

What will my life be like when I am 25? How do children's social class contexts predict their imagined and actual futures?

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Together, our knowledge about working-class contexts comes primarily from our reading of academic literature, supplemented in M.H. and K.L.'s case by some family experience. We acknowledge this limits our understanding of the topics we explore in this manuscript.

Abstract

Children use school as a way to imagine and strive toward their futures. We analyzed thousands of essays written by children in Britain in the late 1960s about what their lives would be like as adults. We used a bottom-up approach to explore naturally occurring topics in these essays and tested how these topics varied with children's social class context and their adult outcomes. Higher education was *the* most prevalent topic in these children's essays; children whose fathers—and maternal grandfathers—had higher-status occupations were especially likely to write about this, as well as about interests in teaching, medicine, and the military. Children in lower class contexts were especially likely to write about making money, but also about family and daily responsibilities. We further found that—controlling for family background—children who wrote more about higher education and less about money-making tended to achieve education, status, and income.

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INTRODUCTION

School is one place where children formulate their hopes and goals for the future, and education is one of the pathways through which children (and adults) have traditionally achieved many of those hopes and goals. How do these hopes and goals differ depending on children's social class contexts? And how in turn are these hopes and goals related to the lives these children have as adults? Previous work has sought answers to these questions in a top-down manner—that is, testing hypotheses specified by a priori theorizing. For example, researchers are often interested in the reproduction of class inequalities and therefore focus on class-related themes like career and educational aspirations, using closed-ended questions or targeted coding schemes to identify them (e.g., Ashby & Schoon, 2010; Howard et al., 2011). We complement these findings using a bottom-up approach—that is, exploring participant-generated data with no preconceptions of what it might reveal. Specifically, we apply unsupervised machine learning algorithms to a large ($N = 10,146$) dataset of essays written at school by 11-year-old children about their imagined adult lives. This method carries the benefits of qualitative data (see, as an example, Millet & Croizet, 2024) while minimizing (but not completely eliminating) the biasing force of researchers' assumptions, because these models identify themes in the essays without any guidance as to what these themes might be. This allowed us to identify patterns in children's imagined futures independent of what we might assume they think about, which was particularly important as our team of authors does not have personal experiences representative of the entire spectrum of social class.

The archive from which we drew these essays also contains background information about the children's social class context, as well as information about their actual adult lives collected over subsequent decades. Thus, we explored both whether and how the children's class context was linked to the kinds of futures they imagined for themselves, as well as how those imagined futures predict how their adult lives actually unfolded.

What we know about social class contexts and children's imagined futures

Children are aware of the future beginning at two years of age and start to behave in accordance with their plans for anticipated futures by five (Atance, 2008, 2015; Atance & O'Neill, 2001). The ability to imagine detailed, concrete future events improve throughout middle childhood to young adulthood (Coughlin et al., 2014; Wang et al., 2014), but even children as young as nine can produce coherent, chronologically sensible narratives for their futures that follow cultural scripts for important events (e.g., marriage, having children, retiring) (Bohn & Berntsen, 2013).

Research in psychology and sociology has identified some ways these imagined futures differ based on children's social class contexts. The lion's share of this research has examined children's career and university aspirations. Compared to children from lower-class contexts, those from higher-class contexts typically aspire to more prestigious careers and higher degrees of education—that is, to outcomes that would place them in higher-class contexts as adults (Flouri & Panourgia, 2012; Howard et al., 2011; Moulton et al., 2015; Pimlott-Wilson, 2011; Sewell & Shah, 1968; Wilson, 1959).

In part, this may be because a scarcity of resources orients people toward meeting immediate concrete needs, as opposed to more long-term abstract goals (e.g., Coffman et al., 2019; Duffy et al., 2012). Some work supports this in the domain of education specifically. For example, experiments reported in this volume show that young adults experiencing financial pressure are more attracted

to jobs that offer short-term benefits, at the expense of ones with better long-term prospects (Buzan & Sheehy-Skeffington, 2024). Likewise, longitudinal analyses indicate that a higher class family context and, independently, a higher class school context, are linked with parents expecting their children to attend school for longer—an expectation children may well internalize (Jamain et al., 2024).

Other research finds that children's aspirations matter. Children who aspire to higher-status careers and levels of education are more likely to actually attain these milestones (Ashby & Schoon, 2010; Schoon & Parsons, 2002), whereas those with uncertain career aspirations are more likely to be unemployed as adults (Yates et al., 2011). These patterns hold controlling for children's ability (e.g., IQ) and social class context (Brown et al., 2011; Schoon & Polek, 2011; Schoon et al., 2007). Work in this very volume, however, reminds us that an aspiration may not always cause its corresponding achievement: Even when children from lower-class contexts *did* hold high aspirations for their education, external barriers often prevented these from translating into actual achievements (Park et al., 2024; see also Laurin & Engstrom, 2020; Laurin et al., 2019; Pepper & Nettle, 2017).

These existing findings raise the possibility that different social class contexts may afford different visions of the future, in such a way that helps reproduce inequality across generations. There are of course additional, structural mechanisms for the intergenerational transmission of social class; for example, lacking financial support for college tuition makes it materially harder to attain higher education, which can perpetuate differences in educational attainment across generations. But above and beyond these kinds of structural mechanisms, psychological mechanisms can further shape how children agentically pursue educational and occupational outcomes (Laurin & Engstrom, 2020; Laurin et al., 2019; Schoon & Heckhausen, 2019). One such mechanism could be that parents' class context might shape their children's aspirations for the future, which could in turn shape the children's own adult circumstances.

What we do not know about social class contexts and children's imagined futures

The emphasis in past research on children's career and educational aspirations has provided a coherent set of findings, but this value has come with tradeoffs. It may lead to the impression that education- and career-relevant aspirations are a defining difference between children from varying class contexts. But this may come from the use of top-down approaches, which do not ask about other differences—potentially even larger or more impactful differences—that are not present in prevailing theories. For example, some work asks participants closed-ended questions about specific educational and career outcomes (e.g., “Do you plan to go on with education training after the age of 18?,” Ashby & Schoon, 2010; selecting two “dream occupations” from a set list Howard et al., 2011). Work that asks open-ended questions usually explicitly targets imagined socioeconomic outcomes (e.g., “What do you expect to be your first full-time-job?,” Schoon & Parsons, 2002). When the open-ended questions are technically broader (e.g., “When you grow up, what would you like to be?,” Moulton et al., 2015), researchers typically use coding schemes that assume children will interpret them socioeconomically.

This work has, thus, yielded important insights into the educational and occupational aspects of children's imagined futures, but has left other aspects—for example, how they envision their families, relationships, hobbies, or daily activities—mostly unexplored. A rich portrait of the imagined futures of children from different class contexts, one that includes all elements they deem

important, would be informative for understanding how children form narratives about their life histories and futures, and how they then act on those narratives to create the futures they want (Bohn & Berntsen, 2013; McAdams & McLean, 2013).

What a bottom-up exploration might reveal

Although our statistical analyses were independent of any a priori hypotheses, we note that there are theoretical reasons to expect that children's imagined futures might differ in ways beyond how they envision their class outcomes. Different class contexts are linked with different patterns of enduring cultural socialization beginning in childhood, a concept sociologist Pierre Bourdieu referred to as *habitus* (Bourdieu, 1987; Bourdieu & Passeron, 1970; see also Lareau, 2002, 2011). Parents in lower-class contexts prepare their children for a world that is relatively unstable and constrained, and as a result socialize their children to have more *interdependent* cultural orientations (Carey & Markus, 2017; Stephens et al., 2014; Stephens et al., 2012; Stephens & Townsend, 2013; Stephens et al., 2012). The emphasis is on fitting in, fulfilling social obligations, and adapting to others' needs; for example, parents in these contexts are more likely to issue direct commands (Bernstein, 1974) and encourage children's interpersonal skills by giving them frequent social interactions without parental intervention (Lareau, 2003).

By comparison, parents in higher class contexts prepare their children for a world that is relatively predictable and free, and as a result, socialize their children to have more *independent* cultural orientations. The emphasis is instead on standing out, pursuing individual goals, and finding a unique identity; for example, parents in these contexts are more likely to guide behavior by asking questions, and to structure their children's lives with enrichment activities designed to elicit and develop their preferences (Vincent & Ball, 2007).

These socialized cultural worldviews shape what adults from different social class contexts value, desire, and pursue (Snibbe & Markus, 2005; Stephens et al., 2011), and the same may be true for children. For example, children in working-class contexts may imagine futures involving more care for family members and neighbors, in line with the interdependent values their parents model. In contrast, children in upper-class contexts may imagine futures involving more hobbies and pursuit of their own interests, in line with the independent values their parents model.

Imagined and actual futures

Understanding how their social class context affects children's views of the future in a comprehensive way covering not only, careers and education but also other important life domains is relevant to understanding how cultural norms and class differences are transmitted intergenerationally. Children who imagine particular futures for themselves may ultimately pursue and achieve these futures, although aspirations alone are not sufficient—people achieve their aspirations by drawing on material, social and cultural resources that are not equally distributed across the class spectrum.

That being said, to the degree that children from different class contexts imagine different class-related futures, the aspirations of children from higher class contexts might themselves be an example of what Bourdieu referred to as embodied cultural capital: A socialized disposition that ultimately confers status on the person who holds it and thus contributes to the reproduction of

class divisions across generations (Bourdieu, 1987). Our work will test the associations between children's imagined futures and their outcomes as adults.

Data and context

We use data drawn from the National Child Development Study (NCDS), a longitudinal cohort study that is still ongoing today, and that attempted to recruit every person born in the United Kingdom during one particular week of March 1958. The initial effort succeeded in interviewing 98% of the families who had a child that week, for an initial sample of 17,415. In 1969, when participants were 11 years old, they wrote essays about what their lives would be like when they were 25 years old. We first used an inclusive bottom-up approach to quantify and describe these essays. We then linked the essays back to NCDS data on the children's family backgrounds. Finally, we linked the essays forward to their authors' lives as adults, using the most recently available wave of data, collected in 2013–2014 when participants were 55.

The postwar period in the United Kingdom during which these participants grew up involved large changes in United Kingdom social class structures and cultures (Catterall & Obelkevich, 1994). Manual labor decreased while nonmanual labor increased, eroding the degree to which these two types of labor could serve as class context identifiers (Crompton, 1994). More women entered the workforce, particularly in the growing sector of low-status but nonmanual labor positions (Crompton, 1994). Poverty, at a historic low in the 1950s, began to increase in the 1960s and continued to rise for decades, and public opinion was hostile towards the poor and unemployed (Brown, 1994).

The educational system also changed during this period. The 1944 Education Act for the first time implemented free, mandatory education for children ages 5–15, ensuring children from lower social class contexts would be able to attend school (Burgess, 1994). But the secondary school system maintained a strong class divide, with students streamed into different schools based on an exam that favored students from wealthier, more educated families (Hart et al., 2012). This exam was taken at age 11, the age at which children in our sample wrote their essays. Changes in post-secondary education also occurred in this period; many new universities were established, and more women began to attend (Burgess, 1994).

Thus, this sample, thus, provides an exciting opportunity to investigate people's narratives about their lives and tie these narratives to their actual life outcomes, at a time of substantial change within the social class and educational structures. By the same token, the sample's largest limitation is that it narrowly targets a specific microgeneration born in a single country. Reflecting the composition of the British population at that time, it contains predominantly White participants, and due to its sampling strategy definition no immigrants. We will, therefore, have to rely on theoretical speculations to understand if and how well results might generalize, for example, to children born at other times and in other places. These theoretical speculations will of course necessarily be top-down and, therefore, bounded by the limits of the authors' collective experience with the late 20th/early 21st century time period, and with North American and Chinese cultural contexts.

TABLE 1 Demographics of sample and attrition analyses.

Variable	Analyzed subsample	Remainder of initial cohort	Comparison
Child sex	51% male	53% male	$\chi^2(1) = 7.61,$ $p = .006$
	49% female	47% female	
Child ethnicity	98% White	98% White	$\chi^2(4) = 3.42,$ $p = .490$
	1% African	1% African	
	1% Indian/Pakistani	1% Indian/Pakistani	
	<1% other categories	<1% other categories	
Father's occupational status	5% professional	4% professional	$\chi^2(5) = 22.64,$ $p < .001$
	20% managerial/technical	18% managerial/technical	
	11% skilled nonmanual	10% skilled nonmanual	
	42% skilled manual	42% skilled manual	
	15% partly skilled	16% partly skilled	
Grandfather's occupational status	8% unskilled	11% unskilled	$\chi^2(4) = 22.18,$ $p < .001$
	3% professional	3% professional	
	17% managerial/technical	15% managerial/technical	
	52% skilled	52% skilled	
Child receives school meals	15% partly skilled	15% partly skilled	$\chi^2(1) = 8.43,$ $p = .004$
	13% unskilled	15% unskilled	
	10% yes	12% yes	
Family financial hardship	90% no	88% no	$\chi^2(1) = 21.47,$ $p < .001$
	10% yes	13% yes	
	90% no	87% no	

Method

Data, analysis scripts, and [Supplementary materials](https://osf.io/xra2b/?view_only=1516c3a6b9e94977b2617ab22b6695ca) can be found at https://osf.io/xra2b/?view_only=1516c3a6b9e94977b2617ab22b6695ca. Analyses were not pre-registered.

Participants

Our starting point was the 10,511 available essays from the 1969 wave of the NCDS survey. We used digital transcriptions of the original handwritten essays, produced in 2016–2017 and available at the UK Data Service (Goodman et al., 2017; University College London, 2024). Transcribers faithfully reproduced the original essays character by character, without regard to spelling or comprehension, and using “***” to represent illegible characters. We excluded those that were completely unreadable (e.g., “My Mo** annE**tan my cantcno an my cyachat unuce tanyat an my th” [transcribers inserted “***”]), leaving a final sample of 10,146 essays for analysis.

The NCDS's cohort design ensured that the initial sample was highly representative of those born in the United Kingdom in the late 1950s. Table 1 below reports attrition analyses comparing the demographics of the subsample for whom we had essays to analyze (58% of the initial cohort) to the demographics of the remaining 42%. Note that children's ethnicity was coded by NCDS researchers based on observation, and using a limited set of categories. Note also that children's gender identities were not recorded; we refer to female children and adults as girls and women, and males as boys and men when doing so improves readability.

The sample of children for whom we had analyzable essays very slightly overrepresented boys compared to girls, and according to several measures, it also underrepresented children from lower social class contexts. The differences between the samples were nonetheless quite small, so we proceed on the assumption that attrition does not undermine the validity of our results (though again we will have no empirical basis for generalizing them beyond this specific population of British baby boomers).

Measures

Essays: Children wrote essays at school in response to the prompt, “Imagine that you are 25 years old. Write about the life you are leading, your interests, your home life and your work at the age of 25. (You have 30 minutes to do this).” We used structural topic modeling, described below, to quantify the themes contained in these essays.

Childhood social class context: The NCDS family interview from 1969, the same year as the children wrote essays, gathered markers of social class context (see Table 1 above). We chose to focus our analyses on the father’s and maternal grandfather’s occupation. These were coded in 1970 by the NCDS using the Office of Population Censuses and Surveys [now the Office for National Statistics] 1970 Classification of Occupations, into the following ordinal categories: professional, managerial and technical, skilled (for fathers only, this category was further split into manual and nonmanual), partly skilled, unskilled. Given this large number of categories and their ordinal nature, we assigned the unskilled category a value of 1 and each subsequent category the next integer, for continuous analyses. The other two available markers of class context (whether any child in the family receives free school meals, and whether the family had been “seriously troubled by financial hardship in the past 12 months”) were highly skewed.

Note that we used the maternal grandfather’s occupation, rather than the mother’s occupation, because the latter was less readily interpretable as markers of class context. In 1969, many mothers did not work outside the home (in this subsample, 38% had not worked in the years preceding the interview), and having an employed mother might, in some cases, be a marker of a family’s financial need in and of itself.

Adult outcomes: Just as we did for the themes that might emerge in children’s imagined futures, we sought to avoid top-down assumptions about how these themes might relate to adult outcomes. Therefore, we analyzed adult outcomes across domains: education and employment, wealth and income, sociocultural engagement, family, and health.¹ Essay topics generally did not predict these latter two domains (e.g., their marital status, the care they provide family members, their general health, and their substance use), so rather than overload the main text readers with tables describing their null results, we include them instead the online supplement. For transparency, we also return to these null results in the discussion. Table 2 describes the variables we analyzed in the domains of employment, wealth and income, and sociocultural engagement.

¹ We eliminated some outcomes with exceptionally low variance (e.g., 98.8% of participants reported living in a private residence as opposed to shared or other types of accommodation), with exceptionally low *ns* (e.g., two questions about whether participants’ jobs required qualifications or involved managerial duties had fewer than 300 responses each), or that were particularly narrow (e.g., within the employment category, the number of people employed at their place of work; within the relationship category, when they started living with their current partner; within the health category, specific health issues like types of cancer).

TABLE 2 Adult outcomes items.

Item	Response	<i>n</i>
Employment and education		
Education ^a	5 NVQ levels (see note)	4896
Employed ^b	Yes/No	4957
Unemployed ^c		3871
Occupational category	6 pt scale (see above)	1276
Job security ^d	<i>Very secure / fairly secure / not very secure</i>	3879
Physical work	(1) <i>A sitting occupation</i> to (4) <i>heavy manual work</i>	3925
Job satisfaction ^d	(1) <i>Very satisfied</i> to (5) <i>very dissatisfied</i>	3894
Likelihood of working at the age of 60	0–100	4799
Likelihood of working at the age of 66		4794
Income and wealth		
Gross pay ^e	[figure in GBP]	2807
Net pay ^e		2736
Family income (after tax and deductions) ^e		3603
Managing financially ^d	(1) <i>Living comfortably</i> to (5) <i>finding it very difficult</i>	4963
Owns home ^f	Yes/No	3170
Owns other property		5007
Expected value of property	[figure in GBP]	3819
Debt owed on property		1824
Number of rooms in home	[number]	1217
Number of cars		5010
Sociocultural engagement^d		
Voted in last general election	Yes/no	4808
Play sport or go walking or swimming	(1) <i>At least once a week</i> to (4) <i>never</i>	4968
Go to the cinema		4971
Concerts, theaters, and live performances		4972
Have a meal in a restaurant, café, or pub		4971
Groups, for example, evening class, yoga, keep fit		4971
Local group/voluntary organization meetings		4970
Do unpaid volunteer work		4968
Internet use ^d	(1) <i>Every day/almost every day</i> to (5) <i>less often/never</i>	4969

^aCoded according to the National Vocational Qualifications system (now replaced with the Regulated Qualifications Framework), which allows comparisons between the various educational systems within Great Britain, as well as across academic and vocational qualifications.

^b“Yes” includes employees (paid or self-employed) and “no” includes everyone else.

^c“Yes” includes people who are unemployed; “no” includes everyone else (including those who are homemakers, retirees, on temporary or permanent sick leave, on a government scheme for reemployment, etc.).

^dAnalyses use reverse-scoring such that higher numbers on all these variables correspond to their label (e.g., more job security).

^eParticipants provided a value for income and separately what pay period that value corresponded to (e.g., yearly, monthly, weekly). We calculated weekly incomes from those two variables in combination.

^f“Yes” includes people who own their homes outright or with a mortgage/loan; “no” includes everyone else.

Methodological approach

Our research goal was to examine how the themes present in children's essays were linked with class context indicators from their families of origin and with their outcomes as adults (from the 2013–2014 wave of the NCDS survey). The statistical method we used to identify themes in children's essays is structural topic modeling (STM), an unsupervised machine learning method that finds topics in text data based on groups of words that appear in similar contexts (Roberts et al., 2014, 2019). This method is similar to exploratory factor analysis (EFA) in that it identifies topics based on empirical clusters, rather than researchers' semantic specifications, and thus the topics it finds are independent of researchers' expectations. Unlike EFA, which is intended to be used on closed-ended responses to researcher-generated items, STM is intended for natural language processing of open-ended participant-generated text. Accordingly, although both analyses are based on the comparative strength with which each item (EFA) or unique word (STM) is associated with the factor (EFA) or topic (STM), it is not typically feasible to report these individual loadings for STM because of the sheer number of unique words present in the analyzed corpus.

We conducted standard text preprocessing steps as recommended by the authors of the STM package (Roberts et al., 2014, 2022): removing stopwords (i.e., frequent words that provide little information, like “the,” “is,” and “at”), stemming words (e.g., changing “swimming” and “swimmer” to “swim*”), removing punctuation, removing words that appeared in fewer than 1% of essays. We also removed text appearing within square brackets, which were inserted by NCDS transcribers as generic replacements for proper nouns (e.g., “[street name]” in place of a real street name) or, occasionally, as guesses for illegible words (e.g., “[illegible—football?]”).

We also conducted an additional preprocessing step, after initial STM models consistently identified topics made up of misspelled words (e.g., in one model, a topic whose most frequent words were “hone, werk, wud, bild, mecan, moter, boat”), and these topics tended to be more prevalent among children from lower social class contexts. Our key interest was in the *content* of children's essays, which their spelling mistakes might obscure. For example, the model would treat the misspellings “colledge” or “collage” as completely distinct from the word “college,” and therefore it might identify a topic about higher education that artificially excluded children who struggled with orthography. We therefore, corrected the spelling in all essays, first trying automatic spell-checking algorithms, but ultimately relying on the help of a team of 20 research assistants after we discovered that the algorithms failed to catch frequent errors (e.g., using the incorrect homonym, such as “wood” instead of “would”). The third author checked 10% of each research assistant's work, verifying that they made no changes beyond replacing misspelled words with correctly spelled ones (i.e., that they left content, grammar, word ordering, etc. as it was). To further corroborate the RAs' faithfulness to the original essays, the initial models we ran on the original text corpus and found topics similar to those reported below (we have also provided code for running these initial models on our OSF repository).

Statistical power

Power analyses have not yet been developed for STM, but authors of the *stm* package in R provide two example datasets (*Ns* 351 and 5000) that they note provide adequate sample size (Roberts et al., 2014, 2022). This suggests the 10,146 essays we coded were amply sufficient to reliably identify topics.

Data on class context indicators were available for 7163 children. Data on adult outcomes varied by outcome, but the median N for these analyses was 4804 (range: 1217–5010). In both cases, regressions had over 99.99% power to detect even small effect sizes of $f^2 = .02$.

Results

How many common topics emerged in children's essays?

Following current recommendations (Roberts et al., 2014; Weston et al., 2023) for how to identify the number of topics, we ran STMs (stm package in R; Roberts et al., 2019) ranging from three to 20 topics. We then evaluated their semantic coherence (consistency within topics, Mimno et al., 2011) and their exclusivity (difference between topics, Roberts et al., 2019) by plotting these variables for each model and identifying the model with the fewest topics that were located toward the high coherence, high exclusivity corner of the graph (see SOM). This is comparable to evaluating a scree plot in an EFA to identify the smallest number of factors that maximize explained variance. We also took into account, as one would with EFA, how intelligible the topics were. On these bases, we selected the model with 13 topics.

What were these topics and which did children discuss most?

Table 3 provides each topic's most strongly associated words (word stems), according to the four different metrics that the STM uses (see technical details in Roberts et al., 2019): The raw probability of words belonging to the focal topic (like factor loadings in EFA) and three methods to adjust for the probability of words belonging to other topics (like cross-loadings in EFA). Rather than prioritize just one of these metrics, we followed current recommendations and determined topic labels by synthesizing across all of them (Weston et al., 2023). This step in our analyses was the most subjective, making it the most open to the influence of our own identities. We therefore, engaged in several thoughtful iterations of this process and consulted essays identified by the model as highly representative, in an effort to carefully take the perspective of the children who wrote them. The SOM provides an example of a high-scoring essay for each topic; and also points to a file that includes the top three highest-scoring essays for each topic (and the analysis script on our project page can be easily modified to provide additional high-scoring essays). The SOM also describes additional steps we took to validate our topic labels; we, nevertheless, invite readers to consult these materials and contribute to future discussions about how to interpret the empirical clusters.

On the one hand, these naturally emerging topics underscore the relevance of prior work's focus on class context variables, particularly career and educational aspirations, when studying children's imagined futures. One of the most prevalent topics was one that we read as relating to university. This reading was supported by our perusal of this topic's high-scoring essays (see SOM), but it is possible that other observers, in particular observers who are not themselves so invested in academia, would instead label the topic "interests" or "learning." Less frequent but still clearly present topics indicated an interest in specific career paths like teaching, healthcare, and the military. Similar to the university topic, it is possible that different, and less academically oriented, observers would label the teaching topic differently, for example, as something more inclusive like "performance careers." The correlation between the child's sex and the proportion

TABLE 3 Topics' research-generated labels, prevalence, correlation with child sex (all significant at $p < .01$), and strongly associated words.

Topic label	Percentage, r with child sex (male = -1, female = 1)	Most strongly associated words based on...		
		Raw probability of association with focal topic	Probability of association with focal topic, adjusting for cross-associations with other topics using FLEX method for adjustment	Score method for adjustment
Family	11.3% $r = .20$	Name, year, old, two, marri, girl, children	Name, girl, boy, old, year, twin, call	Photograph, name, blond, oldest, eldest, june, bridesmaid
Routines (boys)	11.2% $r = -.23$	Work, get, car, home, week, day, night	Sunday, saturday, factori, lorri, work, o'clock, offic	Motorcycl, overtim, weld, lorri, diner, pub, canteen
University	10.8% $r = -.03$	Life, interest, time, now, enjoy, quit, job	Lead, univrs, colleg, life, studi, interest, design	Naturalist, degre, publish, compos, extrem, univrs, roman
List style essay	9.2% $r = .15$	Like, lot, thing, nice, want, live, peopl	Like, nice, thing, lot, want, think, differ	Imagin, like, manner, wouldnt, spoil, hair-dress, bee
Earning and spending	8.9% $r = -.12$	Will, get, job, money, hope, might, marri	Will, might, money, shall, buy, hope, dad	Ladder, will, shall, swear, might, probabl, money
Routines (girls)	7.9% $r = .26$	Get, home, bed, tea, dinner, shop, come	Wash, tea, breakfast, dinner, bed, readi, supper	Baker, cornflak, Hoover, dri, steak, mash, salad
Teaching	7.7% $r = .44$	Children, school, teacher, take, husband, sometim, teach	Teach, teacher, class, danc, school, knit, lesson	Actor, browni, classroom, ballet, comedi, needlework, class
Screenplay style essay	7.7% $r = -.02$	Went, got, said, day, came, one, back	Said, went, told, took, came, yes, saw	Note, went, said, repli, policemen, yes, felt

(Continues)

TABLE 3 (Continued)

Most strongly associated words based on...			
Topic label	Percentage, <i>r</i> with child sex (male = -1, female = 1)	Raw probability of association with focal topic	Probability of association with focal topic, adjusting for cross-associations with other topics using FLEX method for adjustment
		FLEX method for adjustment	Lift method for adjustment
Football	5.9% <i>r</i> = -.39	Play, football, team, match, club, wife, game	Team, goal, football, score, match, cricket, won
Travel, boats and land	5.8% <i>r</i> = -.19	Dog, fish, anim, cat, pet, bird, countri	Fish, bird, boat, rabbit, sail, cat, river
Military	5.4% <i>r</i> = -.20	Hors, ride, farm, fli, air, armi, plane	Pilot, plane, fli, stabl, poni, armi, raf
House	5.3% <i>r</i> = -.04	Hous, room, garden, big, one, bedroom, live	Bedroom, bathroom, kitchen, dine, room, front, loung
Healthcare	3.3% <i>r</i> = .20	Nurs, hospit, work, help, peopl, doctor, home	Nurs, hospit, doctor, ward, patient, oper, vet
			Leicest, totenham, leagu, everton, utd, hotspur, goal
			Rod, tropic, trout, nest, snake, boat, guinea
			Bomber, tiger, squadron, saddl, fuel, pilot, phantom
			Tiger, hors, fli, armi, farm, plane, pilot
			Carpent, room, bedroom, garden, kitchen, hous, bathroom
			Fantast, ward, matron, patient, surgeri, nurs, medicin
			Nurs, fantast, hospit, doctor, ward, patient, vet

Note: We report the top-seven words for each topic and each method in descending order.

of the essays corresponding to each topic indicated that the career path topics were gendered (with teaching and healthcare more prevalent among girls, and the military among boys), but that the more general university topic was not.

On the other hand, other topics underscored the utility of our broader approach. Three seemed relevant to aspects of class context that prior work on imagined futures has not captured. One of these involved describing the kind and size of house children pictured themselves living in. Another included words relating to geography and animals; essays scored highly on this topic (see SOM) reflected a combination of children's interests in expensive hobbies like travel and leisure boating and their dreams of owning not only a house but vast tracts of land. A third focused on earning money and spending it (with words like "money," "job," "get," and "buy").

Other topics had little to do with social class. One topic focused on imagined families, often painting vivid and detailed verbal portraits of their spouses and children. Two focused on routines and responsibilities: One described primarily meals and washing, and was more prevalent among girls; the other described work, time, and transportation and was more prevalent among boys. Together, these three topics made up nearly a third of the contents of children's essays.

Another surprisingly common topic seemed to reflect an interest in watching or playing football (soccer, for American readers); this may have something to do with England winning the World Cup for the first, and thus far only, time just 3 years prior. The two final topics were more linked to the style in which children wrote their essays than to their contents, so they fall outside of the scope of our interest and we do not include them in our primary analyses (in any case, they were not consistently linked to children's social class contexts). One involved action words, often describing a day in the child's future life, screenplay style, as opposed to a generally imagined future. The other involved words to do with liking, often drawing up a list of things that the child "would like" to have or do or be in their life as an adult (or that they "would enjoy" or "would be nice").

How did topics vary by children's social class context?

Next, we examined differences in the topics children wrote about, depending on their social class context. Our measures of class context were the father's and maternal grandfather's occupational statuses. Although people do tend to marry others from similar social contexts (indeed, in our sample, father's and maternal grandfather's occupational status were positively correlated at $r = .27$, $p < .001$), the two variables are conceptually distinct: Fathers and mothers (and their respective families) can both contribute, whether materially or culturally, to children's class context. We, therefore, included them as simultaneous predictors in regression models predicting each topic, to avoid, for example, seeing an effect of the maternal grandfather's (mother's) contribution that in reality was explained by its shared variance with the father's. Models included the child's sex as a covariate (1 = female; -1 = male), to account for the variance coming from boys and girls writing about different topics. Table 4 and Figure 1 present the results. Figure 1 shows the extremely similar results of separate analyses for the father's and maternal grandfather's occupational status.

Most topics showed differences based on children's class contexts, similarly for father's and grandfather's occupational status. Note that these status variables were included in a single model, to isolate independent effects. That most of the coefficients for the father's status were so similar to the corresponding coefficients for the maternal grandfather's status increased our confidence that we were observing reliable differences. As another robustness check, the SOM reports results separately for boys and girls. Key results held, with a few gender differences; for instance, class contexts

TABLE 4 Predicting topic proportions from the father and maternal grandfather's social class context.

General theme	Topic	Occupational status					
		Father's			Maternal grandfather's		
		β	SE	p	β	SE	p
Education and career	University	.16	.01	<.001	.08	.01	<.001
	Teaching	.04	.01	<.001	.00	.01	.876
	Healthcare	.01	.01	.382	.03	.01	.018
	Military	.05	.01	<.001	.04	.01	<.001
Wealth and income	House	.02	.01	.056	.00	.01	.829
	Travel, boats, land	.03	.01	.008	.03	.01	.017
	Earning, spending	-.07	.01	<.001	-.05	.01	<.001
Daily life	Family	-.04	.01	.001	-.03	.01	.004
	Routines (boys)	-.04	.01	.002	-.04	.01	<.001
	Routines (girls)	-.05	.01	<.001	-.04	.01	<.001
	Football	-.04	.01	<.001	-.00	.01	.920

Note: All predictors were entered simultaneously. Coefficients significant at $p < .05$ are in green (if positive) or red (if negative).

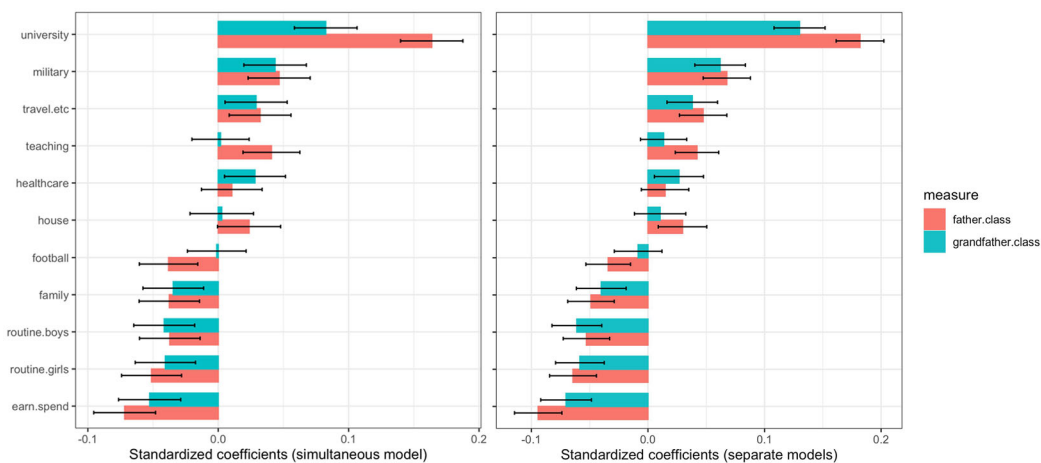


FIGURE 1 Standardized regression coefficients predicting topics from father and maternal grandfather class context, controlling for sex, sorted by size of coefficient for father's occupational status in the primary model. Error bars are 95% CIs. The lefthand graph shows results from the primary model (including the two predictors simultaneously); the righthand graph shows results from two secondary models (each predictor in a separate model).

[Color figure can be viewed at wileyonlinelibrary.com]

were more robustly related to the gendered routine topics among children of the corresponding sex.

Imagined futures: social class contexts: Children with fathers and grandfathers with higher, compared to lower, status occupations painted a different picture of their future class context. In terms of education, those in higher class contexts wrote more about university; in fact, this was the largest class difference we found. In terms of specific careers, essays by children in higher class

contexts more frequently indicated an interest in the military, and to a lesser degree healthcare and teaching (these latter effects only held for one of the two class context variables).

In terms of wealth and possessions, children in higher class contexts also more frequently discussed expensive hobbies topic (travel, boats, and land), and to a lesser degree houses (this effect was only marginal, and only for the father's occupational status). Conversely, children whose fathers and grandfathers had lower-status occupations were more likely to directly discuss earning and spending money.

Synthesizing across these findings, children in higher class contexts imagined specific careers and educational pathways, as well as the lifestyle (hobbies and perhaps houses) that their income might afford them. It is possible that children in lower-class contexts also imagined specific careers for themselves, but with more diversity such that their aspirations did not coalesce into frequently observed topics. In any case, these children did imagine futures where they had jobs, which they often discussed in relation to their plans for making and spending money. This way of thinking about one's financial future has received less attention in the literature than aspirations toward specific career and educational attainments. Our findings thus help balance out the skewed portrayal offered by prior work, which could be taken to imply that only children in higher-class contexts spend time thinking about their financial and professional futures.

Imagined futures: other domains of life: Children in higher compared to lower social class contexts also placed different emphases on their family and everyday lives. Children whose fathers and grandfathers had lower-status occupations spent more time discussing their marriage and children, as well as their daily routines and responsibilities. This is consistent with research on adults showing that people raised in lower-class family contexts tend to have more interdependent cultural orientations, focusing on fitting in with others, prioritizing relationships, and fulfilling relational obligations and duties. In contrast, those from higher-class family contexts tend to have more independent cultural orientations, focusing on standing out, prioritizing individual goals, and developing a unique identity. To our knowledge, this is the first evidence supporting this theorized social class culture difference using an entirely bottom-up method.

Topics predicting adult outcomes

A final set of analyses treated children's imagined futures as predictors of their actual adult lives, net of their childhood social class context. Specifically, we examined the partial correlations between adult outcomes and the proportion of children's essays devoted to each topic, controlling for child sex and both occupational status variables (see Tables 5–7). Because adult income variables were skewed, we log-transformed them. Crossing 11 topics by 28 adult outcomes yielded 308 correlations; standard significance thresholds (p of .05) on this large number of tests would be expected to produce around 15 false positives. We, therefore, used Benjamini and Hochberg's 1995 correction, and only interpreted correlations $>|.05|$ (shaded in pastel in tables; those $>|.10|$ are shaded in bright colors).

Adult education and employment (Table 5): The same essay topics that were tied to childhood class contexts were also tied in the same direction to adult education and employment. Children who wrote about university in their essays ended up with higher levels of education, and with jobs that were higher status and less physical—all markers of higher class contexts. Children whose essays pointed to an interest in particular careers had some of these same outcomes: Those who wrote about teaching were more educated and had higher-status jobs; those who wrote about

TABLE 5 Partial correlations between each topic and education/employment outcome, controlling for gender, and father's and maternal grandfather's social class context.

	University	Military	Healthcare	Teaching	House	Travel, boats, land	Earning, spending	Football	Family	Routine (boys)	Routine (girls)
Education	.17***	.05***	.05***	.08***	-.01	.04**	-.10***	.00	-.05***	-.10***	-.07***
Employed	.02	.02	-.04**	.03*	-.01	-.01	.01	.04**	-.02	-.01	-.02
Unemployed	-.02	.03*	.02	.01	.00	.01	-.01	-.04**	.04**	-.01	-.01
Occ. category	.14***	-.07*	.03	.07*	.01	-.06*	-.08**	.02	.02	-.01	-.06*
Job security	-.04*	.00	.02	-.02	-.04*	-.01	.06***	-.03	.02	-.02	.02
Physical work	-.15***	.01	-.01	-.02	-.01	.01	.09***	-.01	.04*	.05**	.02
Job satisfaction	.01	-.02	-.01	.04*	.00	-.01	.03	-.04*	.02	.00	.00
Work at 60	.01	.02	-.04**	.03*	.00	-.01	.00	.01	.01	.02	.00
Work at 66	.01	.06***	-.01	.00	-.01	.01	-.01	-.01	.01	.01	-.02

Without Benjamini and Hochberg's correction,

* $p < .05$, ** $p < .01$, *** $p < .001$.

TABLE 6 Partial correlations (absolute value) between each topic and income/wealth outcomes, controlling for gender, and father's and maternal grandfather's social class context.

	Travel,											
	University	Military	Healthcare	Teaching	House	boats,	land	Earning,	Football	Family	Routine	Routine
								spending			(boys)	(girls)
Gross pay	.09***	.00	.06**	.02	.00	.01	-.06**	.01	-.02	-.06**	-.06**	-.06**
Net pay	.10***	-.01	.03	.03	.00	-.01	-.06**	.03	.00	-.04*	-.04*	-.03
Household pay	.05**	-.05**	.03	-.01	.03	.02	-.02	-.01	-.02	-.02	.02	-.04*
Managing financially	.00	.00	.01	.00	.00	-.01	.02	-.01	-.06***	.02	.02	-.01
Owens home	.03	.01	-.01	-.01	.03	-.01	-.05**	.01	-.04*	.00	.00	.01
Own other property	.02	.02	-.01	-.01	.02	.03*	-.03*	-.03*	.04**	.00	.00	-.02
Value of property	.08***	.00	-.01	-.01	.01	-.01	-.04*	.00	-.01	-.01	-.01	-.01
Debt on property	.03	.04	.00	-.02	-.03	-.03	.01	.00	-.01	-.01	-.01	.01
# rooms	.05	.00	.01	.06*	-.07*	-.08**	.01	.04	-.03	.08**	.08**	-.03
# cars	-.06***	.04**	-.03*	-.01	.02	.02	-.01	.00	-.03*	.00	.00	.03*

Without Benjamini and Hochberg's correction.

* $p < .05$, ** $p < .01$, *** $p < .001$.

TABLE 7 Partial correlations (absolute value) between each topic and activity outcomes, controlling for gender, and father's and maternal grandfather's social class context.

	University	Military	Healthcare	Teaching	House	Travel, boats, land	Earning, spending	Football	Children	Routine (boys)	Routine (girls)
Voted	.07***	-.01	.00	.05**	.01	.02	-.06***	.01	-.03*	-.01	-.02
Exercise	.02	-.02	.00	.01	-.02	.04**	-.04**	.03*	-.02	-.02	-.02
Cinema	.06***	-.01	.02	.04**	.01	.00	-.04**	-.01	-.02	-.04**	-.04**
Performances	.10***	.00	.01	.04**	.02	-.02	-.04**	.00	-.06***	-.05***	-.04**
Eat out	.01	-.02	-.01	.03*	-.01	-.05***	-.04**	.04**	-.02	.01	.01
Groups	.05***	-.02	.01	.02	.01	-.01	-.03*	.01	-.04**	-.02	-.05***
Org meetings	.08***	.02	.03*	.01	.01	.05***	-.02	-.06***	-.04**	-.04**	-.03*
Volunteer	.12***	.00	.05***	.00	-.01	.06***	-.03*	-.06***	-.04**	-.01	-.05***
Use internet	.09***	.03*	.00	.03*	.00	.00	-.11***	.01	.00	-.03*	-.02

Without Benjamini and Hochberg's correction,

* $p < .05$, ** $p < .01$, *** $p < .001$.

healthcare and the military might have been more educated (though those associations were very small).

Conversely, children who wrote about earning and spending in their essays showed the opposite pattern: They tended to end up with less education, and with jobs that were lower status and more physical (though with more job security). Children who wrote more about their (gendered) daily routines and responsibilities had some of these same outcomes: They tended to receive less education, and—if they wrote about stereotypically feminine routines—had lower-status jobs.

Notably, these analyses controlled for childhood class context (both father's and maternal grandfather's occupational status). Thus, the matching pattern we observed may reflect something above and beyond a correlation between childhood and adulthood class contexts (Chetty et al., 2017; Corak, 2006): There may be something unique about imagining a future involving higher education (particularly common among children in higher class contexts), or a future centered around concrete plans to make money and follow daily routines (particularly common among children in lower class contexts)—that correlates with adult outcomes some 44 years later.

Adult income and wealth (Table 6): The associations with income, though less so with wealth, tended to mirror the ones with education and occupation. Children who wrote about the university (and perhaps about healthcare, but not about the military or teaching) earned more money, whereas those who wrote about routines and responsibilities and (ironically) money earned less of it. The associations with wealth were not consistent (and note that the number of rooms was missing for around three-quarters of the adult sample Table 2 above; this could account for some inconsistency in that outcome). This may be because wealth even more than income can be directly determined by family background, for example, in the form of inheritances; if there might be less room for imagined futures to play a role.

Adult sociocultural engagement (Table 7): Participants whose childhood essays referenced university (and teaching, though these associations were very small) tended to be more engaged in the kinds of sociocultural activities the survey asked about. Participants were less engaged if their childhood essays referenced money-making, as well as routines and responsibilities, though these associations were generally very small.

We note that some of these engagement activities may be ones that exclude people with less access to time (e.g., volunteering) and money (e.g., attending artistic performances). We, therefore, hesitate to draw conclusions about sociocultural engagement at a conceptual level. There may be more accessible forms of engagement, activities that the NCDS did not ask about—such as visiting libraries or community centers, meeting regularly with extended family, or religious participation—that children who did not write about university were more likely to partake in as adults.

Similar to earlier analyses, the SOM reports results predicting adult outcomes separately for men and women. Key results held, with inconsistent gender differences. For example, women's income was more closely (and negatively) tied than men's to how much their girlhood essays had described a male-stereotypic routine.

GENERAL DISCUSSION

In this research project, we took a novel, bottom-up approach using a large dataset to understand how children in different social class contexts imagine their futures. We used a machine learning algorithm to extract common topics that emerged organically across thousands of children's essays, finding that children express vivid and detailed pictures of their imagined futures. Chil-

dren wrote about a variety of career and educational aspirations (e.g., higher education, careers in healthcare and teaching, joining the military, how they would earn and spend money), but also about their family and home life (e.g., the families they would have, their routines, and responsibilities) and their hobbies (e.g., travel and football).

Before delving into our specific findings, we note that one of our contributions is to introduce this methodological approach, developed by others (Roberts et al., 2014, 2022), to scholars of inequality and social class. Along with many other tools under the expanding umbrella of natural language processing, it can be used to analyze textual data ranging from 140-character tweets to entire essays. It can be used on text that researchers directly elicit—in writing or orally (if it is then transcribed)—from participants, or that they retrieve from pre-existing sources. This promises advances in the understanding of the psychology of social class because it can generate ideas that do not rely on researchers, who almost by definition occupy positions of privilege, or on interviews with informants, which are typically limited in number. Of course, researcher or informant input is required at the stage of labeling the topics, and we remind readers again that our results should be read with that subjectivity in mind. For example, perhaps as academics, we were eager to identify academic topics. Other readers might choose different labels and interpret our findings accordingly.

How children from different class contexts imagine their futures

We examined how imagined futures differed for children who grew up in higher versus lower social class contexts. Results were consistent with past research that found children from higher class contexts imagine and aspire to similar contexts in their futures (Howard et al., 2011; Moulton et al., 2015; Yates et al., 2011): They were more likely to imagine attending university, and tended to describe specific careers (although as noted above, it is possible children in lower class contexts did this too, across a broader range of careers that did not cluster together into a recognizable topic). Building beyond this past research, we also found that children in higher-class contexts imagined more expensive lifestyles, describing traveling and boating hobbies and perhaps houses, while children from lower-class contexts spent time describing their plans for managing money.

Results were also consistent with theorizing about social class as culture (Carey & Markus, 2017; Dietze & Knowles, 2016; Stephens et al., 2012, 2014). Children from working-class contexts were more likely than those from higher-class contexts to imagine their future in terms of everyday roles and responsibilities, and relationships with close others, consistent with an interdependent cultural orientation. Our findings also connect to work on how financial strain orients people toward immediate and concrete needs (Buzan & Sheehy-Skeffington, 2024; Duffy et al., 2012): Consistent with those ideas, children from lower-class contexts were more likely to emphasize concrete routines and plans for money management. However, children from higher class contexts were just as concrete in other ways, describing specific careers and hobbies they might pursue. Future research might investigate whether this points to a differential emphasis on ought selves with their associated responsibilities and obligations, versus ideal selves and their associated desires and dreams (Higgins et al., 1994), among children from different class contexts.

It is also worth noting that our results were remarkably robust: They emerged across markers of two different contributors to children's social class contexts Their father's occupational status and their maternal grandfather's occupational status. These two variables predicted the contents of children's essays in nearly identical ways, even when their shared variance was controlled. In other words, we can say on the basis of two separate and nonoverlapping associations that,

for example, having a parent from a higher class context was linked to children writing more about university and less about spending. This might suggest that to fully understand how class contexts influence children's outlook on their futures, it is helpful to incorporate information about multiple generations of their family.

How imagined futures predict adult outcomes

We also examined how children's imagined futures predicted their outcomes as adults, using data from participants at age 55, the farthest time point since they wrote their essays at age 11, and controlling for both father's and grandfather's occupational status to reduce the influence of the known association between childhood and adulthood class context. Results were particularly consistent and robust for socioeconomic outcomes. Children with higher educational aspirations and specific career plans for their futures were more likely to achieve higher educational degrees, higher-status occupations, and higher incomes. In contrast, children who wrote about routines, and about earning and spending money, were less likely to achieve these higher-status outcomes. Results detailed in the online supplement also found that children who wrote more about earning money, and less about university, tended to have more children and grandchildren. However, the themes present in children's essays did not otherwise predict their family outcomes (e.g., whether they married, how much time they spent helping their parents) or their health outcomes (e.g., their substance use or general health).

We did not systematically test whether these associations between essay themes and adult outcomes were moderated by children's social class contexts (see Park et al., 2024). Our open data is ripe for such an investigation. Out of curiosity, we examined a few specific cases, focusing on the university topic and its links with educational and wealth outcomes, and generally did not find that these links varied by class context. In fact, our limited exploration identified only one case of moderation by class context, in the direction *opposite* to that identified by Park and colleagues: Children who wrote about university in their essays attained higher education and this was even *more* true for children from lower class contexts. The present data is a rich and varied one in which to explore hypotheses about when and why aspirations may matter more for outcomes among children from higher versus lower class contexts.

Social class and its intersections

The dataset we used did not permit us to examine the intersection of class contexts and race or ethnicity. Among the thousands of children for whom we had essays, only 192 fell outside the category "White" (though recall that children's categorization was based on researchers' appearance-based assumptions). This subsample had substantially reduced statistical power: 95% power to detect $|p|$ of .25, and 80% power to detect .20—both of which are larger than any of the significant effects we report in this manuscript. Analyzing it would, therefore, likely result in both Type-1 and Type-2 errors, making results essentially uninterpretable.

We were, however, able to examine the intersection of class contexts and gender. Boys and girls wrote about different themes, but we observed remarkable consistency in how these themes varied with their class context. For example, even though boys tended to write more about earning and spending, children of both genders wrote more about this topic if their family's social class context was relatively low. Likewise, as adults, these children experienced different outcomes, but again

these were linked in similar ways to their essay topics. For example, both boys and girls who wrote about university became adults who achieved higher levels of education. Across our large number of analyses, we did observe a small number of differences; the SOM presents the full results for the benefit of future research.

Implications

These results have both theoretical and applied implications. On a theoretical level, they support the idea that people raised in working-class family contexts are more likely to learn interdependent cultural norms, viewing themselves in terms of their roles, duties, and obligations, as children from these environments were more likely to imagine their futures in terms of their family, chores, routines, and how they would make money. To our knowledge, this is the first study to arrive at this conclusion from a bottom-up method. It is notable that our modern psychological theories developed by observing (mostly American) adults can make sense of bottom-up data from children born in 1958 in the United Kingdom. This does not indicate that these theories are definitely universally applicable, but our findings at least hint at a degree of generalizability.

On an applied level, consider the observation that, even at a young age, children from lower-class contexts have money on their minds, and imagine their futures by considering how they will earn and spend it. Career guidance should take this into account: Learning at a young age about ways to make university more affordable, and providing concrete information about the earning potential of different career options, may help students make the best decisions for their circumstances. On a policy level, making university more affordable, and providing more ways for students to earn money while they learn, could make it more attractive to students from lower-class contexts. Another policy implication is that schools and teachers should consider how they can avoid constraining or stifling children's aspirations about their futures (see Buzan & Sheehy-Skeffington, 2024) because these aspirations predict adults' actual outcomes. For example, educators might make role models and opportunities more available for children from working-class contexts. However, policies that target only psychological factors like aspirations without addressing socioeconomic inequalities in resources are likely to have limited success (Park et al., 2024). Directly redistributing resources and reducing poverty might both increase children's aspirations *and* their ability to pursue those aspirations.

Limitations

Though the bottom-up method we used here is useful in that it allows researchers to identify topics within essays without having to specify them a priori, meaning that topics could emerge without us having expected them, it also has its limitations. For one, we had to use some subjectivity in labeling the topics. In some cases, this was more challenging than others. Future research could take our interpretations—or alternative interpretations—of the topics, and develop top-down methods to assess them. At the same time, they would have to update some of the topics to retain the same cultural significance. For example, the specific careers that children commonly imagine for themselves might have changed over time, and be different in different cultures. The way children describe their daily routines likely differs as well, as might the exact nature of the gender division.

This reflects another limitation of our work, in that the data we used, though an incredibly rich source of detailed, longitudinal observations, are from a specific time and place. We cannot know whether results would generalize to contexts outside of the 20th-century UK, and indeed it seems likely that some would not. To return to the example of the military topic, it seems likely related to the fact that these children's parents lived through World War II. At the same time, many of the general patterns correspond well with modern research, for example, with higher children from higher-class contexts imagining similar future contexts, and children from lower-class contexts imagining futures that reflect a more interdependent cultural orientation. Future work could examine whether results replicate in more modern samples and in different cultures, but it is challenging to solve the basic problem inherent to these types of longitudinal analyses: By the time we know how one cohort of children turned out as adults, contemporary children will be living in a very different world. Moreover, because these data are correlational, we certainly cannot conclude, for example, that imagining a future with education *caused* children to pursue higher education.

CONCLUSION

Children have vastly different imaginations of how their futures will turn out, particularly in terms of their socioeconomic outcomes. For example, one child wrote, "I would of course be hoping to successful in my future career and earn sufficient money, not too much and not too poor either," while another wrote "My ambition is to be the richest man in the world and buy my own island and build a city on it." Our bottom-up analyses demonstrate that children also have specific, detailed imaginings of other aspects of their futures, like their families, routines, homes, and sports. These imagined futures differ based on children's social class context, and they predict their future outcomes as adults.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

DATA AVAILABILITY STATEMENT

This analysis of public data required no ethical approval or patient consent, though consent was obtained by the original research team.

POSITIONALITY STATEMENTS

K.L. is a Canadian White woman who received more education and is financially more comfortable than both of her parents, who each experienced social class mobility in different directions. Her interest in the psychology of social class comes in part from observing cultural differences across her extended family. She has no personal experience with poverty, or with anything that would help her interpret the aspirations of any British child in the late 1960s, regardless of their social class context.

H.R.E. is a Canadian White woman from an upper-middle social class family. Her personal experiences with the clash between upper- and working-class cultures when working minimum-wage jobs while attending university motivated her interest in understanding social class cultural differences. Her Western academic training and desire to apply new statistical methods influenced the machine learning approach used in this manuscript.

M.H. is a Chinese female who grew up in an upper-middle-class family in Mainland China and pursued higher education in Canada and the United States. Her parents, originally from working-class backgrounds, experienced significant upward social mobility during China's extensive economic and societal reforms that began in the 1980s. The opportunity to pursue higher education was crucial for their success, allowing them to substantially improve their socio-economic status—a common experience among their generation. Growing up in this transformative era, MH was instilled with a deep appreciation for education, social mobility, and the potential for individuals to fundamentally change their lives.

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