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MIGHT BRITAIN BE A MERITOCRACY?¹

PETER SAUNDERS

Abstract: Most research on social mobility in Britain has found high absolute rates of upward and downward mobility but has emphasised the apparently low relative rates as measured by disparity and odds ratios. The assumption has been made that disparity ratios as high as 4:1 and odds ratios as high as 36:1 cannot be reconciled with the existence of equality of opportunity and that the meritocratic hypothesis has, therefore, been disproved. However, this research has never collected data on differences of ability and effort which may exist between members of different social classes, so the meritocracy hypothesis has never been properly tested. When a model of 'perfect mobility' is fitted to John Goldthorpe's data on class origins and destinations, an extraordinarily close fit is obtained. It is clear that the meritocracy thesis is entirely consistent with the data reported in recent mobility studies and that it has not been disproved after all.

Keywords: social mobility, meritocracy, social class, inequality, I.Q. British society.

In this paper I address the question of whether the empirical evidence on class mobility in Britain is consistent with a meritocratic model of occupational recruitment. The prevailing orthodoxy in British sociology is that it is not. Most empirical studies of social mobility have claimed to demonstrate that recruitment into higher class positions is socially biased in favour of those who themselves originate in these classes, and that those born into the higher classes are to some extent insulated against the possibility of falling into the working class. The authors of these studies also claim that little has changed in this respect over the last fifty years or so.

My aim is not to establish whether Britain is a meritocracy, for the secondary sources on which we must rely do not contain the sort of evidence needed to judge this question. Rather, this paper sets itself the more modest objective of determining whether the patterns of differential class recruitment documented by existing studies are incompatible with a meritocratic model. I conclude that they are not and that, *prima facie*, a case therefore exists for further research designed properly to test a meritocratic model. I shall develop this argument by means of six propositions.

There is a High Rate of Upward and Downward Mobility in the British Class Structure

In his study of social mobility in Britain, John Goldthorpe (1987) refuted

three conventional theories of the British class structure – the ‘closure thesis’ (which claims that the top positions are self-recruiting), the ‘buffer zone thesis’ (which claims that most movement is concentrated within a narrow range in the middle of the distribution), and the ‘counterbalance thesis’ (which claims that increased opportunities for upward intergenerational mobility have been balanced by reduced opportunities for upward intra-generational mobility). All three theories reflect the orthodox view in British sociology that Britain is a closed society with minimal mobility limited to a short range, and all three are clearly refuted, not only by Goldthorpe’s original (1972) survey data, but also by later research.

Utilising a seven-class model, Goldthorpe found that in 1972 only a quarter of men in class I (the top of the ‘service class’) had been born there and that 29 per cent had been recruited from the manual working class (classes VI and VII).² On a simplified three-class model, 49 per cent of all respondents had been socially mobile. While 59 per cent of sons of ‘service class’ fathers had retained their class position, 26 per cent of them had fallen to ‘intermediate’ positions and 15 per cent of them had fallen into the manual working class. Similarly, while 57 per cent of sons of working class fathers had retained their class position, 27 per cent had ended up in intermediate positions and 16 per cent of them had risen into the service class.

In a later study based on 1983 data, Goldthorpe found that fluidity had increased still further. 53 per cent of male respondents had been socially mobile and the chances of upward mobility had increased markedly. The proportion of working class sons reaching the service class, for example, had risen from 16 per cent in 1972 to 22 per cent in 1983, while the proportion remaining in the working class had fallen in this same period from 57 to 47 per cent.³

Other studies during the 1980s similarly documented extensive mobility in the British class structure. Utilising Goldthorpe’s class schema, an Essex University research team (Marshall *et al.* 1988) found that 34 per cent of the men and 30 per cent of the women in the service class had started life in the manual working class, and using a different seven-class schema, Payne (1987a) found in Scotland that 36 per cent of those in class I had been recruited from manual working class origins. Only a minority of those in Payne’s sample born into class I had managed to stay there and 14 per cent of them had ended up in the manual working class.

All four of these studies therefore agree that long-range social mobility is common in Britain and, crucially, that it occurs downwards as well as upwards. In all of these studies, around one-half of those born into the top class (slightly fewer in Goldthorpe’s studies and slightly more in Payne’s) fail to stay there. Indeed, in a later study of international mobility rates, Erikson and Goldthorpe (1992) found that downward mobility rates in England and Scotland were among the highest of any country surveyed. Given these findings, it is difficult to avoid the conclusion that Britain seems a remarkably open society.

British Sociologists Have Under-emphasised the Degree of Fluidity in the British Class Structure

This conclusion has, however, been avoided by sociologists who have emphasised 'relative' rather than 'absolute' mobility rates. Both the Nuffield and Essex researchers argue that Britain is a very closed and unfair society because the increased chances of upward mobility brought about by economic growth and technical change have: (a) been equally advantageous to the children of all classes, and (b) resulted in a slight reduction over time in the likelihood of children from service class origins falling into the working class. For Goldthorpe this means that, 'There is little, if any, evidence of progress having been made' towards greater openness and that 'no significant reduction in class inequalities was in fact achieved' during the post-war period (1987:327–328). Similarly Marshall and his colleagues conclude that, 'There have been no changes in social "fluidity"' and that 'the post-war project of creating in Britain a more open society . . . has signally failed to secure its objective' (1988:137–138).

These authors accept that total social fluidity has increased and that all classes have benefited from the improved chances of upward social mobility which economic growth has created, but such evidence is dismissed as irrelevant in evaluating the 'fairness' of the society. Rather, they emphasise the fact that the children of the working class have not benefited to any *greater* extent than the children of the service class – 'More "room at the top" has not been accompanied by greater equality in the opportunities offered to get there' (Marshall *et al.*: 138) – and that the children of the service class are now suffering downward mobility less frequently than in the past.

There are three major objections to this emphasis on relative mobility rates. The first is that it ignores the significance of changes in the structure of the occupational system. It assumes that if everybody has gained, nothing has really changed. As Payne suggests, this 'is essentially a pessimistic view which leads the reader towards seeing British society as more closed and thereby more *static* than is necessary' (1987a:119, emphasis in original). Whether we are interested in people's objective life chances or in their subjective lived experiences, what matters is precisely that there is now 'more room at the top', but a focus on relative measures directs our attention away from this.

The second problem concerns the way that data on relative mobility rates have been interpreted. In their analysis, both the Nuffield and Essex researchers use 'odds ratios' as their key measure of the 'openness' of the class system. Odds ratios are constructed in three stages. First, calculate the chances of a service class child remaining in the service class relative to the chances of him or her falling into the working class. Second, make a similar calculation regarding the chances of a working class child rising into the service class as compared with the chance of remaining in the working class.

Third, express these ratios in relation to each other by dividing the first by the second.

In Goldthorpe's 1972 survey (1987), the odds ratios for different birth cohorts of service class and working class respondents ranged between 13 and 19, and comparing only the top of the service class – class I – with the bottom of the working class – class VII – the odds ratio came out at around 36. These figures are taken by Goldthorpe as stark and compelling evidence of the continuing unfairness and injustice of the British class system. In a perfectly 'fair' society he suggests that there would be an odds ratio of one. Odds ratios as high as 36 therefore *seem* to indicate gross social injustice.

But odds ratios are extreme measures. They do not express the relative chances of success or failure of children from different classes – these are measured by 'disparity ratios'. On Goldthorpe's 1972 data, the working class/service class disparity ratio was nowhere near the odds ratio of 19 or 13 but was under 4:1, and this had fallen to 3:1 by the time of the 1993 survey. In other words, a child from the service class has a three times better chance of ending up in the service class than does a child from the working class.

An odds ratio, by contrast, combines both success and failure rates in the same measure and therefore multiplies up any differences in mobility patterns between the classes. This means, for example, that an odds ratio of 36:1 between class I and class VII will not necessarily be reduced simply by virtue of more class VII children making it into class I, for what is also required is that fewer class I children should retain their class I position, and/or that more class I children should slide all the way down into class VII. Yet there seems no good theoretical reason why improved chances of success for working class children should be recognised in a measure of fluidity only if there is also a corresponding deterioration in the chances of success of service class children. Only committed egalitarians would adopt a measure of social 'progress' which demands that those at the top are 'levelled down' at the same time as those at the bottom are 'levelled up'.

When Goldthorpe cites odds ratios of over 30:1 as evidence of substantial 'inequalities of opportunity that are rooted in the class structure' (1987:328), he is in effect using a relative measure as an absolute indicator of class disadvantage. Odds of thirty or more to one sound huge, but the numbers themselves simply reflect the way the measure has been constructed.

The third and most powerful argument against the use of relative measures in the Nuffield and Essex studies is that it entails an implausible criterion of social fairness. The way these authors calculate both 'disparity ratios' and 'odds ratios' assumes that, in an open society, there should be no statistical association between people's class of origin and their class of destination, for the baseline of these measures is set at one. Yet this only makes sense if we accept that there exist no differences of aptitude between the members of different social classes in each generation. The assumption is that where disparity or odds ratios exceed one, social barriers of some sort must be

blocking working class children from rising in the social structure and/or safeguarding service class children against falling: '[T]he reality of contemporary British society most strikingly and incontrovertibly deviates from the ideal of *genuine openness*' (Goldthorpe 1987:114, emphasis added). This interpretation of high odds and disparity ratios rests on the assumption that talent and effort are equally distributed between the classes, yet this is an assumption which needs to be investigated.

British Social Mobility Research Systematically Ignores Differences of Ability and Motivation between Individuals

A meritocratic system of class recruitment would 'allocate' individuals to social classes purely in terms of their ability and effort without regard to their social background. Meritocracy, in other words is based upon a competition in which the achieved rather than ascribed characteristics of individuals determine the outcome. It is a system which depends upon genuine equality of opportunity but which generates unequal outcomes. As Bell (1974) suggests, the principle of meritocracy constitutes the core ethical legitimation of the class system in Britain and other capitalist countries. If British society is not broadly meritocratic then it stands condemned on its own criteria of social justice.⁴

For the Nuffield and Essex researchers, as for Glass and his team at the LSE before them, the claim that Britain is a meritocracy is 'obviously a jest' (Tawney's words, cited approvingly in Goldthorpe 1987:21), nothing but an ideology for legitimating class inequalities based upon ascribed characteristics. Goldthorpe claims that 'true equality of opportunity' cannot coexist with 'substantial inequalities of condition' (1987:27), and Gordon Marshall insists that the Essex data 'undermine the suggestion that Britain is an unequal but meritocratic and therefore essentially just society' (Marshall and Swift 1993:207).

Michael Young, who coined the term 'meritocracy', defined individual 'merit' as 'intelligence and effort together' (1958:94). Clearly, therefore, we should expect research on the extent to which Britain is or is not meritocratic to assemble evidence on the intelligence and effort displayed by successful individuals from different class backgrounds as compared with the intelligence and effort of those who are unsuccessful. Perhaps the most remarkable feature of the British social mobility research tradition is that no such evidence has ever been collected.

David Glass set the precedent for defining away the need to collect data on people's abilities: 'Our survey of the educational experience of the adults interviewed in 1949 is incomplete in that no information on "measured intelligence" was – or could be – obtained. The results of other inquiries make it clear, however, that . . . IQ as such is by no means a sufficient

explanation of educational differences within the 1949 adult population' (1954:15–16). In other words, we already 'know' that IQ does not explain everything, therefore there is no need for us to consider it at all.

Researchers like Goldthorpe and the Essex team have simply continued in this same tradition. They *claim* to have demonstrated empirically that meritocratic principles cannot explain the distribution of individuals into classes, yet like Glass, they never apparently considered it necessary to collect data on the differential 'merits' – the ability and motivation – of the individuals they were researching! The British tradition of research on social mobility has been a long- running production of Hamlet in which the Prince has never put in an appearance.

Goldthorpe is unapologetic about this omission. At the start of his book he admits that he has no relevant evidence on ability and motivation but denies that this is of concern for the issues he seeks to address: '[O]ne matter which we do not pursue, or at least not in any direct way, is that of the explanation of mobility or of occupational attainment in terms of variation in individual attributes, including perhaps ones of a psychological as well as a social kind . . . [T]he matter is one that has only a rather limited bearing on our central concerns' (1987:30). Yet by the end of the book he has few qualms about dismissing the significance of differences in individual merit as unimportant in the explanation of mobility patterns: 'Where inequalities in class chances of this magnitude are displayed – of the order, it may be recalled, of over 30:1 – then, we believe, *the presumption must be* that to a substantial extent they do reflect inequalities of opportunity that are rooted in the class structure, and are not simply the outcome of the differential 'take-up' of opportunities by individuals with differing genetic, moral or other endowments that are unrelated to their class position' (1987:328, emphasis added). In other words, with no evidence to justify the claim, Goldthorpe dismisses meritocracy on a presumption that it cannot be operating.

Goldthorpe suggests that 'the onus of proof' regarding his 'presumption' lies not with him, but with those who suspect that genetic or behavioural differences may be playing some part in determining patterns of class recruitment (1987:30). Similarly, while admitting that the Essex team likewise collected no relevant information on individual abilities and motivations, Marshall and Swift declare that the meritocratic hypothesis should be rejected on the basis of their data and that 'the onus is on the meritocrats' to prove otherwise (1993:206).

There is a curious reversal here of the Popperian principle of falsification. Both the Nuffield and Essex studies set out to falsify the thesis of equality of opportunity. To achieve this, they needed to demonstrate that the two meritocratic factors of 'intelligence plus effort' could not explain the patterns in their data, yet they never attempted to collect evidence on either of these factors. Rather, they assumed from the outset that the meritocratic theory was invalid, neglected to collect any data which could be relevant to testing

the theory, and ended up by shifting the onus of disproving their initial assumptions onto those – disparagingly labelled ‘latter-day Social Darwinists or Smilesians’ (Goldthorpe, 1987:328) – who do not wholeheartedly endorse them!

Given that the relevant evidence was never collected, it is difficult to respond directly to this curiously inverted challenge. It is, however, possible to respond indirectly by analysing such relevant data as are available to see whether they are at least consistent with the meritocratic hypothesis. As a prelude to this, it is first necessary to confront the basic issue, avoided hitherto by so much of the sociological research in this area, of whether differences of ability do in fact exist within the population, for if this cannot be established, the meritocratic argument will fail before it even reaches the first hurdle.

The Assumption of Equality of Ability which Underpins the British Tradition of Research on Social Mobility is Fallacious

We have seen that Goldthorpe and the Essex team adopt a baseline measure of the degree of openness of a society which assumes that innate ability is randomly distributed across the social structure in each generation. This in turn necessarily implies that everybody is born with *equal* ability, for if differences in ability within one generation are recognised, then so, too, must be the possibility of some degree of inter-generational transmission of unequal abilities, in which case the assumption of a random distribution within each generation can no longer be sustained. It follows from this that, if they are to defend the measures they have employed, these researchers would need to be committed to a fundamental belief that there is no such thing as innate ability and that all observed differences in individual capacities must be the product of environmental influences impacting after the moment of conception.

In fact, there are signs in their various publications that these researchers would not wish to claim so total a commitment to such an extreme vision of environmental determinism. In his paper with Adam Swift, Marshall accepts that it is not inconceivable that ‘middle class parents pass on to their children, whether genetically or environmentally ... talents ... such as intelligence and motivation’ (1993:206), but he chooses not to consider further this question of genetic transmission on the grounds that he is ‘not qualified to pursue the biological aspects of this argument’ (1993:197). Similarly, as we shall see later, Goldthorpe’s colleagues on the Nuffield project (Halsey *et al.* 1980 and Heath 1981) seem well aware that differential abilities and motivations need to be taken into account in the explanation of rates of educational success among children from different social classes, although they failed to collect the information necessary to enable them to analyse such differences.

Given such awareness of the possibility of genetic differences between people, it is clear that the norm of 'perfect openness' adopted in these studies was never going to be adequate. Once we accept that differences exist in people's natural abilities, then we must construct measures of equality of opportunity which incorporate such differences, for it makes no sense to cite class differentials in recruitment as evidence against the existence of a meritocracy unless one has first controlled for the possibility of variations in average levels of intelligence between the classes.

The evidence that we are not all born with equal talents and that differences of ability are to some extent innate and are therefore *to some extent* inherited from our parents seems compelling. Summarising Eysenck's review (in Eysenck versus Kamin 1981) of the various studies conducted in Britain and elsewhere over the last half a century or more (and disregarding Burt's now discredited work), the main evidence comprises:

(a) Studies comparing the measured intelligence (IQ) scores of mono-zygotic (identical) twins reared in the same environment (who obviously share common genes) and dizygotic (non-identical) twins also reared in a common environment (who share only 50 per cent of their genes). These show an average correlation of 0.87 for MZ twins compared with 0.53 for DZ twins;

(b) Studies of MZ twins reared apart which show an average correlation on IQ scores of 0.77;

(c) Studies of unrelated individuals (who share few if any of their genes) reared in a common environment (e.g. adopted or foster children) which show an average correlation of 0.23.

There are, of course, criticisms of this work. Kamin (in Eysenck versus Kamin 1981) claims that studies of MZ twins reared separately (category 'b' above) are flawed by the fact that these twins were often brought up in comparable social environments which would, therefore, tend to depress the environmental effect on variations in their IQ scores. Similarly, studies of adopted and foster children ('c' above) are weakened by the fact that adoption agencies may try to place children in homes similar to those of their natural parents (although he cites no evidence that this has in fact occurred). Kamin has more trouble, however, in disposing of the evidence on MZ and DZ twins reared together (category 'a').

Kamin proposes that a more closely-shared environment explains the higher correlation of MZ relative to DZ twins, but if this is the case, then it should logically follow that DZ twins reared together should show a higher correlation in IQ scores than MZ twins reared apart. In fact, however, DZ twins reared together correlate on average at 0.53 while MZ twins reared separately correlate on average at 0.77. Furthermore, there is nothing in Kamin's argument which could explain why MZ twins reared apart show a much higher correlation (0.77) than ordinary siblings reared apart (0.3 at most).

Faced with the accumulated weight of evidence from twins studies and

other complementary research designs, it is difficult to resist the conclusion that there are differences in innate ability reflecting the different genetic endowments of different individuals. While we may suspend judgement on Eysenck's specific claim that around 80 per cent of the variance in IQ scores is due to hereditary factors, it is also difficult to avoid the conclusion that properly constructed and administered IQ tests designed to measure 'fluid ability' (i.e. abstract problem-solving) do to some extent measure these variations in genetic endowments between different individuals. There are, therefore, strong grounds for suggesting that people's mental abilities are partly a product of their genes, and that IQ scores do partly express genetically-determined differences of mental ability.

Differences of Innate Ability Influence Educational Success, and are One Factor in Determining Social Mobility Chances

Although Goldthorpe is dismissive of what he calls 'genetic and moral' explanations for the differential success rate of children from different social classes, some of his co-researchers on the Nuffield mobility project did at least try to take these factors into account.

Halsey and his co-authors admit that they have no direct measures of motivation, no test results on verbal fluency, reading comprehension or mathematical skill, and no measures of IQ. This was a study of the determinants of access to and achievement in the British schooling system yet it contained no indicators of pupils' intellectual abilities, broadly or narrowly defined. Like Goldthorpe's own study, it set out to test the meritocracy thesis yet failed to collect the very data according to which the thesis has to be evaluated. As the authors recognise, 'Our data do not yield measures of the complex amalgam of mind and character which would fully represent any of the possible definitions of merit' (Halsey *et al.* 1980:208).

Inevitably, however, a study like this had at some point to confront the issue of differences in individual ability. The authors did this by estimating average IQ levels for each of the three social class groups identified on the Goldthorpe schema (estimated at 109 for the service class, 102 for the intermediate classes and 98 for the working class).⁵ This still precluded any effective test of the meritocracy hypothesis, for it was impossible in this research to gauge the relative chances of success of children from different social classes who shared the same IQ. Nevertheless, at least this analysis entertained the possibility that differential class mobility could reflect differential aptitudes between the children of each class.

Putting the grammar schools and the private sector together, this study found that 72 per cent of service class boys and 24 per cent of working class boys had attended some form of selective secondary school, whereas 58 per cent and 28 per cent respectively would have been expected to have done so

on the basis of estimated average IQ scores had the system been meritocratic. The authors make much of the difference between the 24 per cent of working class boys who went to selective schools and the 28 per cent who should have done so had a perfect meritocracy been operating, but these figures do seem to indicate that most bright children got to grammar schools and most dull children did not irrespective of their social origins. It was measured intelligence more than social background which determined a child's destiny.

This becomes clearer if we calculate disparity ratios on these figures. On the observed differences between the two classes, the disparity ratios come out at 3:1 in favour of service class rather than working class children getting to grammar school and 2.7:1 against service class rather than working class children ending up in non-selective schools. However, when we calculate the disparity ratios on the expected distributions (based on estimated IQ differences), they come out at 2.07 and 1.48 respectively. In other words, 69 per cent of the apparent class advantage of service class children in gaining grammar school places, and 55 per cent of the apparent class disadvantage of working class children in ending up in non-selective schools, is accounted for by the differences in their estimated average IQ levels. This suggests that, while class background was still operating as a factor in educational selection, most of the apparent 'class bias' was a function of differences in average levels of measured intelligence between the classes.

Schooling, of course, is not the only determinant of eventual class location.⁶ Goldthorpe found that many members of the service class had got there by 'working their way up' through employment and were not initially recruited straight from full-time education.⁷ This is confirmed in Heath's (1981) analysis of the Nuffield data which shows that, while 15 per cent of men in class I had arrived there directly from grammar schools (and a further 8 per cent direct from private schools), 16 per cent had gone from grammar schools into manual working class jobs and then worked their way up, and 17 per cent had gone from secondary modern schools into working class jobs and worked their way up. Schooling is clearly only one possible route upwards.

Heath attempts to disentangle the relative strength of different factors in determining eventual social class destinations by analysing the path coefficients between some of the major variables. The strongest links turn out to be those between education and first job (Beta=0.50), education and present job (0.33) and first job and present job (0.25). What is most noticeable about this model is that social background factors play a much smaller role than the achievements of individuals themselves – the coefficient between father's occupation and son's present job is only 0.17, and that between father's occupation and son's first job is even lower at 0.11. As Heath recognises, 'Social origins are not the only, or even the most important, influence on an individual's subsequent career' (1981:150).

As we have seen, the Nuffield project did not collect data on measured intelligence, but Heath attempts to correct for this by fitting IQ into his path

model based upon estimates taken from other research. He finds a Beta coefficient of 0.38 between IQ and education, and one of 0.27 between IQ and present job. This would seem to indicate that the key factors influencing eventual occupational success are IQ, education and first entry into the labour market, although even these factors only explain a small amount of the variation in rates of success among different individuals.

Heath's analysis of the Nuffield data strongly supports a meritocratic interpretation of social mobility. The weak association between fathers' circumstances and those of their sons indicates that, 'Those circumstances of birth which we can measure do not exert a very powerful constraint on . . . later achievements' (1981:165). And the high residuals in the model indicate that factors not included – such as the 'genetic and moral' differences between people so cavalierly dismissed by Goldthorpe – may well be playing a key role.

The Data on Social Mobility Patterns in Britain are Broadly Consistent with a Meritocratic Model

Despite Goldthorpe's interpretation of the Nuffield data as strongly indicating the influence of class origins on class destinations, and hence as disconfirming the meritocratic hypothesis, we have seen that data from this study actually indicate that social background is only a weak influence on final destinations and that individuals' own achievements in the educational and occupational systems count for far more than their social background. We have also seen that when some allowance is made for the differences in measured intelligence between the classes, the extent of apparent class bias in access to favoured schooling opportunities is reduced by between a half and two-thirds.

We can, however, go further than this by constructing a model of social mobility under conditions of 'perfect meritocracy' against which Goldthorpe's own findings can be evaluated. For the sake of simplicity, the model makes a number of assumptions. First, we shall ignore the 'intermediate classes' and focus entirely on the interchange between working class and service class origins and destinations, for it is here that Goldthorpe finds the greatest disparity and odds ratios. Second, given the absence of good quantitative measures, the model will ignore any differences of motivation or 'effort' which may exist between the classes. It is, therefore, a simplified model of meritocracy taking account only of differences in measured intelligence.

Third, the model will take fathers' IQ and class positions as representing the IQ and social class of both parents. This is partly for the sake of simplicity and partly because the Nuffield data relate only to males. In reality, of course, mothers and fathers will often have different IQs (although

there is evidence of 'assortive mating' which suggests that men and women select mates of roughly equivalent intelligence – see Eysenck versus Kamin 1981, chapter 8), but we may assume that the number of cases where fathers have a higher IQ than mothers is balanced by the number of cases where the reverse is the case so that these differences will cancel each other out. In reality, too, spouses may not share the same social class (Heath 1981). For the purposes of our model, however, it keeps things simple to follow Goldthorpe's own approach and to equate wives' social class with that of their husbands.

It should be noted that the model does not depend upon any evidence of how IQ scores are actually distributed between different social classes (for evidence on this see Eysenck 1979, Herrnstein 1973). Rather, the model deduces what level of IQ would be found in the different classes under perfectly meritocratic conditions.

The first step in constructing the model is to assume that, under conditions of perfect meritocracy, all the fathers in Goldthorpe's sample would have been allocated to their class locations according to the differences between them in measured intelligence. We know from Goldthorpe's data that just 14.3 per cent of these fathers were in service class occupations while 54.8 per cent of them were in manual working class occupations. Had a purely meritocratic system been operating, the service class fathers would, therefore, all have been in the top 14 per cent of the normal distribution of IQ, while the working class fathers would all have been in the bottom 55 per cent of the distribution.

The second step is to calculate the IQ levels corresponding to the top 14 per cent and the bottom 55 per cent of the distribution. IQ scores are roughly normally distributed with a mean of 100 and a standard deviation of 15. From this we can calculate that the top 14 per cent of the distribution will all have an IQ of 116 or higher while the bottom 55 per cent will all have an IQ of 102 or lower. If fathers had been allocated to their class positions on meritocratic principles, we should, therefore, expect all service class fathers to have an IQ of at least 116 while no working class fathers should have an IQ in excess of 102.

The third step is to calculate the expected IQ levels for the different social classes in the sons' generation. Goldthorpe's 1972 data tell us that in this generation, 26.5 per cent of the sons were in the service class while 43.8 per cent were in the working class (the difference between these figures and those of the fathers reflects the expansion of service class jobs and decline in working class jobs over the intervening period). The top 26.5 per cent of the IQ distribution covers scores of 109 or more while the bottom 44 per cent encompasses scores of 98 or less. On meritocratic assumptions we should, therefore, expect all the service class sons to have an IQ of 109 or higher, and all working class sons to have an IQ of 98 or lower. If we focus specifically on the semi- and unskilled manual working class, which represents half of the

working class or 22 per cent of all sons, we should expect sons in this bottom stratum to have IQs of 88 or less.

The fourth step in constructing the model depends upon a clear understanding of how IQ (or any other normally distributed characteristic such as height) is transmitted from one generation to the next. Obviously, if IQ to some extent reflects innate intelligence, we should expect there to be a tendency for high IQ parents to produce high IQ children, and for low IQ parents to produce low IQ children. Such a tendency does indeed exist, but there is no direct determination of IQ scores between the generations. Rather, as Eysenck has demonstrated, there is a *regression to the mean*. Bright parents will often have bright children, but not all their children will be bright. Dull parents will tend to have dull children but, likewise, not all their children will be dull.

An important implication of this tendency to regression to the mean is that classes in a meritocracy cannot be self-recruiting. It has often been suggested that class positions in a truly meritocratic society would increasingly be inherited since bright parents in the top classes will produce bright children who will themselves then end up in the top classes, and so on down each generation. This scenario informs Herrnstein's conclusion that inheritance of social positions will increase the more recruitment becomes based purely on individual abilities, and it seems to have been assumed in an early study by Halsey (1958) which explored a simple model in which only just over one per cent of a less intelligent lower class was allowed to be upwardly mobile in each generation. Somewhat closer to home, the same idea seems to have informed Geoff Payne's critique of my 1989 paper in which I first proposed that differences of average intelligence between the classes might explain observed differences in relative social mobility rates (Payne 1992).⁸

Where all of these analyses go wrong is in their assumption that there is a straight-forward transmission of intelligence within each class when we know that some bright middle class parents will produce dull children (who in a meritocracy will become downwardly mobile) just as some dull working class parents will produce bright children (who will move up). As Eysenck puts it, 'Regression is intimately connected with social mobility . . . Regression mixes up the social classes, ensures social mobility and favours meritocracy' (in Eysenck versus Kamin 1981:64).

Having clarified this we can now move on to step four in constructing our model which involves predicting the pattern of IQ scores of children born to the parents in each social class. From Eysenck (in Eysenck versus Kamin 1981) it is possible to predict the distribution of IQ scores of children born to parents in different IQ bands. Four patterns then have to be established.

(a) *Service Class Children Eligible for Service Class Entry*

We saw earlier that, in the fathers' generation, all members of the service class would have an IQ of 116 or more if recruitment had occurred purely on

the basis of intellectual ability, and that in the sons' generation it would be necessary to have an IQ of 109 or more to enter the (expanded) service class. From Eysenck's calculations of the pattern of regression, we would predict that around 59 per cent of the children produced by parents with an IQ of 116 or more would have an IQ of better than 108 – the threshold for service class entry. Our model of perfect meritocracy therefore predicts that about 59 per cent of the children of the service class would themselves end up in the service class.

(b) Service Class Children Eligible for Working Class Entry

We also saw that in the sons' generation, meritocratic entry to the working class would be limited to those with an IQ of 98 or less, and that entry to the bottom stratum of the working class – class VII – would be limited to those with an IQ of 88 or less. Again working from Eysenck's regression calculations, we find that around 21 per cent of the children born to parents with an IQ of 116 or more would have an IQ of 98 or less, and that of this 21 per cent, probably around 6 per cent would have an IQ of 88 or less. The meritocratic model therefore predicts that about 21 per cent of service class children should end up in the working class, about one-third of them in its bottom stratum.

(c) Working Class Children Eligible for Service Class Entry

We saw that the working class fathers should, on our meritocratic assumptions, all have had an IQ of no more than 102. Given an IQ threshold of 109 for entry into the service class in the sons' generation, we would expect on Eysenck's calculations of regression approximately 18 per cent of the sons of these fathers to reach this threshold and, therefore, to enter the service class.

(d) Working Class Children Eligible for Working Class Entry

The upper IQ limit for entry into the working class in the sons' generation is 98. Of the sons born to working class parents with an IQ of 102 or less, around 58 per cent could be expected to have an IQ of 98 or less according to Eysenck's regression calculations.

Having calculated all the predicted class destinations of children born to service class and working class parents, the model can now be compared with the actual pattern of mobility between these two classes as reported in Goldthorpe's 1972 survey (see Table 1). The 'actual' figures are those based on Goldthorpe's original coding scheme since it was on this scheme that our figures for the total size of each class in each of the two generations were based.

This table reveals an extraordinarily high degree of fit between Goldthorpe's findings and a model of perfect meritocracy. Indeed, with the sole exception of the extent of downward mobility from the service class into the working class (where the actual rate of movement is about 25 per cent less

Table 1
A Comparison of Actual Rates of Mobility between the Service Class and the Working Class Compared with Rates Predicted by the Meritocratic Model of Mobility

Mobility pattern	Predicted %	Actual %
Service class > service class	59	59
Service class > working class (class VII only)	21 (6)	15 (7)
Working class > service class	18	16
Working class > working class	58	57

Note: Actual figures based on Goldthorpe's 1972 data coded according to the original schema, taken from Table 9.8 (data on movement into class VII from Table 2.2).

than would be predicted from the likely IQ scores of service class sons), the model fits the data almost exactly! What happened to the ten thousand men interviewed on the Nuffield project is almost precisely what we would have expected to happen had they and their fathers been recruited to their class positions on the basis of their intellectual abilities.

Where does this leave Goldthorpe, Marshall and others with their arguments against the meritocratic hypothesis based upon their calculations of disparity ratios and odds ratios which take no account of levels of individual ability? Clearly the apparently 'gross' class bias all but disappears. Goldthorpe's disparity ratio of nearly 4:1 in favour of those born into the service class compares, for example, with an advantage when allowance is made for differential transmission of ability across the generations of just 1.4:1 in favour of the service class child avoiding a working class destination, and no advantage at all when considering the relative chances of children from each class entering the service class. The Nuffield and Essex teams' claim to have disproved the meritocracy hypothesis clearly cannot be sustained.

This does not mean that the meritocracy thesis has now been vindicated! For a start, this paper has ignored recruitment into elite positions, where social background is almost certainly still significant (see footnote 4), and has left open the question of whether women enjoy the same mobility opportunities as men.⁹ Furthermore, demonstration of the adequacy of the meritocracy hypothesis would require analysis of actual IQ scores of children from different classes in relation to their eventual class of destination, and this has not been possible given that such data have not been collected by the studies we have been examining.¹⁰

This paper simply indicates that the meritocracy hypothesis has never been

refuted and should not, therefore, be rejected. Not only does the model fit the Goldthorpe data to a remarkable degree, but it is also consistent with many of the findings reported by previous studies – e.g. the close fit found by Glass and later by the Halsey team between class background, IQ and access to the old grammar schools; the finding by Heath and by Payne that middle class children who fail in school are no better equipped to avoid a working class destination than are children from the working class who fail; the finding by Heath that individual achievement factors play a much more powerful role in shaping class destinies than do ascription factors relating to class of origin; and so on. At the very least, we may conclude that the meritocracy thesis looks plausible.

The Next Steps . . .

When I first suggested (Saunders 1989) that the left-wing bias informing so much research on social mobility in Britain was blinding us to the possibility that the class system might be broadly meritocratic, critics responded by equating my position with a ‘right-wing’ bias and demanding that I come up with some evidence to back up my claims (see Marshall and Rose 1989, Pawson 1990, Payne 1992, Crompton 1993).

The charge of ‘right-wing bias’ is simplistic. If our intention is to assess the extent to which British society is meritocratic, then there *is* a bias in deliberately ignoring the possible effect of differences of individual abilities and aptitudes between successful and unsuccessful individuals, and this does *not* entail an opposite ‘bias’ in insisting that such factors be analysed. Meritocracy entails rewarding those individuals with particular abilities and high levels of motivation, and it is indefensible that British sociology has failed adequately to analyse these factors while insisting, nevertheless, that the meritocracy thesis has been falsified.

The demand that I provide evidence is disingenuous given that the evidence that is required to back up or refute my speculations has never been collected by researchers interested in social mobility. In this paper I have gone as far as it is currently possible to go in using the existing evidence to demonstrate the plausibility of the meritocracy thesis. It is now my intention to take the analysis further by means of the National Child Development Study data set – a unique source containing information on the social background, IQ results, motivation, aspirations, schooling, occupational history and current class location of eleven thousand children born in 1958. This should hopefully enable us to determine for the first time the extent to which differential class recruitment in Britain reflects an unequal distribution of talent and motivation across the classes. Until such evidence is produced, however, the meritocracy thesis must stand as unrefuted.

Notes

1. An earlier version of this paper was given at the Cambridge Social Stratification Research Seminar in September 1993. I should like to thank all the participants at the seminar for the insightful comments which have enabled me to strengthen the paper considerably. I am also grateful to Gordon Marshall and Geoff Payne for their comments on the earlier draft.
2. Goldthorpe's study excluded women, and these figures would have looked quite different had women been included. In a later study in 1983, Goldthorpe found that 66 per cent of women (compared with 28 per cent of men) born to service class fathers failed to secure service class jobs for themselves, and that only 11 per cent of women (but 27 per cent of men) born to fathers outside the service class achieved service class occupations. However, this difference in mobility patterns simply reflects the marked pattern of gender segregation in the occupational system, and in particular the clustering of women in intermediate class locations. Taking account of this, Goldthorpe found that relative mobility rates for women are virtually the same as those for men even though their absolute mobility chances are very different (see Goldthorpe 1987:286–88).
3. These figures are based on Goldthorpe's 1972 coding scheme. For his later study he revised this scheme somewhat but the basic pattern remained the same. On his revised coding, total mobility rates increased from 48 per cent in 1972 to 51 per cent in 1983, upward mobility from the working class into the service class rose from 16 per cent to 24 per cent, and the proportion remaining in the working class fell from 61 per cent to 53 per cent.
4. This paper will not discuss recruitment into and out of the top echelons of the British 'elite' where the evidence clearly indicates that Britain is not meritocratic (see Heath 1981 for a summary). My concern is with movement within the occupational class system rather than movement into and out of elite positions. It is plausible to suggest that it is the high degree of heritability of elite (or upper class) positions in Britain which helps sustain the impression among sociologists and others that the society *as a whole* is closed and static. It is this extrapolation from the pattern of elite recruitment to the rest of the class structure which I seek to challenge in this paper.
5. Their estimates were derived from earlier studies by Floud and Halsey (1957) and by Douglas (1964). Given that neither of these studies was organised in terms of the Goldthorpe class schema, Halsey and his colleagues adjusted these figures for their own research. For example, because the service class is larger than the 'professional and managerial' class, the average IQ of 113 for the latter was adjusted to 109 for the former. Their estimates are probably reasonably reliable and, as we shall see in the next section, they correspond closely to what a meritocratic model would predict.
6. In his Scottish study, Payne found that education tends to be a 'sufficient but not a necessary condition' of entry into what he terms the 'upper middle class' (1987b:132). Nine out of ten working class children who obtained the Scottish Higher Certificate or better made it into the middle class. Similarly, of upper middle class children who gained this level of qualification, only 4 per cent descended to the working class compared with 32 per cent who had not succeeded at school. But Payne also found that many recruits into the upper middle class lacked good qualifications – indeed, more working class children made it to the upper middle class without high qualifications than with. He concludes from all this: 'Education generally guarantees a good job, but a lack of education (the more common condition) has not acted as a barrier to occupational success' (1987b:135–136).

7. Among those in the service class whose fathers were also in the service class, only half had obtained a service class position at their first job. Among service class men with working class or intermediate class origins the figure was 30 per cent.
8. See Saunders (1989). Payne attempts to refute my argument by constructing a model which suggests that, if ability was differentially distributed through the classes and was transmitted from parents to children, the expanding service class would soon run out of 'talented' recruits and would fill up with 'untalented' children from more privileged backgrounds. His model does not, however, stand up to scrutiny, partly because it takes no account of the regression to the mean of IQ scores (Payne actually accepts that his problem could be solved if a 'more sophisticated genetic model' was employed – 1992:237), and partly because it rests upon a simple distinction between 'talented' and 'untalented' people rather than a gradation. The point is, of course, that in a meritocracy with an expanding service class, the IQ threshold for entry to that class would reduce over time and children meeting that new threshold would be recruited from different classes according to the distribution of intelligence in each class.
9. We saw in footnote 2 that mobility patterns of men and women are quite distinct. These patterns cannot be explained by differences in IQ, for although men tend to be over-represented at each extreme of the IQ continuum, there is no difference in average IQ scores between men and women. Indeed, IQ tests have been constructed so as to balance areas in which men tend to score higher (e.g. spatial ability) with those in which women generally do better (e.g. verbal ability). Gender differences in occupational attainment cannot therefore be explained by differences in average ability levels, although differences in average scores for specific skills may influence patterns of recruitment into specific sectors of the occupational system (the clustering of men in engineering, for example).

It should be remembered, however, that 'merit', consists of 'effort' as well as ability. The under-representation of women in the service class cannot be explained by a shortage of intelligent women, but it could in principle be explained by gender differences in motivation (e.g. by women choosing to put child-rearing before career development). Levin, for example, suggests that, 'Men outrank women in the hierarchical world of work because they seek higher positions more avidly' (1992:16). To the extent that this is the case, the meritocracy thesis could apply across the genders. To the extent that women are blocked relative to men, however, the thesis could apply only within each gender. This would mean that for women as for men, those individuals who succeed are those who are most able and highly motivated, but that women and men with the same ability and motivation do not have the same chances of success.

10. Predictions based upon IQ fit Goldthorpe's data, but so too will predictions based upon any other factor which is normally distributed and which exhibits regression to the mean (I am indebted to Bob Blackburn for bringing this to my attention). The model does not therefore demonstrate that IQ does lie behind the patterns of class mobility reported by Goldthorpe, only that it could. This is enough, however, to prove my basic contention that the meritocratic hypothesis cannot be rejected on the basis of existing data on mobility patterns.

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