RESEARCH ARTICLE

Incongruence between parental and adolescent educational aspirations hinders academic attainment

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Previous research has shown that parental educational aspirations for their children are an important predictor of children's academic attainment. However, recent studies have pointed to potential negative effects, in particular if there is a mismatch between parental educational aspirations and the aspirations of their children. This study examines (1) the role of socio-demographic and school achievement—related factors in shaping a potential (mis) match between parental educational aspirations and the aspirations of their children, and (2) whether incongruence between parental and their children's educational aspirations hinders academic attainment in times of social change. We use data collected for the 1970 British Birth Cohort Study (BCS70) and Next Steps (formerly known as the Longitudinal Study of Young People in England), a cohort of young people born in 1989/90. We find that in both cohorts socio-demographic and achievement—related characteristics are associated with incongruent aspirations, and that incongruent aspirations between parents and their children are associated with a decreased likelihood of participating in and completing higher education. The study contributes to current debates regarding the causes and correlates of discrepancies in educational aspirations and how such discrepancies affect later life chances.

Key words Educational aspirations • incongruence • parental support for education • academic attainment • social inequality • social change

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Introduction

Parents are central in the intergenerational transmission of career-related values and behaviours. Previous research has shown that in addition to the educational aspirations

of young people, the educational aspirations of their parents for them are crucial predictors of educational (Eccles and Wigfield, 2002; Yamamoto and Holloway, 2010; Reynolds and Kirkpatrick Johnson, 2011; Villarreal et al, 2015) and occupational attainment (Sewell et al, 1970; Heckhausen et al, 2013; Kirkpatrick Johnson and Reynolds, 2013). The associations are robust, even after controlling for parental social background and children's prior academic attainment (Duckworth and Schoon, 2012; Schoon and Lyons-Amos, 2017), and it is generally assumed that high parental aspirations can boost their children's motivation and attainment (Baker et al, 2014; Sommerfeld, 2016; Mortimer et al, 2020). Indeed, raising the aspirations of young people and their parents is a key target of a number of UK government initiatives aiming to improve student's academic attainment and social mobility (St. Clair et al, 2013; Berrington et al, 2016; Harrison and Waller, 2018).

There might however also be potential negative effects of overambitious parents, in particular if high parental education aspirations are not aligned with those of their children (Yamamoto and Holloway, 2010; Murayama et al, 2016; Trinidad, 2019) or, vice versa, if children have higher educational aspirations than their parents have for them, as may be the case for instance during periods of educational expansion. While the effects of high educational aspirations on later attainment are well studied, there is less attention to the match between parental and children's aspirations. The central aim of this study is thus to examine the role of (mis)matched educational aspirations between parents and their children (measured during adolescence) as predictors of children's later academic attainment. We focus on educational aspirations expressed when children are 16 years old (i.e., when important decisions regarding future education participation are made), staying in education past compulsory school leaving age, and educational attainment by age 26.

Moreover, there is a lack of understanding of how incongruent or congruent educational aspirations among parents and their children are formed. Hence, another aim of this study is to analyse the extent to which socio-demographic background, children's prior academic achievement and school motivation influence the manifestation of (in)congruent aspirations. While social inequalities in educational aspirations are well studied, there is still a lack of understanding of the extent to which socio-demographic background influences the manifestation of incongruent aspirations among parents and their children (also see Smyth, 2020). Moreover, children's academic achievement and their school motivation – a drive that compels individuals to goal-oriented action in the field of schooling (Covington, 2000) – might shape educational aspirations both among children themselves and among their parents and must be included in any pertinent analysis, as these factors might shape not only parents' and their children's aspirations but also (in)congruence in parental and children's educational aspirations.

Another aspect to be considered is socio-historical change, because the major educational expansion since the 1990s might have influenced the links between social background and aspirations to participate in higher education (Reynolds and Kirkpatrick Johnson, 2011; Mortimer et al, 2020). Thus, we assess experiences in two British age cohorts born in 1970 and in 1989/1990, respectively, to ascertain whether the relationships between (in)congruent aspirations and educational attainment are generalisable despite socio-historical change.

The study is guided by socio-ecological expectancy-value models of academic achievement (Eccles and Wigfield, 2002; Schoon and Heckhausen, 2019),

taking into account both structural and individual-level influences on human development and attainment and the role of a changing social context. The next sections discuss previous psychological and sociological research on educational aspirations and attainment in times of social change, before describing the study and its results.

Social inequality in educational aspirations and attainment

Regarding the conceptualisation of achievement motives, a differentiation has been made between educational aspirations and expectations. Both concepts refer to the anticipation of potential future attainment and are often used interchangeably. Within the psychological (Lewin et al, 1944) and the sociological literature (Haller, 1968) a differentiation has been made between 'realistic' and 'idealistic' aspirations, where idealistic aspirations refer to one's wishes and hopes for the future, while realistic aspirations refer to the more realistic evaluation of what is possible to achieve given existing constraints. Yet even hopeful wishes, or preferences, are already shaped by socio-economic constraints and are carefully negotiated within processes of circumscription and compromise (Gottfredson, 1981).

Parents and children from relatively disadvantaged backgrounds are facing greater social, economic and cultural challenges when developing ambitious educational goals (Berrington et al, 2016; Burger, 2019), and it has been argued that their 'horizon of perceived possibilities' tends to be foreshortened (Schoon and Heckhausen, 2019). They tend to express lower education aspirations than their more privileged peers (Chowdry et al, 2011; Duckworth and Schoon, 2012; Johnson and Hitlin, 2017; McCulloch, 2017; Mortimer et al, 2020; Smyth, 2020), and young people from less-privileged families are less likely to apply to university, and ultimately to enrol in and complete tertiary education (Kirkpatrick Johnson and Reynolds, 2013; Schoon and Lyons-Amos, 2017).

According to the sociological status attainment model (Sewell et al, 1970) parental educational aspirations for their children and the educational aspirations of their offspring are considered to mediate the influence of family background on the children's attainment. Specifying the underlying psychological processes in more detail, the expectancy-value model of achievement motivation (Eccles and Wigfield, 2002; Eccles et al, 2004) describes how parents instil in their children perceptions about the value of education and their ability to achieve, partly via their own aspirations about the level of education that their children can achieve. Parental aspirations for their children are shaped by the socio-economic context and constraints they are experiencing, as well as the academic performance, preferences and school motivation of their children, which in turn shape the educational aspirations and goal-directed behaviour of their children (Schoon, 2010; Gutman et al, 2012). Overall, relatively privileged parents have more financial, social and cultural resources to support the education of their children (Berrington et al, 2016; Burger and Walk, 2016; Burger, 2019; Schoon and Heckhausen, 2019), and spend more time communicating with their children and assist in learning related efforts (Conger and Donnellan, 2007). Children whose parents have high educational aspirations for them generally have higher levels of academic motivation and are more likely to continue in higher education than children whose parents do not (Bandura et al, 1996; Eccles and Wigfield, 2002).

Mismatched aspirations

Young people and their parents are not always in agreement regarding higher education participation. For example, a study comparing the educational aspirations of young people in Britain born in 1958, 1970 and 1989/90 and those of their parents found that in the latter-born cohort the aspirations of the young people themselves are higher than those of their parents, which has been interpreted as a consequence of educational expansion (Schoon, 2010). Discrepancies between a young person's own educational aspirations and those that their parents hold for them might have negative implications for later attainment, since young people are dependent on their parents for financial, social and emotional support in their educational careers and in making the school-to-work transition. Parental educational aspirations that are lower than those of their children ('under-ambitious' parents) may be associated with increased levels of strain, suggesting to the young person that their parents do not believe in them or do not want to support them (Almroth et al, 2019) which in turn might be associated with subsequent floundering. In contrast, parental educational aspirations that exceed those of the children ('overambitious' parents) may lead to excessive pressure to achieve and can increase the risk of negative outcomes (Baumeister, 1989), although some pressure from parents for their children to achieve may healthily challenge students (Cherng and Liu, 2017). Moreover, taking into account the reciprocal relationships between parental aspirations, their children's aspirations, and adolescents' academic achievement (Zhang et al, 2011), evidence suggests that in a scenario where the young and academically capable person expresses higher educational aspirations than their parents, the young person might 'push to achieve', despite parental concerns about their capabilities, their lack of knowledge about how to navigate the landscape of higher education, or concerns about associated costs.

The few studies examining the congruence between parental educational aspirations for their children and children's own aspirations used different operationalisations of incongruence and addressed different outcomes. For example, one study assessed the association between parental and adolescent educational expectations during the transition to secondary school in Ireland (Smyth, 2020); other studies addressed the reciprocal relationships between parental and adolescents' expectations and their association with academic achievement during secondary school (Zhang et al, 2011); the influence of parental over-aspirations (measured as the mismatch of parental educational aspirations and expectations) on academic attainment in secondary school in a local community sample (Murayama et al, 2016); the mismatch of parental aspiration and child expectations and their impact on educational attainment among US high school students (Trinidad, 2019); and the influence of mismatched parental and child expectations on the child's mental health (Almroth et al, 2019) and academic achievement (Wang and Benner, 2014). The studies used different approaches, yet all point to potential negative educational or health outcomes associated with parental overambitiousness. Likewise, low parental educational expectations are also associated with less beneficial outcomes, indicating a lack of support and encouragement (Almroth et al, 2019; Trinidad, 2019). So far, there is no evidence to suggest beneficial effects of incongruent aspirations. Thus, mismatched parental and child education aspirations are expected to be associated with poorer educational outcomes, notably a higher probability of leaving full-time education at age 16 and of not obtaining a university degree.

The role of socio-historical context

The socio-ecological expectancy-value model recognises that aspirations are shaped by environmental cues, including institutional structures and constraints associated with social position that circumscribe the horizon of perceived opportunities among parents and their children (Schoon and Heckhausen, 2019; see also Burger et al, 2020), as well as the wider socio-historical context and predominant zeitgeist where higher education participation is increasingly considered the norm (for example, Rosenbaum, 2011; Schoon and Bynner, 2019). Currently most young people in the Global North are striving to obtain a degree-level qualification, a phenomenon characterised by the notion 'college for all' (Rosenbaum, 2011). Indeed, it has been argued that aspirations for higher education participation have become the norm for all, irrespective of social background and actual academic capability (Rosenbaum, 2011). Moreover, research from the US suggests that parental aspirations for their children have increased since the 1990s - and remain significantly associated with their children's aspirations for the future (Mortimer et al, 2020). Although the association between parental socio-economic status and achievement orientations has diminished since the major educational expansions in the 1990s, it has not disappeared (Goyette, 2008; Schoon, 2010; Reynolds and Kirkpatrick Johnson, 2011; Kirkpatrick Johnson and Reynolds, 2013). Even after controlling for academic achievement, young people from less-privileged backgrounds tend to express lower educational aspirations than their more privileged peers (Duckworth and Schoon, 2012; Johnson and Hitlin, 2017; McCulloch, 2017) and are less motivated in school (Schoon, 2014). Educational aspirations have become less closely linked to educational attainment in high school (Reynolds et al, 2006), although educational goals continue to predict college enrolment (Eccles et al, 2004) and long-term educational and occupational attainments (Reynolds and Kirkpatrick Johnson, 2011). However, students whose parents have a degree-level qualification are more likely to attend university than those of non-college-educated parents (Goyette, 2008; Schoon et al, 2021).

Overambitious aspirations might be more prevalent among more recent cohorts of young people, given the considerable increase in higher education participation since the 1990s. For example, while in the mid-1980s just over 10% of young people in Britain were continuing in higher education, by the year 2000 roughly 30% were getting a degree (Finegold, 2010), increasing to 50% by 2015 (Schoon and Bynner, 2019). This study draws on two age cohorts, the British Birth Cohort Study (BCS70) which follows people born in 1970, and Next Steps (formerly known as the Longitudinal Study of Young People in England), a cohort of young people born in 1989/90. While the 1970 cohort completed their compulsory education before the onset of the massive education expansion in Britain, which took place during the 1990s (Finegold, 2010), the 1989/90 cohort did so after its onset. Moreover, between 1962 and the 1990s higher education in Britain was effectively free, as the state paid direct grants to universities, covering students' tuition fees and also offered maintenance grants to many. In 1998 university fees were introduced at £1,000 per year by the then Labour Government, intended as 'top-up' fees supplementing direct state grants. In 2004 fees were raised to £3,000 and converted into loans that are repayable on an income-contingent basis. In 2010 university finances were transformed again, raising tuition fees to up to £9,000 per year, largely replacing direct state grants. These changes considerably increased the costs of higher education

participation, and currently the average student in England will graduate with debts of about £50,000.

In addition, the meaning of higher education has changed. As the number of graduates increases, the value and prestige of a degree-level qualification decreases. A degree-level qualification is generally considered as a requirement for entering a well-paid professional job. However, although earning returns to a degree are still high, there are increasing numbers of graduates who are overqualified for the jobs they are doing (ONS, 2019). A degree-level qualification thus seems to be no longer a guarantee for a professional job, although it still increases the chances of employment and potentially creates an advantage when competing for well-paid non-graduate jobs. To what extent have these changes affected the occurrence of (mis)matched educational aspirations, the association between social background and incongruence in aspirations, and the association between incongruent parent-child aspirations and later educational attainment? As far as we know, there are as yet no studies examining how family socio-economic status might influence incongruence in educational aspirations in times of social change, and whether (in)congruent parent-child aspirations predict educational attainment both before and during educational expansion.

The current study

The objective of this study is to close the above-mentioned evidence gaps. The main focus lies on (in)congruence in educational aspirations between parents and their adolescent children. The study seeks (1) to assess the role of socio-demographic background, academic achievement and school motivation as predictors of (in) congruent educational aspirations among parents and their children, and (2) to gauge the role of (in)congruent aspirations as predictors of later attainment. Mismatched aspirations might be more prevalent among less-privileged families due to lack of knowledge and information regarding the requirements of higher education, or lack of financial resources to support the educational ambitions of one's offspring. Generally, relatively privileged parents have more financial, social and cultural resources to support the education of their children (Burger and Walk, 2016; Berrington et al, 2016; Burger, 2019; Schoon and Heckhausen, 2019), and spend more time communicating with their children and assist in learning related efforts (Conger and Donnellan, 2007). On the other hand, less-privileged parents might want to signal to their children how much they value higher education, or how much they believe that their children can achieve, even if their children do not expect to continue in higher education. Given the lack of previous evidence, we assume that both scenarios occur.

Moreover, the study considers the role of historic influences by investigating two age cohorts who completed their compulsory education either before or after the onset of the massive education expansion. Drawing on nationally representative samples of young people born in 1970 and 1989/90 respectively, following their lives from secondary school to age 25/26, enables us to assess generalisability of findings across a changing landscape of educational opportunities. This is the first study to examine how (in)congruent educational aspirations between parents and their children are formed and whether there are potential negative effects of mismatched educational aspirations on young people's later educational attainment in times of social change.

Data and methods

The analyses are based on data from the 1970 British Cohort Study (BCS70), and Next Steps (formerly known as the Longitudinal Study of Young People in England: LSYPE). BCS70 comprises data collected from a large nationally representative sample of more than 16,000 individuals born in single a single week in 1970 who have been followed from birth to adulthood, using personal interviews and self-completion questionnaire. Data for BCS70 were collected at birth and when the cohort members were aged 5, 10, 16, 26, 30, 34, 38, 42 and 46 years (Elliott and Shepherd, 2006). For the purpose of this analysis, the focus lies on the English BCS70 cohort members who took part in the survey at age 10, 16 and 26 (1996).

The sampling strategy for Next Steps differed from that for BCS70. Next Steps started as a panel study of young people born between 1 September 1989 and 31 August 1990. The study began in February 2004, when sample members were aged between 13 and 14 years, comprising a random sample of 15,770 young people in year 9 or equivalent in all schools in England. Between 2004 and 2010 sample members were interviewed annually. The most recent Next Steps data collection took place in 2015 when the study members were aged 25/26 (Calderwood, 2018), comprising data on 7,707 individuals. The original sampling frame was a two-stage probability sample, with schools as the primary sampling units. Schools in deprived areas were oversampled and so too were ethnic minorities to achieve target numbers of 1,000 pupils in each group (Department for Education, 2014). We use survey weights to account for differential probabilities of selection into the sample and for non-response bias. Next Steps is linked to administrative data collected for the National Pupil Database, providing information on educational attainment.²

A key concern in most longitudinal studies is sample attrition over time. The following analyses are based on respondents for whom complete data were collected for educational participation beyond age 16 and educational attainment at age 26. The analytic samples which we use here comprise 7,581 cohort members in BCS70 (63% female) and 5,929 in Next Steps (48.7% female). Differences in response rates to the surveys are a source of bias in most longitudinal studies, though the response rates to both surveys were above 70%. To account for missingness due to item-nonresponse we used Full Information Maximum Likelihood (FIML), as implemented in Mplus. This strategy allows the estimation of parameters without discarding data or imputing missing data. It uses the observed responses to supplement the loss of information resulting from missing responses (Little et al, 2014).

Comparability of the indicators in the different studies is another concern. Achieving comparability between the studies demanded the use of less-than-ideal measures. *Educational aspirations* of young people aged 15/16 years are indicated by a dichotomous variable stating whether they want to continue with full-time education after compulsory schooling beyond age 16 or not (that is, if they want to enter directly into the labour market without further education or training which was possible in England until 2013). *Parents' educational aspirations* for their child are indicated by a dichotomous variable stating whether they want their child to continue with full-time education after compulsory schooling beyond age 16 or not. *Educational attainments* were assessed with two indicators: participation in full-time education after age 16 and completion of a degree-level qualification by age 25/26.

In both cohorts, family social background was measured by an indicator of parental education and an indicator of social class. The assessment of parental education differentiates between parents with a university degree—level qualification; those with a A-level qualification enabling access to university; O levels, the General Certificate of Secondary Education (GCSE) obtained at age 16; and those with no or low-level qualifications. Parental social class was assessed using the Registrar General Social Classification, differentiating between parents in professional or managerial occupations, those in skilled occupations and those in semi– or unskilled jobs. For the assessment of both parental education and social class, the dominance approach was adopted, using the highest level of attainment of either parent. We dummy-coded the variables using 'O level' and 'skilled' as reference categories, respectively, as these are the largest categories in both cohorts.

Control variables include gender (0 = male / 1 = female), ethnic minority status (0 = white / 1 = other / ethnic minority), and indicators of prior academic achievement: in BCS70 specially designed assessments were used to test achievement in maths and English at age 10 (Schoon, 2006); moreover, we used the total score from the GCSE exam results achieved in 1986, at age 16. In Next Steps we used data from the National Pupil Database, which provides information on achievement in maths and English at key stage 2 (age 11); and the total GCSE exam result score achieved at age 16. In addition, we included an indicator of school motivation, assessed at age 16 in both age cohorts, as an indicator of their engagement in school. Cohort members completed a five-item scale including items such as 'school is largely a waste of time'; 'I do not like school'. Item analysis of the five-item scale suggest good internal consistency (alpha = .76 in BCS70; alpha = .73 in Next Steps). The validity of the scale has been established; research showed, for example, significant correlations with educational aspirations (Schoon et al, 2007) and time spent in education (Schoon, 2008; Duckworth and Schoon, 2012). For both studies, the academic achievement scores and school motivation scale score were z-standardised to ensure comparability of coefficients across cohorts. A high score indicates greater school motivation and a low score, school disengagement.

Results

Table 1 gives the sample description. In both cohorts, educational aspirations of parents and their children are mostly congruent (both high or both low). In both cohorts, high aspirations among both parents and the young people are most prevalent, reaching some kind of ceiling effect the Next Step cohort (82.1%). In the 1970 cohort there was a greater proportion (16.3%) of respondents where both parents and their children have low aspirations than in the later-born cohort (5.7%), and a greater proportion of respondents where parents have high and their children have low aspirations (12.4% versus 3.6%). In the later-born cohort, there are more instances of parents having lower aspirations than their children (8.6% versus 2.3%) – maybe due to the higher costs of education participation. We also see that the proportions of respondents who stayed on in education beyond age 16 was greater for the later-born cohort (83.1% versus 73.4%), whereas the proportion of those who attained a degree-level qualification was virtually identical (35.4% versus 35.1%). In the later-born cohort, there was a greater share of ethnic minorities and respondents whose parents have a professional/managerial occupational status. Moreover, the proportion of females was lower. In contrast, the proportion of children with at least one parent with a degree-level qualification is almost identical in the two cohorts.

Table 1: Estimated sample statistics for both cohorts

	BCS70	Next Steps/LSYPE
(In)congruent expectations		
Both high (%)	69.0	82.1
Both low (%)	16.3	5.7
Parents high / YP low (%)	12.4	3.6
Parents low / YP high (%)	2.3	8.6
YP educational attainment		
Stayed on in education beyond age 16 (%)	73.4	83.1
Degree level by age 25/26 (%)	35.1	35.4
Socio-demographic background		
YP female (%)	63.0	54.3
YP ethnic minority (%)	1.3	9.2
Parental education		
No or low qualification (%)	22.2	13.9
O level (%)	37.6	25.9
A level (%)	20.3	19.2
Degree level (%)	19.9	41.0
Parental social class		
Semi/unskilled (%)	9.0	9.6
Skilled (%)	58.4	37.4
Prof/managerial family (%)	32.6	53.0
N	7,581	5,929

Notes: YP = young person. The following variables have been z-standardised with M = 0 and SD = 1: Maths at age 10/11; English at age 10/11; Total score from 0 level and CSE results achieved in 1986 (BCS70); Total GCSE and equivalents (LSYPE); School motivation.

Examination of the predictors of (un)matched aspirations in the two cohorts (Table 2) shows that in BCS70 both-low aspirations and a mismatch where parents have high and the young person low aspirations are less likely among ethnic minority youth. Both-low or incongruent aspirations are less likely among parents with a degree-level qualification (compared to those with O-level qualifications), and both-low aspirations are more likely among parents with no or low qualifications (compared to parents with O-level qualifications), as are mismatched aspirations of parents aiming high but the young people having low aspirations. There is also a significant negative association between both-low aspirations and having parents with A-level qualifications. Both-low aspirations and a mismatch where parents have high but the young person has low aspirations are less likely where parents are in a professional or managerial position (versus parents in a skilled occupation). Finally, there are significant negative associations between both-low aspirations and performance in English at age 10, and between school motivation at age 16 and incongruent aspirations.

In Next Steps we find that females and young people from ethnic minority background are less likely to have both-low or incongruent aspirations. Moreover, incongruent aspirations are less likely among parents with an A-level qualification (compared to parents with O-level qualifications), and both-low and mismatched aspirations where parents have low and the young person has high aspirations are less likely among parents with a degree-level qualification (compared to parents with O-level qualifications). Both-low and incongruent aspirations are less likely among

Table 2: Odds ratios from multinomial logistic regressions predicting (in)congruence in education expectations at age 16

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	BCS70						Next Steps/LSYPE	SYPE				
Matching expectations (REF: both high)	Both low		Parents high YP low		Parents low YP high		Both low		Parents high / YP low	/ H	Parents low / YP high	_
	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE	OR	SE
Socio-demographic background												
YP female	0.86	.11	0.81	.11	0.87	.24	0.24***	.04	0.43***	.07	0.52***	90.
YP ethnic minority (nonwhite)	0.07*	.07	*60.0	.10	0.55	.57	0.07***	.02	0.27***	80:	0.48***	60.
Parental education												
Parents: No or low qualification (ref.: O level)	1.72***	.25	1.85***	.30	1.29	.44	1.28	.28	0.72	.18	0.82	.15
Parents: A level (ref.: O level)	0.49***	.10	0.83	.16	66.0	.34	1.08	.26	0.55*	.14	.99.0	.11
Parents: Degree level (ref.: O level)	0.24***	.07	0.37***	60:	0.13**	.10	0.62*	.14	0.64	.16	0.55***	60:
Parental social class												
Parents: Semi/unskilled (ref.: skilled)	1.36	.25	1.19	.24	0.52	.29	06.0	.21	1.64	.41	1.35	.23
Parents: Prof/managerial (ref.: skilled)	.41***	80:	0.52***	60:	0.61	.22	0.74	.13	0.88	.18	0.80	.12
Prior academic attainment												
Maths at age 10/11	1.11	.16	1.02	.16	0.71	.20	0.62***	90.	0.70**	60.	0.64***	90.
English at age 10/11	0.74*	.10	62.0	.12	66.0	.28	0.55***	90.	0.50***	.07	0.70***	.07
School motivation age 16	0.49	.03	0.51***	.04	0.60***	60.	0.56***	.04	0.55***	.04	0.67***	.04

Notes: YP = young person. OR = odds ratio, SE = standard error. *** p < .001; ** p < .01; * p < .05.

Table 3: BCS70 – odds ratios from logistic regressions predicting educational participation beyond age 16 and attainment by age 26

	BCS70							
	Staying in education beyond age 16 (Model 1)		Staying in education beyond age 16 (Model 2)		Degree by age 26 (Model 1)		Degree by age 26 (Model 2)	
	OR	SE	OR	SE	OR	SE	OR	SE
(In)congruent educational expectations (Ref: Both high)								
Both low	0.01***	.00	0.01***	.00	0.04***	.02	0.43	.30
Parents high/YP low	0.03***	.01	0.04***	.01	0.08***	.02	0.33**	.13
Parents low / YP high	0.06***	.02	0.06***	.03	0.08***	.05	0.55	.41
Socio-demographic back- ground								
YP female	1.13	.17	1.11	.22	0.68**	.08	0.60*	.09
YP ethnic minority	1.86	1.28	4,943.10***	1,635.42	1.05	.44	2.14	1.62
Parental education								
Parents: No or low qualification (ref.: O level)	0.89	.16	0.88	.21	0.06**	.10	0.76	.16
Parents: A level (ref.: O level)	1.13	.23	0.91	.24	1.58**	.22	1.43	.28
Parents: Degree level (ref.: O level)	2.82**	.89	2.29*	.86	3.51***	.53	2.67***	.54
Parental social class								
Parents: Semi/unskilled (ref.: skilled)	0.80	.20	1.31	.43	0.58*	.15	0.87	.28
Parents: Prof/managerial (ref.: skilled)	1.74*	.35	1.61	.40	1.75***	.21	1.40*	.22
Prior academic attainment								
Maths at age 10/11			0.66	.18			0.87	.15
English at age 10/11			1.34	.36			1.22	.22
Exam score at age 16			1.55***	.18			3.79***	.41
School motivation age 16			1.34**	.13			1.49***	.15

Note: YP = young person. OR = odds ratio, SE = standard error. *** p < .001; ** p < .01; * p < .05. In predicting degree by age 26, we took into account whether respondents stayed in education beyond age 16.

young people who did well in their maths and English examinations at age 11 and who are highly motivated at school.

In BCS70 both-low and unmatched aspirations are associated with a reduced likelihood of staying on in education beyond age 16 (Table 3). These results are significant after controlling for socio-demographic background variables, such as sex, ethnic minority status, parental education and social class (Model 1). Moreover, these results remain significant when taking into account the potential moderating role of prior academic attainment and school motivation (Model 2). In the full Model 2 there are independent associations for staying on in education and ethnic minority status. The coefficient is very high given the very low number of ethnic minority youth in the sample. A robustness check excluding ethnic minority status as a predictor variable

confirms the findings regarding the role of both-low and incongruent aspirations (see Table A.1 in the appendix). Moreover, there are significant associations with staying on in education and parental degree-level qualifications (compared to parents with O-level qualifications), exam scores and school motivation at age 16.

Regarding degree completion by age 26 only the negative association between incongruent aspirations where parents have high and the young person has low aspirations remains significant after the role of prior academic attainment and school motivation is taken into account (Model 2). In the full Model 2 there are independent associations between completing a degree and gender, parental education, social class, exam scores and school motivation at age 16. Men are more likely than women to complete a degree-level qualification by age 26, as are those whose parents have a degree-level qualification or are in a professional or managerial job. Getting a degree is furthermore more likely among students who did well in their exams by age 16 and who were motivated in school.

In Next Steps we find that both-low and unmatched aspirations are associated with a reduced likelihood of staying on in education beyond age 16 and completing a degree by age 26 (Table 4). These associations are significant after controlling for socio-demographic background variables, such as sex, ethnic minority status, parental education and social class (Model 1), and after taking into account the potential moderating role of prior academic attainment and school motivation (Model 2). We find independent effects for ethnic minority status, parental education, parental social class (not significant in the full Model 2 regarding staying on in education), as well as prior academic attainment and school motivation. Staying on in education beyond age 16 is less likely when both parents and young people have low aspirations or when there is an incongruence in aspirations. Moreover, young people from ethnic minorities are more likely to stay on in education beyond age 16, as are those whose parents have a degree-level qualification, who did well in their exams by age 16 and who were motivated in school. Getting a degree is also less likely when both parents and young people have low aspirations or when there is an incongruence in aspirations. Moreover, young people from ethnic minorities are more likely to complete a degree-level qualification by age 26, as are those whose parents have a degree-level qualification or are in a professional or managerial job. Getting a degree is furthermore more likely among students who did well in their exams by age 11 and age 16 and who were motivated in school.

Discussion

Extending prior research, this study examined the role that socio-demographic factors and school achievement–related factors play in shaping (in)congruent educational aspirations, and whether incongruence between parental and their children's educational aspirations hinder academic attainment. Previous research has demonstrated the importance of parents in spurring the educational attainment of their children, highlighting the positive influence of high educational aspirations (Eccles and Wigfield, 2002; Reynolds and Kirkpatrick Johnson, 2011; Benner et al, 2016). Potential negative effects of over- or under-ambitious parents for their children's attainment have received less attention until recently (Murayama et al, 2016; Trinidad, 2019), let alone incongruence between parents' and their children's educational aspirations.

Table 4: Next Steps – odds ratios from logistic regressions predicting educational participation beyond age 16 and attainment by age 26

	LSYPE/Next Steps							
	Staying in education beyond age 16 (Model 1)		Staying in education beyond age 16 (Model 2)		Degree by age 26 (Model 1)		Degree by age 26 (Model 2)	
	OR	SE	OR	SE	OR	SE	OR	SE
(In)congruent educational expectations (Ref: Both high)								
Both low	0.03***	.01	0.05***	.01	0.19***	.07	0.41*	.15
Parents high / YP low	0.26***	.05	0.48**	.11	0.16***	.04	0.40**	.12
Parents low / YP high	0.08***	.01	0.12***	.02	0.35***	.06	0.61*	.13
Socio-demographic back- ground								
YP female	0.90	.09	0.91	.10	0.91	.06	0.93	.07
YP ethnic minority	2.45***	.43	2.41***	.46	1.68***	.14	1.90***	.18
Parental education								
Parents: No or low qualification (ref.: O level)	1.09	.17	1.38	.23	0.76*	.09	0.93	.12
Parents: A level (ref.: O level)	1.40*	.20	1.32	.20	1.18	.12	1.07	.12
Parents: Degree level (ref.: O level)	2.04***	.25	1.71***	.23	1.98***	.18	1.65***	.17
Parental social class								
Parents: Semi/unskilled (ref.: skilled)	1.15	.20	1.40	.27	0.78	.11	0.86	.13
Parents: Prof/managerial (ref.: skilled)	1.48**	.17	1.24	.16	1.23*	.10	1.06**	.09
Prior academic attainment								
Maths at age 10/11			1.03	.10			1.17***	.07
English at age 10/11			0.91	.08			1.33***	.09
Exam score at 16			2.45***	.29			2.00***	.14
School motivation age 16			1.19**	.07			1.08	.05

Note: YP = young person. OR = odds ratio, SE = standard error. *** p < .001; ** p < .01; * p < .05. In predicting degree by age 26, we took into account whether respondents stayed in education beyond age 16.

In the current study, incongruent educational aspirations were observed in both the 1970 and the 1989 cohorts, although congruent aspirations, in particular where both children and parents had high aspirations (both-high) were more common, especially in the later-born cohort. Regarding the predictors of incongruent and low aspirations we find that in both cohorts, both-low and incongruent aspirations were more likely among less-educated families, and where the young person had low levels of school motivation. The findings suggest that congruent aspirations are more prevalent in families where parents have A-level or degree-level qualifications, parents and their children share a common view of how far the young person should go in the educational system, and where the young person is motivated in school. Although incongruent aspirations may be more widespread when children disengage

from school, having better-educated parents potentially serves as a buffer against children's impulses to leave education. In BCS70 we furthermore find that bothlow aspirations and a mismatch where parents have high and the young person low aspirations (parental 'overambitiousness') is less likely among professional parents versus parents in skilled occupations. Differences by gender and ethnic minority status in (in) congruent aspirations were sensitive to the historical period investigated, indicating that it is essential to contextualise research findings in broader societal contexts across time, using a social-ecological lens (see also Schoon and Heckhausen, 2019; Burger et al, 2020). For example, in the later-born cohort male adolescents were more likely than females to have incongruent or both-low aspirations, suggesting a lack of agreement or communication with their parents about how far in the education system they expect to go, and confirming the lower educational aspirations among young men and their parents in the later-born cohort (Schoon, 2010). Regarding ethnic differences, we find that in both cohorts students from ethnic minority backgrounds were less likely to have both-low aspirations; that in BCS ethnic minority students were less likely to have low aspirations while their parents had high hopes for them; and in Next Steps they were less likely to have either form of incongruent aspirations. The findings confirm that ethnic minority students have higher aspirations than their white peers (Schoon and Lyons-Amos, 2017), and that in the aftermath of the education expansion, ethnic minority youth and their parents felt more empowered to participate in higher education, maybe due to more role models with similar minority background or increased opportunities for participation.

Regarding the second major research aim, this study found evidence in both age cohorts under investigation that young people were less likely to stay on in education beyond age 16 when their educational aspirations did not match the aspirations that their parents had for them, or when both the parents and the young person had low aspirations. Moreover, the evidence indicates that in both cohorts the combination of high parental aspirations with low aspirations among the young persons was associated with a reduced likelihood of obtaining a degree-level qualification by age 25/26 (when taking into account the potential moderating role of prior academic attainment and school motivation). Moreover, in the later-born cohort we find that in the case of both-low and incongruent aspirations, the young person's likelihood of completing a degree-level qualification decreased. This finding suggests that parental aspirations for their children matter in shaping education participation, yet that parental overambition potentially hinders young persons' educational progression and, ultimately, attainment (see also Murayama et al, 2016; Trinidad, 2019). In addition, we find that incongruent aspirations where parents have lower aspirations than their children, the educational progression of their children is also hampered. While previous research has shown the negative impact of parental 'under-ambition' on children's externalising behaviour (Almroth et al, 2019), our finding regarding educational floundering is new. If children do not feel supported by their parents, or believe that their parents do not believe in them, the young people are potentially less likely to invest in their education.

Together the findings suggest that simply raising aspirations as a means of promoting children's educational careers is an inadequate approach. Boosting the aspirations of young people and their parents is a key target of a number of UK government initiatives aiming to improve both students' academic attainment and social mobility. However, aspirations among young people and their parents are

already high (see also St. Clair et al, 2013; Berrington et al, 2016), in particular in the younger cohort, where we almost observe a kind of ceiling effect. Moreover, while about as many young people aspire to continue in further or higher education as actually do so, there are considerable fewer who complete a degree-level qualification by age 26. There is thus a sizeable risk of drop-out of tertiary education, especially among students from a less-privileged family background (Schoon et al, 2021). Staying on in education as well as completing a degree are predicted by academic attainment at age 16. In the UK context, academic attainment at age 16 is a crucial stepping stone for tertiary education, and the exam scores are used as an entry requirement to university. To improve participation and attainment in tertiary education it is thus important to make sure that young people do well in their exams at age 16. In addition, the findings highlight the significant role of young people's motivation and engagement in education for them to continue in education beyond compulsory schooling. Moreover, it is important that parents and their children agree on the value of higher education and communicate about the pressures and strains (such as the need for financial support or cultural know-how) they perceive in their evaluation and planning of higher education participation. A crucial step in improving educational attainment and participation, in particular among young people with parents educated below A-level qualifications, is the provision of relevant information and guidance on how to reach ambitious goals and how to effectively navigate the educational system (see also Harrison and Waller, 2018).

In interpreting the findings, some limitations of the study need to be acknowledged. First, like in all longitudinal studies we are faced with the problem of missingness in response and have to do with the information available in the data set. The study samples were restricted to those individuals with complete information on educational participation beyond age 16 and degree attainment by age 25/26, and thus is affected by selective sample attrition, in particular among males and those from relatively disadvantaged backgrounds. Second, the indicators of educational aspirations are based on single items, which are less precise than multi-item scales. However, single-item assessments of education aspirations are widely used in largescale surveys, suggesting satisfactory face validity (Sewell et al, 1970; Schoon, 2010). Third, the aspirations were coded as dichotomous variables, not enabling a more differentiated assessment of the magnitude of a mismatch in aspirations. Focusing on post-compulsory education and not distinguishing different types of higher education is setting the bar for aspirations quite low, especially for the younger cohort. Future studies should differentiate between aspirations to leave school directly after compulsory schooling, aspirations towards further education and training not leading to a degree-level qualification, and aspirations to obtain a degree. Fourth, it is important to keep in mind that some items might work differently across different time periods. While we used comparable items for both cohorts, we cannot rule out the possibility of differential responses resulting from cultural and societal differences across historical periods. For example, following the massive education expansion aspirations towards a degree-level qualification have increasingly become the norm, which was not the case for those growing up in the 1970s and 1980s. As mentioned earlier, future studies should assess the magnitude of mismatch in aspirations among different birth cohorts in more detail. Moreover, we recommend that future research develops analytic frameworks to examine influences of socio-historical contexts on

item response style. Finally, the study is based on young people in England, where the education system is less differentiated than in countries such as Germany where children are already selected into vocational versus academic pathways at age 11 (Schoon and Bynner, 2019).

Despite these limitations, this study has major strengths advancing the existing literature by (1) being the first to examine the role of incongruence in educational aspirations of parents and their children in shaping educational attainment in times of social change; (2) considering evidence from two large and nationally representative samples to assess generalisability of findings; and (3) controlling for a range of individual-level characteristics, such as gender, ethnicity, prior academic achievement and school motivation. The study makes a valuable original contribution to the literature by assessing how (in)congruent educational aspirations are formed and by showing the potential harmful consequences of incongruence in aspirations between parents and their children. It suggests that UK government initiatives seeking to enhance students' academic attainment and increase opportunities for social mobility should not be restricted to a simplistic focus on raising the educational aspirations and aspirations of young people and their parents. Effective measures should ensure that students do well in their age 16 examinations, offer opportunities for students to feel engaged and motivated in their education and learning, and provide relevant information and guidance about the requirements for distinct career paths, offering support for decision making among the more vulnerable in society. We look to future studies to analyse in more detail the micro- and macro-processes that underlie the mechanisms by which (in) congruence in educational aspirations influence the educational careers of young people across different places and time periods.

Notes

- ¹ For more details see http://www.cls.ioe.ac.uk.
- ² For more information see: http://www.esds.ac.uk/longitudinal/access/lsype/ L5545.asp.

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Conflict of interest

The authors declare that there is no conflict of interest.

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Appendix

Table A.1: Odds ratios from the logistic regression predicting educational participation beyond age 16 (replication of the full model based on BCS70 data, without the predictor 'YP ethnic minority')

	BCS70	
	Staying in education beyond age 16	
	OR	SE
(In)congruent educational expectations (Ref: Both high)		
Both low	0.01***	.00
Parents high/YP low	0.03***	.01
Parents low/YP high	0.07***	.03
Socio-demographic background		
YP female	1.13	.21
Parental education		
Parents: No or low qualification (ref.: O level)	0.98	.22
Parents: A level (ref.: O level)	0.97	.24
Parents: Degree level (ref.: O level)	2.38*	.81
Parental social class		
Parents: Semi/unskilled (ref.: skilled)	1.36	.41
Parents: Prof/managerial (ref.: skilled)	1.67*	.39
Prior academic attainment		
Maths at age 10/11	0.58*	.14
English at age 10/11	1.53	.38
Exam score at 16	1.58***	.18
School motivation age 16	1.33**	.13

Notes: YP = young person. OR = odds ratio, SE = standard error. *** p < .001; ** p < .01; * p < .05.