British birth cohorts, born in 1970 and 2000/2. Against the backdrop of substantial increases in population average cognitive test scores over this period, we theorise that one of three broad changes in relative social class inequalities is most likely to be observed.

- > The first theoretical scenario is that the similarities test scores for children in all social classes have improved, and therefore relative class inequalities will remain stable.
- > The second theoretical scenario is that the similarities test scores for children in the most advantaged social classes have improved and this contributed to the population average increases. In this scenario relative class inequalities increase and there will be a wider gap between children in the most advantaged social classes and their counterparts in less advantaged social classes.
- > The third theoretical scenario is that the similarities test scores for children in the least advantaged social classes have improved and this contributed to the population average increases. In this third scenario, the relative social class inequalities decrease, and the gap between children from the least advantaged social classes and the most advantaged social classes will become narrower.

2 Data

In this article we use data from two British birth cohort studies which follow the lives of babies born 30 years apart. The 1970 British Cohort Study (BCS) follows babies born in England, Scotland and Wales from the 5th to the 11th of April 1970 (Elliott and Shepherd 2006; University of London 2013; University of London 2016a; University of London 2016b). The Millennium Cohort Study (MCS) tracks a sample of babies born between the 1st of September 2000 and the 31st of August 2001 in England and Wales, and between the 24th of November 2000 and the 11th of January 2002 in Scotland (Plewis 2007a; University of London 2012a; University of London 2012c; Connelly and Platt 2014; University of London 2015a; University of London 2015b).

The BCS provides a suitable benchmark against which to compare data collected on the children in the MCS. We used measures from the first three sweeps of data collection in the BCS (i. e., at birth, age 5 and age 10). We used MCS data from the first five sweeps of data (i. e., at age 9 months, age 3, age 5, age 7 and age 11). There would be obvious analytical benefits to including additional birth cohort data within these analyses. This is not possible however as the previous large-scale nationally representative British birth cohort studies (i.e., the studies following children born in 1946 and 1958) do not contain the required cognitive test data for this investigation.

2.1 Similarities Test Scores

The similarities test was undertaken at age 10 in the BCS and at age 11 in the MCS. Both tests involved the child being presented with a series of words, and then being required to identify why these words go together. For example the child would be read the words "sad, worried, happy" and the correct answer would be "emotions" (see Hansen 2014; Parsons 2014). In the BCS the Word Similarities subscale of the British Ability Scales (First Edition) was used, and in the MCS the Verbal Similarities subscale of the British Ability Scales Second Edition was used (Elliott et al. 1997).

In the BCS, children were asked to name the group of items, but also to give an example of a further congruent word. For example, for the list "sad, worried, happy", the correct answer would be "emotions" and a further congruent word might be "excited". In the original BCS scoring system, children were given a point for each item if they answered both elements of the test correctly. This test was administered slightly differently in the MCS, and the protocol did not ask the child to provide a further word example. In order to ensure that the measures in the two cohort datasets are appropriately comparable we concentrate our analyses on the "naming" items from the BCS test.

The MCS version of the test included a routing methodology. The children were given items of varying difficulty based on the number of mistakes they made on previous items (Elliott et al. 1996). The MCS test scores were adjusted to take the difficulty of the items the child had completed into account, and the test scores were adjusted for the child's age when the test was administered. The BCS test scores were not adjusted for age at the time of the test but this is inconsequential because all of the children are born within a single week.

The analyses presented below do not seek to replicate the "Flynn effect" which has been investigated numerous times (Neisser 1998; Wicherts et al. 2004; Flynn 2012; Dutton et al. 2016; Bratsberg and Rogeberg 2018). The focus of this article is an examination of the nature of relative parental social class influences on their children's scores on similarities tests. The Word Similarities subscale of the British Ability Scales (First Edition) which was used in the BCS differs slightly from the Verbal Similarities subscale of the British Ability Scales (Second Edition) used in the MCS, as described above. For many analyses these two tests will be functionally equivalent. In the analyses below the similarities test scores from the BCS and the MCS are arithmetically standardised as a Z score with a mean of 0 and a standard deviation of 1 to make them comparable.² Therefore these scores should

² This follows the practice adopted by Schoon et al. (2010).

be understood as relative measures, where the comparison is with peers within the same birth cohort.

2.2 Parental Social Class

In this paper we have operationalised an occupation-based measure of socio-economic position for the analyses of parental social class effects. Our theoretical justification follows a conventional line of sociological argument, namely that occupation-based socio-economic measures are reliable and parsimonious indicators of social class positions (Rose and Pevalin 2002). In the present analysis we use the UK National Statistics Socio-Economic Classification (NS-SEC) which is the official UK Government classification, and is widely used in social research (Rose and Pevalin 2003; Office for National Statistics 2010).

Parental NS-SEC was computed using standardised occupational codes and employment status information for mothers and fathers collected in the age 10 sweep of the BCS survey, and the age 11 sweep of the MCS survey. Using the occupational coding of the BCS developed by Gregg (2012) our measure of parental class is based on contemporary standardised occupational codes for both cohorts ensuring the appropriate comparability of the two parental social class measures. A measure of

Variable	BCS %	MCS %
Sex		
Male	51	51
Female	49	49
Parent's Highest Education		
0 None	33	6
1 GCSE Below Grade C	20	5
2 GCSE Grade A-C	20	22
3 A-Levels	9	16
4 University Degree or Above	18	51
Parental Social Class (NS-SEC)		
1.1 Large employers and higher managerial and administrative occupations	3	6
1.2 Higher professional occupations	6	11
2. Lower managerial, administrative and professional occupations	22	30
3. Intermediate occupations	14	14
4. Small employers and own account workers	11	11
5. Lower supervisory and technical occupations	16	7
6. Semi-routine occupations	14	14
7. Routine occupations	15	7
Unweighted n	10 008	11457

Table 1Distribution of the Covariates

Note: British Cohort Study (BCS) values are weighted for non-response, Millennium Cohort Study (MCS) values are adjusted for survey design and weighted for non-response.

family social class was created using the highest NS-SEC category of the mother or father, which can appropriately be considered as a semi-dominance measure (see Erikson 1984). The distribution of parental NS-SEC in the two cohorts is shown in Table 1. It is clear that the social class distribution changes between these two cohorts. For example, in the BCS 15% of parents were in the routine occupations category (NS-SEC 7) compared to 7% of parents in the MCS, and the percent of parents in the higher professional occupations category (NS-SEC 1.2) increased from 6% in the BCS to 11% in the MCS.

2.3 Parental Education

The intergenerational effects of parental education have often been highlighted in sociological studies (Blau and Duncan 1967; Sewell and Hauser 1975; Jencks 1979; Halsey et al. 1980). Social class effects are the main focus of this paper, but in countries like Britain education is entangled with social class. There are observable educational differences between classes in Britain, but also some variability in education levels within classes. There is usually a moderate correlation between an adult's level of education and their social class. In the BCS the correlation is Cramer's V = 0.33, and in the MCS it is Cramer's V = 0.30.

We have created a measure of parental education based on the National Vocational Qualification (NVQ) levels. The MCS parents' qualifications, measured in the age 11 survey, were organised into NVQ levels in the deposited datasets. We have allocated the BCS parents' qualifications, measured in the age 10 survey, into the most comparable NVQ level. In order to maximise comparability NVQ level 4 (e. g., undergraduate degree) and NVQ level 5 (e. g., postgraduate degree) have been grouped in the MCS as we are unable to differentiate between these two groups in the BCS. In the analyses we use the highest educational level of the cohort member's parents. The distribution of parental education in the two cohorts is shown in Table 1.

2.4 Sex

Savage-McGlynn (2012) states that sex differences in intelligence continue to captivate psychologists and the general public alike, and no other concept in psychology has generated more debate. For example, Lynn (1999) challenged the view that there are no sex differences in general intellectual ability, but Colom et al. (2000) suggest that there are negligible sex differences. Sociologists include measures of sex in a broad array of empirical analyses, and sex and gender measures are widely understood as being key variables. We contend that sex is too central to the structure and organisation of contemporary societies for it to be excluded in the present analyses.

2.5 Study Designs and Missing Data

The MCS has a complex survey design which is stratified to increase the probability of selection for children in disadvantaged areas, and areas with large populations of minority ethnic families (Plewis 2007b; Ketende and Jones 2011). Stata software was used for data enabling and data analysis, and the survey facility (svy) was used to analyse data from the complex survey design of the MCS (StataCorp 2017). The BCS was a systematic sample of all babies that were born in a single week (Elliott and Shepherd 2006). Therefore the BCS does not have a complex design and selection strategy.

Observational studies typically have missing data and this has the potential to distort results (Hawkes and Plewis 2006; Mostafa and Wiggins 2014; Mostafa and Wiggins 2015). In the current analyses the original sample sizes are reduced due to attrition (i. e., drop out), wave non-response (i. e., not being present in one or more sweeps of the surveys), and item non-response (i. e., not providing a response to a survey question). The patterns of unit and item missingness for the two cohorts are shown in the supplementary materials. Non-response weights are deposited with the MCS data. We have constructed a set of inverse probability weights for the BCS that are similar to the MCS weights.³ These weights are used in a principled attempt to reduce potential distortion due to missing data in the complete records analysis (Höfler et al. 2005; Carpenter and Kenward 2012).

3 Results

Descriptive statistics are reported in Table 2. There were small observable differences between the mean similarities test scores for males and females in both the BCS and the MCS. There were observable parental educational differences in the mean similarities scores. Children with better qualified parents had higher mean scores in both cohorts. There were also observable parental social class differences. Children from more advantaged NS-SEC classes had higher scores in both the BCS and the MCS.

Similarities test scores are modelled using ordinary least squares regression. The most appropriate model for the MCS and BCS data was a main effects model of sex, parental education and parental social class (see online supplement tables S7 and S8). The modelling results are shown in Table 3. The regression coefficients for the NS-SEC variable are plotted in Figure 1 alongside 95% quasi-variance comparison intervals (see Gayle and Lambert 2007). The estimation of quasi-variances allows comparisons to be made between categories of NS-SEC and between the two birth cohorts.

The striking finding is that although the second cohort were born thirty years after the children in the BCS, the effects of sex, parental education and parental

³ See online supplementary materials for more details.

	BCS	1970	MCS	2000-2
	Mean Similarities Score (SD)		Mean Similarities Score (SD)	
Sex				
Male	0.11	(1.01)	0.01	(1.00)
Female	-0.06	(0.95)	-0.08	(0.94)
Parental Education				
0 None	-0.31	(0.97)	-0.68	(1.08)
1 GCSE Below Grade C	-0.12	(0.95)	-0.44	(1.01)
2 GCSE Grade A-C	0.13	(0.92)	-0.24	(0.97)
3 A-Levels	0.25	(0.88)	-0.06	(0.91)
4 University Degree or Above	0.57	(0.89)	0.18	(0.91)
Parental Social Class (NS-SEC)				
1.1 Large employers and higher managerial and administrative occupations	0.34	(0.91)	0.38	(0.84)
1.2 Higher professional occupations	0.55	(0.87)	0.38	(0.86)
2. Lower managerial, administrative and professional occupations	0.33	(0.92)	0.09	(0.89)
3. Intermediate occupations	0.16	(0.91)	-0.03	(0.91)
4. Small employers and own account workers	0.01	(0.93)	-0.20	(0.97)
5. Lower supervisory and technical occupations	-0.15	(0.98)	-0.25	(0.96)
6. Semi-routine occupations	-0.25	(0.97)	-0.38	(1.07)
7. Routine occupations	-0.38	(0.97)	-0.43	(1.04)

Table 2 Social Inequalities in Similarities Test Scores 1970 Birth Cohort Study (BCS) and Millennium Cohort Study (MCS)

Note: British Cohort Study (BCS) values are weighted for non-response, Millennium Cohort Study (MCS) values are adjusted for survey design and weighted for non-response.

social class are incredibly similar. There is an observable negative social class gradient net of sex and parental education. Children from the more advantaged NS-SEC categories have, on average, higher relative test scores in the similarities test. Children from families with parents in higher managerial administrative and professional occupations (NS-SEC 1.1, 1.2 and 2) have higher relative test scores than children with parents in intermediate occupations (NS-SEC 3, 4 and 5) and children with parents in routine and manual occupations (NS-SEC 6 and 7).

This lends no general support to the theoretical proposition that the relationship between parent's social class and their children's scores on similarities tests may display marked differences between these two British birth cohorts. The changes in the occupational composition of the UK, and the emergence of an increasingly technological and knowledge-based economy seems to have done little to change the relative social class inequalities in children's similarities test scores. The general finding was overall stability in relative social class inequalities between the two cohorts, despite the children being born thirty years apart.

	(1) BCS		(2) MCS		
	Coef.	S.E.	Coef.	S.E.	
Sex					
Female	0.00		0.00		
Male	0.18***	(0.02)	0.08***	(0.02)	
Parent's Highest Education					
0 None	0.00		0.00		
1 GCSE Below Grade C	0.12***	(0.03)	0.21*	(0.08)	
2 GCSE Grade A-C	0.3***	(0.03)	0.36***	(0.07)	
3 A-Levels	0.40***	(0.04)	0.49***	(0.07)	
4 University Degree or Above	0.66***	(0.03)	0.60***	(0.07)	
Parental Social Class (NS-SEC)					
1.1 Large Employers and Higher Managerial	-0.07	(0.06)	0.01	(0.05)	
1.2 Higher Professional	0.00		0.00		
2 Lower Managerial and Professional	-0.03	(0.04)	-0.25***	(0.03)	
3 Intermediate	-0.07	(0.05)	-0.31***	(0.04)	
4 Small Employers and Own Account Workers	-0.17***	(0.05)	-0.42***	(0.04)	
5 Lower Supervisory and Technical	-0.29***	(0.05)	-0.46***	(0.06)	
6 Semi-Routine	-0.33***	(0.05)	-0.53***	(0.05)	
7 Routine	-0.44***	(0.05)	-0.51***	(0.06)	
Constant	-0.12*	(0.05)	-0.24**	(0.08)	
Ν	10 008		114	11 457	
Adjusted R ²	0.1	3	0.09		
BIC	268	17	312	93	

Table 3	Main effects models for the British Cohort Study (BCS) and
	Millennium Cohort Study (MCS)

Note: BCS model is weighted for non-response, MCS model is adjusted for survey design and weighted for non-response. Adjusted R² and BIC are estimates calculated from non-adjusted models for the MCS analysis. To avoid confusion, in this table and throughout the paper, we report the BIC calculated by the Stata command -est stat-. We are aware that alternative formulations are available (see Treiman 2009; StataCorp 2017).

The more nuanced result is that there are very subtle differences in the overall patterns of relative social class inequalities in the more recent birth cohort that might potentially be sociologically illuminating. Children born at the turn of the millennium with parents in NS-SEC categories 2 (lower managerial, administrative and professional), 3 (intermediate occupations), 4 (small employers and own account workers), 5 (lower supervisory and technical occupations) and 6 (semi-routine occupations) have lower relative test scores than their counterparts born in 1970. This may be due to changes in the composition of these social class groups, and the employment conditions of these parents. However, notably there is no difference between the test scores of children with parents in the most-disadvantaged social





Data: British Cohort Study (n = 10 008). Millenium Cohort Study (n = 11 457). Outcome Similarities Test Score (age 10 / 11), standardised within cohort. Note: Model also contains Sex and Parents' Education, adjusted for survey design and weighted for non-response.

class (NS-SEC 7). This is a more complex pattern of relative social class inequalities than the three scenarios we theorised *a priori*.

Whilst similarities test scores in the BCS were structured into two distinctive social class groupings (NS-SEC 1.1, 1.2, 2 and 3, and NS-SEC 5, 6 and 7) a detailed examination of the MCS data reveals a third division. The first group in the BCS (NS-SEC 1.1, 1.2, 2, and NS-SEC 3) appears to have bifurcated and formed two distinctive groups in the MCS (NS-SEC 1.1 and 1.2, and NS-SEC 2 and 3).

In both the BCS and MCS the quasi-variance based 95 % comparison intervals for NS-SEC 1.1 and 1.2 substantially overlap. This convinces us that these two social classes form a single division. The occupations in this division are characterised by high levels of cognitive demand and routinely require logical thinking, concept formation and abstract reasoning.

The second MCS division comprises children with parents in NS-SEC 2 and NS-SEC 3. These two classes include both lower managerial and lower professional occupations, and intermediate occupations (which include clerical and administrative occupations, sales and services, and some technical and engineering occupations). These parents have occupations that are of a semi-professional nature, and historically might have been described as being 'white collar'. The occupations in this division make fewer cognitive demands on workers than the more professional and managerial occupations in NS-SEC 1.1 and 1.2.

Social stratification research on changing structures and social class mobility in modern Britain provides insights into these more subtle social class inequalities. The expansion of the professional social classes has led to increasing numbers of individuals now being located in more advantaged social classes (Goldthorpe 2016). There has been a growing demand for professional and managerial personnel across the British economy. This expansion has facilitated social ascent. We envisage that some MCS parents in NS-SEC 1.1 and 1.2 would have been in less advantaged social classes in earlier times. This may partially explain why the children of MCS parents who now comprise NS-SEC 2, 3 and 4 have lower test scores than their counterparts in the BCS.

An obvious limitation of this study is that only two cohorts have been compared. There would be great benefits to replicating this analysis with further cohorts, and in different national contexts where suitable data are available. This study has focussed on only one test, the similarities test, there would also be benefits to examining changes in social class inequalities in other elements of cognitive ability between cohorts.

4 Conclusions

This study answers Flynn's (2012) appeal for researchers to consider sociological contexts in order to develop a more comprehensive understanding of the role of social influences on cognitive inequalities. We posed the theoretically informed question of whether relative social class inequalities in similarities test scores had changed between two cohorts of British children born 30 years apart.

Flynn's (2012) theory of societal movement away from 'concrete thinking' strongly chimes with Bernstein's (1971) theories of class-based linguistic and cognitive socialization which are an important but often neglected canon within the sociology of education. Our overall finding that social class divisions in similarities test scores have remained largely stable over a period of 30 years indicate that despite wider social change, including possible changes in 'habits of mind' at the societal level (see Flynn 2012), social class inequalities in this particular skill have been maintained. Although we do observe some more nuanced changes in the social class divisions than the general scenarios that we theorised *a priori*.

The fact that social class inequalities in this skill can be observed whilst children are age 10/11 is important because children from less advantaged social classes will arrive at secondary school with a distinctive handicap. The logical thinking, concept formation and abstract reasoning skills that children from the less advantaged social classes display are unlikely to help them to effectively compete in education and the labour market (see Nash 2005; Nash 2016). In Britain there are on-going concerns about social inequality in education and there have been numerous policy changes and new initiatives designed to combat inequality. However, arguably the policies enacted are not of sufficient ambition to tackle engrained social inequalities that might emanate from linguistic and cognitive socialisation from birth.

We observe clear social class gradients in both cohorts. Plausibly, the assets that parents in more advantaged social classes have, and the material rewards that flow from their occupations have the potential to provide family environments that are conducive to positive development. This finding has previously been reported by Parcel and Menaghan (1994) who noted that social class differences are likely to reflect differences in the characteristics and complexity of the parents' jobs. The class differences may also reflect the instability, and the economic and social strain that results from being located in a more disadvantaged social class (Conger and Elder 1994; Conger and Conger 2002; Layte 2017). Sullivan et al. (2013) conclude that parental social class and parental education were directly linked to inequalities in children's cognitive test scores, but they emphasise that these differences could not be explained even though they modelled a wide range of measures of both family social resources and parental behaviours. Psychologists have pointed to the heritability of general cognitive ability (Deary et al. 2006; Tucker-Drob et al. 2013; Hill et al. 2014; Harden 2021), this might be another potentially plausible dimension of the persistent negative social class gradient.

Having reported a negative social class gradient we are careful to avoid slipping into a mechanistic deficit theory of social class inequalities. By contrast we emphasise that parental education, parental skills, parental work and market situation, and the cognitive requirements of their occupations could combine to make parent's efforts differentially effective in promoting the abstract reasoning skills of their children, and that the entrenched nature of these inequalities contribute to the ongoing reproduction of inequalities in cognitive socialisation.

5 Supplementary Materials

Supplementary materials and data analysis code are available here: https://osf.io/ ug5pz/.

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Julien Debonneville

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Comment les femmes en provenance des Philippines entrent-elles dans l'économie mondialisée du travail domestique? À partir de cette question, le présent ouvrage interroge les rouages des domesticités globalisées afin de comprendre comment les engagements migratoires et professionnels se construisent et s'alimentent dans le temps et l'espace. Pour ce faire, l'enquête analyse les trajectoires biographiques de travailleuses domestiques philippines. Sur la base d'entretiens avec des femmes ayant exercé et/ou se préparant à le faire en Asie, au Moyen-Orient, en Europe ou en Amérique du Nord, cette recherche décrit comment elles en viennent à partir, comment elles endossent le métier d'employée de maison, et comment elles négocient les relations de pouvoir avec leurs employeur·euse·s. L'analyse des carrières migratoires permet ainsi de pointer - aux niveaux micro, méso et macro sociologique - les dynamiques sous-iacentes à la culture de la migration qui mènent ces actrices à quitter l'archipel philippin et devenir employée de maison à l'étranger.

L'originalité de cet ouvrage réside dans le fait d'appréhender de façon processuelle, non-linéaire et plurielle les carrières migratoires en décrivant comment les femmes interrogées s'approprient ou mettent à distance le métier d'employée de maison au fil des circulations et des expériences professionnelles. À partir d'une perspective de genre, il souligne ainsi comment le rapport à la qualification se construit au gré des migrations transnationales dans de multiples espaces et temporalités.

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