

Nature and nurture in selection

A doctor friend of Charles had told him that his teenage son was considering the next step in his education. He dearly wants to follow in his father's footsteps as a doctor, but he is also a brilliant mathematician and his school had suggested he should concentrate on maths with a view to a career more directly relevant to that.

Charles continued, 'He is now inclined to the latter.'

'Why?' I asked.

'Rightly or wrongly, he feels that because his father is a doctor it will be a disadvantage in the selection process, and he does not want to waste time doing A levels that will be of no use to him. His elder sister, a very sporty girl, took the same view and is now at Loughborough.'

'The process is designed to give everyone an equal chance irrespective of background.'

'That may or may not be so, but whether there is or is not an element of social engineering, I find it sad that the importance of family tradition in maintaining the culture and standards of institutions and professions is no longer respected. How much longer will your college in London and my college in Cambridge rejoice at family loyalty over generations? Although I have no personal axe to grind, I was the first of my family to go to Cambridge but I would be sad to see all these family traditions destroyed.'

'The college still acknowledges family relationships but on the other hand there is a danger of elitism.'

'Surely you mean that the elite should not be unjustifiably excluded from whatever background they come? I entirely agree. It is a matter of marrying tradition with new ideas which must come from diverse backgrounds. The problem is that many people have difficulty in accepting that equal opportunity will only produce equal distribution if the groups concerned are identical. We have seen this illustrated in the questioning of the validity of the South African rugby team as true representatives of their country, the banning of a lecture by a distinguished Fellow of the Royal Society because he suggested that the distribution of intelligence might be different in blacks and whites, and the expectation that Oxford and Cambridge will reflect the proportions in public and private education.'

'But surely just because a boy comes from a poor uneducated background it does not mean he is not talented enough to deserve to get in!'

'Absolutely not! But it is only a small step carelessly to convert that to "a girl born of parents of poor educational achievement is no less likely to justify a place than a daughter of honours graduates", as was presented as self-evident on the radio recently. This is manifestly untrue if there is any genetic component to intelligence.'

'But how do you measure intelligence?'

'It may be difficult, but that is ducking the issue. As you know I am a mathematician for which I claim no credit. As a child I was acutely aware that this was innate. I remember somewhat priggishly telling a flattering adult I had to thank God for my good fortune. Only subsequently did I discover that my grandfather had this talent being one of the most respected insurance assessors in the country.'

'You are talking about specific intelligence which might be measurable and relatively simply inherited.'

'Yes but the real point is that one would expect that when populations get separated geographically or culturally the distribution within the same gene pool inevitably tends to drift apart due to a combination of selective pressures and chance. Observable phenotypic differences would appear before any structural genetic differences, in other words divergence into sub-species.'

I interrupted, 'You are not suggesting that skin colour might determine intelligence?'

'That is the crux of the matter; different skin colours are markers of populations whose origins are from different environments but are genetically irrelevant to the differences in talents which will inevitably be present. This is one of two concepts that many people have difficulty with and if accepted would take much of the emotion out of the debate!'

'And the other?'

'Such differences, even if very large, are irrelevant to the selection of individuals because of the overlap of the distribution curves.'

'Selection panels should be seen to respect this.'

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'But there is a corollary that makes this difficult. Any attempt at setting quotas or benchmarks tends to exaggerate differences however small. Take the example of a school year where 50% of the 100 boys are Caucasian and 50% of West African origin. At the school sports day, preliminary heats are used to ensure everyone has a chance of winning a sprint race. Ten sets of descending ability are produced. What would the result of the races be?'

I hesitated. 'Well by analogy of the Olympic Games I suppose the chances of a black boy winning the first set race would be 90%, but I don't see how you can predict the result of any of the others.'

'Yes, that's right, and makes the point that this quite large difference is irrelevant to individual selection.'

'You could not afford to confine school team selection to blacks in case this was the year of a white winner!'

'Quite, but now a politically correct school inspector who believes that differences in performance cannot be inherited demands that five blacks and five whites are allocated to each race. What would the effect be?'

'The result of the first race would be unaffected, with a 90% chance that the winner would be black.'

'But what about the others?'

'Well, I suppose each race would be won by a black athlete...'

'And furthermore in the middle races the first five would be black, thus suggesting that not only are blacks on average faster than whites, but that every black is faster than every white.'

'A well-made point and entirely non-controversial!'

'So I thought when I used it to explain the problem of quotas to a human rights lawyer, who promptly replied suggesting that the difference in performance was not genetic but "societal"!'

'So you are opposed to ethnic and similar monitoring?'

'In principle no, but the justification must always be to observe differences in performance, and only then attempt to explain any difference shown without prejudice to the possible causes which might well include both discrimination and distribution of talent. Follow-up observations might be used to follow progress where discrimination or disadvantage had been demonstrated, but residual differences should be expected. Quotas or benchmarks, which are informal quotas by another name, should not be set!'

'But surely that is what that law says should happen.'

'Yes, but the attitude of such lawyers and the proliferation of seemingly irrelevant ethnic questions on questionnaires, often wrongfully presented as compulsory, do not help the sceptical who suspect that the law is not strictly interpreted.'

'But prejudice does exist.'

'Of course it does, but it is important that neither it, nor real differences in talent, are either exaggerated or minimised. With more understanding on all sides that should be possible, save for one question which should trouble everyone whatever their attitude to social engineering.'

'What's that?'

'At birth, children born of talented parents are more likely to be talented than those with less-gifted parents. They are likely to be brought up in more favourable circumstances, so when the time comes they are even more likely to be better candidates for the best universities. How do you cope with that?'

'You must assess on potential so as not to lose valuable talent from those less fortunate in their upbringing. Aside from fairness, the country cannot afford to lose such talent.'

'And penalise those who may not be quite so talented but have made best of their advantages? Is that fair? Is not ability to succeed in a competitive environment itself not a talent? The loss to the country might be just as great. In any system verging on the fair, those born in the top few percentiles will always succeed whatever their background, but at the cut-off point I find this an impossible question to answer. The shape of the distribution curve means that chance must play an increasing part in who is chosen, particularly when narrow criteria are used. Widening their range might actually make the process fairer!'

'What about the doctor's son?'

'I am sympathetic to tradition and would allow his background to be a favourable consideration, to my mind, to the benefit of the profession.'

'But recruitment from a poor background would certainly increase understanding of the problems of those who are deprived!'

'The two are not necessarily mutually exclusive; one marginal candidate might score on the first point and another on the second. But can we agree the system is flawed if it induces even the perception that coming from a medical family is a disadvantage?'

You may not agree with Charles' position but it is clearly reached after careful consideration of both sides of the story. Others who agree may be more prejudiced but blind dogma is not confined to one side as illustrated by the lawyer's reaction which Charles assures me is absolutely true. More effort directed at understanding each other might not make a difficult debate any less fierce, but would reduce the acrimony and suspicion which produces so much resentment.

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