

Challenges to Meritocracy?
**A study of the social mechanisms in student
selection and attainment at the University
of Oxford**

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Manners Makyth Man.

Personal Motto, Bishop William of Wykeham (1324 - 1404) founder of Winchester College, Winchester and New College, Oxford.

“Manners makyth man is not an injunction to remember to say ‘please’ and ‘thank you’, but is in fact a revolutionary statement. In an age governed by the concepts of birth and lineage it was asserting that virtue was not inherited. It is saying that ‘manners’, in the sense of ‘behaviour’, ‘conduct’, ‘moral character’ are more important than lineage or descent in determining the worth and status of a man, and as such it takes its place in a long debate over the origins of virtue between the advocates of birth and the protagonists of conduct of merit.” (Williams, 2004, p.7)

Abstract

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Anna Zimdars New College DPhil thesis, Trinity Term 2007

Educational transitions in the UK are related to social background characteristics such as social class and, to a lesser extent, ethnicity and gender. This thesis presents a case study of admission to the University of Oxford to understand why, conditional on application, admissions patterns into selective higher education in Britain show an advantage for already privileged strata of society. Specifically, net of attainment, the professional middle class, white, male and state school applicants fare particularly well in securing offers for undergraduate study at Oxford. With the exception of the state school effect, the admissions privilege advantages already privileged strata of society.

In the first empirical section, the analysis of purposefully generated survey data on 1,929 applicants for admission to the University of Oxford finds that quantifiable measures of merit fail to fully explain differential admissions patterns. The logistic regression models also uncover that while applicants from the private sector initially have similar gross chances of gaining an offer to their state school educated peers, they actually face a penalty in the selection process when taking into account their higher levels of prior academic attainment. Furthermore, the analysis shows that while measures of cultural capital, motivation, aspiration and learning style are meaningfully related to selection decisions, they do not explain the lower transition rates for ethnic minority applicants, those from non-professional class backgrounds, female applicants and private school applicants.

The second step in the empirical investigations then aims to understand the generative mechanisms behind these findings from the perspective of the decision makers in the selection process. This section draws on interviews with 25 admissions tutors and the observation of eight admissions meetings. The analysis here finds that selectors view the admissions exercise as involving risks and uncertainties. Also, many participating tutors routinely considered schooling in their selection decisions and discounted the performance of applicants who had come from very high achieving schools but who were not top achievers within this peer group. The mechanism of homo-social reproduction in decisions involving uncertainty is then put forward as a possible explanation for the unequal transition patterns.

Finally, the third empirical analysis section investigates links between degree performance in final university examinations and admissions relevant factors. This section includes the degree performance of Oxford students as well as those who subsequently embarked on their degree course at universities other than Oxford. The most striking finding is that among the Oxford graduates, female and private school students are less likely to achieve first class degrees than their male and state school educated peers. One interpretation of this finding is that the discounting that selectors apply in the admissions process for these applicants is not only justified but may not even go far enough. But it is also possible, in particular with regard to the female effect, that the Oxford study environment or the examination system, or both are more conducive to male achievements.

This thesis contributes to sociological theory by showing that existing models of educational transition have paid insufficient attention to the role of gatekeepers and their individual preferences in generating aggregate selection patterns. Incorporating selectors as actors in transition models increases our understanding of unequal access to educational institutions and the challenges faced in striving towards equal opportunities in an education based meritocracy. The findings presented here have implications for other fields of sociological inquiry that need to account for the role of individual decision makers such as labour market research. The work presented here has implications for policy making regarding selection processes within the University of Oxford and British higher education more generally. It could also aid university systems such as Germany, that are moving towards selective admission, to think about the challenges of designing truly equitable selection processes.

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Chapter One

Introduction

1.1 Aims

This thesis investigates the following research puzzles: Why do those privileged in terms of social background, ethnicity and secondary schooling continue to dominate enrollment at a leading British university? Which processes generate this pattern, even conditional on self-selection into application? Are these selection decisions valid in terms of later degree performance? And, finally, how can social scientists understand aggregate admissions patterns to an elite university as an outcome generated by the decisions of individual gate keepers? (Granovetter 1978, p. 1421; Coleman 1990, p. 197; Abell 2003). In investigating these puzzles, this thesis responds to the paucity of empirical work in two areas. First, prior empirical work in education is frequently constrained by limited availability of detailed information on individual students' characteristics with regards to important sociological concepts such as cultural and social capital, as well as detailed measures of attainment and motivation. Second, there is a paucity of empirical studies on *selection processes* into higher education *conditional on application*.

Previous research in the UK has focused primarily upon the link between social class background and other demographic characteristics such as ethnicity, gender and schooling and the propensity of continuing in education beyond the compulsory school leaving age or transitions into higher education (Cox, Goldthorpe et al. 2002, 2005; Halsey, Heath et al. 1980; Heath and Clifford 1990; Blackburn and Jarman 1993; Breen and Goldthorpe 2001; Archer, Hutchings et al. 2003; Piatt 2003; Abbott and Leslie 2004; Blanden and Machin 2004; Boliver 2005). Such work has contributed greatly to our knowledge of how social background characteristics are associated with educational transitions. Unfortunately, scholars using large existing data sets to study educational transitions must often infer generative mechanisms behind transition patterns rather than observe them empirically. For example, rational evaluations of the costs and benefits of staying in education are inferred from macro-patterns of association between social background variables and educational outcomes rather than by operationalising a wealth of measures that would tap into this concept. Furthermore, despite the wealth of studies on educational transitions, the literature has so far failed to provide detailed accounts of *selection processes* in education that are different from application processes. This thesis aims to move beyond describing patterns of association between social background characteristics and educational transitions by drawing on detailed, purposefully collected data designed to capture all possible characteristics of applicants (Cameron and Heckman 1998). In particular, student characteristics such as motivation, learning style and cultural capital and social capital are operationalised. The work presented here also introduces a focus on selection processes that are different from application processes. In particular, selectors for higher education admission are introduced as a crucial missing piece of

the puzzle of unequal transition rates into university conditional on application. Finally, this study assesses the validity of selection procedures in terms of later university examination outcomes. This analysis provides insights into whether differential admissions rates for different social groups might be due to differences in underlying levels of potential to achieve highly in their degree courses or conscious or unconscious discrimination.

This first chapter reviews the theoretical framework of educational transitions and discusses the importance of meritocracy for admission into higher education in contemporary Britain. I then explain the selection of the case study for this thesis, the University of Oxford. The chapter concludes with a brief overview of the thesis outline.

1.2 The national context: expansion and differentiation

Reflecting on over 10 years of leading the country, the former British Prime Minister Tony Blair Reflecting recently stated that ‘education is the most precious gift a society can bestow on its children. When I said the top three priorities of the Government in 1997 would be education, education, education I knew then that changing educational opportunity was the surest way to changing lives, to social justice’(Blair 2006). For our western democracies, education is the one policy area that normatively requires states to strive for the provision of equal opportunities for individuals from different backgrounds to succeed (Moberly 1949; Tawney 1964, p.

109). The basis of education-based meritocracy is that individuals differ in their use of the educational opportunities provided to them. This serves as the prime justification why, in societies that enshrine the equal worth of individuals (Jefferson 1776; Locke [1690] 1924), citizens de facto experience inequalities in labour market outcomes and material well being (Mannheim 1971, p. 279; Jonsson 1992).

This idea of education-based meritocracy is increasingly considered to encompass enrolment beyond compulsory schooling. Tony Blair's education policy explicitly brought access to higher education to the centre stage with the policy target to increase participation to 50 per cent among university aged adults by 2010. With the focus on participation rates and the quantity of education consumed by different individuals, however, policy debates frequently pay insufficient attention to the processes of institutional stratification that have accompanied the massification of higher education in many countries such as the UK and the US¹ (Shavit, Arum, et al. 2007²). With more and more youngsters participating in higher education, education becomes not merely a matter of how much one has got but the quality of the educational experience and the prestige of the alma mater are additional differentiators between otherwise similar applicants in the competition for the highest paying and most rewarding jobs (Giddens 1997, p. 410; Chevalier and Conlon 2003).

These trends are now discussed in some further detail.

¹ Whereas the higher education age participation index – the proportion of under 21 year olds entering higher education – was 6 per cent in the 1960s, this figure rose to 20 per cent in the early 1990s and to 33 per cent in 2001 DfES (2002). Higher education age participation index 1960 to 2001. London, DfES, Blanden, J. and S. Machin (2004). "Educational Inequality and the Expansion of UK Higher Education." *Scottish Journal of Political Economy* 51(2): 230-249. At the same time, the structure of higher education also changed with a founding wave of new universities in the 1960s Robbins (1963). Higher Education. London, HMSO. and the incorporation of former technical universities (polytechnics) into a single higher education system DES (1991). Higher Education: A new Framework, HMSO.

² While Shavit et al. formally classify the UK as a 'binary' higher education system, the chapter on the UK by Cheng and Egerton in the edited volume hints at the de facto existence of stratification in the UK.

The expansion of higher education in the UK triggered two distinct responses from institutions and individual students: a quantitative increase in the length of higher education participation available and a qualitative differentiation of higher education institutions.

First, with more universal undergraduate higher education provision, students can still differentiate themselves from their peers by participating in yet more education beyond an undergraduate degree (Collins 1979). In 2003, 23 per cent of full-time British undergraduates continued into postgraduate education (Higher Education Statistics Agency 2003). There is empirical evidence that postgraduate study has become important for entry to some professions that only required education to bachelor's level in the past (Wolf 2002).

The second way higher education institutions and students can distinguish themselves from their peers regards educational quality (Stinchcombe 1986; Bourdieu and Collier 1988; Brint and Karabel 1989). The process of educational expansion has thus been accompanied by increasing institutional stratification among undergraduate education providers (Taylor 2003). The UK has seen the emergence of a consortium of 20 research-led universities, the 'Russell Group Universities', that account for 60 per cent of all universities research grant and contract income and award over half of all doctorates in the UK (www.russellgroup.ac.uk). Within this consortium, there is a sub-group of five 'super-elite universities' consisting of three London universities (UCL, LSE, Imperial) and the universities of Cambridge and Oxford. But even within the group of the top five universities, there is no getting away from the fact that the

ancient foundations Oxford and Cambridge continue to be the only two British universities with significant institutional endowment levels by international standards and exceptional institutional prestige (Boliver 2005).

1.3 Selection of Case Study

The empirical investigations in this thesis are based on statistical data of applicants for admission to Oxford and interviews with selectors at the University of Oxford. The use of a case study approach to study higher education admissions requires some further justification. In particular, drawing inferences based on only one institution can lead to questions about the generalisability of findings and whether the research provides new knowledge of substantive interest to the wider social science community or the general public. The analytical focus of this thesis as well as the unique role of Oxford, however, justify the case study approach. First, my research aims relate to identifying causal relationships and the motivation and worldview that inform selection decisions rather than generating a representative analysis of admissions processes in higher education (Weber [1920] 1978, p. 7-8). Second, admission to Oxford is important in its own right because of its unique gatekeeping role and the primacy in the national consciousness. Not only is Oxford the oldest university in the English speaking world (Verger 1992, p. 60) but Oxford has also been 'second to none' as the gatekeeper to the British elite (Soares 1999, p. 5). Oxford graduates have been historically associated with positions of power and

prestige in society at large (Ellis 1995). In recent history, all British Prime Ministers who participated in higher education since 1945 - except the current incumbent Gordon Brown - passed through Oxford (Beckett 2006); Oxford supplies the largest number of any single British university for future public sector leaders in the civil service fast stream (Oxford University Careers Service 2006); and Oxford graduates continue to secure leading positions in the judiciary and the media (Boyd 1973). In the national consciousness, the representation of Oxford as the ideal of English education and the ‘cultural fact of its superior image is a closed one.’ (Halsey, Trow et al. 1971, p. 67; Halsey 1997, p. 577). The previous considerations mean that Oxford is the closest ideal type of an extreme case of elite institution. As such, the selected case study is particularly well placed to highlight the processes involved in selection (Weber 1922, p. 146; Yin 1994).

Further to the special role of Oxford in British society, the particular selection process at Oxford also warrants a case study approach. Oxford’s admissions process is exceptional within the British context of higher education admission as only the University of Oxford and the University of Cambridge operate a system of undergraduate admission whereby all³ prospective applicants are systematically interviewed by academic faculty. All selection decisions rest with the academic faculty who will be involved in teaching the chosen students. This particular selection procedure makes it even more indispensable to focus on individual selectors and their decisions than it might perhaps be in paper-based admissions systems. Specifically, the case-study design allows to study in depth the mechanisms that generate admissions decisions. These mechanisms are of interest to the wider academic

³ Certain exceptions to this rule apply for applicants from outside the European Union who may be considered based on their paper application dossier.

community because of their applicability to other educational contexts that involve selection and general selection contexts such as labour market transitions.

1.4 Social theory and educational expansion

After having established the national and institutional context of this study, this section contextualises the thesis within sociological frameworks. Sociologists of education seek to answer three questions with regards to the expansion and differentiation of higher education. First, does more education mean more equal access and participation in education? (Erikson and Jonsson 1996). Second, is participation in a stratified system of higher education also stratified along social cleavages such as class, gender and ethnicity? Third, are differences in participation rates meritocratic? This section reviews two competing theoretical models of educational transition and empirical evidence. Explanations for the findings are discussed in section 1.5 of this introduction.

First, the maximally maintained inequality (MMI) hypothesis argues that educational expansion will only benefit lower social strata once the middle classes' desire for education has been saturated (Raftery and Hout 1993). This is contrasted with the hypothesised participation patterns in the 'spill-over' hypothesis that suggests a spilling-over into secondary and post-compulsory education driven by an equalisations of opportunities at earlier transitions points in the educational system (Jonsson 1992; Jonsson, Mills et al. 1996; Shavit and Westerbeek 1998)⁴. The

⁴ At the same time, some proponents of this hypothesis would also maintain that the spill-over into the labour market is limited by a deferred selection mechanism. There is some evidence in the UK that employers increasingly use non-meritocratic screening tools in the selection for employment that are perhaps more easily attainable by the highest social classes (Jackson 2002; Goldthorpe, 1996, p. 268).

empirical test of these two contradicting theories of educational expansion has been complicated by the simultaneous stratification of educational systems. This means that increases in absolute participation patterns potentially hide qualitative differences in participation by school or higher education type (Arum, Gamoran et al. 2007).

In the UK, absolute participation rates in compulsory schooling have largely been equalised. However, participation in the final voluntary two years of secondary schooling shows higher survival rates for the more privileged social classes (Heath and Clifford 1990; Archer 2000). Moreover, social background influences the quality of education children enjoy with selection into one of the remaining 164 state funded schools that select on ability (grammar schools) or participation in private schooling being associated with high social class origin (Ball 1993). Furthermore, differences in educational attainment remain with regards to ethnicity. This is apparent when looking at performance in the national examination for the General Certificate of Secondary Education (GCSE) taken at the end of compulsory schooling. Attainment in this examination is highest for students of Indian origin followed by attainment of students of White origin. Those from Bangladeshi, Pakistani or Black backgrounds perform significantly less well (Swann 1985; Mortimore 1988; Rotheron 2005). Finally, female students have more than caught up with centuries of educational disadvantage and now outperform male students at the end of compulsory schooling (Goldthorpe 2000).

With regard to higher education, the main repeated empirical observation is that educational expansion has, to date, not changed class differentials in absolute participation rates (Blackburn and Jarman 1993). In 2001, the Labour Education Minister Estelle Morris observed that ‘five times as many young people from

professional backgrounds enter higher education compared with those from unskilled and manual backgrounds – 73-74 per cent compared with 13-14 per cent’ (Morris 2001). With regard to educational quality, the pattern of participation in different strata of the higher education system shows stark social class and ethnicity gradients with the lower social classes and ethnic minority students over-proportionately enrolled in the lower status institutions (Archer, Hutchings et al. 2003; Blanden and Machin 2004; Boliver 2005). Furthermore, conditional on having participated in undergraduate study, the propensity to enrol in postgraduate education is not equally distributed across different social groups (Sastry 2004; Wakeling 2005; Zimdars 2006). The latter two observations tie in with Lucas’s theory of efficiently maintained inequality (EMI) that, within each level of education, students from the highest strata within the class structure enrol in the most prestigious educational options (Lucas 2001). The empirical evidence from the UK then lends more support to the MMI than to the spill-over hypothesis. This is particularly apparent in the most selective forms of higher education. As an extreme case of elite higher education, the University of Oxford is a particularly useful context in which to investigate this further.

1.5 Mechanisms of educational transitions

Turning to the explanation of the persistent educational inequality, sociologists have made significant progress in explaining how unequal transition patterns are generated. The traditional analytical approach is to focus on the students and their personal or family characteristics. For example, researchers might use measures of students' intelligence – however controversially measured – and then conclude that some of the class differences in transition rates relate to class differences in underlying levels of ability (Herrnstein and Murray 1996; Lee and Burkam 2002)⁵. An alternative, or sometimes complementary approach, is to assess the students' or their families' level of cultural and social capital. There is little doubt that attainment levels and the ability to navigate the educational system over and above natural ability vary by social background (Boudon 1974; Willis 1977; Bourdieu 1979; Coleman 1988). Yet a different way of thinking about transitions is to assume that all students and their families want to avoid downward social mobility. This makes it more rational for middle class children to continue in education to match their parental social class position than for children from the lower social classes (Boudon 1974; Gambetta 1987; Breen and Goldthorpe 2001). Finally, research shows that parents can directly use their economic capital to purchase private schooling that is particularly effective in lifting the attainment levels of children in the middle ability range (Halsey, Heath et al. 1980; Sullivan and Heath forthcoming 2008).

If the profile of those who put themselves forward for admission to Oxford were identical to the profile of the admitted students, it would be sufficient to model the self-selection of individuals to apply (Cameron and Heckman 1998). We will see in

⁵ Normatively, the implication of this finding is also controversial. Luck egalitarians, for example, reject that the lottery of ability endowment at birth should legitimately affect life outcomes in democratic forms of government Marshall, G. and A. Swift (1993). "Social-Class and Social-Justice." *British Journal of Sociology* 44(2): 187-211..

Chapter 2, however, that this is not the case. The focus of this thesis is on the mechanisms that operate to differentiate the successful from the unsuccessful applicants conditional *on having applied*. This also means that not all of the general mechanisms of educational transitions are likely to be applicable in the particular context under study. For example, it would be unclear how economic capital would, at this point, affect selectors' decision to admit or not to admit a particular student⁶. In contrast, meritocratic factors, as well as learning style and motivation and cultural and social capital, could be meaningfully related to outcomes of the selection process. The literature on social and cultural capital and learning styles is reviewed in Chapter 5 where the operationalisation of these concepts enters the statistical modelling. The centrality of the concept of meritocracy for this thesis, however, warrants a detailed discussion in the following section of this introductory chapter.

1.5.1 Meritocracy and higher education admission

In liberal democracies all citizens are 'born equal' (Jefferson 1776; United Nations General Assembly 1948; Locke [1690] 1924). Nonetheless, resources and power are *de facto* unequally distributed among different social groups in all known democracies. The normative justification of such inequalities is derived from the idea that individuals differ in their ability and effort as certified by the educational system. This puts education at the centre stage of the liberal democratic project: as long as

⁶ Unlike some selection boards to non-Ivy-League universities in the US, tutors do not have access to the financial background information of an applicant. British universities also do not have legacy policies.

educational attainment is meritocratic – or at least perceived to be meritocratic – other inequalities in outcomes such as differential access to healthcare (Black, Townsend et al. 1990) and labour market rewards (Breen 2004) can be legitimised within the democratic framework. This section describes the origin of the term meritocracy and discusses its implications for higher education admission.

The term meritocracy was coined by Michael Young in his critical social satire entitled 'The rise of meritocracy' (1958). Here, Young defines merit as an individual characteristic constituting of 'intelligence and effort...(I + E = M)' (Young 1958, p. 94).⁷ Young links the emergence of a society based on 'the principle of selection by merit' (Young 1958, p. 24) that replaced a society where status was 'ascribed by birth' (Young, 1958, p. 19) to changes in the British occupational structure in the 19th century.⁸ British research on stratification and educational transitions continue to use

⁷ The motors driving the move away from nepotism and family connection to a more open competition for the most desirable posts in society was the meritocrasiation of the Civil Service in the 1870s as well as the need for selecting the most able men for officer posts in the two world wars (Intelligence testing for officers was pioneered in the US during world war 1 and used in Britain for selection for post during world war 2.) and the need to be internationally competitive (Young, 1958, p. 19, p. 26).

⁸ Under the former stratification system, social groups were heterogeneous in their merit – 'the upper classes had their fair share of geniuses and morons, so did the workers' Young, M. D. (1958). The rise of the meritocracy, 1870-2023 : an essay on education and equality. London, Thames and Hudson. – but the meritocratic sorting of people into occupational destinations replaces this with a homogenous ruling class of 'the clever people' with regard to ability Young, M. D. (1958). The rise of the meritocracy, 1870-2023 : an essay on education and equality. London, Thames and Hudson. and the hard working with regard to effort. The lazy genius is not rewarded as meritorious, as this person only meets the condition of being 'able' but not of displaying signs of 'effort' Young, M. D. (1958). The rise of the meritocracy, 1870-2023 : an essay on education and equality. London, Thames and Hudson.. Young and others link this shift from stratification by ascription to stratification by 'ability plus effort' to the process of industrialisation. Some scholars maintain that the capitalist market form per se is conducive to 'increased merit selection' Jonsson, J. O. (1992). Towards the Merit-Selection Society? Stockholm, Swedish Institute for Social Research., as it improves economic efficiency Hayek, F. (1960). The Constitution of Liberty. London, Routledge, Blau, P. M. and O. D. Duncan (1967). The American occupational structure. New York., Wiley, Bell, D. (1972). "On Meritocracy and Equality." The Public Interest 29: 29 - 68, Goldthorpe, J. H. (1996). Problems with Meritocracy. Can Education be Equalized? The Swedish Case in Comparative Perspective. R. Erikson and J. O. Jonsson. Boulder, Westview Press: 255 - 287, Jonsson, J. O., C. Mills, et al. (1996). A half century of increasing educational openness? Social Class, gender and educational attainment in Sweden, Germany and Britain. Can Education be equalized? The Swedish Case in Comparative Perspective. R. Erikson and J. O. Jonsson. Boulder, Westview Press: 146 - 183..

measures of ability and effort to quantify merit (Saunders 1997; Savage and Egerton 1997; Breen and Goldthorpe 1999; Breen and Goldthorpe 2001; Jackson, Goldthorpe et al. 2003)⁹.

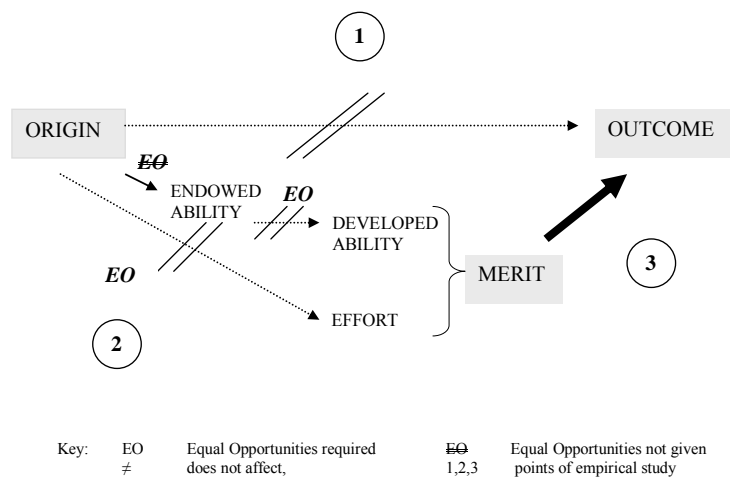
This section evaluates what it means in practice to select undergraduate students based on merit. Unfortunately, beyond the ultimately narrow consensus that we wish to live in a society where advancement depends on personal effort and ability, scholars, theorists and practitioners disagree on how exactly to operationalise merit (Sen, 2000, p. 5, see also Arrow et al, 2000, p. ix, Marshall and Swift, 1993, p. 190; Marshall et al. 1997, p. 7; Goldthorpe, 1996, p. 259, Schwartz, 2004, p.2). One may even argue that meritocracy is ‘essentially contested’, that is, ‘the proper use of [the concepts] inevitably involves endless disputes about their proper uses on the part of their users.’ (Gallie, 1964; Freedman 2003). Schwartz’s comprehensive review of access to higher education in the UK illustrates the contested nature of the term merit in relation to making actual admissions decisions:

‘Everyone agrees that applicants should be chosen on merit: the problem arises when we try to define it. Merit could mean admitting applicants with the highest examination marks, or it could mean taking a wider view about each applicant’s achievements and potential.’ (Steven Schwartz, 2004, p. 2)

⁹ There is a further notion of merit in the liberal tradition that is usually not included in the British discourse of meritocracy but that has particularly found expression in the selection process for American universities with competitive entry. This is the notion of merit as a socially desirable action rather than an individual characteristic. Historically, this notion goes back to Adam Smith who considered actions of ‘merit and demerit’ - that is ‘qualities deserving reward, and deserving punishment’ (Smith, 1790, p. 67 cited in Sen 2000). The use of this concept is illustrated by the evaluation criterion at e.g. Ivy League institutions that take into account an applicant’s potential to ‘contribute to society’ through desirable actions – however defined or measured. Such a person is regarded worthier of admission than an applicant with the same measured academic attainment who does not display signs of such potential Fetter, J. H. (1995). Questions and admissions : reflections on 100,000 admissions decisions at Stanford. Stanford, Calif., Stanford University Press, Steinberg, J. (2002). The gatekeepers : inside the admissions process of a premier college. New York, Viking, Fulbright Commission (2005). Fulbright Awards for Postgraduate Study in the US: Selection Criteria. **2005**.

On the one hand, Schwartz seems to suggest that the ‘highest examination marks’ is one possible operationalisation of merit. On the other hand, the idea that a wider view (contextual factors) is needed leads to the contrasting implication; namely that examination marks alone are not an appropriate proxy of an applicant’s merit. Figure 1 is designed to aid the understanding of Schwartz’s observation by mapping the theoretical normative working of the meritocracy by showing the relationship between social origin, ability, effort, merit and outcomes.

Figure 1.1: The theoretical model of meritocracy



The figure shows that in meritocracies, there is a legitimate link (3) between merit and outcomes. An example of an outcome would be labour market destination – the most rewarding or powerful employment positions, or both, should be awarded to the

most meritorious individuals. Merit, however, should normatively not be influenced by social origin. When Schwartz states that wider considerations might be necessary to generate the outcome ‘university admission’ for applicants, he is saying that educational attainment as a proxy of merit contains measurement errors because there is in fact a link (2) between social origin characteristics and merit. This could mean that the same examination attainment achieved in different social or schooling contexts may actually be the result of different underlying levels of ability and effort. The same mark may therefore hide differences in latent ability or ‘potential’ because not everyone had the same opportunities to shine.

This brings the discussion to the concept of equal opportunities, which is a precondition for the smooth and uncontroversial working of education-based democracy. It means that ‘people with the same academic aptitude or ability should be given equal access to advantaged sectors of education’ (Heath, 2006 p. 3 see also Boudon 1974, Goldthorpe 2000; Cox et al 2005)¹⁰. Factors that might affect how an individual’s efforts translate into achievement should be ‘regulated as to neutralize external influences’ (Habermas, 1976, p. 81)¹¹. Nonetheless, there is a large body of empirical work that shows that actual chances to succeed in education are structured

¹⁰ Luck egalitarians also argue that stratification based on ‘luck in the ‘natural lottery’ of difference in endowed ability (Herrnstein and Murray, 1994, Brody 1992, but: Fisher et al. 1996) challenges the very idea that meritocratic stratification is superior and more legitimate than direct stratification by social origin (Marshall and Swift 1993, p. 191; Dworkin 2000; Cohen 1989). It is a more widely accepted view, however, that equality of opportunity in the original liberal sense is limited to the notion of ‘equal opportunities for those of equal abilities’ Heath, A. (2006). Equality of Opportunity, University of Oxford..

¹¹ In actual fact, it might be difficult or impossible for states to provide perfect equality of opportunity because especially families vary significantly in their child-rearing, the neighbourhoods in which they live that provides a peer group and schooling and their economic, social, cultural and educational resources (see e.g Arrow et al, 2000, p. ix, Benabou, 2000, p. 319; Rawls; 1993, p. 82; Young, 1958, p., Plato [370-375 BC] 1998).

by social background factors (see e.g. Breen and Goldthorpe, 1999, 2001; Savage and Egerton, Marshall 1997; and Swift, 1993; Halsey et al. 1980).

States have used compensatory intervention in attempts to equalise the playing fields for students to realise their potential regardless of external circumstances. Such interventions generally enjoy public support at the early stages in the educational system. Compensatory intervention in higher education, however, is controversial. This is largely due to the disagreement about where to place higher education in the diagram displayed in Figure 1 – at point 2 or at point 3. On the one hand, higher education could be regarded as part of the merit development process (2) that certifies merit for the labour market (3). On the other hand, higher education could be considered as an outcome that rewards prior merit (3). The former conceptualisation of merit would allow for compensatory intervention in admissions processes such as affirmative action. Merit is viewed as a property relative to opportunities. In contrast, the latter approach would regard merit as an absolute property and lead to selection based on highest examination marks.

These differing interpretations mean that endorsing meritocracy in higher education admission is perhaps surprisingly limited in its practical usefulness for providing definite guidelines on how to select applicants in the UK. It is thus the role of individual higher education institutions to spell out in their individual admissions statement what exactly they are aiming to achieve in their selection process. The reference point against which to judge meritocracy in selection into Oxford then

needs to be the University of Oxford's own definition of meritocratic admission. The discussion will now turn to this admissions statement.

1.5.2 Meritocracy and the Oxford admissions statement

The University of Oxford's 'Common Framework' for admissions states that admissions procedures should be informed by the following objectives:

- 'to attract applications from the most academically able individuals, irrespective of socio-economic, ethnic or national origin;
- to ensure applicants are selected for admission on the basis that they are well qualified and have the most potential to excel in their chosen course of study.' (University of Oxford 2006)¹²

While these objectives might appear like straight-forward guidelines for selectors, they do, in fact, repeat the dormant conflict between differing conceptions of merit uncovered in the Schwartz report. This effect arises from the conjunction of the words 'irrespective' and 'potential'. Irrespective means 'characterized by disregard of particular persons, circumstances, or conditions' (Oxford English Dictionary, online) whereas potential is defined as 'possible as opposed to actual; existing...in a latent or undeveloped state, capable of coming into being' (Oxford English

¹² The 2006 statement is the updated version of the mission guidelines laid out by the Educational Policy and Standard Committee in 2003 which stated that: 'The University seeks to admit the best applicants irrespective of their social, regional, ethnic, or educational background, solely on the basis of academic ability and potential.' (*Educational Policy and Standard Committee, 2003, p. 7*).

Dictionary, online). The word irrespective thus suggests that the same objective measure of merit should be applied in the selection of all candidates (i.e. absolute merit), whereas considering the merit that is still ‘capable of coming into being’ and as such not observable could justify compensating for differences in circumstances between applicants (i.e. relative merit). Merit selection, then, remains ultimately under-defined in Oxford’s admissions statement. The hypotheses regarding merit selection tested in the statistical analyses then formalise the idea of absolute merit by looking at transition rates controlling for educational attainment. At the same time, the under-definition of meritocratic selection at the institutional level also offers an opportunity to probe further into what selectors themselves regard as the objective of the selection exercise and their criteria of merit or potential. The specific research hypotheses are now described in further detail along with a brief overview of the thesis chapters.

1.6 Thesis outline

This section details the organisation of this thesis. Specifically, this section details the research question addressed in each of the chapters.

Chapter 2

Chapter 2 offers a description of the current application and admissions profile to Oxford. This is related to the national context of higher education applications and acceptances. The chapter uses national data from the University and Colleges Admissions Service (UCAS) to investigate whether there are any differences by social background in gaining an offer for study at Oxford conditional on having applied. As we would expect from the literature review presented in this introductory chapter, social background characteristics affect the likelihood that an individual self-selects him or herself for application to Oxford. But more importantly, the chapter finds unequal admissions rates into Oxford *conditional on application*. This pattern constitutes the research puzzle for the investigations in subsequent thesis chapters. Specifically, ethnic minority applicants, those from lower social classes and female applicants have a lower chance of gaining an offer than white, professional or managerial and male applicants. The chapter also finds that private school applicants had a higher admissions rate than their state school educated peers.

Chapter 3

This chapter reviews data collection, ethical and methodological issues. It also offers a detailed description of the construction of variables for the empirical analysis and lists research limitations. In terms of methodological contributions, this chapter argues for using a refined social class operationalisation based on the number of professional class parents present in a household.

Chapter 4

Chapters 4 to 7 of the thesis are concerned with the empirical investigation of the unequal admissions patterns established in Chapter 2. The first two empirical chapters are based on purposefully collected quantitative data of almost 2,000 applicants for admission to Oxford. Chapter 4 specifically investigates to what extent meritocratic (attainment based) and structural (subject choice, college choice) explanations account for the differential admissions rates observed in Chapter 2. For example, it could be the case that ethnic minority applicants apply to more competitive subjects than their white peers or that private school applicants have higher attainment records.

The analysis finds that both structural and meritocratic factors are related to selection decisions. In particular, prior academic attainment is the strongest predictor of gaining a place at Oxford. Meritocratic and structural factors do not, however, explain differential transition rates into Oxford by social background characteristics. A net disadvantage remains for non-white, female and non professional class applicants. The empirical finding also reverses the private school effects. Prior to the controls for academic attainment, private school applicants appeared to be advantaged in the selection process. This advantage reversed to a statistically significant net disadvantage after controlling for their prior educational attainment.

Chapter 5

Chapter 5 sets out to explore whether extended merit measures and hypotheses relating to cultural and social capital and learning styles are related to selection decisions. In particular, the chapter investigates whether knowledge of high culture as well as cultural habits attitudes and aspirations are related to selection decisions (Bourdieu 1979; Bourdieu and Passeron [1977] 1990). It is well established in research on schools that teachers reward cultural habits over and above students' innate ability – let it be in classroom interactions or grades in continuous assessment. It is then possible that in the face-to-face interview interaction between selectors for higher education and applicants, selectors find it easier to relate to those who display cultural habits and motivation levels valued by the selectors. The survey material then included several measures for quantifying an applicant's cultural knowledge and habits. The chapter also investigates whether applicants with a parental tie with Oxford or Cambridge University fare better in the selection process than those who do not. This is a social capital argument based on the assumption that those with knowledge of how Oxford and the selection system work may have an advantage in the selection process.

The chapter shows that cultural capital and extended merit measures are meaningfully related to selection decisions. Some progress is made towards explaining the disadvantage experienced in the selection process by South Asian applicants – but even this effect remains large and significant. The other social background coefficients remain largely unchanged.

Chapter 6 and 7

Because the previous statistical analyses failed to explain fully the admissions pattern for Oxford applicants, Chapter 6 and 7 are devoted to developing an explanation of selection patterns based on the perspective of the selectors. The chapters are based on interviews with admissions tutors and the observation of actual admissions meetings. Specifically, the chapters set out to describe the goals selectors pursue in the selection process, the information selectors consider and the process of actual admissions meetings. The qualitative analyses conclude with suggestions for alternative explanations of the previously observed transition patterns. Overall, the findings suggest that intention to discriminate plays no or only a marginal role in selection decisions. However, it is suggested that selectors might find it easier to relate to socially similar individuals. Unconscious homo-social reproduction might thus occur as a by-product of the face-to-face selection process.

Chapter 8

The final empirical analyses in Chapter 8 are concerned with investigating the validity of the selection process in the light of the final university examination performance of the study participants who graduated in 2006. Similar to the analyses in chapters 4 and 5, the investigation considers the importance of structural, meritocratic, extended merit and cultural capital processes. The analysis shows that some groups who face a disadvantage in the selection process, namely female applicants and private school

applicants, are also less likely to attain First class honours degrees at Oxford – but not at other universities – than their male and state school educated peers. Possible explanations and the implications of this finding are discussed.

Chapter 9

This chapter concludes the thesis by offering a summary of the main research findings and a discussion of the contributions to knowledge.

1.7 Concluding remarks

To summarise, this thesis originated in response to the paucity of empirical research on selection processes into competitive higher education in the UK *conditional on application*. Furthermore, I argued that there is a paucity of empirical work that systematically measures individual student characteristics such as motivation, cultural capital and detailed attainment that are generally believed to affect higher education transitions. Filling this gap adds another paint stroke to completing the picture of the continuities and changes in British education at the dawn of the 21st century. Specifically, this thesis uses a case-study approach to higher education admissions to investigate the relative importance not only of structural and meritocratic factors but also of detailed student characteristics such as cultural and social capital to understand selection into the University of Oxford. Furthermore, the analyses in Chapter 6 and 7

introduce a focus on the goals and preferences of selectors for undergraduate admission. This approach allows new insights into the mechanisms that generate transition patterns. Overall, this thesis contributes to normative discussions of the meaning of merit at the university gate, policy questions regarding selection into competitive higher education and theoretical work in the social sciences on explaining the micro-mechanisms behind macro-level social phenomena

Chapter Two

Establishing the Explanandum

2.1 Overview

This chapter establishes the explanandum, that is the phenomenon under study in this thesis (Merton 1987; Goldthorpe 2000, p. 153). The chapter compares the social class, gender, ethnic and schooling composition of the British public at large with the profile of higher education applicants in general, high attaining higher applications, and applicants to the University of Oxford. The chapter finds that whereas acceptance patterns for higher education at large and success rates for high-achieving higher education applicants mirror application patterns this is not true for those applying to the University of Oxford. In other words, selection processes to Oxford create a different admissions pattern than the mere application process. Specifically, the chapter finds that applicants from the highest social class, those of white ethnicity, male applicants and those from private schools gain in their proportional representation among those offered a place for study at Oxford compared to their representation among the Oxford applicants. These differential admissions rates to

Oxford, conditional on application, constitute the explanandum for this thesis and provide the background for the subsequent empirical analyses in Chapters 4 to 8.

2.2 Introduction

In Chapter 1, it was discussed that the self-selection into application to higher education is in itself linked not only to prior educational attainment but also to social background characteristics (Cox, Goldthorpe et al. 02.02.2005; Halsey, Heath et al. 1980; Mare 1981; Heath and Clifford 1990; Piatt 2003; Bourdieu and Passeron [1977] 1990). However, even conditional on applying to higher education and controlling for prior attainment, students from different social origins self-select themselves for application to different higher education providers. Generally, the higher the prestige of the university, the higher the percentage of middle class and white applicants (Lucas 2001; Archer, Hutchings et al. 2003; Boliver 2005). A comparison of applicants to the University of Oxford with all higher education applicants is then expected to show higher application rates for white students and those from the highest social classes. Furthermore, when comparing all higher education applicants to the general public, the knowledge of educational trajectories results in an expected higher representation of the most privileged social classes. Conditional on application, however, and for students with the same prior attainment, we would not expect differential admissions rates to Oxford for students with different social background characteristics.

In other words, students with the same prior attainment who have applied to Oxford should have the same chance of gaining an offer regardless of other student

characteristics (University of Oxford 2006). This chapter investigates this hypothesis by undertaking a comparison of UCAS application and admissions data of Oxford with admissions information for all high-achieving higher education applicants and all higher education applicants. Application and acceptance patterns are discussed in detail by region, socio-economic status, ethnicity, gender and type of school. The chapter concludes with a discussion of the main findings and summarises the patterns of unequal acceptances to Oxford that constitute the explananda for the subsequent empirical chapters of this thesis.

2.3 Data and Methods

The UK operates a centralised system of university applications. Higher education applicants file an application through the University and Colleges Admissions Service (UCAS). The UCAS application form allows applicants to list up to six university choices. UCAS then manages the distribution of the application form to the named higher education providers and informs applicants of the institutions' response to their application. This system of higher education admissions management means that UCAS centrally collects and publishes information such as social class, ethnicity, gender, schooling and attainment on the application and enrolment profile of all UK-domiciled applicants to higher education. UCAS does not keep similarly detailed information for overseas domiciled applicants. The information for all UK-domiciled applicants provides the basis for the descriptions of higher education applications and acceptances in this chapter. In 2002, the year that the purposefully designed and administered survey of applicants to Oxford took place, 476,467 applicants for higher

education filed 2,046,131 applications through UCAS for a place at one of the UK's 336 universities and colleges for full-time undergraduate courses (wwwucas.co.uk).

In order to understand the relation between the application and acceptance patterns to Oxford and applications and acceptances to higher education in general, this chapter compares application and admissions figures for all higher education applicants with those for high attaining applicants and applicants and admissions to the University of Oxford. The discussion will now turn to the technical details of how this comparison is constructed.

UCAS publishes aggregate data on all applicants to undergraduate degree level courses in higher education. In addition to this information, it is also worthwhile to compare the applicants to Oxford with all those higher education applicants who would have been eligible to apply to Oxford had they chosen to do so. The operationalisation of a high ability comparison group requires some further technical explanations.

UCAS provides an attainment tariff whereby British applicants for higher education in 2002 can be classified by the school leaving results they went on to achieve in 2003. English, Scottish and Irish qualifications are awarded a numerical equivalent on a scale from 0 to 540+ with an A at A-level scoring 120 points and a B scoring 100 points (<http://wwwucas.com/candq/tariff/index.html> viewed on 19.10.2005). The discretionary minimum offer for study at Oxford offer is AAB (or 340 points) although the University increasingly aims to admit only students with an attainment of triple A or higher at A-level. The way UCAS data are publicly accessible means that it was only possible to separate applicants into attainment groups with a cut- off point

either at 300 points (equivalent to BBB at A-level) or 360 points (equivalent to AAA). The 360 cut off point was then selected as the more appropriate one for the comparison of Oxford applicants with national high achievers. There are some caveats in using this measure, however. This is because the UCAS tariff also awards points for qualification and skills other than attainment at school. For example an extra 75 points – approximately equivalent to an extra full A-level at grade C – is awarded for gaining a distinction in performance on a musical instrument at grade 8. These extra points explain why some applicants to higher education score as highly as 540 points on the UCAS tariff. It also means that not all students with a UCAS tariff higher than 360 have necessarily attainment three grades As at A-level but might have achieved their score through additional non-academic accomplishment. The University of Oxford does not systematically consider these additional accomplishments in its selection process. In fact, the University of Oxford argued in their legally required written agreement with the Office of Fair Access¹³ that whereas 75 per cent of students from the maintained (state) sector achieve a UCAS tariff higher than 360 points, in fact only 62 per cent achieve this score through a triple A at A-level (University of Oxford 2004, p. 4). The University of Oxford therefore ‘opposes the decision to use UCAS tariff points (rather than A level points)’ as a performance indicator of recruitment targets from the maintained sector (University of Oxford 2004, p. 4). Finally, a further limitation of the UCAS tariff is that attainment information is compiled after students complete their school leaving examinations. This practice does not truthfully mirror actual admissions processes. Up to now (2007) the UK operates a pre-qualification admissions system whereby referees for applicants to higher education provide universities with information on an applicant’s

¹³ For universities to be allowed to charge the full GBP 3,000 in top up fees they were required to sign an Access agreement with the Office of Fair Access University of Oxford (2004). Access Agreement between the University of Oxford and the Office of Fair Access..

predicted educational attainment. These predictions, rather than the actual attainment, form the basis of selection decisions¹⁴. Despite these limitations, the UCAS ‘360+’ group is the best publicly available operationalisation of high-achieving higher education applicants against which to assess applications and acceptance to Oxford. By and large, this measure picks up the high achievers although it does so with some error.

One final limitation of using UCAS data concerns the presence of missing data. Since both ethnicity and social class information is collected on a voluntary basis, both measures are prone to significant proportions of missing data. For ethnicity, 7.6 per cent of data is missing and social class information is missing for 1 in 5 applicants to higher education (21 per cent). This is concerning as previous research on educational attainment has shown that class and ethnicity information is usually not missing randomly. In particular, missing social class information tends to be associated with lower levels of educational attainment. The attainment penalty for GCSE performance, for example, is similar in size to the lower attainment observed for students from the lowest social class origin (Rothon 2005). Great care is needed then in the interpretation of the class and ethnicity information provided in the UCAS data.

The following section describes the actual patterns of applications and acceptances for higher education applicants at large, high-achieving higher education applicants and applicants to Oxford. The discussion begins by looking at regional application

¹⁴ This potentially leads to some distortion as there is some evidence that attainment predictions for students at private schools and from high socio-economic backgrounds tend to be overly optimistic Schwartz Commission (2004). Fair Admissions to Higher Education: Draft Recommendations for Consultation, Schwartz Commission..

patterns by separating UK from EU applicants and other overseas applicants. The chapter then moves to a discussion of the sociologically more salient stratifiers of educational transitions, namely social class, ethnicity, gender and type of school.

2.3.1 Regional application and acceptance patterns

As noted above, the UCAS attainment, social class, ethnicity and school data refer only to UK-domiciled residents. Overseas and EU applicants are therefore not included in the description of application and acceptance patterns by class and ethnicity. Nonetheless, it is possible to look simply at the overall pattern of applications and acceptances by region of residence for all higher education applicants and for the Oxford applicants. This task is undertaken in Table 2.1. The figures indicate that as a world leading University, Oxford attracts significantly larger numbers of overseas applications than the British higher education sector at large. Among the Oxford applicants, 19.6 per cent of individuals resided in the EU or other overseas countries compared to only 13.1 per cent of non-UK residents among all higher education degree applicants.

Table 2.1: UCAS Higher Education applications and acceptances by country of domicile for entry in 2003

	UK	EU	Other overseas	Total
All applications	86.9	3.8	9.3	476,467
All Oxford applicants	80.4	6.1	13.5	12,672
All degree accepts	89.2	3.4	7.4	374,307
All Oxford accepts	89.5	3.6	6.9	3,316

Data Source: UCAS: Statistics for 2003 entry.

When looking at acceptance rates, however, an almost identical proportion of admitted students are derived from the UK among all degree accepts (89.2 per cent) and among the students accepted to the University of Oxford (89.5 per cent). This means that conditional on having applied, non-UK applicants to the University of Oxford are less likely to be successful than non-UK applicants to other British higher education institutions. Non-UK domiciled applicants to Oxford are also less likely to be successful in the competition for a place at Oxford than UK domiciled applicants. The University of Oxford's own published statistics actually put the success rate of British applicants as 1:3 and the success rate of overseas and EU candidates at 1:5 (www.ox.ac.uk/admissions). The previous observation then leads to the first explanandum for further investigation in the subsequent chapters of this thesis:

Explanandum 1: *Conditional on having applied, non UK-domiciled applicants are less likely to gain an offer for study at the University of Oxford than UK-domiciled applicants.*

2.4 Application and acceptance patterns by Class, ethnicity, gender and type of school

The subsequent descriptions of higher education applications and admissions then are based only on UK domiciled applicants and degree accepts to higher education. Specifically, Table 2.2 displays the social background characteristics of the UK population at large, all higher education applicants, high-achieving higher education

applicants and applicants and acceptances to the University of Oxford. The patterns of applications and acceptances from Table 2.2 are now discussed in detail under the headings social class, ethnicity, type of school and gender.

Table 2.2: Social Class, ethnicity, school attendance and gender in the population at large, among HE applicants and among Oxford and research applicants and offers

	British Population	UK domiciled HE applicants and degree accepts		UK domiciled applicants Tariff > 360		All UK domiciled Oxford applicants and offers		All UK domiciled research participants and offers	
		All HE applicants	All degree accepts	All UK HE applicants	All UK degree accepts	Applicants	Offers	Participants	Offers
Social Class									
Higher managerial and professional occupations	11.0	17.0	18.4	30.0	30.1	25.6	29.1	25.4	28.4
Lower managerial and professional occupations	22.0	24.5	25.4	31.2	31.3	44.6	43.0	43.6	39.7
Intermediate occupations	10.0	12.1	12.3	12.2	12.4	12.4	12.8	12.8	14.2
Small employers and own account workers	8.0	6.0	6.0	5.6	5.6	5.0	4.4	6.4	7.2
Lower supervisory and technical occupations	9.0	4.0	4.0	3.6	3.6	3.9	3.9	4.2	4.1
Semi-routine occupations	13.0	10.9	10.5	6.9	7.0	.4	.3	.4	.2
Routine occupations	10.0	4.7	4.4	2.6	2.6	0	0	0	0
Missing	n.a.	20.7	19.1	7.8	7.5	8.0	6.5	7.3	6.3
Unemployed	17.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ethnicity									
White	92.1	76.0	77.3	87.5	87.5	83.6	86.4	86.1	89.0
Indian	1.8	4.0	4.2	3.4	3.5	3.5	2.6	3.4	1.8
Bangladeshi / Pakistani	1.8	3.4	3.2	1.5	1.5	1.6	1.0	1.9	1.1
Black	2.0	4.2	3.7	0.9	0.9	1.5	.9	1.0	1.1
Other (incl. mixed and Chinese)	2.4	4.8	4.8	4.8	4.8	4.5	4.1	3.3	2.9
Missing	0.0	7.6	7.0	1.8	1.8	5.3	5.0	4.3	4.1
Type of School									
Private School	12.6	8.7	9.7	21.1	20.8	39.7	42.8	38.6	39.6
Comprehensive, Maintained	80.5	29.2	31.2	38.7	39.6	45.4	43.9	48.9	47.2
FE Sector		35.1	33.5	23.4	23.5	4.7	3.3	4.1	4.4
Grammar School	6.9	4.9	5.5	10.0	10.0	6.4	7.2	6.9	6.9
Other	n.a.	1.2	1.2	0.9	0.9	0.5	0.2	0	0
Missing	n.a.	20.9	18.9	5.9	5.1	3.3	2.6	1.5	1.8
Gender									
Male	48.8	45.7	45.6	42.3	42.4	49.9	51.5	45.2	49.4
Female	51.2	54.3	54.4	57.7	57.6	50.1	48.5	54.8	50.6
N	58,799,194 (Census) 278,391 (DFES) 37,248 (LFS)	409,968	316,242	94,634	86,157	9,842	3,300	1,747	656

Data Sources: Column 1: *British Population socio-economic status:* Labour Force Survey, Office for National Statistics, (Socio-economic classification1 of working-age population, summer 2003). *British Population ethnic and gender composition:* Census, April 1991 and 2001, Office for National Statistics; Census, April 2001, General Register Office for Scotland; Census, April 2001, Northern Ireland Statistics and Research Agency. *British Population educational institutions for 16 – 18 year olds:* Department for Education and Skills: Table 1: GCE/VCE A/AS and Key Skills at Level 3 results of students aged 16-18, by type of establishment and gender by the end of 2002/03 (www.dfes.gov.uk/rsgateway/DB/SFR/s000441/tab001.shtml viewed on 20.10.2005).

Columns 2 to 5: Higher Education Statistics: *UCAS tariff and Socio-Economic Class / Ethnicity / gender / educational institution for UK applicants in 2002:* www.ucas.ac.uk/statistics.

Column 6 and 7: Oxford Statistics: UCAS data supplied through the Oxford Colleges Admissions Office

Column 8 and 9: This research project (see Chapter 3 for methodological details).

2.4.1 Social Class

Information on the social class background of all applicants to higher education is first compared to the social class composition of the population at large. In line with other research on higher education participation, there is an over-representation of the higher and lower managerial professions among all higher education applicants by 9 per cent. Conversely, applicants from semi-routine and routine manual backgrounds are underrepresented by 2.1 and 5.3 percentage points respectively (cf. Blackburn and Jarman 1993; cf. Archer 2000; Blanden and Machin 2004). This pattern holds despite the limitations in the comparison because of the inclusion of an ‘unemployed’ category in the population comparator but not among the UCAS data and the previously noted high percentage of missing social class information for higher education applicants. A final caveat is that because of the link between missing social class information and low attainment similar to attainment associated with low social class origin (Rothon, 2005, p. 195, 197) the increased representation of the higher middle class and the reduced working class representation among higher education applicants could potentially be slightly overstated.

There is further support for an association between missing social class and low attainment when comparing all higher education applicants to the high-achieving applicants. Among the latter group, the missing class information is reduced by 13 percentage points. This suggests that missing social class is usually associated with educational attainment below the high standard usually required for competing for a place at the University of Oxford. In general, the comparison of high achievers with all applicants reveals a striking social class gradient in the representation among the

highest achievers. The higher social classes gain significantly in their proportional representation among the highest achievers – the higher professional and managerial professions gain 13 percentage points – and the lowest social classes lose in representation. The representation of those from semi-routine backgrounds is decreased by 4 percentage points and the representation of those from routine manual backgrounds is almost halved from 4.7 to 2.6 per cent of all high achievers. These class gradients are further exacerbated when a more detailed breakdown of the UCAS tariff 360 + group is undertaken by singling out the top 5 per cent of educational achievers, that is the UCAS 540 + category. Now the highest professional and managerial occupations constitute 38 per cent of the group compared to their 30 per cent within the 360 + cohort.¹⁵

Turning to the data from the University of Oxford, the overall presentation of those from the professional and managerial class increases by a further 9 percentage points to 70.2 per cent compared to the high achievers as a whole. The composition of this middle class group, however, changes. The largest single group of applicants is now the 44.6 per cent classified as originating from the lower managerial and professional occupations. There is some anecdotal evidence that this figure represents the increased representation of the children of teachers and other professionals in the educational system whose aspirations for an Oxbridge education are believed to be particularly strong. Only 0.3 per cent of applicants to the University of Oxford were classified as from semi-routine backgrounds compared to 6.9 per cent of those with a UCAS tariff higher than 360. The representation of those from routine backgrounds

¹⁵ As extra points are awarded for e.g. proficiency in a musical instrument which is associated with financial resources, it raises equity issues regarding whether children of all social background have the same opportunity to attain the highest possible UCAS scores.

is reduced from 2.6 per cent among the high achievers to zero¹⁶. In relation to this very important observation, it must be noted that no other project has yet assessed applications and admissions to Oxford based on the changed UCAS social class classification that was introduced in 2001. This may explain why previous studies based on the old class coding schema did not find a zero representation of the most disadvantaged group in terms of socio-economic origin (Kotecha 2003; Boliver 2004). While it is not possible to completely reject the charge that 2002 might simply have been an unrepresentative year, it appears more plausible that the explanation lies in UCAS's adoption of a new social class classification scheme. The previous social class classification scheme that was used by Kotecha and Boliver differentiated between 'skilled (non-manual)'; 'skilled (manual)', 'partly skilled', and 'unskilled'. In contrast, the new NS-SEC classification used in Table 2.3 differentiates between 'Lower supervisory and technical occupations', 'Semi-routine occupations' and 'Routine occupations'. It is possible that the unskilled group in previous research could have all been classified as semi-routine under the NS-SEC schema in which case all the change to the new schema does is flag up the stark lack of applications to Oxford among those most disadvantaged in terms of social origin. Finally, it is also possible that neither the change to NS-SEC nor the representativeness of 2002 account for the disappearance of applicants from routine-manual backgrounds from the application radar screen but that the proportion of those from the most disadvantaged backgrounds is declining in applications to Oxford.

Shifting the focus to acceptance patterns for degree courses among all higher education applicants and the high achievers, the acceptance figures closely mirror

¹⁶ The potentially wide-reaching impact of this observation led me to seek a confirmation of my analysis from the UCAS statistics team who confirmed this finding.

application patterns. In contrast, there are differences between the application and the admissions pattern when only considering the institutional data for Oxford. The representation of the higher managerial and professional occupations is increased by 3.5 points when looking at all applications and acceptances to Oxford and by 3.0 points when only looking at the research participants. The representation of accepted students from the lower managerial and professional occupations drops by 1.6 and 3.9 points respectively. Intermediate occupations gain slightly. The already very small representation of those from semi-routine backgrounds decreases even further. The presentation of the lower supervisory professions stays constant.

The sample of research participants is largely representative of the aggregate pattern of acceptances to Oxford by social class. This is further supported by looking at Table 2.3 where the significance of the differences in acceptance rates for those from different social classes is tabulated.

Table 2.3: Per cent of applicants gaining an offer by socio-economic status (adjusted residuals in brackets).

	All summoned Candidates ex overseas and engineering	All summoned candidates at the research colleges ex overseas and engineering	Research Participants
Social Class			
Higher Prof. / Mang	37.9 (5.7)	37.2 (3.1)	41.1 (2.2)
Lower Prof / Mang	32.3 (-1.9)	32.1 (-1.1)	33.8 (-2.6)
Intermediate	34.5 (1.0)	34.7 (.8)	41.5 (1.5)
Small Employers	29.6 (-1.7)	33.3 (.1)	42.5 (1.2)
Lower supervisory / technical	31.3 (-.8)	30.3 (-.7)	35.4 (-.3)
Semi-routine	32.4 (-.1)	33.3 (.0)	14.3 (-1.2)
Not applicable / Missing	26.2 (-4.7)	24.4 (-3.5)	32.7 (-1.2)
Total	33.3	33.0	37.1
N	9908	3654	1908

Bold figures: Adjusted residuals significant. Adjusted residuals of value smaller than -2 or larger than +2 signifies an observation that depart significantly from the model of independence at the .05 level or higher.

The table shows that the increased success rate of those from the higher professional and managerial is significant and seems to be partly at the cost of the lower professional and managerial group. While the reduced success rate of those from working class backgrounds is not statistically significant, it does tie in with the work of Boliver (Boliver 2004) and Kotecha (Kotecha 2003) that, conditional on having applied, working class students experience a disadvantage in the admission process.

Explanandum 2: *Conditional on having applied to the University of Oxford, the most advantaged groups of applicants in terms of social class origin are most successful in gaining an offer. Those whose social background is missing have a lower chance of gaining an offer.*

2.4.2 Ethnicity

This section assesses the patterns of applications and acceptance to higher education by ethnicity. It is first striking to observe that all ethnic minority groups are over-represented among higher education applicants (15 per cent) and degree accepts (16 per cent) compared to their representation in the population at large (8 per cent). However, among the higher education applicants with a UCAS tariff greater than 360, the presentation of ethnic minorities is decreased to 9 per cent of the applicants and 11 per cent of the degree accepts. This suggests that apart from the ‘other ethnicity’ group ethnic minorities are under-represented among the high-achieving higher education applicants compared to their representation among HE applications in

general. Ethnicity information is missing for 7.6 per cent of all higher education applicants but reduced to only 1.8 per cent of high-achieving applicants. This suggests that similar to missing social class information, missing ethnicity information is linked to lower educational attainment within the group of higher education applicants.

When comparing those with a UCAS tariff higher than 360 to all Oxford applicants, the pattern of applications for White, Indian and Bangladeshi and 'Other' applicants are very similar. Black applicants are slightly over-represented among Oxford applicants compared to their representation among the high achievers. There is a puzzling re-emergence of 5.3 per cent missing ethnicity data. Unlike the gradient that appears in social class when decomposing the high achiever group, the ethnic pattern of the top achievers does not change significantly except for a slightly higher proportion of those from 'mixed' backgrounds among the 540 + UCAS tariff bracket.

When looking at higher education acceptances, a similar pattern emerges as the social class pattern discussed in the previous section. The proportional representation of different ethnic groups is essentially identical to the application pattern for all applicants to higher education and for the high achievers. However, even more marked than in the case of social class, acceptance patterns by ethnicity at Oxford differ from application patterns. Despite the small numbers involved it is striking that all non-white groups constitute a smaller proportion of the applicants offered a place than they are of all applicants. With the exception of the small group of Black applicants whose admissions and acceptance rate among research participants stays

the same, this pattern is replicated for all research participants. The significance tests represented in Table 2.4 below shows that among all Oxford candidates the ethnic differences are significant except for the ‘other’ group with White applicants having the highest chance of gaining an offer.

Table 2.4: Per cent of applicants gaining an offer by ethnicity (adjusted residuals in brackets).

	All summoned Candidates ex overseas and engineering	All summoned candidates at the research colleges ex overseas and engineering	Research Participants
Ethnicity			
White	35.4 (8.3)	35.0 (4.6)	38.8 (3.1)
Black	20.8 (-3.0)	28.3 (-.7)	38.9 (.2)
Indian	25.7 (-3.0)	26.5 (-1.7)	20.0 (-2.8)
Bangladeshi / Pakistani	21.5 (-3.1)	23.8 (-1.6)	21.2 (-1.9)
Other (Mixed, Chinese)	30.8 (-1.1)	31.0 (-.5)	33.3 (-.6)
Missing	25.2 (-6.2)	25.1 (-3.8)	32.9 (-1.4)
Total	33.3	33.0	37.1
N	9908	3654	1908

Bold figures: Adjusted residuals significant. Adjusted residuals of value smaller than -2 or larger than +2 signifies an observation that depart significantly from the model of independence at the .05 level or higher.

Explanandum 3: *Conditional on having applied to the University of Oxford, white applicants have a higher chance of being admitted than other ethnic groups. In particular, there is a significant disadvantage experienced by applicants from the Indian subcontinent.*

2.4.3 Gender

In terms of gender the age of 22 has been identified as the point at which there are more men than women in British society (Census 2000). Even so, among the

generally younger higher education applicants (77.27 per cent of applicants are under 21, www.ucas.com/statistics) females already constitute 9 per cent more of applicants and degree acceptances than male applicants. This difference is even more marked among those achieving a UCAS tariff of 360 and higher where females represent almost 58 per cent. This figure stays constant when breaking down the high achievers except for the group of the very highest attaining students with more than 540 UCAS points. Here, there is only a gap of 4 percentage points signifying that male applicants are slightly over-represented in this group compared to their general representation among the higher education applicants.

Among the Oxford applicants male and female applicants are evenly represented. However, among all offers, female applicants are under-represented by 1.6 points. This finding is more pronounced among the research participants where the difference between participants and offers for females is 4.2 points. The significance test in Table 2.5 shows that the gross difference in acceptances for female applicants is marginally significant for all applicants and significant for all summoned candidates and the research participants.

Table 2.5: Per cent of applicants gaining an offer by gender (adjusted residuals in brackets).

	All summoned Candidates ex overseas and engineering	All summoned candidates at the research colleges ex overseas and engineering	Research Participants
Gender			
Male	33.9 (1.9)	34.7 (2.1)	40.5 (2.9)
Female	32.7 (-1.9)	31.5 (-2.1)	34.2 (-2.9)
Total	33.3	33.0	37.1
N	9908	3654	1908

Bold figures: Adjusted residuals significant. Adjusted residuals of value smaller than -2 or larger than +2 signifies an observation that depart significantly from the model of independence at the .05 level or higher.

Explanandum 4: *Conditional on having applied to the University of Oxford, female applicants have a lower chance of gaining an offer than their male peers.*

2.4.4 Type of School

Before discussing the patterns of applications and acceptances, the actual inclusion of schooling information among the social background characteristics requires a brief conceptual justification. Social class of origin, ethnicity and gender are uncontested ascribed characteristics that individuals cannot choose or change should they wish to do so¹⁷. Schooling, however, is at least to some extent a matter of choice. Nonetheless, this choice is structured by social background factors. In particular, participation in forms of schooling that are perceived as most advantageous is strongly associated with economic capital in the form of either tuition fees or property ownership in a particular area. Religious beliefs, which also involve the possibility of choice but are more often than not among adolescents a function of their parental religious beliefs, can be another important factor in gaining admission to faith based state schools. These schools are often among the best performing state schools in the country (cf. Coleman 1988; Schagen, Davies et al. 2002). Even the ‘meritocratic’ grammar schools which select students based on academic attainment in the 11+ exam have been linked to social class in a way that may or may not be compatible with equal opportunities requirements (Crowther 1959). Schooling then, can be conceptualised either as a background factor that is correlated with other social

¹⁷ Except for the case of sex-change or ‘divorcing’ your parents, both of which are sufficiently uncommon phenomena among adolescents to be disregarded in this analysis.

background characteristics or as a more independent process that affects how innate ability is translated into educational attainment. The state school intake targets given to individual universities under agreements with the Office of Fair Access (University of Oxford 2004) indicate that schooling is currently regarded as a process that gives some children more opportunities to shine than others. Targets are deemed necessary to achieve a socially desired representation of students from different types of schools in particular types of higher education. In the light of these considerations and because of the seminal importance of schooling for public policy debates in the UK, it is thus desirable to include the type of school of higher education applicants among the characteristics of higher education applicants as a dimension that may affect the chances of gaining an offer.

When assessing the actual schooling data, the single largest increase in representation between all higher education applicants and the high achievers occurs with regards to private school students. Their share is increased by 12.4 percentage points to a presentation of 21.1 per cent among the high achievers compared to all applicants. The representation of private sector educated applicants among the 540 + group is even higher at 28 per cent. Among Oxford applicants, the figure for private school applicants is close to 40 per cent, or almost twice as high as their representation among the high achievers. Grammar school students also double their presentation among the high achievers compared to all applicants from 4.9 to 10.0 per cent with no further increase in representation among the 540 + group. Among Oxford applicants, they lose 3.6 points so that their actual application figure resembles more closely their general higher education application pattern than their representation among the high achievers. The largest losers in terms of applications to Oxford are those from the FE

sector. They constitute 23.4 per cent of all high achievers but only 4.7 per cent of Oxford applicants. Large changes also occur with regards to the missing category. Here, it can be assumed that missing school information is linked to the status of a mature student (22.7 per cent of applicants in 2002 were classified as mature students) who are more likely to hold non-traditional qualifications, i.e. they may apply to higher education based on their work experience in addition to their school attainment. The observation that there is a 15 percentage point decrease in missing data when looking at the high achievers lends support to this idea as non-school qualifications are not covered in the UCAS tariff. With regards to other types of schools, the proportions do not change largely between all UK applicants and the higher achievers.

When turning to acceptances, there is again the now familiar pattern of acceptance patterns mirroring application patterns for all higher education applicants and the high achievers. When comparing applications to acceptances for the Oxford applicants, there are further gains of 3.1 points for all private school acceptances. Grammar school students gain almost one percent and the non-grammar state schools' representation drops by 2.9 points. The pattern of acceptance among the research participants resembles the one of all applicants with regards to private schools and comprehensive and maintained schools. For the grammar school students, the finding is not out of line given the sampling error based on only 29 applicants gaining an offer. The success rate of the further education sector applicants among the research participants, however, is perhaps not representative although the observation is again based on a small number of 45 further education applicants among the research participants gaining an offer.

There is a further dimension to type of school regarding their single-sex or co-educational status. This information is not published centrally by UCAS but it has been possible to obtain information from the Oxford Colleges Admissions Office as seen in Table 2.6. It is most striking that attendance at a single sex schools, and in particular single sex boys' schools increases the likelihood of gaining an offer at Oxford. Conversely, acceptance chances are lowered for applicants from co-educational schools.

Table 2.6: Per cent of applicants gaining an offer by type of school (adjusted residuals in brackets).

	All summoned Candidates ex overseas and engineering	All summoned candidates at the research colleges ex overseas and engineering	Research Participants
Type of School 1			
Private	36.2 (4.8)	35.3 (2.3)	38.0 (.9)
Comprehensive, Maintained	33.0(-.5)	33.2 (.2)	36.1 (-.8)
Grammar	38.3 (6.9)	35.0 (.6)	36.9 (.0)
FE Colleges	24.8 (-3.8)	28.5 (-1.2)	40.3 (.6)
Overseas	21.1 (-4.7)	19.8 (-3.2)	33.3 (-.5)
Other/Unknown	24.4 (-4.7)	25.1 (-2.4)	35.4 (-.3)
Type of School 2			
Co-Educational	30.9 (-6.6)	30.8 (-3.8)	35.3 (-2.1)
Single Sex (girls)	37.6 (4.1)	35.1 (1.2)	37.7 (.3)
Single Sex (boys)	38.2 (4.7)	39.8 (4.0)	44.4 (2.8)
Individual Application	30.1 (-.9)	24.1 (-1.5)	27.3 (-1.0)
Total	33.3	33.0	37.1
N	9908	3654	1908

Bold figures: Adjusted residuals significant. Adjusted residuals of value smaller than -2 or larger than +2 signifies an observation that depart significantly from the model of independence at the .05 level or higher.

Explanandum 5: *Conditional on having applied to the University of Oxford, applicants from private schools have a higher chance of gaining an offer than applicants from other types of school.*

Explanandum 6: *Conditional on having applied to the University of Oxford, applicants from single sex boys schools have a higher chance of gaining an offer than applicants from co-educational schools.*

2.5 Summary and Explananda

To summarise, application rates to higher education are higher among the middle class and lower among the working class when compared to these groups' representation in the population at large. Female students and ethnic minorities are also more likely to apply to higher education than their representation in the population would suggest. There is a gradient in attainment as measured by UCAS tariff among the higher education applicants. Those from the highest social groups, white students, females and those educated in private schools or grammar schools are most likely to be high achievers. Furthermore, the application pool to Oxford is not as wide as the national pool of high achievers. The most privileged socio-economic strata of society, the professional and managerial groups and those participating in private education, are over-represented groups among the Oxford applicants. In contrast, working class students and those educated in the further education sector do not apply to Oxford as frequently as expected based on their representation among the highest achievers. Ethnic minorities apply to Oxford approximately in the proportion that they represent among the high achievers but the number of white applicants is reduced with a simultaneous rise in missing ethnicity information.

Up to this point, the analysis has not shown anything that would greatly surprise researchers of educational transitions concerned with application processes and self-selection into staying on or leaving education (Cox, Goldthorpe et al. 02.02.2005; Willis 1977; Halsey, Heath et al. 1980; Heath and Clifford 1990; Erikson and Jonsson 1996; Cameron and Heckman 1998; Breen and Goldthorpe 1999; Reay, Davies et al. 2001; Archer, Hutchings et al. 2003). The similar aggregate patterns of applications to higher education and acceptances may also explain why there has been little interest in the past in investigating *selection processes* that are different from application processes. However, the data for the University of Oxford show that conditional on application, acceptances advantage British applicants, male applicants, those from the highest social class, white applicants and those educated in private and single sex boys' schools. Conversely, there is a gross disadvantage in gaining admission experienced by females, ethnic minority applicants, state educated applicants and those whose social class is missing. These unequal acceptance rates conditional on application then constitute the explananda for this thesis that are require the further empirical investigations in the subsequent chapters. It could be, for example, that unequal admissions rates are generated by subtle differences in prior educational attainment between different groups of applicants. At the same time, the UCAS data do not allow us to rule in or out that perhaps factors unrelated to attainment might play a role in selection processes conditional on application. The investigation of this question then requires much richer data than is available through UCAS. The following chapter describes, among other methodological issues, how measures on social and cultural capital as well as motivation and aspirations were collected for applicants to Oxford. The analyses of the impact of different student characteristics on admissions decisions is then investigated in chapters 4 and 5.

Chapter Three

Data Collection and Variable Construction

3.1 Overview

This chapter details data collection, variable construction and some wider methodological considerations. First, Section 1 summarises the data collection techniques used in this research, as well as some ethical issues they raise. Specifically, three distinct stages in the data collection process are described. The first stage was a survey of 1,929 applicants for admission. The second stage consisted of interviews with admissions tutors and observations of actual admissions meetings. Finally, the third stage involved the collection of final university leaving examination results for 668 of the initial research participants. The second part of the chapter then describes the construction of the main variables of interest that are used in the statistical analyses. Particular attention is paid to the construction of the social class variable. Finally, the third section of this chapter details the limitations of this research.

3.2 Section 1: Data Collection

3.2.1 Data Collection 1: The survey of candidates for admission

In Chapter 1, I argued that current educational research has greatly contributed to our understanding of application processes in education but that it has generally paid insufficient attention to educational selection processes. Frequently, studies are constrained by the available statistical data and therefore often do little more than link social class information to survival at different points in the educational system (Saunders 1997; Breen and Goldthorpe 2001). This thesis aims to go beyond descriptions of educational transitions by measuring many of the factors that are unobserved in other research. In particular, the objective of undertaking a survey of applicants for admission rather than relying on secondary data was to elicit information on motivation, learning styles, aspirations, social and cultural capital as well as more detailed information on social background than is available through UCAS. Because of the particular research aims, it was necessary to purposefully design and administer a questionnaire to applicants for admission to the University of Oxford.

3.2.1.1 Questionnaire design

Based on existing literature, a questionnaire was developed that would yield information on social, cultural and economic capital, measures of motivation, confidence and learning style and, in addition, would record standard social background information such as social class, ethnicity and gender. The complete

questionnaire is included in Appendix 1. Many of the survey questions were taken from existing national questionnaires (see Appendix 2). The survey material also included an intelligence test as an additional measure of ability distinct from school performance. This test was developed by Alice Heim as a differentiator among very high achievers and it has been validated by research on Cambridge undergraduate students. Due to copyright restrictions, this part of the research material is not reproduced in the Appendix (Alice Heim reasoning test AH 6, copyright held by NFER Nelson Publishing Company Ltd). The final questionnaire for data collection contained 82 questions, 24 reasoning exercises and a deep learning commentary exercise. The actual questionnaire was designed in a collaborative effort with decisive input from Anthony Heath, Peter Clifford, Elizabeth Frazer, Janet Howarth, Jane Mellanby and Geoffrey Walford. The coding of the social background measures collected in the survey and some of the motivational, aspirational and cultural and social capital variables is detailed in later sections in this chapter.

Initial funding for the project was provided from internal sources within the University of Oxford and HEFCE funds under the widening participation umbrella. The ESRC provided further funding in the form of a doctoral studentship.

3.2.1.2 Research Population, Sampling and Questionnaire administration

The population eligible to participate in this research were all applicants for admissions to Oxford who were interviewed at an Oxford college in December 2002. The target population for the research therefore excluded candidates who were not

invited for an interview, a group that consists mainly of overseas applicants and those with a poor academic record (see Chapter 7).

Following a successful pilot at four Oxford colleges in 2000, the research was conducted at a representative sample (Babbie 1998, p. 200) of 11 Oxford colleges. A sampling frame was devised whereby colleges were stratified into a three-by-three table according to their position on the Norrington Table¹⁸ over the four years preceding the research as well as according to their percentage of private school intake (as obtained by confidential communication with Oxford Colleges Admissions office). These two dimensions were uncorrelated. One college was selected from every cell of the table and an additional two colleges asked to be included in the study (see Appendix 3). Of 11,793 applications received by the University of Oxford as a whole in 2002, 4,539 – or 38.4 per cent of the total – were applications to one of the eleven research colleges.

The actual research took place in the evening in each participating college after applicants for admission had been interviewed¹⁹. The inclusion of the time-controlled intelligence test in the research material meant that trained invigilators had to oversee the research. Participants took from 30 to 75 minutes to complete the questionnaire and the Alice Heim test. In five colleges an additional learning style exercise was administered but this research material is not discussed in this thesis.

¹⁸ The Norrington Table, named after its developer, Sir Arthur Norrington, has been used every year since 1963 to rank Oxford colleges according to their undergraduates' performance in final examinations. The table is constructed by giving each First class honours degree achieved by a finalist five points; an Upper Second Class Honours degree counts for three points and Lower Second Class degrees and Thirds add two and one point, respectively, to a college's Norrington score. The score a college achieves in any given year is the percentage of the maximum possible total points it could have achieved had all candidates received a First.

¹⁹ The practicalities of research administration meant that the research was unable to cover the majority of applicants for Engineering or Engineering and Joint schools as those candidates were usually not required to stay in their colleges after dinner.

3.2.1.3 Research Ethics

Throughout the research, the voluntary character of participation was emphasised and complete confidentiality was assured to colleges and candidates. A note was added to the University of Oxford Undergraduate Prospectus for entry in 2003. The text stated that applicants for admissions ‘may be asked to take part in research to investigate the factors that influence access to the University of Oxford and subsequent academic attainment’ (Undergraduate Prospectus, 2002, p.22). In addition, personal letters were sent to all European applicants and overseas applicants for Medicine²⁰ who had applied to one of the 11 research colleges. The letters invited applicants to participate in the surveys but also stressed the voluntary character of the research (see Appendix 4). Each applicant’s head of school also received a similar letter informing him or her about the research. The research team asked permission of those candidates who elected to participate in the study so that their research material could be linked to school and university examination results.

3.2.1.4 Response rate and representativeness

In total, 1,929 candidates for admissions from the eleven selected colleges participated in the research. This represents an overall response rate of 52 per cent of the non-overseas, non-Engineering candidates at the eleven research colleges that attended for interview. This constitutes a significant improvement to previous

²⁰ Medicine is the only subject that requires non-European applicants to attend an interview at the University of Oxford.

research on admissions to Oxford conducted by NFER, which achieved a response rate below 30 per cent (NFER 2000). It also compares favourably to response rates achieved by other survey organisations such as NFER, ONS and MORI. As basic statistics on applicant characteristics such as gender, ethnicity, social class and school type are kept for all applicants, it is possible to assess the representativeness of the sample based on these characteristics (see Appendix 3.5).

The research is broadly representative of the applicant population in terms of their social class, ethnicity, type of school and the division to which they applied. There is significant overrepresentation of female applicants and applicants who obtained conditional offers in the sample. The former observation accords with general knowledge of response behaviour, which tend to display higher response rates among female researcher subjects over their male counterparts (Harper 2004).

3.2.2 Data Collection 2: interviews with selectors and observations of actual admissions meetings

Interviews with admissions tutors who make actual selection decisions provided qualitative research that complements the data described in the previous section. This part of the research aimed to understand from the selectors' point of view the differential admissions rates observed in the quantitative analysis. Attention was paid to the use of different pieces of information about applicants and the actual decision making process.

3.2.2.1 Interviews with Selectors

For the selection of interview participants, a maximum variation sample of Oxford tutors was used to capture the breadth of experience while still identifying themes that cut across different interviews (Patton 2002; Robson 2002; Ritchie and Lewis 2003). The actual profile of tutors at Oxford in terms of gender, age and ethnicity was established from official data (see Appendix 6). Interview participants were recruited to maximise the variation in college membership, academic subjects, length of service at Oxford, age and academic rank. A conscious effort was made to include as many members of ethnic minorities as possible and to represent men and women equally in different disciplines (see Appendix 7).

Out of the 24 tutors who were asked to participate, 19 were actually interviewed and an additional four tutors were interviewed on a more ad hoc basis. The four non-responding tutors were either on sabbatical and out of the country (three cases) or were first time interviewees who declined because they did not yet feel comfortable talking about admissions (two cases). Interviews were semi-structured with plenty of space for respondents to answer questions in whatever way they wanted. The interview guide is reproduced in the Appendix (see Appendix 8). Interviews lasted between 45 minutes and four hours. All but two interviews were recorded and transcribed verbatim with connotations for speech patterns. To protect the confidentiality of the research subjects, the analyses of interviews in Chapters 6 and 7 only identify tutors by their academic discipline – Arts or Sciences.

3.2.2.2 Observation of Admissions Meetings

For the observation of actual admissions meetings, subjects across disciplines were asked for permission to attend post-interview admissions meetings, a request none declined. In total, two natural sciences subjects, one humanities subject and two Social Sciences subjects participated. For most subject observations, more than one admissions meeting was observed. For example, in the humanities, both the intra-collegiate short-listing and the intra-collegiate final selection meeting were observed. For both natural sciences subjects, two inter-collegiate meetings were observed. For one of the social science subjects, it was possible to attend both the intra-collegiate and the intercollegiate admissions meeting and for the other social science subject only the intra-collegiate meeting was attended. Very detailed field notes were taken in all observations. In addition, three observations were digitally recorded with the consent of the selectors. Again, confidentiality was assured to all participants and they are identified only by Arts or Sciences in any references.

3.2.3 Data Collection 3: attainment at University

3.2.3.1 Collecting Finals results for all research participants and first year results for Oxford admits

An effort to collect information on the overall degree performance for all of the initial research participants was attempted. For those participants who subsequently went to

universities other than Oxford, degree performance was taken centrally from the institutions' student record office. It turned out, however, that many of the initial research participants had not completed their studies at the end of three years. This was either because they were on four year or longer degree courses or because they had taken gap years between secondary school and university. All research participants who enrolled at Scottish universities or at Imperial College London, for example, were enrolled in four year degree courses. In a minority of cases, students had withdrawn with unknown intent to return to their studies. A complete picture of the university outcomes of all initial research participants will likely not be possible until 2010.

Overall, 668 valid finals results were collected. Therefore, the analyses in chapter 8 reflect the degree outcomes of 34.6 per cent of the initial research participants.

3.2.3.2 Representativeness of finals results collected in 2006

The success rate at obtaining results for students who had enrolled at Oxford was higher than the response rate for other universities. Overall, examination results were collected for 391 Oxford graduates, 154 other Russell Group graduates and 123 graduates of other universities. Fortunately, it was possible to compare basic social background statistics such as gender, ethnicity, social class and school type for those study participants for whom finals results were available with the total number of initial research participants. The detailed breakdown is displayed in Appendix 9.

The breakdown shows two striking differences in the composition of the two groups. First, the response rate to requests for degree outcome information differed across the higher education sector with the most information on final degree results collected from Oxford followed by other Russell Group universities. Similarly, there was also large variation in response by subject. Subjects differ regarding the proportion of students who are on three year courses (results available) and who are on four year courses (results not yet available). These two patterns drive other differences in the comparison of the initial research participants with the selection of those for whom finals data is available. The lower working and missing class representation, for example, is a function of the higher representation of these groups among those who went to 'other' universities that had lower response rates (c.f. Boliver 2005). The lower female representation is largely an effect of the smaller proportion of humanities courses, such as language degrees, for which results are available after three years. As female students constitute 61.6 per cent of humanities students, this goes some way in explaining the lower data availability for female students among all graduates. The sample is, however, representative of the initial research participants regarding schooling, ethnicity and most social classes, therefore allowing for a meaningful statistical analysis of these dimensions in chapter 8.

3.2.4 Summary Research Ethics

This research is based on purposefully collected data and therefore more ethical considerations were involved than would have been the case in the analysis of secondary data. Decisions about survey design and methods were informed by the

ethical guidelines of the main professional bodies with an interest in this research, namely, the *ESRC (Economic and Social Research Council 2005)*, the *British Sociological Association (British Sociological Association 2002)* and the *British Educational Research Association (British Educational Research Association 2004)*. In social research, conflicting interests can arise with regards to the person, knowledge, democratic values, the quality of research and academic freedom (British Educational Research Association 2004). Research is most likely to satisfy the interests of different stake holders if it adheres to the following main ethical principles identified by the BSA and BERA, which safeguard the integrity of sociological inquiry as a discipline (1, 5, 1²¹) as well as the interests of those involved in the research by eliciting freely given informed consent (2, 16, 10), granting anonymity and confidentiality (18, 23), granting the right to refuse participation (4, 17, 13), staying within the legal framework and, preferably, avoiding covert research (10, 31, 24).

Specifically, the research abided by ethical principles by eliciting informed consent from all research participants. Even though several of the research participants in the admissions survey were under the age of 18 when they took part in the study, the high level of education and skills will have allowed these participants to make informed choices. The right to refuse participation was reiterated at every stage, including the briefings before the survey administration, and, in a couple of instances, prospective participants made use of this right at this point in the research.

²¹ British Sociological Association (2002). Statement of Ethical Practice for the British Sociological Association (Appendix updated 2004). Durham, British Sociological Association, British Educational Research Association (2004). Revised Ethical Guidelines for Educational Research. Swindon, BERA, Economic and Social Research Council (2005). Research Ethics Framework. Swindon, Economic and Social Research Council.

An overview of the different research stages and the adherence to ethical guidelines within each is illustrated in Table 3.1.

Table 3.1: Summary of data collection and Research Ethics

Stage in Research	Admissions Decisions Quantitative	Admissions Decisions Qualitative	Final Degree Attainment
Designing Sampling frames	<ul style="list-style-type: none"> OCAO information on all applicants for admission during 2002 OCAO information on percentage of private school intake ranking of Colleges by Norrington Table 	<ul style="list-style-type: none"> central Administration staff monitoring information college, departmental and individual websites list of first time interviewers 	<ul style="list-style-type: none"> sample frame predetermined by sample of research participants
Ethics	<ul style="list-style-type: none"> public data (Norrington Table) confidentiality of colleges' private school intake confidentiality granted to research colleges 	<ul style="list-style-type: none"> public data (staff monitoring, websites) Asked for and secured ruling that no infringement on Data Protection Act 1998 to have list of first time interviewers 	---
Data Analysis Information from Existing Records	<ul style="list-style-type: none"> UCAS application forms OCAO offer decision 	<ul style="list-style-type: none"> reading interviewees' CVs, publications and other publicly available information on research subjects prior to interview 	<ul style="list-style-type: none"> subject and college lists of ranking of student in first year and third year exams information from the Universities regarding university choice of unsuccessful applicants
Ethics	<ul style="list-style-type: none"> voluntary informed consent from gatekeepers 	<ul style="list-style-type: none"> public data 	<ul style="list-style-type: none"> signed permission to link examination record from

		initial survey
Purposefully generated information	<ul style="list-style-type: none"> • admissions Survey 	<ul style="list-style-type: none"> • interviews with tutors • observation of post-interview decision making
Ethics	<ul style="list-style-type: none"> • voluntary informed consent to participate • advanced information about survey in Admissions Prospectus and personal letters to candidates • right to withdraw • confidentiality • signed permission to link examination record • separate storage of surveys and name sheets • electronic storage of data without names 	<ul style="list-style-type: none"> • voluntary informed consent to participate • right to refuse participation • right to withdraw from study at any point • right to say no to recording • right to see transcripts • confidentiality • trust building • thank you cards to ensure willingness to participate in future studies

3.3 Section 2: Variable Construction and Descriptive Statistics

This section provides a detailed account of how the main social background and structural variables are constructed. These variables are used in the statistical analyses in Chapters 4, 5 and 8. This section also details the descriptive statistics for each variable. Some variables of particular theoretical interest, such as the operationalisation of extended merit measures and social and cultural capital, are discussed in the relevant thesis chapters.

3.3.1 Dependent Variables

3.3.1.1 Admissions decision

Offer decision: Data on the outcome of the admissions process was centrally supplied by the Oxford Colleges Admissions Office (OCAO). Admissions decisions can have three outcomes: ‘unconditional offer’ (reserved for post-qualification applicants), ‘conditional offer’ (for pre-qualification applicants, acceptance is conditional upon attainment in the school leaving examinations) and ‘unsuccessful.’ The unconditional and conditional offer categories were merged to form the binary outcome variable ‘offer’ and ‘no offer’.

3.3.1.2 Degree Outcome

Degree outcome: This variable was constructed from data supplied by individual examiners at the University of Oxford and student records officers at other universities at which the research participants subsequently enrolled. Degree outcome was coded as ‘First class honours degree’, ‘Upper Second class honours degree’ and ‘Lower Second class honours degree or lower degree class.’ A total of 668 degree class outcomes were recorded for the research participants in 2006 with 24.7 per cent of this group having achieved a first class degree, 62.9 per cent having attained Upper

seconds and 12.4 having obtained a university degree class lower than an Upper Second Class honours degree.

3.3.2 Social Background Variables: Social Class, ethnicity, gender, school

Social background is operationalised as ethnicity, gender, social class and schooling (see Chapter 2.4 for a conceptual discussion). For ethnicity, class and gender, the analysis in this thesis had two measures at its disposal. First, such information is collected centrally by UCAS. Furthermore, the admissions survey also included social class, ethnicity and gender questions. With regards to ethnicity and gender, the results of the two different measurements differed only slightly. Social class, however, is measured differently by UCAS and the admissions survey. This warrants a more elaborate discussion of the measurements of social class to understand the construction of the social class variable used in subsequent analyses.

3.3.2.1 Ethnicity

Ethnicity: Information on ethnicity was supplied centrally through UCAS and collected in the admissions survey. Both measures used the ethnic self-categorisation developed by the then Office for National Statistics for the 2001 Census. The small number of observations in some census categories would run the risk of identifying individual applicants and it was necessary to combine the original Census categories into broader categories. The Census categories of White British, White Irish and

White Other were combined to form the category of White. A South Asian category was created which consisted of Asian or Asian British Indian, Asian or Asian British Pakistani, and Asian or Asian British Bangladeshi. All remaining ethnic categories were assigned to the ‘Other ethnicity’ category.

Table 3.2: Comparison Admissions Study Ethnicity Measure and UCAS ethnicity measure

		Admissions Survey Ethnicity Measure						Total
		White	Black	Indian	Bangladeshi, Pakistani	Other including mixed and Chinese	Missing	
UCAS Ethnicity Measure	White	1489	0	0	0	9	6	1504
	Black	0	17	0	0	1	0	18
	Indian	0	0	60	0	0	0	60
	Bangladeshi Pakistani	0	0	0	30	2	1	33
	Other including mixed and Chinese	1	0	0	0	56	0	57
	Missing	149	1	2	7	94	4	257
Total		1639	18	62	37	162	11	1929

The two ethnicity measures overlap to a large extent. However, it is worth noting that there is a significantly larger amount of missing data in the UCAS data than in the admissions survey, with 13 and .6 per cent missing, respectively. If the survey data is regarded as valid, then this suggests that the non-response to the UCAS ethnicity question is not random: 58 per cent of those who self-classified themselves as ‘Chinese, other and mixed’ group in the admission survey are missing in the UCAS data compared to 19 percent of the Bangladeshis, 9 per cent of Whites and 3 per cent of the Indians. While the numbers involved here are too small to yield valid and reliable inferences, it is striking that this pattern of missing data resembles the GCSE attainment slopes by ethnicity found by Rotheron (Rotheron 2005). It also tentatively indicates that the disadvantage in securing a place at University experienced by those

whose ethnic origin is not recorded is a reiteration of the disadvantage experienced by some ethnic minority groups, notably those of Bangladeshi or Pakistani origin (Boliver 2005). Because of the lower number of missing cases, the analysis in the empirical chapters utilises the questionnaire responses to the ethnicity rather than the UCAS measure of ethnicity.

3.3.2.2 Gender

Gender: With regards to gender, it was again possible to draw on UCAS information as well as responses to a self-completion question on the survey. Female participants were over-represented in the study and constituted 54.95 per cent of respondents. The crosstabulation below shows that only four observations were misclassified. The missing UCAS observations occurred because 11 applicants could not be matched to a UCAS application code. The six cases of missing data from the survey categorisation were reclassified by their UCAS response.

Table 3.3: Comparison Admissions Study Gender Measure and UCAS gender measure

		Admissions Survey Gender Measure			Total
		Male	Female	Missing	
UCAS Gender Measure	Male	850	1	5	856
	Female	3	1053	6	1062
	Missing	4	6	1	11
Total		857	1060	12	1929

3.3.2.3 Type of School

Type of school: The categorisation of type of school is based on UCAS codes and was supplied centrally though OCAO. The following schooling categories were created: Comprehensive school (Sixth Form Centre, Sixth Form College, Comprehensive School, City Technical College, Grant Maintained Secondary (now state school)); Independent School (Independent School); Grammar School (Grammar School); and Other (Tertiary College, Further Education, (State), Other Secondary School, Agriculture and Horticulture College, Art Design and Performing Arts, overseas). The frequencies of school attended are displayed in Table 3.4 below:

Table 3.4: Frequencies of type of school

Type of School	Frequency	Per cent
Comprehensive	569	29.5
Independent	730	37.8
Grammar	122	6.3
Other	508	26.3
Total	1929	100.0

3.3.2.4 Social Class

Class and classifying adolescents

‘Class’ is shorthand used in society at large and within the discipline of sociology in particular to link an individual’s position in the social structure with regards to occupation, education, social prestige, income, manners, views and power to the

whole spectrum of macro and micro level outcomes that are the subject matter of the discipline. Class is certainly a dominant concept in the public debate regarding educational attainment and in particular access to higher education (Archer, Hutchings et al. 2003). Within sociology, Stinchcombe has indeed argued that class is the ‘only concept’ (Stinchcombe 1986). It is therefore of utmost importance to utilise a theoretically meaningful and valid concept of class in this analysis. This section lays out the considerations behind the selection and coding of the social class schema utilised in subsequent chapters.

As social structures change, the concept of class changes and is under constant review, adjustment and development. The expansion of the middle class in industrialised countries, for example, has led some to argue in favour of the analysis of occupational groups instead of classes (Weeden and Grusky 2005). The expansion of female employment has been a further challenge to which class models have arguably still not satisfactorily adjusted. A frequent response to this challenge has been to simply add women to pre-existing class schema (Erikson and Goldthorpe 1992). While this practice is not unreasonable when classifying an adult according to his or her own social class position, it is more questionable when classifying children, adolescents or higher education applicants, the very subjects at issue in this research. As these groups do not yet have their own social class position, they need to be classified by the position of their parents or guardians in a meaningful way.

Researchers of adolescents generally face three options for coding respondents’ social class: ‘patriarchal coding’, ‘dominance coding’ and ‘combined coding’. Historically, the most common approach has been ‘patriarchal coding,’ whereby family units are

classified by the male breadwinner's occupation (Goldthorpe 1980; Goldthorpe 1983). The argument here is that fathers' occupations are generally more stable than mothers' and that fathers are more likely to work full-time (Goldthorpe 1980, p. 288; Goldthorpe 1983, p. 469; Bonney 1988; Marks 1999, p. 7). This strategy also makes a theoretical virtue out of practical necessity as the historic lack of maternal social class data does not allow for an empirical investigation of whether or not a more nuanced social class operationalisation based on both parents would yield different results (cf. Britten and Heath 1983).

In contrast, while the dominance principle also fails to take both parents into account, it considers the possibility that, in some families, women have a higher salary or higher status profession than their partners. Here, adolescents are classified by the highest earner or the person in the highest status occupation (Erikson and Goldthorpe 1992). In certain cases social researchers construct these classes (PISA survey, ISEI survey, Ganzeboom and Treiman 1996), but, more frequently, adolescent respondents are only asked to state the occupation of the parent that earns the most. This is the case for UCAS data on higher education applicants. Specifically UCAS elicited social background information with the following question for the 2003 entering cohort from which research participants in this study were recruited: "If you are under 21, please give the occupation of your parent, stepparent or guardian who earns the most. If he or she is retired or unemployed, give their most recent occupation. If you are 21 or over, please give your own occupation." (UCAS 2002).

Another, but rarely used, third option is to take into account both parental occupations. This allows for the most nuanced classification for three reasons.

Firstly, marriage patterns show that men in manual employment often marry women in secretarial or administrative white collar positions which results in a ‘disappearance of the manual classes’ when dominance coding is used (Marks 1999, p. 7). Secondly, status and earnings are not perfectly correlated and the highest earner in the family may not necessarily be in the person in the occupation with the highest status. This, in turn, may affect the classification of some respondents (cf. Weber 1958). The third and most important criticism of using the dominance principle is that empirically analyses that take account of the social class of both adults in a household have greater predictive power in predicting educational outcomes than those using patriarchal coding or a straightforward dominance principle (Rothon 2005).

A combined class schema

In the absence of strong theoretical expectations that the paternal social class position is more important than the maternal position, the null-hypothesis is that both adults in a household exert influence on the home environment and a child’s development and educational outcomes. In fact, the reason a combined class schema is not used more frequently appears to be more practical than theoretical as a combined class schema can be perceived as ‘difficult to present simply in cross-tabulations and complicates multi-variate analysis.’ (Marks 1999, p. 7). This is neither a substantive criticism nor necessarily a true one. Rothon’s analysis of GCSE attainment of over 100,000 British students using a combined social class schema showed that a significantly more meaningful analysis of attainment was possible when using both parents’ occupational status compared with only using one parent’s status. For example, students with two

parents/step-parents or guardians employed in the professional and managerial classes are significantly more likely to be high achievers than those who have only one parent in this category. Rothon also demonstrated that where the social class information of one parent was missing, children experienced a disadvantage in education. This suggests that social class information is not missing randomly (Rothon 2005).

Because of these theoretical and empirical considerations, this dissertation uses a combined social class schema. In the survey, social class was operationalised using the self-completion version by Heath et al. of the Erikson and Goldthorpe class schema (Erikson, Goldthorpe et al. 1979; Goldthorpe 1980, p. 40; Erikson and Goldthorpe 1992, p. 38; Evans 1996; Goldthorpe 1997, see below; Heath, Martin et al. 1998). See Appendix 1 question 82 for details.

Fine tuning the middle class

The standard procedure for collapsing social class categories is to combine the senior managers or administrators (or ‘higher grade managers and administrators’) and the traditional professional occupations (or ‘higher grade professionals’) into Class I. Modern professional occupations (or ‘lower-grade professionals’) and to code the middle or junior managers (or ‘lower grade administrators and managers’) as Class II. Classes I and II can also be combined into one single class, ‘the Salarial’. Clerical

and intermediate occupations (or ‘Routine non-manual’) employees constitute Class III, the Intermediate class. Technical and craft occupations (or ‘lower-grade technicians’) are categorised as Class V. The Semi-routine manual and service occupations (or ‘skilled manual class’) are Class VI and Routine manual and service occupations or ‘manual wage-workers’ constitute class VII. Classes V to VII can be collapsed into a ‘Manual Class’ or ‘Working Class’. In addition the NS-SEC schema used by UCAS – as well as the original EGP schema - have a separate category for ‘small employers and accountants.’ The standard combination of groups is illustrated in columns 1 and 2 of Table 3.5.

In this study, the Salariat is split along the horizontal managerial / professional divide (see column 3) rather than along the hierarchical higher / lower service class professions as is the standard practice by UCAS. This deviation from the standard practice requires some further explanation.

Table3.5: Conceptualising Social Class

Survey Measure	UCAS: coding by highest earner	Separating Professionals from managerial, dominance principle highest social class	Conceptual Coding Schema	Actual Coding Schema
traditional professional occupations senior managers occupations modern Professional occupations middle or junior managers	higher managerial and professionals lower managerial and professionals	professional managerial Both professional	one professional other lower than prof/mang or missing one professional one managerial one managerial other nonprof/mang or missing both managerial	both professional one professional one other at least one managerial**
clerical and intermediate occupations	intermediate occupations		both clerical and intermediate one clerical and intermediate and other parent working class or missing	
technical and craft occupations semi-routine manual and service occupations routine manual and service occupations	lower supervisory and technical semi-routine occupations routine occupations		both working class one working class other missing	
DK, NA, missing	unknown		both parents / guardians missing	
	small employers and own accountants			74

*professional dominant in case where professional and managerial present.
** and no professional

The reasons for this deviation are twofold. First, the opportunity to fine tune the middle class arises from the structure of the data. Second, the actual separation is driven by theoretical considerations. In terms of the structure of the data, Chapter 2 showed that higher education applicants contain a higher proportion of people from the middle class than the population at large and applicants to the most selective universities are still more heavily drawn from the middle class than applicants to higher education in general. Among the research participants, 86.5 per cent were of ‘Salariat’ social class origin. While this is in itself of potential interest to policy makers, from a research perspective, it offers an opportunity to divide the Salariat into more homogenous subsections in a theoretically meaningful way. The argument is made that a horizontal separation of a professional versus a managerial class is of more theoretical interest than the hierarchical division of the Salariat into class I and class II (e.g. Bourdieu and Passeron [1977] 1990).

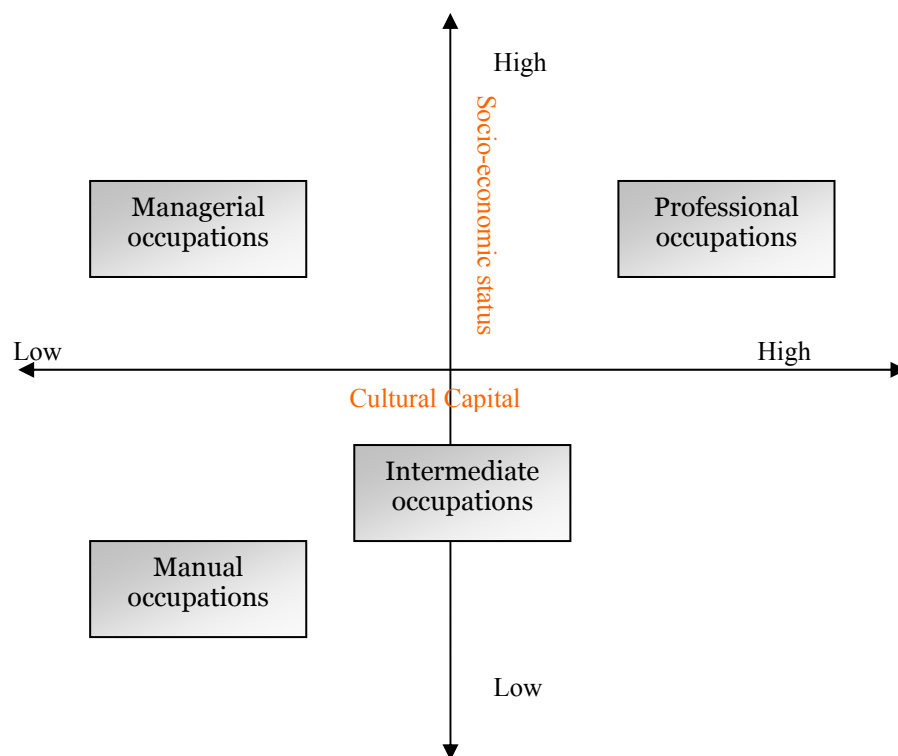
Theoretically, there is a historic tradition of differentiating between different sections of the middle class for some Britain’s neighbours, such as France and Germany. The middle class in those nations is conceptualised as two distinct groups, the ‘citoyen’ or ‘Bildungsbürgertum’ (educated, cultural middle class) on the one hand and the ‘Bourgeoisie’ or ‘Besitzbürgertum’ (economic middle class) on the other (Köhler 1985; Rousseau, Dunn et al. [1762] 2002). In Germany, the connection of the words ‘Bildung’ (education) and ‘Bürgertum’ (bourgeoisie) to signify a distinct stratum of society called the Bildungsbürgertum is linked to the emergence of the emancipation

of the urban middle classes in the 19th century who used their own education to challenge the privileges and prerogatives of the aristocracy and the clergy (Engelhardt 1986, p. 30). This historic origin of the educated middle class bears some resemblance to the attempts in Victorian and Edwardian England to open the civil service – and the University of Oxford – to ‘meritocrats,’ whose assets were ability and education rather than economic wealth (Green 1986; Greenstein 1997). In 20th century France, Bourdieu identified the continued existence of a distinct section of the middle class whose influence was based on ‘cultural capital’ rather than economic capital (Bourdieu 1979; cf. Wright 1985). The culture rich stratum of society is characterised by high levels of humanistic education, literary knowledge and civic engagement. It is made up of teachers, doctors, professors, lawyers and ministers of religion, to name a few examples. The modern equivalent of the more economically defined stratum of society are managers and administrators.

This conceptualisation equates to locating the professional and managerial classes as adjacent on the vertical ‘high - low’ social class space while occupying different spaces on an (unfortunately often undefined) horizontal axis. This differences in the conception of social space are mirrored in the mapping of social class which, in the continental European countries, takes the form of a house (Dahrendorf 1965; Geissler 1999, p. 86) or an onion (Bolte 1967) (or other forms that have a clear vertical and horizontal axis) (Bourdieu [1979] 1996, p. 128 - 9). In contrast, Anglo-Saxon class schemas tend to be hierarchical on one vertical dimension (Erikson and Goldthorpe 1992; Grusky 2001). Figure 3.1 illustrates how, based on the continental European conceptualisation of class, the different sections of the service class – the professional and the managerial section – are located within a two-dimensional social space where

the horizontal axis is the cultural capital dimension, which includes the value of education (for further discussion see Güveli 2006).

Figure 3.1: The social space on two dimensions



In Britain, there is also evidence of this horizontal dimension of cultural difference within the middle class. In her ethnographic study, Fox (2004) describes how taste in cars, culture, weddings, food and music are a distinct cultural dimension that does not always correlate with an individual's position on the vertical high/low social class axis. An observable outward sign of class position is, for example, eating peas with the fork prongs down. This comes naturally to the 'old' middle class but upwardly mobile new arrivals in the middle class can often be singled out merely because they fail to signal knowledge of high culture by shuffling peas onto their fork (Fox 2004).

More important, however, than such outward signals of class attachment is the link to underlying values. In studies of political action and behaviour such as voting, there is an argument that there is a 'new professional middle class' consisting of occupations like teachers, doctors and welfare workers. What unites this group are attitudes and values that are more concerned with equal rights, common welfare and self-actualisation than with national economy or increasing material wealth (Parkin 1968; Cotgrove 1982; Offe and Keane 1984; see also Inglehart 1990).

To summarise social class coding, the preceding discussion argued, firstly, for dividing the Salariat along a horizontal value; that is, apportioning them along a cultural capital axis instead of the vertical 'high - low' axis. Secondly, the case was made for taking into account the combined social class of the adults in a household. The result of these considerations is the class schema displayed in Table 3.5. The class schema has six categories, namely 'two professional parents,' 'one professional parent one other,' 'at least one managerial parent (and no professional one),' 'both parents clerical or one clerical and intermediate and other parent working class or missing,' 'Both parents working class, or one working class other missing' and 'Both parents' / guardians' social class missing'. The empirical test for the new class schema is undertaken in Appendix 10. It shows that statistically more powerful models can be created by using the operationalisation of social class proposed in this section rather than the standard UCAS operationalisation.

3.3.3 Attainment Variables

Candidates apply for admission to the University of Oxford with a range of qualifications and they apply either as pre-qualification applicants²² in their final year of schooling or as post-qualification applicants. The variety of qualifications among the research participants is represented in Table 3.6.

Table 3.6: Qualification of applicants

Age 16 examination	Sixth Form equivalent qualification	Pre-qualification candidate?	n	Per Cent	Categorised n (per cent)
				79.06	
	A-level	Yes	1525		
		No	122	6.32	1673
GCSE					(86.73)
	IB	Yes	25	1.30	
		No	1	0.05	
Scottish qualification	Scottish Highers	Yes	37	1.91	256
		No	6	0.31	(13.25)
Other	EB	Yes	10	0.52	
		No (+ degree)	1	0.05	
	Other international qualification	Yes	45	2.33	
		No	13	0.67	

²² Following the Schwartz review Schwartz Commission (2004). Fair Admissions to Higher Education: Draft Recommendations for Consultation, Schwartz Commission. the UK may be moving towards a post-qualification university admissions system

	Yes	52	2.70	
A-levels	No	2	0.10	
	Yes	25	1.30	
IB	No	8	0.41	
UCAS form Unavailable		57	2.95	
				1929
All qualifications		1929	99.98	(99.98)

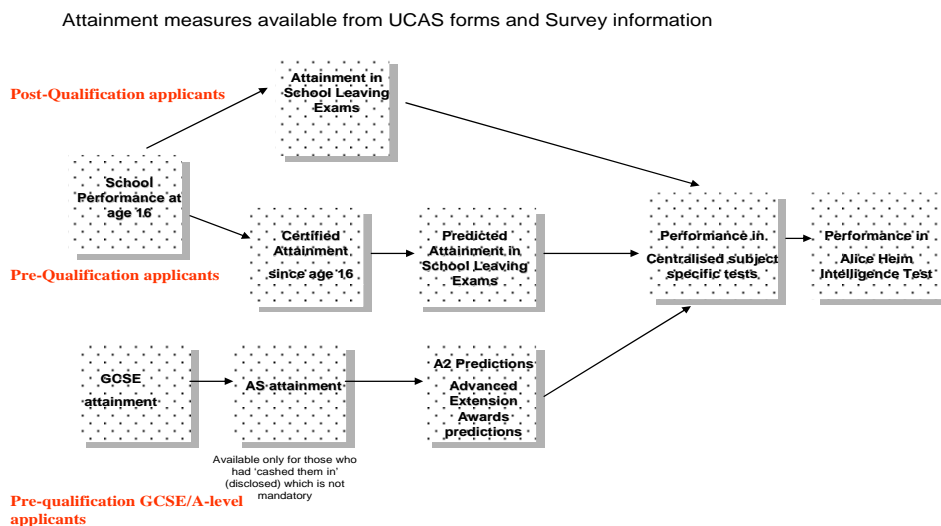
The vast majority of research participants were pre-qualification applicants who had taken GCSEs and who were undertaking study towards A-levels. In total, 86.7 per cent of applicants had taken GCSEs

Various measures of educational attainment were included in the study. They are summarised in Figure 2. For post-qualification applicants, all their attainment at school is known, although some post-qualification applicants enrol in extra academic courses such as additional A-level courses. Pre-qualification candidates apply with their certified school attainment at age 16 and their predicted attainment for their school leaving exams. In the case of those taking GCSEs and then A-levels, candidates certify their GCSE attainment and frequently also their attainment in the first year of A-levels in their AS examinations. Attainment in their full A-levels, however, is only predicted and not actually achieved.

In addition, many subjects of study at the University of Oxford collect additional information from candidates. It is customary to ask for submissions of recent samples of candidates' written work. Several subjects also administer tests during the

interview period designed to assess abilities directly related to an applicant's chosen course of study. While most of these tests are marked within individual colleges or small college groups, there are two subject areas that mark their tests centrally: Medicine and Physiological Sciences and Mathematics. The results of these two centralised tests were incorporated with the consent of the research participants. Finally, information was also obtained on the candidate's performance on the Alice Heim verbal and spatial reasoning test administered during the research. The operationalisation of all these attainment measures is now detailed.

Figure 3.2: Attainment information



It is not currently possible to obtain GCSE results centrally from UCAS. While this is changing as more university applications are submitted electronically, current transition research in Britain tends to suffer from a lack of information on attainment at GCSE (e.g. Boliver 2005) so that inclusion of GCSE attainment marks a distinct contribution to knowledge in the field. GCSE attainment was manually entered to the admissions study database for all research participants. This research also goes beyond the existing literature by including predictions of attainment at A2 level. As

there is no perfect correlation between predicted and actually achieved grades, using the former measure is a more exact model of the information on which actual admissions decisions are based. Again, as only actually achieved grades are available through UCAS, this method is a significant improvement to the currently available literature. Finally, information was also collected on the performance in the Alice Heim 6 test, an intelligence test developed for high achievers. The advantage of including this measure is that it allows for a comparison between candidates who are studying for widely different qualifications. The disadvantage of using such a measure is that there is no such thing as a culturally blind intelligence test and it is controversial whether a test at this stage can, in fact, differentiate between innate ability and learnt knowledge (Leman 1999).

3.3.3.1 GCSE Scores

GCSE scores: derived from the applicants' UCAS forms section 7A 'Qualifications completed or certificated'. In order to arrive at the measure used in the regression model, the GCSE scores were added up and divided by the number of subjects taken by the applicant. An A* was scored as eight points, an A as seven points, a grade B as six points and so forth (Sullivan 2001; DfES 2005). A grade U scored zero points. The average per subject taken measure of GCSE attainment had higher predictive power than using the total GCSE score.

3.3.3.2 AS Scores

AS scores: also derived from applicants UCAS forms section 7A ‘Qualifications completed or certificated’ and section 7B ‘Qualifications not yet completed or certified.’ These sections of the UCAS form are completed by the candidate but verified by the applicant’s referee. It is the policy of some schools to advise candidates not to disclose their AS results and some candidates are still taking examinations at the AS rather than the A2 level in their second year of the Sixth Form. It was therefore decided to capture the complex AS information by categorising attainment into ‘achieved an A average in all AS levels,’ ‘achieved an average lower than A in all AS levels,’ ‘achieved attainment at AS level missing.’ The same concept was applied to predicted AS levels which were categorised into ‘predicted to achieve an average of A in AS levels,’ ‘predicted to achieve an average lower than A across all AS levels,’ and ‘predicted achieved attainment at AS level missing.’ The AS- grades were scored using the UCAS tariff calculator which gives candidates 60 points for a grade A, 50 points for a grade B, 40 points for a grade C and 30 points for a grade D and 20 points for a grade E.

3.3.3.3 A2 Scores

A2 scores: the predicted A2 scores of pre-A2-candidates were derived from the Reference Section of the UCAS application form. In all but a small minority of cases, the referees included the applicants’ predicted attainment for all A2 subjects in the form. Again, the UCAS tariff calculator was used to convert achieved and predicted grades at A2 into numeric value: A grade A equals 120 points, a grade B 100 points and so forth. When a candidate had a split prediction such as A/B, the mean between

the two numerical values was taken. In this example, the prediction would be worth 110 points.

3.3.3.4 Advance Extension Awards

Advanced Extension Awards: information regarding Advanced Extension Awards (AEAs) and the achieved or predicted outcome was collected from the UCAS application form section 7A and 7B and the personal reference. In total, 82 study participants planned to take AEAs. Due to the small number of applicants in our sample taking AEAs, the variable was treated as a dichotomous dummy variable of whether or not a candidate was or had been involved in any AEA courses without controlling for the achieved or predicted grades in an AEA.

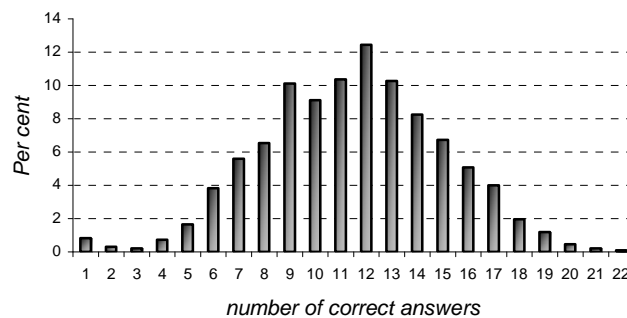
As an alternative operationalisation of attainment, it would have yielded the same patterns of results to operationalise school leaving attainment for applicants with A-level qualifications as a categorical variable with the following categories: ‘Attained four or more A-levels at grade A’; ‘Attained three grade As at A-level’ and ‘Attained lower than three As at A-level’²³.

3.3.3.5 Ability – Alice Heim test

²³ I would like to thank Geoffrey Walford for suggesting this operationalisation. This method will be used in some of the papers that emerge from this thesis.

Intelligence Test: trained invigilators administered a shortened version of the Alice Heim 6 test developed for groups of higher than average ability. The test included 12 verbal and 12 non-verbal items. Due to copy right restriction it is not possible to reproduce the actual research material in this dissertation. The typical format of the reasoning exercises was x (word or geometrical figure) is to y as z is to (choice of five to seven options). Scores on the test were added, creating a continuous variable with a mean of 10.46, a median of 11 and a range of 21. Performance on the Alice Heim test was normally distributed (See Figure 3).

Figure 3.3: Performance on the Alice Heim Reasoning Test



3.3.3.6 Subject Specific Tests

Subject specific tests results were collected for Medicine and Mathematics. The tests results were entered in the format in which the subjects themselves use them. Both tests were marked out of 100 although the highest score achieved by a research participant on the Medicine test was 78.5 and on the Mathematics test it was 99. The

mean for the Medicine test was 49.36 and the median 50.0. The Mathematics test was also marked out of 100 with a mean of 57.9 and a median of 57.

3.3.4 Structural control variables

Structural control variables are those variables that may structure admissions decisions without a clear theoretical expectation that they are unfairly influenced by social background characteristics such as class, ethnicity and gender. The structural variables included in the analysis here are age, region, subject choice and college applied to. It must be noted that including subject choice in the structural control variables is not unambiguous. It is well documented that there is a relationship between gender and ethnicity and the propensity to apply to particular degree courses (Bickel, Hammel et al. 1975). There exist lines of research which consider subject choice as their dependent variable and this is a worthy undertaking in its own right (Reay, Davies et al. 2001). Within the scope of this thesis, however, subject choice is a control variable whereby the competitiveness of subjects structure chances of gaining an offer. In a similar vein, there is a wide spread belief that college choice is not a random enterprise. Historically colleges at both Oxford and Cambridge have had links with particular schools (King's College Cambridge 2007). Commercial consulting firms such as Oxbridge applications provides strategic college choice as one of their services (Oxbridge Applications 2007). But, again, the focus in this research is not to predict who applies to a particular college but whether college choice alters the propensity to gain a place, although interactions between college and

type of school could shed some light on this related question. The structural variables are now discussed in turn.

3.3.4.1 Age

There is some evidence that the month of birth impacts on participation patterns in HE (HEFCE 2005). Tracking trends over a three year period from 1979 to 1982, the HEFCE review found that for England, those born in September and who are therefore the oldest in their school year cohort are around 20 per cent more likely to be young entrants to higher education than those born in August (p. 31). Moreover, a review of the GCSE results in 1991 and the A-level results in 1993 found that those born in September take more GCSEs and receive better grades for each entry. No seasonality was observed in the number of A-levels taken and A-level grades for those who continued to do A-levels (Alton and Massey 1998). The suggested mechanism behind this statistic is that children born in September are more mature.²⁴ It is thus worthwhile for this research to explore the impact of age as a structural control factor on the propensity to gain an offer.

Among the survey participants with GCSE and A-level qualifications, 62.1 per cent were born in 1985 or later. Just under half of the applicants – 49.2 per cent – were born between September and February and 46.5 per cent were born between March and August. Information on month of birth was not available from the survey in 4.7 per cent of cases. For the analysis, age is operationalised as a categorical variable

²⁴ The little research that has been undertaken on the effect of seasonality in degree attainment shows no effects HEFCE (2005). Young participation in higher education. London, HEFCE..

with three categories, namely, those born in 1984, those born in 1985 and those born after 1985.

3.3.4.2 Subject Choice

Subject choice is here regarded as a control variable that is expected to explain some variation in the patterns of acceptance as subjects differ with regards to their competitiveness at entry as well as their entry requirements.

Given the small number of candidates per subject, subject operationalisations have to be somewhat cruder than is ideally desirable. To keep the data manageable, subjects were broadly grouped by their divisional association within the structure of the University of Oxford. A special case was made for Mathematics and Medicine as these two subjects administer centrally marked tests at admission and it was desirable to include performance in these tests. For the purpose of the research, the classification of subjects in the Humanities Division and the Social Sciences Division was not altered. Medicine and Mathematics constitute their own separate categories. All other subjects in the Medical Sciences and Mathematical and Physical Sciences Division were combined with the Life and Environmental Sciences Division to constitute a group labelled 'Other'. The breakdown and frequencies are detailed in Table 3.7.

Table 3.7: Classification of Final Honours School Subjects into groups for the statistical analysis

Division	Frequency
<u>Humanities</u> <i>(Classics and Joint Schools, Oriental Studies, All Languages, Music, Bachelor of Fine Art, Theology, History, Modern and Ancient and joint schools, English and Joint Schools, Literae Humaniores, Classical Archaeology and Ancient History, Philosophy and Joint Schools)</i>	682
<u>Social Sciences</u> <i>(Jurisprudence, Economics and Management, Philosophy, Politics and Economics)</i>	481
<u>Mathematics</u> <i>(Mathematics and some joint schools, Mathematics and Statistics)</i>	143
<u>Medicine</u> <i>(Medicine, Physiological Sciences)</i>	162
<u>Other</u> <i>(Experimental Psychology, Computation/Computer Science, Physics and Joint Schools, Human Sciences, Biochemistry, Molecular and Cellular, Biological Sciences, Chemistry, Geography, Geology/Earth Sciences, Engineering and Joint Schools, Archaeology and Anthropology, Materials and Joint Schools, Psychology, Philosophy and Physiology)</i>	461
Total	1929

3.3.4.3 College Choice

As explained in the sampling frame, a total of 11 colleges participated in the research. These colleges were selected with regards to their percentage of intake from private schools and their position on the Norrington Table. In the University prospectus and

in widening participation literature, there is emphasis on the likeness of colleges: ‘Our advice is not to worry too much about choosing a college. The colleges have more in common than they have differences ...and all [students] believe their college is the best!... If you do not have a preference for a particular college, you can simply make an open application and leave the decision to the Admissions Office computer. You are very welcome to do this and it does not affect your chances of getting a place: around 10% of applicants make an open application, and competitive applicants have a similar success rate to candidates who name a first-choice college’ (<http://www.admissions.ox.ac.uk/colleges/choosing.shtml> viewed on 26 Sept 2005). It may be noteworthy that a careful reading reveals that ‘competitive’ applicants, however defined, appear to have a similar chance of success whether or not they have chosen a college, thus leaving open the possibility that for slightly less competitive candidates college choice might play a role. It is certainly the case that anecdotal evidence suggests that there are some colleges that are more highly regarded than others. This is connected to wealth and position on the Norrington Table and the analysis in Chapters 6 and 7 shows that admissions tutors are aware of college differences. Awareness of unequal chances of gaining a place depending where an applicant has applied – the ‘college lottery’ – has led several subjects, most notably Medicine, to move to a ‘college blind’ admissions system where the selecting tutors do not know whether the candidate they are interviewing applied to their college as first choice. For the purpose of this research, the college is another possible structural source of variation in success rates. College is operationalised as a categorical variable with three categories representing the three thirds of the Norrington Table.

3.3.4.4 Region

The regional variable available through UCAS is a detailed breakdown of districts. For a meaningful analysis, these districts were first combined into counties and then organised as follows: Northern Ireland, Scotland and Wales were combined to form the Devolved Regions. The South East, South West and London were combined to form the South region. The Midlands and the East of England were categorised as Midlands and East. Yorkshire and Humber, the North West and the North East were combined to form the region North. Non-United Kingdom applicants were divided into continental European applicants based on the interview summoning list and the rest of the world, that is those not summoned for interview (except for Medicine). The analysis found no significant differences in acceptance by region within Britain but there were significant differences in regional acceptances when comparing British applicants to European and other overseas applicants.

3.3.4.5 University Destination

The competitiveness of admissions to Oxford means that not all research participants were offered a place for study at Oxford. The breakdown of university destination displayed in Table 3.8 shows that around one-third of the original 1,929 research participants subsequently embarked on a degree course at Oxford. A further 37 per cent of research participants enrolled at other Russell Group universities and 19 per cent enrolled at Old or Robbins universities (see Appendix 11 for detailed classification of universities). Among this last group, the largest number enrolled at

the University of Durham followed by the University of York, Bath and St Andrews, a group of smaller institutions with a similarly high reputation as those in the Russell Group. Thus, the overwhelming majority of those unsuccessful in the competition for a place at Oxford enrolled at other institutions with similar prestige. Also noteworthy is the figure of 10 per cent missing university destination. This measure includes students who went to universities outside the UK. Furthermore, the group is likely to include applicants who intend to re-apply to higher education in the following year as post-qualification applicants²⁵. University destination is included among the explanatory variables in Chapter 8.

Table 3.8: University Destination of research participants (*see Appendix for detailed breakdown*)

	Per cent	Valid percent	Frequencies
Oxford	32.9	36.3	635
Other Russell Group	36.8	40.6	709
Old and Robbins	19.3	21.3	372
New Universities and professional (medical) Schools	1.6	1.8	31
Not known	9.4	--	182
Total	100	100	1,929

3.4 Research Limitations

²⁵ The social background of this group is over-proportionately professional middle class with Oxford or Cambridge educated parents. It is conceivable that this group is aware of the advantageous admissions decisions for post-qualification applicants and they might have the resources to allow their children to have another go at getting into Oxbridge in the following year.

Inevitably, undertaking real world research generally falls short of ideal textbook methodological scenarios. Moreover, with the benefit of hindsight, several research design issues could have perhaps been further improved. This section discusses such limitations, both in survey design and response rates limitations as well as issues of selection biases and in the inferences drawn from qualitative data. All these caveats should be born in mind in the interpretation of the substantive conclusions and the contribution to knowledge in the sociology of education in the subsequent discussion in section 9.4.

3.4.1 Prospective design and response rate

The work presented here is perhaps unnecessarily limited by the ultimately small number of observations for some groups of respondents in the statistical analyses. In particular, very small numbers of working class and black applicants were represented in the study. This observation is congruent with the general low representation of these groups among Oxford applicants or indeed – as shown in Chapter 2 – among applicants to selective higher education in general. The observation also ties in with previous research on admission to Oxford (Boliver 2004; Kotecha 2006). Nonetheless, an alternative study design could have perhaps addressed this low representation. Specifically, by using a retrospective research design based simply on application forms and degree results – perhaps even pooled over several years – it would have been possible to obtain larger numbers of observations for social groups under-represented among applicants to Oxford. The drawback of such a study design, however, would have been the loss of interesting information such as the detailed social class background of applicants and a breakdown of the middle class along the

cultural / economic capital divide, the cultural knowledge information and the intelligence test scores available from the purposefully designed admissions survey. On balance, the prospective study design used here has provided some exciting opportunities for exploring mechanisms in selection to Oxford but some of this wealth of information was traded for statistical power in the number of observations available.

Alternatively, a higher initial response rate to the survey could have yielded larger numbers of observations of groups generally under-represented among Oxford applicants while still drawing on the strength of the purposefully designed survey. This would have increased the statistical robustness of the findings presented in Chapters 4,5 and 8.

Unfortunately, practical suggestions on how the current response rate could perhaps be improved in future research are also limited. For example, in the current study the right to refuse participation was reiterated at every possible stage of the data collection process. This may have impeded the response rate but it was necessary in order to comply with ethical guidelines and to obtain permission from the University of Oxford and its colleges to conduct the research in the first place. It might have also helped to employ another full-time research assistant supervising the data collection during the two weeks of the actual survey administration. Perhaps it would have still further improved the response rate to designate one undergraduate college helper in each of the research colleges to promote the study (see Chapter 3). Ultimately, however, there is a limit to how much can be achieved in a context where participation is voluntary and the group of crucial undergraduate supporters (college runners) frequently changed on a daily basis or were the victim of last minute staff

substitutions. It is some comfort that the response rate achieved in this survey ultimately still compares well to response rates achieved by research companies. It was shown in Chapter 3 that responses were broadly representative of all applicants for admission in 2002.

3.4.2 Questionnaire design and follow up

A particularly regrettable omission from this research in terms of theory is that it does not draw on the work of Kanter and McPherson on ‘homo-social reproduction,’ or ‘homophily,’ prior to designing the survey of applicants for admission (Kanter 1977; McPherson, Smith-Lovin et al. 2001, p. 415)²⁶. In particular, in Kanter’s work, a crucial aspect for understanding selection decisions under uncertainty is how the characteristics of the selectors and the selectees are similar. Earlier engagement with this literature would have allowed me to include a question in the survey that would have asked research participants to state the gender and ethnicity of the academic(s) who had interviewed them. This measure could have facilitated a direct test of the homo-social reproduction argument advanced in Chapter 6. A second interesting proposition that is unfortunately not testable with the data collected in 2002 is a hypothesised link between employment sector and selection decisions. Specifically, it might be the case that the link between professional class parents and acceptances is

²⁶ I wish to thank Mitchell Stevens for pointing me to this literature.

driven by the representation of parents who are themselves employed in the educational sector²⁷. It would have been interesting to test this proposition empirically.

Furthermore, it would have been desirable to undertake the follow up survey of the university experience not only at Oxford but also at the other universities to which research participants were subsequently admitted. Several findings in the follow up of Oxford students (not discussed as part of the thesis) raise the question of whether they were they were uniquely Oxford effects or if they were changes that also occurred at other universities. For example, I found that students who scored high on the anxiety measure on the follow up performed particularly highly in final university examination. It would have been interesting to establish whether this link is specific to Oxford or observable among all university students.

Finally, it would have increased statistical robustness and our confidence in the findings to have the degree results of all research participants. Unfortunately, a large number of research participants did not graduate in 2006 with significant numbers expected to graduate in 2007 but some only expected to graduate as late as 2010. It was thus not possible to gather more information within the timeframe of this thesis. It is encouraging, however, that another round of data collection is currently in progress, enabling a re-run of the analyses presented in Chapter 8 in the near future.

3.4.3 Cross-sectional design

²⁷ I wish to thank Catherine Rotheron for this suggestion in conversation.

The project is a cross-sectional study of applicants to Oxford with a longitudinal element in that it follows applicants throughout their time at university. There is no particular reason to believe that 2002 was an exceptional year for entry to higher education, but one cannot be certain that the research in a different year would have yielded exactly the same results. There is reassurance in the broadly comparable findings from Boliver and Kotecha, whose analyses of admissions pattern for previous years (1996 to 2001) found transition patterns congruent with this dissertation (Kotecha 2003; Boliver 2004). One might also argue that, given the changes in higher education with the introduction of tuition fees in 1998 and the introduction of university top-up fees in 2006, 2002 was as good a year as any other to represent admissions to Oxford in the post tuition fee, pre-top up fees era. However, these changes in higher education policy also mean that application patterns to Oxford may have undergone some changes since this project commenced in 2002. Furthermore, the particular institutional selection procedures for gaining admission to Oxford have changed in some subjects even in the short time that has elapsed since the admissions survey was conducted in 2002. The most noticeable change has been the increase of subject specific tests. For example, Law, Medicine and History now all use tests in the short-listing stage for interviews and other subjects such as English are planning to follow suit in due course. Despite these changes, the mechanisms of selection conditional on application per se should not have suffered from the cross-sectional nature of the data collection.

3.4.4 Unobserved selection effects

Another possible criticism of this work is that the survey of applicants at the point of the admissions interview cannot control for previous selection processes (Cameron and Heckman 1998). For example, it is less common for working class students in general to put themselves forward for admission to highly selective universities. Therefore, the working class students who do apply might be different to other working class students in higher education because they self-selected themselves for application. However, while unobserved heterogeneity potentially challenges the inferences drawn from any empirical study, it is unclear which student characteristics constitute this unobserved heterogeneity. To reiterate, the admissions survey included, among others, measures of cultural and social capital, confidence, anxiety, aspirations, motivation and learning style. All these dimensions might be the source of unobserved heterogeneity in other studies of educational research but they are not ‘unobserved’ in this study and are included in the models of the analyses in Chapters 5 and 8 in this thesis.

It is, however, helpful to think about unobserved selection effects when thinking about the inferences from this study. For example, the observation that, conditional on application, working class applicants have similar chances of gaining an offer to applicants from other social class origins does not mean that working class students have the same chances of achieving a position in the educational system that would allow them to attain highly and to put themselves forward for admission to Oxford. In other words, it is possible – and actually likely – that the working class students who participated in this study are unlike most working class students in education. Research on working class participation in outreach programmes such as the Sutton

Trust, for example, has shown that, by the point a working class child puts him or herself forward for such a programme, she is actually no longer in need of intervention because she is already on a middle class trajectory despite her working class social origin (cf. Orwell 1945; Byrom 2006).

3.4.5 Limits of interviews and observations

Undertaking qualitative interviews and observations necessarily constitutes a social interaction. Respondents can be prone to give socially desirable responses and the presence of an observer in meetings may result in people not interacting and speaking as freely as they would in an unobserved setting. Fortunately, in several observations, only the chair of the meeting knew that a researcher was present. In one instance, permission to attend an inter-collegiate admissions meeting had been secured in advance from the subject chair, but the chair changed half-way through the meeting. The new chair was not aware of the presence of a researcher in the room. Overall, care was taken to ensure that research would not affect decision meetings and that interview respondents felt comfortable to talk freely about their views on the selection process. It is, however, not possible to say with certainty whether and how responses and observations were affected by the desire to give socially acceptable responses and the presence of a researcher respectively.

3.5 Concluding Remarks

To sum up, this chapter has detailed the data collection processes, the ethical considerations, the construction of the main variables of interest and the research limitations in this study. The chapter argued, first, that a detailed, purposefully designed questionnaire of applicants for admission was needed in order to move beyond a description of patterns of association between social background characteristics and university enrolment and towards an understanding of the processes that generate selection outcomes. In particular, detailed operationalisations of individual student characteristics with regards to cultural knowledge, motivations, aspirations and attainment in secondary schools were included in the survey of applicants for admission. Second, the interviews with selectors and the observations of admissions meetings were designed to provide insights into the selection process not available through quantitative data. The maximum variation sample from which tutors were selected was used to elicit the goals and underlying preferences from selectors that differed in their seniority, gender, ethnicity and academic subject. The mixed method approach was selected to provide rich qualitative and quantitative data on which to base detailed statistical and qualitative analyses regarding selection processes for study at the University of Oxford. These analyses are now presented in the subsequent chapters.

Appendix Chapter 3

Appendix 3.1: Admissions Questionnaire

Oxford Admissions Study

OFFICE
USE
ONLY

Dear Candidate,

Thank you for your help with this research project.

Oxford has been monitoring its admissions process and students' success in their final examinations for some time. The aim of this research project is to investigate the factors that influence access to Oxford and subsequent academic attainment and we hope that the research might be of benefit to future generations of candidates. We trust that you will not find it at all burdensome. Participation is entirely voluntary.

Our research project is completely separate from the admission procedures in your college. At **no** time will the college have access to the data. **All information you give us will be treated in strictest confidence and will have no bearing whatsoever on admissions decisions taken by the college.** The research material will not be processed until **after** all admissions decisions have been made.

We would like to ask you for your permission to link the research material with your previous and subsequent examination results. This is important information for understanding the admissions process. The principle of strict confidentiality will apply to this information too.

Name _____

Oxford College _____

Subject _____

Contact telephone or e-mail _____

Please also sign the following declaration

I give my consent for my school leaving and university examination results to be released to the research project on condition that all information is maintained in strict confidentiality.

Signed: _____

I would be willing to participate in future research on this topic. Yes/No

Try to work as quickly as you can through this questionnaire, but answer each question accurately. Complete confidentiality is assured, so please answer honestly. Please work steadily through the questionnaire from the beginning to the end.

1. When you were applying to Oxford, there may have been some features that attracted you to apply and others that may have put you off. Please tick one box on each line to show how much each feature attracted you.

	Very attractive	Attractive	Unattractive	Very unattractive	Don't Know	
Oxford's general reputation	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	1 a
The academic reputation of your proposed course at Oxford	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	1 b
The social life at Oxford	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	1 c
The career opportunities that an Oxford degree provides	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	1 d
The financial costs of studying at Oxford	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	1 e

2. Various suggestions have been made for improving access to Oxford. Please tick one box on each line to show how much help it would be in your particular case.

	Very helpful	Helpful	Unhelpful	Very unhelpful	Don't Know	
Provision of bursaries for students from less affluent backgrounds	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	2 a
A simpler admissions procedure	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	2 b
More information about courses at Oxford	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	2 c
Provision of full scholarships for the most able students	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	2 d

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3. When you were applying to university, did you obtain information or advice from any of the following people?

(Please tick the appropriate boxes. You may tick more than one box.)

Teachers (1)

Family (1)

Your friends (1)

Any Oxford outreach scheme
(e.g. Target Schools, Oxford Access Scheme, Oxford Bursary Scheme
for those students with full fee remission or other) (1)

Please specify _____

Other people (1)
Please specify _____

3 a

3 b

3 c

3 d

3 e

4. If you were offered a place at Oxford, what would be the reaction of the following people?

(Please tick one box on each line.)

	Very supportive	Supportive	Unsupportive	Very unsupportive	Don't Know
Teachers	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)

Your Friends	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)
--------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------

Family	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)
--------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------

Other people	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)
--------------	------------------------------	------------------------------	------------------------------	------------------------------	------------------------------

Please specify _____

4 a

4 b

4 c

4 d

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5. What school-leaving exam have you taken or are you planning to take?

(Please tick one box only.)

	already taken	planning to take
A-levels	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)

Scottish Highers	<input type="checkbox"/> (2)	<input type="checkbox"/> (2)
------------------	------------------------------	------------------------------

Irish Leaving Certificate	<input type="checkbox"/> (3)	<input type="checkbox"/> (3)
---------------------------	------------------------------	------------------------------

International Baccalaureate	<input type="checkbox"/> (4)	<input type="checkbox"/> (4)
-----------------------------	------------------------------	------------------------------

Abitur (Germany)	<input type="checkbox"/> (5)	<input type="checkbox"/> (5)
------------------	------------------------------	------------------------------

Apolytirion of Eniaio Lykeio (Greece)	<input type="checkbox"/> (6)	<input type="checkbox"/> (6)
---------------------------------------	------------------------------	------------------------------

Baccalauréat (France)	<input type="checkbox"/> (7)	<input type="checkbox"/> (7)
-----------------------	------------------------------	------------------------------

Diploma conseguito con l'Esame di Stato (Italy)	<input type="checkbox"/> (8)	<input type="checkbox"/> (8)
-------------------------------------------------	------------------------------	------------------------------

Fullständigt Slutbetyg från Gymnasieskolan (Sweden)	<input type="checkbox"/> (9)	<input type="checkbox"/> (9)
-----------------------------------------------------	------------------------------	------------------------------

Other, please specify _____	<input type="checkbox"/> (10)	<input type="checkbox"/> (10)
	(a)	(b)

**Please also
answer questions
6 and 7**

**Please go to
question 8.**

5a
and
5 b

6. How many grade As do you realistically expect to obtain in your A-levels?

(Please tick one box only.)

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5 or more
(1)	(2)	(3)	(4)	(5)

<input type="checkbox"/> Don't know	<input type="checkbox"/> I have already taken my A-levels
(6)	(7)

6

7. How disappointed would your family be if you did not get the number of As at A-level you are expecting?
(Please tick only one box.)

- Not at all disappointed (1)
- A little disappointed (2)
- Very disappointed (3)
- Don't know (4)
- Not applicable (5)
- I have already taken my A-levels (6)

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7

8. What class of degree do you hope to achieve in your final examinations at university?
(Please tick one box only.)

- First class (1st) (1)
- Upper second (2:1) (2)
- Lower second (2:2) (3)
- Third class (3rd) (4)
- Don't know (5)

8

9. What class of degree do you realistically expect to achieve in your final examinations at university?
(Please tick one box only.)

- First class (1st) (1)
- Upper second (2:1) (2)
- Lower second (2:2) (3)
- Third class (3rd) (4)
- Don't know (5)

9

10. How important do you think your degree result will be in helping you to achieve each of the following?
(Please tick one box on each line.)

- | | Very important | Important | Unimportant | Very unimportant | Don't know |
|--------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| High self-esteem | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) |
| Your family's approval | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) |
| High status among your friends | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) |
| Success in your future occupational career | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) |

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10 a
10 b
10 c
10 d

11. How important is it, overall, for you to get a first class degree?
(Please tick only one box.)

- Very important (1)
- Fairly important (2)
- Not important (3)
- Not at all important (4)
- Don't know (5)

11

12.1. Please rate the following aspects of University life according to how important they are to you:

(Please tick one box on each line.)

	Very important	Important	Unimportant	Very unimportant	Don't know	
Getting experiences that would help my career plans	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	12 a
Participating in non-academic activities (e.g. sports, drama, religious activities)	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	12 b
Doing well academically	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	12 c
Having a good social life	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	12 d

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12.2. And now, could you please tell us which of the four items is the most important one to you?

(Please tick only one box.)

- Getting experience to help my career plans (1)
- Participating in non-academic activities (2)
- Doing well academically (3)
- Having a good social life (4)

Read each item below and indicate how well each statement describes you. PLEASE REMEMBER, THERE ARE NO RIGHT OR WRONG ANSWERS. Please tick one box on each line.

If you have already taken your A-levels or school leaving exams, please tick the box 'not applicable' for all questions marked with a star. *

	Unlike me	Somewhat unlike me	Neither like nor unlike me	Somewhat like me	Like me	Not applicable	
13. When I am studying I find that the things I am learning are 'fitting together'.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	13
14. I like to work hard.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	14
15. * I intend to work hard to get the marks I am capable of in my school leaving exams.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	15
16. It is important for me to perform better than others do on a task.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	16
17. I find that I have to do enough work on a topic so that I form my own point of view before I am satisfied.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	17
18. I think I would enjoy having authority over other people.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	18
19. People take notice of what I say.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	19
20. I try to do all of my assignments as soon as possible after they have been set.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	20
21. I certainly feel useless at times.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	21
22. I try harder when I'm in competition with other people.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	22
23. I usually become increasingly absorbed in my work the more I do.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	23
24. I feel I do not have much to be proud of.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	24
25. I often put off until tomorrow what I know I should do today.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	25
26. I easily get bored if I don't have something to do.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	26

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	Unlike me	Somewhat unlike me	Neither like nor unlike me	Somewhat Like me	Like me	Not applicable	OFFICE USE ONLY
27. I find it best to accept the statements and ideas of my teachers and question them only under special circumstances.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	27
28. If I get a good result, it doesn't matter if others do better.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	28
29. Given the chance I would make a good leader of people.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	29
30. I try to relate new material, as I am reading it, to what I already know on the topic.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	30
31. I enjoy planning things and deciding what other people should do.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	31
32. I keep neat, well-organised notes for most subjects.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	32
33. I judge my performance on whether I do better than others rather than on just getting a good result.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	33
34. I need to keep working on a topic until I feel I really understand it.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	34
35. I wish I could have more respect for myself.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	35
36. *I won't get the results I want in my school leaving exams.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	36
37. These days I really enjoy my studying.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	37
38. At times I think that I am no good at all.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	38
39. I usually have music playing when I do my academic work.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	39

	Unlike me	Somewhat unlike me	Neither like nor unlike me	Somewhat Like me	Like me	Not applicable	OFFICE USE ONLY
40. * I aspire to top grades in all my school leaving exams.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	40
41. Nowadays I have a lot of 'Aha!' experiences when I am studying.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	41
42. On the whole I am satisfied with myself.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	42
43. I feel that I'm a person of worth, at least on an equal plane with others.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	43
44. I find that at times studying gives me a feeling of deep personal satisfaction.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	44
45. I think browsing around is a waste of time, so I only study seriously what's given out in class or in course outlines.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	45
46. I can easily sit for a long time doing nothing.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	46
47. I am constantly seeing the links between the topics I am studying.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	47
48. I must admit I often do as little work as I can get away with.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	48
49. I try to work consistently throughout the term and review regularly when the exams are close.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	49
50. *Excellent results at my school leaving exams are well within my grasp.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	50
51. Lately I have found it easier than in the past to remember the things I am learning.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	51
52. I feel insecure about my ability to do things.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	52

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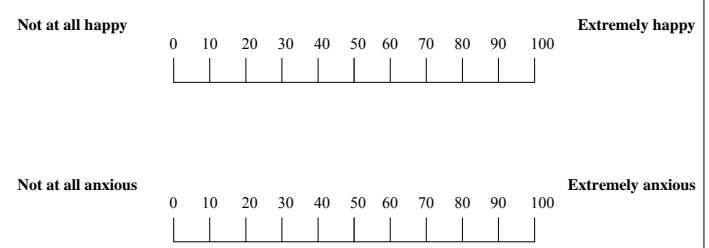
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- | | Unlike me | Somewhat unlike me | Neither like nor unlike me | Somewhat Like me | Like me | Not applicable | |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|----|
| 53. When a group I belong to plans an activity, I would rather direct it myself than just help out and have someone else organize it. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) | <input type="checkbox"/> (6) | 53 |
| 54. I could be overwhelmed if faced with a very demanding assignment. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) | <input type="checkbox"/> (6) | 54 |
| 55. Other goals in my life take precedence over academic success. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) | <input type="checkbox"/> (6) | 55 |
| 56. Failure just makes me try harder. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) | <input type="checkbox"/> (6) | 56 |
| 57. *If I do as well in my school leaving exams as the average student in my class, then I will be satisfied. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) | <input type="checkbox"/> (6) | 57 |
| 58. While I am studying, I often think of real life situations in which the material I am learning would be useful. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) | <input type="checkbox"/> (6) | 58 |
| 59. I take a positive attitude towards myself. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) | <input type="checkbox"/> (6) | 59 |

Consider the statements below and indicate how much the view expressed reflects your own attitude toward examinations.
(Please circle the appropriate number.)

60. "Doing examinations is like playing a game. The aim of the game is to beat the examination system by working within the rules yet using them to your own advantage."
Strongly Disagree: 1 2 3 4 5 6 7 8 9 10 **:Strongly Agree**
(Circle as appropriate)
61. "When revising for an exam, some people take a low risk strategy and revise all the topics. Other people take a high-risk strategy and revise only a few topics. How about you? Where would you place yourself on this scale?"
(Please circle the appropriate number.)
Low risk: 1 2 3 4 5 6 7 8 9 10 **: High risk**
(Circle as appropriate)

62. The scales shown below are designed so that you can rate your mood on each of the dimensions: *happy* and *anxious*. Please rate your prevailing mood over the last three months on each of these scales. To do this, place a cross on each scale in the place which most accurately represents your prevailing mood over the last three months on that dimension.



63. The following statement applies to the next five questions.
When things go wrong in my family and personal relationships:
(Please tick one box on each line.)

- | | Never | Rarely | Sometimes | Often | Always |
|---------------------------------------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| I find myself unable to work. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) |
| I throw myself into my work. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) |
| I think all the time about the problem. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) |
| I continually talk it over with friends. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) |
| I throw myself into sport/extracurricular activities/hobbies. | <input type="checkbox"/> (1) | <input type="checkbox"/> (2) | <input type="checkbox"/> (3) | <input type="checkbox"/> (4) | <input type="checkbox"/> (5) |

64. Please think back to when you last took exams and try to answer the following questions. The questions concern what you did in the study period running up to the exams and during the exams themselves.

(Please tick one box on each line.)

	Never	Rarely	Sometimes	Often	Always	
I had difficulty sleeping.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	64 a
I got much less sleep than I am used to by staying up late at night studying.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	64 b
I got much less sleep than I am used to by getting up very early in order to study.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	64 c
I did not eat as regularly as I am used to.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	64 d
I ate more than usual.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	64 e
I did not eat as much food as I am used to.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	64 f
I felt ill or out of sorts.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	64 g
I felt distressed/upset.	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	64 h

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65. Please let us know if there was any event such as a bereavement or illness that may have affected how you felt before or during the exams.

(1) Yes, there was an event (2) No, there was no major event.

65

6. Each of the following people has been distinguished in one of the fields of politics, music, literature, art or science. For each person, please say which category you associate him or her with. If you do not know, do not guess, just tick "don't know".

(Please tick one box on each line.)

	Politics	Music	Literature	Art	Science	Don't Know	
Albert Einstein	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 a
Graham Greene	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 b
Clara Schumann	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 c
Andy Warhol	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 d
George Eliot	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 e
Martin Luther King Junior	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 f
Sergei Rachmaninov	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 g
Galileo Galilei	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 h
Georges Braque	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 i
Tracey Emin	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 j
Miles Davis	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 k
Gabriel Garcia Marquez	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 l
Louis Pasteur	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 m
Mahatma Gandhi	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 n
Marie Curie	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 o
Akira Kurosawa	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 p
Sirima Bandaranaike	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 q
Olivier Messiaen	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 r
Lloyd George	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 s
Jekksander Solzhenitsyn	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	<input type="checkbox"/> (6)	66 t

OFFICE
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ONLY

7. Personal background

You need to ask the following questions in order to be sure that there is no discrimination on the basis of social background.

Please record your date of birth (MM/YY)

__/__/____

Are you male or female?

male female
(1) (2)

What is your ethnic group? Choose ONE section from (a) to (e) then tick one appropriate box to indicate your ethnic group. (This question is taken from the UK Government Census 2001.)

(a) White

- British (1)
- Irish (2)
- Any other White background (3)
please write in _____

(c) Black or Black British

- Caribbean (8)
- African (9)
- Any other Black background (10)
please write in _____

(b) Mixed

- White and Black Caribbean (4)
- White and Black African (5)
- White and Asian (6)
- Any other mixed background (7)
please write in _____

(d) Asian or Asian British

- Indian (11)
- Pakistani (12)
- Bangladeshi (13)
- Any other Asian background (14)
please write in _____

(e) Chinese or other ethnic group

- Chinese (15)
- Any other (16)
please write in _____

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67 a

67 b

67 c

68. Do you have a disability?

(Please tick one box only.)

Yes (1) No (Please go to question 69) (2)

68.1. Please tick one or more boxes to describe your disability

- Blind/partially sighted (1)
- Deaf/Hard of hearing (1)
- Wheelchair user (1)
- Other mobility impairment(s) (1)
- Dyslexia (1)
- Mental health difficulties (1)
- Unseen disability (e.g. diabetes) (1)
- Other (please describe) (1)

69. Are you a native English-speaker?

(Please tick one box only.)

Yes (1) (Please go to question 70)
No (2) (Please go to question 69 b.)

69.1. If you are not a native English speaker, how would you describe your level of English?

(Please tick one box on each line.)

	Very Fluent	Fluent	Fair	Not so good
Reading	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Writing	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Speaking	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)

OFFICE
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68

68 a

68 b

68 c

68 d

68 e

68 f

68 g

68 h

69 a

69 b

69 c

69 d

70. We would like to know more about your family background. Which of the following people do you live with most of the time?
(Please tick one box on each line.)

	Yes	No
Mother	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
Other female guardian (e.g. stepmother or foster mother)	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
Father	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
Other male guardian (e.g. stepfather or foster father)	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
Brother(s) (including step brothers)	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
Sister(s) (including step sisters)	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
Grandparents	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
Others Please specify _____	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)

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70 a
70 b
70 c
70 d
70 e
70 f
70 g
70 h

71. In your home, do you have access to...
(Please tick one box on each line.)

	Yes	No
... a room of your own?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
... a link to the Internet?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
... a quiet place to study?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
... classic literature (e.g. Shakespeare, Dickens)?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
... science books?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)
... works of art (e.g. paintings)?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)

72. How many of these do you have at your home?
(Please tick only one box on each line.)

	None	One	Two	Three or more
Mobile phone	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Television	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Computer	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Musical Instrument	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Car	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)
Bathroom	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)

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72 a
72 b
72 c
72 d
72 e
72 f

73. How many books are there in your home?

There are usually about 40 books per metre of shelving. Do not include magazines.
(Please tick only one box.)

None	<input type="checkbox"/> (1)
1-10 books	<input type="checkbox"/> (2)
11-50 books	<input type="checkbox"/> (3)
51-100 books	<input type="checkbox"/> (4)
101-250 books	<input type="checkbox"/> (5)
251-500 books	<input type="checkbox"/> (6)
More than 500 books	<input type="checkbox"/> (7)

73

74. During the last year, how often have you participated in these activities?
(Please tick one box on each line.)

	Not in the past year	Once or twice	About 3 or 4 times	More than 4 times	
Gone to the cinema	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 a
Visited a museum or art gallery	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 b
Attended a pop concert	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 c
Attended an opera, ballet or classical concert	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 d
Watched live theatre	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 e
Attended sporting events	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 f
Attended a religious service, meeting or some other religious activity	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 g
Attended a political meeting, march, rally or demonstration	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 h
Did community work (such as helping elderly, disabled or other dependent people; cleaning up the environment; helping volunteer organisations or charities)	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 i
Participated in sports activity	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 j
Read a book for pleasure	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 k
Played a musical instrument	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	74 l

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75. During the last year have you attended any of these special courses or tuition outside your school to improve your results?
(Please tick only one box.)

	No, never	Yes, once or occasionally	Yes, regularly	
Training to improve your study skills	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	75 a
Private tuition or coaching	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	75 b
Other additional support such as Summer Schools or additional courses	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	75 c

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76. Do you board at your school? (that is, do you stay at school overnight?)
If you have already finished your secondary education, tell us whether you boarded while you were still at school.
(Please tick only one box.)

(1) Yes (2) No (3) Other (e.g. day-boarder)
Please specify _____

76

77. In general, how often do your parents or guardians:
(Please tick one box on each line.)

	Never or hardly ever	A few times a year	About once a month	Several times a month	Several times a week	
Discuss political or social issues with you?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	77 a
Discuss books, films, or television programmes with you?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	77 b
Discuss how you are doing at school?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	77 c
Eat the main meal with you around a table?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	77 d
Discuss your future plans for higher education?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	77 e
Discuss your future career plans?	<input type="checkbox"/> (1)	<input type="checkbox"/> (2)	<input type="checkbox"/> (3)	<input type="checkbox"/> (4)	<input type="checkbox"/> (5)	77 f

Do your parents/guardians belong to or attend activities organised by any of the following organisations?
(Please tick the appropriate boxes. You may tick more than one box.)

	Belong to	Attend activities
Religious organisation	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Neighbourhood organisation	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Charity organisation	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Alumni organisation	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Trade Union	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Political Party	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Recreational club	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Other <i>Please specify</i> _____	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)

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78 a/b
78 c/d
78 e/f
78 g/h
78 i/j,
78 k/l,
78 m/n
78 o/p

The following four questions (79-82) ask for information about your parent(s)/guardian (s). We recognise that there are many possible family structures, so please fill in these questions as appropriate to you and your circumstances.

9. What is the highest educational qualification obtained by your parents or guardians?
 Please tick **one** box only for your mother/female guardian and **one** box only for your father/male guardian. If you have a sole parent/guardian, please tick 'not applicable' for the other one.

	Mother/ female guardian	Father/ male guardian
Masters/PhD or other postgraduate education	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Bachelor (undergraduate) degree or equivalent (including Oxford, Cambridge and Scottish MA)	<input type="checkbox"/> (2)	<input type="checkbox"/> (2)
Professional qualification (below degree level)	<input type="checkbox"/> (3)	<input type="checkbox"/> (3)
A-level or equivalent	<input type="checkbox"/> (4)	<input type="checkbox"/> (4)
O-level/GCSE or equivalent	<input type="checkbox"/> (5)	<input type="checkbox"/> (5)
Other <i>Please specify</i> _____	<input type="checkbox"/> (6)	<input type="checkbox"/> (6)
No formal qualifications	<input type="checkbox"/> (7)	<input type="checkbox"/> (7)
Don't know	<input type="checkbox"/> (8)	<input type="checkbox"/> (8)
Not applicable	<input type="checkbox"/> (9) (a)	<input type="checkbox"/> (9) (b)

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79 a
and
79 b

5a-5b

80. Have any of the people listed below obtained a degree from Oxford or Cambridge University?

(Please tick all boxes that apply to you.)

	Yes, obtained a degree from Oxford	Yes, obtained a degree from Cambridge
Mother/ female guardian	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Father/ male guardian	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Other relatives	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Other people you know	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)

Please specify _____

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80 a/b

80 c/d

80 e/f

80 g/h

81. Which of the following best describes the employment situation of your mother/female guardian and/or your father/male guardian? Please give their current employment situation or, if they are not working now, their last employment situation. Please tick one box only for your mother/female guardian and one box only for your father/male guardian.

	Mother/ female guardian	Father/ male guardian
Employer	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Self-employed	<input type="checkbox"/> (2)	<input type="checkbox"/> (2)
Employee	<input type="checkbox"/> (3)	<input type="checkbox"/> (3)
Unemployed	<input type="checkbox"/> (4)	<input type="checkbox"/> (4)
Looking after the home	<input type="checkbox"/> (5)	<input type="checkbox"/> (5)
Other (e.g. student)	<input type="checkbox"/> (6)	<input type="checkbox"/> (6)
Don't know	<input type="checkbox"/> (7)	<input type="checkbox"/> (7)
Not applicable	<input type="checkbox"/> (8)	<input type="checkbox"/> (8)
	(a)	(b)

81 a
and
81 b

82. Please tick the appropriate box to show which best describes the main occupation of your mother/female guardian and your father/male guardian respectively. If they are not working now, please tick the box to show their last main occupation. Please tick one box only for your mother/female guardian and one box only for your father/male guardian.

	Mother/ female guardian	Father/ male guardian
Modern professional occupations Such as: teacher, nurse, physiotherapist, social worker, welfare officer, artist, musician, police officer (sergeant or above), software designer	<input type="checkbox"/> (1)	<input type="checkbox"/> (1)
Clerical and intermediate occupations Such as: secretary, personal assistant, clerical worker, office clerk, call centre agent, nursing auxiliary, nursery nurse	<input type="checkbox"/> (2)	<input type="checkbox"/> (2)
Senior managers or administrators (usually responsible for planning, organising and co-ordinating work and for finance) such as: finance manager, chief executive	<input type="checkbox"/> (3)	<input type="checkbox"/> (3)
Technical and craft occupations Such as: motor mechanic, fitter, inspector, plumber, printer, tool maker, electrician, gardener, train driver	<input type="checkbox"/> (4)	<input type="checkbox"/> (4)
Semi-routine manual and service occupations Such as: postal worker, machine operative, security guard, caretaker, farm worker, catering assistant, receptionist, sales assistant	<input type="checkbox"/> (5)	<input type="checkbox"/> (5)
Routine manual and service occupations Such as: HGV driver, van driver, cleaner, porter, packer, sewing machinist, messenger, labourer, waiter/waitress, bar staff	<input type="checkbox"/> (6)	<input type="checkbox"/> (6)
Middle or junior managers Such as: office manager, retail manager, bank manager, restaurant manager, warehouse manager, publican	<input type="checkbox"/> (7)	<input type="checkbox"/> (7)
Traditional professional occupations Such as: accountant, solicitor, medical practitioner, scientist, civil/mechanical engineer,	<input type="checkbox"/> (8)	<input type="checkbox"/> (8)
Don't know	<input type="checkbox"/> (9)	<input type="checkbox"/> (9)
Not applicable	<input type="checkbox"/> (10)	<input type="checkbox"/> (10)
	(a)	(b)

82 a
and
82 b

Thank you very much for participating in this study.

Please let us have any comments you have on the admissions process or the research:

Thank you for participating in this study.

Appendix 3.2: Source of Survey questions

Question number	Concept	Question Source
Exercise 1	Verbal Reasoning ability	Alice Heim Verbal Reasoning Test Alice Heim s Number: 1, 3, 5,7, 11, 13, 15, 17, 23, 25, 27, 29, 33, 35, 39, 41, 43, 47, 53, 55
Exercise 2	Spatial Thinking ability	Alice Heim Spatial Reasoning Test 4,8,12,16,20,24,28,32,36,40,44,48,52,56,60.
1	Attraction of Oxford	Recommended by the Oxford University Admissions Executive
2	Financial aspects of studying at Oxford	
3	Information	
4	Encouragement	Pilot study 2000
5	School leaving certificate	New question based on UCAS data and country profile of Oxford undergraduates (Oxford Outline 2002)
6 - 12	Aspirations, Expectations	New question, piloted by Boliver and Zimdars (2002, unpublished)
13 - 59	Psychology Scales: Deep Learning 13,17,23,30,34,37,41,44,47,58 (all coded as + ²⁸) Surface learning 27 (+), 45 (+) Work ethic 32 (+), 48 (-) Competitiveness 16 (+), 22 (+), 28 (-), 33 (+) Dominance 18 (+), 53 (+), 29 (+) Self-Esteem 24 (-), 35 (-), 48 (-), 42 (+), 43 (+), 59 (+) Efficacy 15 (+), 36 (-), 49 (+), 50 (+) Academic motivation 14 (+), 25 (-), 40 (+), 57 (-) Self Efficacy 19 (+), 21 (-), 31 (+), 46 (-), 52 (-), 54 (-), 56 (+)	Biggs (1987) Cassidity and Lynn (2000) Rosenberg (1979) Mellanby, Martin and O' Doherty (2000) Scherer et al (1982)
60, 61	Learning Styles	Pilot 2000
62	General Mood measure	Martin (1990)
63 - 65	Response to general stress	Mellanby, Martin and O' Doherty (2000)
66	Cultural Capital	Adapted from Alice Sullivan's DPhil (2000) Cultural Capital Quiz

²⁸ + = coded positively, and - (minus) is coded negatively. Negative codes have to be reversed in order before computing a scale for the underlying concept.

Question number	Concept	Question Source
67	Personal Background	UK Government Census (2001), page 6.
68	Disability	University of Oxford Recruitment Monitoring Form
69	English Language skills	Survey or Student Achievement question 67, extended to evaluate level of English
70	Family Structure	Survey or Student Achievement question 6
71	Wealth, cultural capital	Survey or Student Achievement question 35 (excluded: dishwasher, educational software, dictionary, desk for your study, text books, books of poetry)
72	Wealth, cultural capital	Survey or Student Achievement 36 (excluded: Calculator)
73	Wealth, cultural capital	Survey or Student Achievement 52
74	Cultural Capital	Combination of Survey of Student Achievement and Youth Lifestyle Survey (1998) SSA: 32 + YLS Section 10 (Use of Leisure Time) 1 (excluded: Played snooker, darts or pool; watched a live football match or other sport; went to an amusement arcade; went to a party, dance, nightclub or disco; ate a meal in a restaurant; went to a pub; went to a cinema, theatre or concert; attended a youth club or a meeting of a uniformed youth organisation; hung around/ messed about near to your home; hung around/ messed about in high street/ town/ city centre; watched TV; worked in the Garden; Used a computer for entertainment or pleasure; bought lottery tickets, scratch cards; all of these; none of these)
75	Private Tuition	Survey or Student Achievement questions 37 and 38 (adapted)
76	Boarding	New question
77	Interaction / encouragement with parents/guardians	Survey of Student Achievement question 33 (excluded: listen to classical music with you; spend time just talking to you) Added: discuss your future plans for higher education and discuss your future career plans.)
78	Social Capital of parents/guardians	Pilot survey for the admissions study 2000
79	Educational Background of parents/guardians	National Foundation of Educational Research (NFER)
80	Extension question to 79	Suggested by Joseph Soares
81	Occupational Background of parents/guardians	Office of National Statistics, Class Schema
82	Occupational Background of parents/guardians	

Appendix 3.3:

Table 3.9: Sampling Frame and selection of colleges

		Position on the Norrington Table		
		Top	Middle	Bottom
Percentage of Offers to Candidates from Independent Schools	High	2 out of 3	1 out of 4	1 out of 2
	Medium	1 out of 5	1 out of 2	1 out of 4
	Low	1 out of 2	2 out of 4	1 out of 3

Appendix 3.4: Letter candidates

(printed on Department of Sociology headed paper)

Dear [insert candidate's name]

The Oxford Admissions Study

I am writing to you to ask for your help with a research project that we are carrying out at the University of Oxford.

Oxford has been monitoring its admissions process and students' success in their final examinations for some time. We are now starting a major project to follow the careers of candidates who are interviewed this December for admission to an undergraduate course. We aim to investigate the factors that influence access to Oxford and subsequent academic attainment and we hope that the research might be of benefit to future generations of candidates.

We have selected a representative sample of colleges to participate in the research and we will conduct the research while candidates are in Oxford for interview. Only those candidates who are invited to interview will be asked to participate in the research. They will be asked to complete a questionnaire and a reasoning exercise. The research will take less than one hour to complete and we trust that you will not find it at all burdensome.

Our research project is completely separate from the admission procedures in your college. At *no* time will the college have access to the data. ***All information you give us will be treated in strictest confidence and will have no bearing whatsoever on admissions decisions taken by the college.*** The research material will not be processed until *after* all admissions decisions have been made. Even then all information on you, your school and the college you have applied to will remain confidential to the research team and we will ensure that no individual, school or college can be identified in any report of the research. We will ask for your permission to link the research material with your previous and subsequent examination results, and the same principle of strict confidentiality will apply to this information too.

Participation in the research is entirely voluntary. Please do not hesitate to contact the research officer, Anna Zimdars (telephone: 01865-286177, e-mail: anna.zimdars@sociology.ox.ac.uk), if you have any questions about the research. I do hope that you would be willing to participate in this project. We will be most grateful for your help.

Yours sincerely,



Professor Head of the Department of Sociology, Head of the Oxford Admissions Study

Appendix 3.5:

Table 3.10 : Characteristics of research participants and all summoned European applicants

	All summoned Candidates Ex overseas and ex engineering	Summoned Candidates at Research colleges overseas and ex engineering (in brackets z-score difference research colleges / all colleges)	Research Participants (in brackets z-score difference research participants / research colleges)
Gender			
Male	49.0	49.1 (0.10)	44.6*** (-3.20)
Female	51.0	50.9 (-0.10)	55.4*** (3.20)
Type of School 1			
Independent	38.1	38.9 (0.85)	38.1 (-0.58)
Comprehensive	27.5	27.4 (-0.12)	29.7 (1.82)
Grammar	6.0	5.9 (-0.22)	6.4 (0.74)
Maintained	15.0	15.0 (0.00)	15.4 (0.40)
FE Colleges	4.4	3.9 (-1.28)	4.0 (0.18)
Overseas	3.2	3.4 (0.58)	2.3** (-2.28)
Other/Unknown	5.9	5.4 (-1.11)	4.1** (-2.13)
Type of School 2			
Co-Educational	63.8	63.6 (-0.21)	64.6 (0.74)
Single Sex (girls)	17.1	17.3 (0.27)	19.0 (1.58)
Single Sex (boys)	17.2	17.5 (0.41)	14.7** (-2.68)
Individual Application	1.9	1.6 (-1.16)	1.7 (0.28)
Ethnicity			
White	78.2	77.2 (-1.25)	78.0 (0.68)
Black	1.3	1.3 (0.00)	.9 (-1.33)
Indian	3.3	3.7 (1.14)	3.1 (-1.16)
Bangladeshi / Pakistani	1.5	1.7 (0.84)	1.7 (0.00)
Mixed, other	4.1	4.0 (-0.26)	3.0* (-1.89)
Missing	11.7	12.1 (0.64)	13.3 (1.29)
Social Class			
Higher Prof / Mang	25.7	25.4 (-0.36)	25.1 (-0.25)
Lower Prof / Mang	44.2	43.4 (-0.83)	43.3 (-0.07)
Intermediate	12.2	12.4 (0.32)	12.2 (-0.22)
Small Employers	4.7	5.3 (1.44)	5.9 (0.93)
Lower supervisory / technical	3.9	3.9 (0.00)	4.1 (0.36)
Semi-routine	.3	.4 (0.91)	.4 (0.00)
Missing	8.8	9.0 (0.36)	9.3 (0.37)
Division			
Medical Sciences	12.3	12.6 (0.47)	12.3 (-0.32)
Life/ Environmental Sc.	9.3	8.7 (-1.08)	8.5 (-0.25)
Mathematical/Physical Sc.	17.1	17.8 (0.96)	18.3 (0.46)
Humanities	38.2	37.9 (-0.32)	35.4** (-1.84)
Social Sciences	23.1	22.9 (-0.25)	24.9** (1.67)
Missing			.6*** (4.69)
Offer decision			
Overall offers	33.3	33.0 (-0.33)	37.0*** (2.99)
Unconditional	3.7	4.1 (1.08)	3.8 (-0.54)
Conditional	29.6	28.9 (-0.75)	33.3*** (3.40)
Reject	66.7	67.0 (0.33)	63.0** (-2.99)
N	9908	3654	1929

Significance levels: **p-value 0.05, ***p-value 0.001

Appendix 3:6:

Table 3.11: Oxford Academic Staff by background characteristics

	All academics	Humanities	Life and Environmental Sciences	Maths and Physical Sciences	Medical Sciences	Social Sciences
Gender						
Female	20.5	27.7	23.4	10.0	15.9	22.6
Male	79.5	72.3	76.6	90.0	84.1	77.4
Ethnicity						
White British	60.3	59.7	72.6	61.3	64.9	52.8
Minority						
White Irish	1.1					
White Other	11.4					
Asian	2.1					
Black	0.4					
Other	2.5					
Minority Total	17.5	20.9	8.1	16.5	14.1	21.7
Not known	21.6	19.3	19.3	22.2	21.0	25.5
Length of Service in years						
< 5	32.7	27.6	25.6	26.6	37.0	43.5
5 – 9	17.2	18.0	16.2	17.6	15.4	19.2
10 – 14	16.4	19.2	24.8	16.4	9.6	13.8
15 – 19	8.9	6.6	10.3	14.3	11.1	4.0
20 – 24	7.5	7.7	7.7	7.2	11.5	5.1
>24	17.1	20.8	15.4	18.0	15.4	14.5
Age						
<30	1.7	2.3	0.9	2.4	1.4	0.7
30 – 39	20.9	16.4	18.8	24.2	21.2	26.1
40 – 49	30.4	28.3	37.6	30.7	28.8	31.5
50 – 59	28.7	31.4	27.4	24.8	30.8	26.1
60 – 64	13.8	16.2	12.0	11.9	13.9	12.7
65 +	4.6	5.4	3.4	6.0	3.8	2.9
N	1399 ²⁹	427	117	335	208	276

Source: Personal Communication with Liz Mitchell, Staffing figures(Mitchell 2005).

²⁹ The divisional distribution does not add up to 1399 as there are 36 academics classified as in ‘other’ departments. The figure of 1399 is the headcount. The full time equivalent of 1345.9 is not sufficiently different to warrant a separate sampling of part-timers.

Appendix 3.7:

Table 3.12: Participants in the interviews with selectors

	Number of full-length interviews	Observations
Total	23	9
Division		
Humanities	5	1 subject 2 meetings
Life and Environmental Sciences	4	None
Mathematics and Physical Sciences	3	1 subject 2 meetings
Medical Sciences	3	1 subject 2 meetings
Social Sciences	6	2 subjects 3 meetings
Other	2	
Type of College		
Single Sex college	2	
Co-educational	21	
Top third of Norrington Table and highest third of private school intake	1	
Middle third of Norrington Table and highest third of private school intake	2	
Bottom third of Norrington Table and highest third of private school intake	1	
Top third of Norrington Table and middle third of private school intake	7	1
Middle third of Norrington Table and middle third of private school intake	1	1
Bottom third of Norrington Table and middle third of private school intake	2	
Top third of Norrington Table and lowest third of private school intake	2	
Middle third of Norrington Table and lowest third of private school intake	1	1
Bottom third of Norrington Table and lowest third of private school intake	4	

Permanently Private Hall	1	+ two intracollegiate subject based observations
Status within College		
Admissions tutor	3	
Other fellow	15	
Lecturer	1	
JRF or temporary	3	
Other	1	
Experience of interviewing		
First time interviewer	2	
Between 2 – 9 years interview experience	9	
10 or more years experience	7	
Other	1	
Training		
Trained in interviewing from start	3	
Trained later in interviewing career	11	
Not trained in interviewing	5	
Exposure to other admissions systems		
No, all Oxford (or Cambridge) education and lecturing experience	3	
No, all British education and lecturing experience	11	
Yes, all overseas degree and most overseas lecturing experience	2	
Yes, other mixture of overseas and British experience	6	
Other	1	
Gender		
Female	11	
Male	12	
Ethnicity		
White British	14	

White Other	8
Asian	1
Black	1
Age	
Under 40	10
Over 40	13

Appendix 3.8: Interview Guide

Section 1: The admissions process and the interview

- 1) Could you talk me through the admissions process for your subject (at your college) from when you receive the application forms to the final admissions decision?
VIGNETTE = actual (modified – anonymised and changed) UCAS FORMS
- 2) How do you actually go about arriving at a picture of the candidate from their UCAS form?
- 3) (Role of personal statement, reference, school information, grades ('context'))
- 4) Do you have a clear idea of which candidates you would like to admit or reject after looking at the UCAS form and any material they submit?
If so, have you found in the past that this view was confirmed in the interview?
- 5) What do you see as the purpose of interviewing and the selection process?
- 6) What do you regard as the characteristics that make an applicant the 'best' candidate for admission to your subject?
- 7) (if says 'first class degree' = is that purpose of Oxford education?)
- 8) Do you find that it is possible to detect these characteristics in the admission process? If so, how (interview, forms, other information)
- 9) Have you found in your personal experience that at the interview level candidates with different characteristics such as type of school they attend differ in their likelihood to display these characteristics?
Gender
ethnicity
- 10) How does the actual interview work?
Interview alone, groups, panel?
Structured, unstructured?
Role of tests at interview?
- 11) Are there candidate characteristics that are particularly well suited to the tutorial system?
How important is this fit for the tutorial system – i.e. would you discount a candidate if this person does not display those characteristics?
- 12) Would you say that there are also candidates that are better or worse fits for your college?
- 13) Do you think that generally speaking male and female applicants show these characteristics differently?
- 14) Have you in the past found that applicants from different ethnic background are more or less likely to display these characteristics?
What about candidates from different types of schools?
- 15) How do you regard qualifications other than GCSE + A-levels?
- 16) How do you make admissions decisions with overseas candidates who are not interviewed?

Section 2: Decision Making

- 1) After the interview, how do you arrive on the decision which student to admit?
 - a. (individual ranking, then discussion or other forms)

- 2) How controversial is this process? Is there agreement on all the decision to admit or decline a candidate?
- 3) If there is disagreement, could you give an example of how this disagreement is resolved and what things you consider.
- 4) One tutor told me in the course of the interview that she had found the most rewarding students were 'groups that would work together.' Is this something that enters your decision making?
- 5) Another tutor said that he also wants to admit a student he would like to teach for three years. What do you think about this?

Section 3: Admissions to Oxford in broader context

1) There is a lot of talk about admitting students based on 'merit' or 'attainment' and 'potential'. How do you think (feel) about these notions?

How do you detect 'potential'?

2) We all know that some of the applicants for admission attend schools with more resources and opportunities than other applicants. How do you see your role as an admissions tutor in taking into account such contextual factors?

3) I see from your bio that you have spent some time abroad. Did you get to know the admission system to higher education in that country? How does it compare to Oxford? What do you see as the strength and weaknesses of the Oxford system? Were you involved in admissions?

Personal Background Section

- 1) for how long have you been doing interviews in Oxford? (when first appointed?)
- 2) [only if not known from my prior Bio Check]
- 3) Where did you do your undergraduate?
- 4) Training
- 5) How did you learn how to interview – was this a formal or a more informal learning process? Did you feel sufficiently prepared for interviewing when you first did it?

Closure

Is there anything else you would like to talk about in connection with admissions?
Or in connection with this study?

Appendix 3.9:

Table 3.13: Comparison of characteristics of all research participants and those for whom finals results are available in 2006

	Research Participants	Finals results available in 2006 (z-score in brackets were significant)
Gender		
Male	44.6	49.7*** (2.18)
Female	55.4	50.3*** (-2.18)
Type of School 1		
Independent	38.1	40.1
Comprehensive	29.7	26.4
Grammar	6.4	6.3
Maintained	15.4	19.3
FE Colleges	4.0	3.3
Overseas	2.3	1.9
Other/Unknown	4.1	2.4
Ethnicity (survey measure)		
White	85.0	86.0
Black	.9	-.7
Indian	3.2	3.1
Bangladeshi / Pakistani	2.0	1.5
Mixed, other	8.4	8.3
Missing	.5	-.4
Social Class (survey measure)		
Two professionals	28.6	30.3
One professional	37.3	38.6
At least one managerial	20.4	21.1
Clerical	5.2	4.9
Working	5.1	3.6* (-1.58)
Missing	3.3	1.5*** (-2.43)
Division		
Medical Sciences	12.3	9.9** (1.66)
Life/ Environmental Sc.	8.5	11.2** (-2.08)
Mathematical/Physical Sc.	18.3	20.7* (1.40)
Humanities	35.4	30.4*** (2.35)
Social Sciences	24.9	27.8* (-1.47)
Missing	.6	0** (2.12)
University Destination		
Oxford	32.8	58.8*** (-11.85)
Other Russell Group	36.8	23.1*** (6.69)
Other	20.9	18.1* (1.56)
Unknown	9.5	.0*** (8.30)
N	1929	668

* p-value .10, **p-value 0.05, ***p-value 0.001.

Appendix 3.10: The empirical test of the new class schema

This section of the Appendix describes the empirical analysis undertaken to validate the new theoretically developed social class schema.

In order to assess the existence of a vertical cultural axis, answers to the cultural capital quiz are utilised (see Chapter 5). In addition, rough proxies for material wealth such as availability and number of computers, a private room to study, number of cars and mobile phones are used to see how the different groups of the middle class compare. The results are shown in Table 3.1.4.

The table shows that applicants from families where both parents or guardians are professionals have a significantly higher mean score on the culture quiz than almost any other group. Families with two managers fare worst within the middle class and there is a pattern whereby scores on the culture quiz decrease as the number of professionals in the household decreases. The reverse pattern is true for the proxy of economic assets where households with two managers have the highest mean score that is significantly different from the score achieved in households where no managers are present. While the measures used here are not perfect operationalisations of the concepts under question, the pattern is so clear that it seems reasonable to conclude that there exists a meaningful professional versus managerial class divide in the data.

For the formal statistical test of how the proposed social class schema fares compared to the conventional operationalisation, a nested model comparison is undertaken and the significance of the changes in chi-square given the extra degrees of freedom is assessed (see Table 3.1.5). The model fit information shows that separating the professional from the managerial class (Model 3 vs Model 1) using the dominance principle significantly increases the fit of the model whereas the separation of the Salariat into 'higher' and 'lower' Salariat does not increase the fit of the Model (Model 2 vs Model 1). The chi-square is further increased in Model 4 where the combined class schema is utilised. Compared to Model 3, this increase in fit is not significant. Model 5, however, which only divides the social class information on the middle class into two professionals, one professional and one or more managers marginally improves fits the data better than Model 3.

To conclude, analysis will utilise the social class schema proposed in Model 5 based primarily on theoretical grounds given that the empirical analysis allows for the selection of either Model 3 or Model 5.

Table 3.14: Mean difference on Quiz Score and Economic Assets (Bonferroni)

MEAN QUIZ SCORE	MEAN ECONOMIC ASSETS	Professional (1x)	Professional (1x)	Managerial (1x)	Managerial (2x)	Clerical (2x) or clerical and non profmang	Working (2x) or working and missing	Missing (2x)	
		Professionals (2x)	Non profmang (1x)	Managerial (1x)	Non profmang (1x)	Managerial (1x)	Non profmang (1x)	Managerial (2x)	Clerical (2x) or clerical and non profmang
	14.14								
Professionals (2x)		.20 (.17)	-.82*** (.18)	-.63** (.18)	-.90** (.29)	.44 (.28)	1.34*** (.28)	.42 (.37)	
	10.74								
Professional (1x)			13.94						
Non profmang (1x)		.87*** (.21)		-1.02*** (.19)	-.83*** (.20)	-1.10*** (.29)	.24 (.29)	1.14*** (.29)	.22 (.37)
			9.87						
Professional (1x)				14.97					
Managerial (1x)		.53 (.22)	-.34 (.34)		.19 (.21)	-.08 (.30)	1.26*** (.29)	2.16*** (.30)	1.24* (.38)
				10.21					
Managerial (1x)					14.78				
Non profmang (1x)		1.20*** (.23)	.32 (.24)	.67 (.25)		-.27 (.30)	1.07*** (.29)	2.00*** (.30)	1.05 (.38)
					9.54				
Managerial (2x)						15.04			
		1.38*** (.35)	.51 (.36)	.86 (.37)	.19 (.37)		1.34*** (.37)	2.24*** (.37)	1.32* (.43)
						9.36			
Clerical (2x) or clerical and non profmang							13.70		
		1.21** (.34)	.34 (.35)	.68 (.36)	.01 (.37)	-.18 (.45)		.90 (.36)	-.020 (.43)
							9.53		
Working (2x) or working and missing								12.80	
		2.21*** (.35)	1.33*** (.36)	1.68*** (.36)	1.01 (.37)	.82 (.46)	.99 (.45)		-.92 (.43)
								8.53	
								13.72	

Missing (2x)

2.46***	1.59***	1.93***	1.26	1.08	1.20	.25	8.28
(.42)	(.44)	(.43)	(.44)	(.51)	(.51)	(.51)	

Table 3.15: Logistic regression of gaining an offer using different social class categorisations. Standard Errors in parentheses.

	Dominance Method			Combined Schema	
	Model 1 Reference: Professional and Managerial Class	Model 2 Reference: Higher professional and managerial (class I)	Model 3 Reference: Professional Class	Model 4	Model 5
	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)
Social Class					
Lower professional and managerial (class II)		-.03 (.12)			
One professional + other				-.35* (.15)	
One professional one managerial				-.19 (.16)	-.27* (.13)
One manager + other				-.41* (.16)	
Two managers				-.63* (.28)	-.46*** (.15)
Managerial			-.30* (.13)		
Clerical	-.29 (.24)	-.29 (.24)	-.38 (.21)	-.50* (.25)	-.50* (.25)
Working Class	-.61* (0.26)	-.62* (.26)	-.90** (.36)	-.83** (.27)	-.83*** (0.27)
Missing or Don't know	-1.23** (.45)	-1.24** (0.45)	-1.30*** (.45)	-1.45** (.45)	-1.45*** (.45)
Constant					
	-.50*** (.06)	-.49*** (.07)	-.43*** (.06)	-.28** (.10)	-.28*** (.10)
DF	3	4	4	7	5
chi-square	16.29***	16.19**	22.30***	27.24***	25.86***
n	1551	1551	1551	1551	1551

Significance levels: * p < .10, ** p < .05, *** p < .001

Professional dominant over managerial (Models 3 and 5)

Only pre A-level applicants are included in this analysis.

Using patriarchial coding results in a chi square of 13.15** over 3 df when using the Model 1 categories and a chi square of 13.15* over 4 df degrees of freedom when using the Model 2 categories.

Appendix 3:11: Coding of Type of Higher Education Institution

Russell Group (Oxford, Cambridge kept separate)

The University of Cambridge
The University of Oxford

University of Birmingham
University of Bristol
Cardiff University
University of Edinburgh
University of Glasgow
University of Leeds

University of Liverpool
University of Manchester
University of Newcastle upon Tyne
University of Nottingham
University of Sheffield
University of Southampton
University of Warwick
Imperial College of Science, Technology & Medicine
King's College London
London School of Economics & Political Science
University College London

Old' (pre-1960s)

University of Durham
University of Wales, Aberystwyth
The University of Wales, Lampeter
University of Wales, Bangor
The Queen's University of Belfast
The University of Leicester
The University of Exeter
The University of Hull
The University of Keele
The University of Reading
University of Wales, Swansea
Goldsmiths College
The School of Oriental and African Studies
Royal Holloway and Bedford New College
Queen Mary and Westfield College
The University of Aberdeen
The University of St Andrew's

Robbins (est. c.1960s)

The University of York
The University of Lancaster
The University of East Anglia
The University of Essex
The University of Sussex
The University of Kent at Canterbury
The University of Manchester Institute of Science & Technology
Loughborough University
The University of Bath
Aston University
The University of Surrey
Brunel University
City University

The University of Bradford
The University of Salford
The University of Dundee
Heriot-Watt University
The University of Strathclyde
The University of Stirling

New' (post-1992)

The University of Westminster
Middlesex University
The University of Greenwich
London Guildhall University
University of North London
The University of East London
South Bank University
Thames Valley University
University of Surrey, Roehampton Institute
The University of Plymouth
University of the West of England, Bristol
Cranfield University
University of Gloucestershire
Bournemouth University
Oxford Brookes University
The University of Brighton
Kingston University
The University of Portsmouth
Sheffield Hallam University
The Nottingham Trent University
De Montfort University
University of Derby
The University of Lincoln
The University of Central England in Birmingham
Staffordshire University
Coventry University
The University of Wolverhampton
Anglia Polytechnic University
University of Hertfordshire
University of Luton
The University of Northumbria at Newcastle
The University of Teesside
The University of Sunderland
The Manchester Metropolitan University
Liverpool John Moores University
The University of Central Lancashire
University of Glamorgan
The University of Huddersfield
Leeds Metropolitan University
University of Ulster
Glasgow Caledonian University
Napier University
University of Abertay Dundee
The University of Paisley
The Robert Gordon University

Chapter Four

Statistical Analysis I: The impact of structural and meritocratic controls on admissions decisions

4.1 Chapter Overview

This empirical chapter is designed to explore which, if any, generative mechanisms account for the observed differences in admissions patterns established in Chapter 2. Specifically, this chapter assesses first whether the structure of application patterns to subjects that differ in their competitiveness account for the observed differences in success rates. Second, the analysis explores to what extent attainment factors that might be termed ‘meritocratic’ account for gross differences in acceptances patterns. The chapter concludes that structural controls play only a very modest role in accounting for observed differences in admissions rates. Moreover, while the meritocratic controls are crucial for the statistical improvement of model fit and are the strongest predictor of gaining an offer this research finds, they do little to explain why demographic characteristics impact on admissions decisions net of attainment. Overall, the chapter concludes that the gross differences in the likelihood of gaining an offer established in Chapter 2 translate into net differences in admissions rates. The subsequent analyses in Chapter

5 go on to explore the contribution that the modeling of other mechanisms derived from social theory can make to explaining these net differences in admissions patterns.

4.2 Introduction

To recapitulate, not taking into account attainment or subject level differences in application patterns, Chapter 2 established that certain social background characteristics are related to the likelihood of gaining an offer. The most advantaged group of applicants in terms of socio-economic status are more successful in gaining a place than those from less privileged strata of society. Furthermore, ethnic minority applicants, female applicants, non-UK domiciled applicants were less likely to gain an offer than white, male and UK-domiciled applicants. Finally, private school applicants had a higher chance of gaining an offer than applicants from other types of schools, particularly those from state comprehensive schools.

These differences in admissions rates might be termed gross differences, that is we do not know whether an intervening variable such as subject choice would account for these social background effects. For gross differences in admissions rates to be of substantive policy interest and to challenge social scientists into exploring the generative mechanisms behind such findings, it is crucial to unravel whether such differences persist after taking into consideration differences in school examination results or other relevant criteria. In other words, the challenge is to establish whether such gross differences translate into net differences in admissions patterns or whether structural factors and attainment factors explain these differences. Previous research on admissions has shown both factors to be of seminal importance in higher education admission.

With regards to structural factors, Bickel et al's (1975) methodological landmark study of admissions into Berkeley investigated the apparent gross disadvantage in gaining a place for postgraduate study experienced by female applicants (Bickel, Hammel et al. 1975). The research team broke the analysis down to the level of individual departments and found that, contrary to the aggregate admissions pattern that clearly advantaged male applicants, no individual department was significantly biased in favour of either sex and in several instances there was actually a slight advantage for female applicants. The explanatory mechanism for the aggregate disadvantage of female applicants then was that women disproportionately applied for the most competitive courses with the lowest chances of gaining a place irrespective of gender (see also Yule 1903; Simpson 1951). This finding would be interpreted as a gross but not a net disadvantage for female applicants. The policy implications of such a finding would mean that the source of disadvantages is not in the admissions process to higher education but in aspiration levels.³⁰ In the Oxford context, a further structural factor that potentially impacts on admissions decisions is college choice as colleges vary in competitiveness and to some extent admission procedures (see chapter 3.2.1.2). Therefore, if college choice was structured by social background characteristics, this might explain some of the observed gross disadvantages in admissions patterns.

In addition to these structural considerations, a gross disadvantage would not be considered a net disadvantage if it was mediated by attainment. It is well established in the sociology of education literature that there is a persistent link between social origin and attainment (Goldthorpe 1980; Halsey, Heath et al. 1980; Mare 1981; Raftery and Hout 1993; Erikson and

³⁰ In the original study, Bickel et al. (1975) viewed the gendered choice of degree programs as a problem for society at large as female applicants were drawn towards the most competitive disciplines with the poorest employment prospects. Today this critical edge has disappeared from most discourse of admissions decisions and there appears to be a general consensus that should subject choice explain differentials in admissions rates this would be compatible with the meritocratic paradigm.

Jonsson 1996; Marshall, Swift et al. 1997; Breen and Goldthorpe 1999; Breen and Goldthorpe 2001). One possibility is that, for example, middle class applicants have the highest attainment of all social classes and that class differences in prior academic achievement can explain class differentials in the ‘gross’ chances of gaining an offer. In other words, net of attainment, there would not be a class differential in admissions rates and for many policy makers this would meet the standards of a meritocratic admissions system. For social scientists, in turn, this finding would transform the admissions research into a project that assesses the impact of social background on high academic attainment and subject choice rather than a study of social justice at the university gate and the mechanisms of selection into competitive higher education.

4.3 Hypotheses

The above discussion then specifically suggests the following two hypotheses related to structural and meritocratic factors for the empirical analysis of undergraduate admissions to Oxford:

H4.1: Observed group differences in the likelihood of gaining an offer for study at the University of Oxford are due to differences in application patterns to subjects and/or colleges of varying competitiveness (*Structural Explanation Hypothesis*).

H4.2: Observed group differences in the likelihood of gaining an offer for study at the University of Oxford are due to differences in attainment and potential among the applicants for admission. (*Meritocracy Hypothesis*).

H4.2a: Non UK domiciled applicants, female applicants, ethnic minority applicants and comprehensive school applicants have lower levels of ‘merit’ than UK domiciled applicants, male applicants, white applicants and private school applicants.

If either or both of these hypotheses led to the disappearance of the gross disadvantages in admissions patterns, further sociological investigations into the generative mechanisms behind gross disadvantages in the propensity to gain an offer at Oxford would be unnecessary although such findings would have implications for educational policy.

4.4 Analysis

4.4.1 Variables

The detailed construction of the variables of interest used in the analysis has been previously discussed in Chapter 3 (Data and Methods). In this chapter, social background is operationalised as social class, gender, ethnicity and type of school. The structural control variables that are explored are age, college choice, qualification status (pre or post qualification status). The meritocratic controls include GCSE attainment, achieved and predicted AS level attainment, achieved and predicted A2 level attainment and the number of advanced extension awards. For applicants without these British qualifications, the attainment in the Alice Heim reasoning test is used as a proxy for ability.

4.4.2 Method

The analysis utilises descriptive statistics and binary logistic regression analysis where the outcome is gaining an offer (coded as 1) versus being unsuccessful in the application for a place (coded as 0). The logistic regression predicts the log odds that an observation will have an indicator equal to 1. The algorithm of the model fits an s-shaped curve with the boundaries of π -values constrained at 0 and 1. The odds of gaining an offer then, is defined as the ratio of the probability that a candidate gains an offer to the probability that the candidate is unsuccessful.

It would have been equally possible to use a probit model which would have yielded almost exactly the same results. The possibility of using multi-level modeling with colleges as the secondary level of analysis was explored but rejected as the analysis showed that introducing this new level of analysis did not increase the explanatory power of the more parsimonious one-level logistic regression model.

4.5 Analysis I: Descriptive analysis of structural controls

This first section of the analysis uses simple crosstabulations of social background characteristics and college and subject choice to evaluate whether there is a systematic relationship between these factors that might account for the gross differences in acceptance rates by social background. The actual table of the crosstabulation is displayed in the appendix (Table 4.9). The discussion firstly describes patterns of college choice before moving on to patterns of subject choice and a brief summary of the main findings from this section.

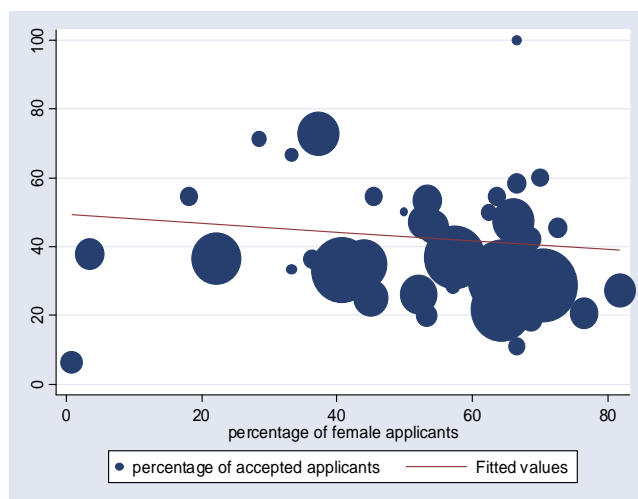
The crosstabulation shows that college choice varies by ethnicity and gender with ethnic minority and female applicants over-applying to colleges that are among the newer, less wealthy and arguably less prestigious colleges as proxied by their position on the Norrington Table (see explanation in section 3.2.1.2 footnote 1). This is interesting because research by Boliver (2006) has shown that in the entire spectrum of higher education, ethnic minority applicants over-apply to the least prestigious institutions. It appears that even among the exceptional group of ethnic minority students who apply to Oxford, there is some reservation to apply to the better known colleges. The effect is, however, also partly driven by the inclusion of the only remaining single sex college in the study. This college has, for several years occupied the bottom of the Norrington Table, not least because girls overall do not perform as highly as their male counterparts in final degree examinations³¹. The inclusion of this college also explains why female applicants are more likely to apply to less prestigious colleges than male applicants. This single-sex college attracts significantly more ethnic minority applicants than the co-educational colleges and the provision of a single-sex girls' college with single sex accommodation arguably makes it more acceptable for ethnic minority families to send their daughters to Oxford. This finding has pressing policy implications as the imminent change to co-education for the last single sex college may have the unintended effect of decreasing the applications from female ethnic minority students to study at Oxford (Cassidy 2006).

Turning to the analysis of differences in subject choice there are again significant divisional variations in applications by ethnicity and gender. White applicants are over-represented in the Humanities and ethnic minorities applicants in Medicine, Mathematics and among the Social Science subjects in Law and Economics and Management. It has been suggested that this application pattern partly reflects the prevalence of a stronger preference for vocational subjects

³¹ at least as judged by the percentage of First class degrees.

among ethnic minority applicants than among white applicants (Ballard and Vellins 1985; Ballard 1994; Kotecha 2006). There is also a strong divisional pattern in applications by gender with a significant over-representation of female applicants in the Humanities and Medicine and a converse over-representation of male applicants in Mathematics. In the light of Bickel et al's (1975) research, it is worth breaking down these divisional pattern to the individual subject level and to assess the competitiveness, the size of the subject in terms of student numbers and the demographic profile of applicants. This analysis is undertaken in Figure 4.1 and shows that the very slight inverse relationship between the percentage of female applicants in a subject and the number of applicants who gain a place - weighted by the size of the subject - is actually not significant. The analysis cannot reject the null-hypothesis that female and male applicants are equally likely to apply to competitive subjects thus making subject choice is an unlikely candidate to explain away most of the female penalty in the admissions process.

Figure 4.4: Percentage of accepted applicants by percentage of female applicants weighted by number of students applying for a subject.



The link between gender and application to particular subjects is further explored in section 5.9.1.

With regards to type of school, there is an over-representation of those educated in fee-paying schools among the Humanities applicants and this effect is also picked up by the related variables of the single sex status of a school and its selectivity. This may indicate that schools with an ethos of a holistic, humanistic education produce more students interested in humanities subjects or that the self-selection into these schools advantages those interested in those subjects. There is no large divisional variation in application patterns by social class except that the professional class is significantly under-represented in Mathematics. This might be a continuation of the historically higher representation of non-traditional undergraduates in science subjects at Oxford (Soares 1999). Finally, with regards to region, the non-British applicants prefer Social Sciences, whereas British applicants are over-represented in the Humanities.

To summarise and conclude this first descriptive analysis then, social background is linked to differences in application patterns by college and, more notably, to subject choice. None of the observed variations, however, are sufficiently large to be the sole candidate for explaining differentials in admissions rates. But as divisional patterns of applications are, to some extent, structured by ethnicity and gender, adding divisional controls to the statistical models of admission decisions might make a modest contribution to explaining the female and ethnic minority penalty in admissions rates. This more formal test of the importance of structural factors is undertaken in section III of this chapter by evaluating changes in model fit between different logistic regression models that take into account structural controls and models that do not do so.

4.6 Analysis II: Descriptive analysis of meritocratic controls

Apart from the structural controls discussed in the first analysis section, differences in attainment are a further control that might explain differentials in the chances of gaining an offer. The importance of attainment and predicted attainment in modelling the net impact of social background on admissions decisions also requires a brief explanation of how attainment is operationalised. Specifically this brief introduction to the analysis of meritocratic controls explains why the description of attainment and later formal statistical modelling is undertaken separately for the GCSE and A-level candidates on the one hand and the other qualification applicants on the other hand.

To recapitulate, the research included candidates from the United Kingdom as well as from other European countries and overseas. These different groups of applicants apply with different school qualifications. Most British applicants apply with the standard qualification offered in the National Curriculum, namely GCSEs and predicted or achieved A-levels. The vast majority of research participants (88 per cent) applied for admission with these standard qualifications. The remaining minority of applicants who applied with different qualifications are a diverse group. It consists mainly of applicants from other European countries who are studying towards the school leaving qualification of their home country or who are in the process of obtaining the International or European Baccalaureate. But the group also includes British applicants who study either for these international qualifications or for Scottish qualifications. The rationale for keeping these two groups of candidates separate in the analysis is twofold and driven by substantive policy as well as methodological considerations. On the one hand, the UK policy focus regarding equal opportunities in university enrolment is firmly framed in terms of British candidates applying to higher education with British qualifications (Skills and Clark 2003;

Boliver 2005). On the other hand, methodological considerations mean that the best statistical model for the data includes attainment measures that are most powerful when they are as fine tuned as possible. Specifically, the impact of GCSE attainment and predicted and achieved attainment in the Sixth Form is crucial for the models. The ability proxy included in the survey material in the form of the Alice Heim intelligence test correlates only at .22 ($p < .001$) with attainment at GCSE. This low correlation raises questions about the link between ability, ability testing and school attainment that are outside the scope of this thesis. It is even more concerning for the analysis, however, that substituting attainment with the Alice Heim test changes the relationship between social background variables such as gender and schooling and admissions decisions. This is because female applicants who perform highly on GCSEs perform less well on the Alice Heim test, possibly because of the test's emphasis on spatial thinking which may not be gender blind. Finally, using actual attainment wherever possible is a more externally valid replication of the actual way in which admissions decisions are reached than the intelligence test proxy that was not available to selectors during the actual admissions process. It is thus decisive for making a contribution to policy debates and the statistical analysis to use GCSE and A-level attainment³².

Throughout the analysis then, separate models are run for applicants with GCSE and A-level qualifications and those with other qualifications. Controls are also added regarding whether applicants apply prior to completing their secondary education as a pre-qualification applicant or as a post-qualification applicant after the results in their school leaving examinations are known.

³² The possibility of using imputation of grades for non UK applicants or setting attainment to the mean or using categorical variables of attainment that simultaneously allow for having GCSEs and not having GCSEs was explored for the non-British applicants. But ultimately, it was found more satisfactorily to use a separate model for the UK and the non-UK qualification applicants.

Table 4.1 below shows that these different groups of applicants fare differently in the admissions process with a gross advantage experienced by post-A-level applicants and a large, but – due to the small number of observation - not statistically significant, advantage experienced by other post-qualification applicants. The table also shows that pre-qualification applicants studying for qualifications other than A-levels are least likely to gain a place at Oxford. A further task for the analysis is then to investigate whether any other structural or meritocratic factors can account for the significant gross advantage of post-qualification applicants in the selection process.

Table 4.9: Per cent of applicants gaining a place by qualification status

	Offered a place	N
Pre A-level candidate	36.2 (-.1)	1551
Post A-level candidate	46.3 (2.4)	123
Pre other qualification	27.2 (-2.5)	169
Post other qualification	46.7 (1.2)	30
Total sample	36.2	1929

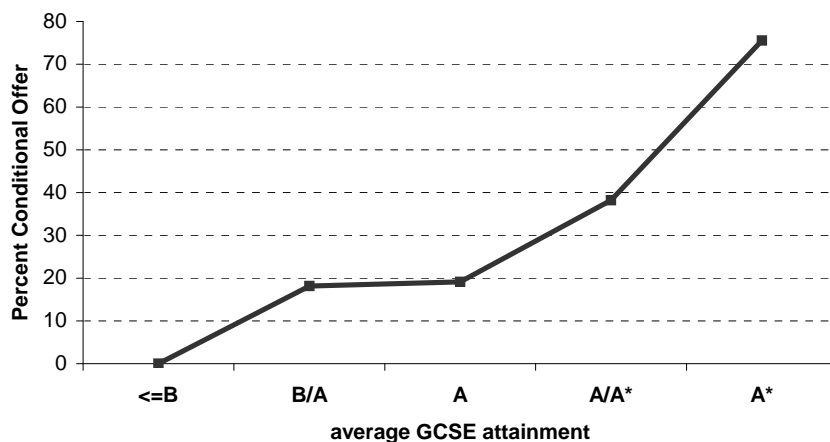
Figures in bold: Adjusted residuals significant.

4.6.1: GCSE and A-level candidates

The analysis now turns to the actual description of the link between attainment and gaining a place and attainment and social background characteristics. The one measure of attainment that is available in the same format for both pre - and post-qualification applicants is attainment at GCSE. Attainment at AS and A2-level is also important but there is generally less heterogeneity here as most applicants for admission to Oxford are predicted or have already achieved straight As in their AS and /or A-levels.

There most striking pattern in the analysis is the strong link between attainment at GCSE and gaining an offer for study at Oxford. Figure 4.2 shows that the chances of gaining an offer raise exponentially with attainment at GCSE. To capture the nonlinear relationship between GCSEs and gaining an offer, subsequent logistic regression models will include a quadratic term (GCSE*GCSE).

Figure 4.5: Percentage of offer by GCSE attainment



It is worth re-emphasising that GCSE attainment is generally extremely high among all applicants. The variation in attainment is thus constrained to a very small window of the attainment spectrum. In fact, Figure 4.2 suggests that applicants do not only need to have excellent grades of As but outstanding grades of A* at GCSE to be realistic competitors for a place for undergraduate study. Within this small spectrum of attainment it significantly improves an applicant's chances of gaining a place to have just one or two more A*s than their peers. While it is debateable whether someone with one more A* at GCSE is in substantive terms distinguishable from someone with only 10 A*s, this pattern does support the working of meritocracy in admission. It is also in line with the university's own mission statement that states that selection should be based on 'ability and potential' (Educational Policy and Standard Committee 2003/p.7).

Returning to the differentials in transition rates by social background, it is possible that attainment at GCSE and predicted and achieved attainment at AS and A2 level can explain the differentials in offers by applicants from different social backgrounds. Table 4.2 tests this proposition by comparing the mean attainment of different social groups.

Table 4.10: Scores on measures of academic attainment by social background

	Average CGSE score	Average predicted AS score	Average Achieved AS score	Average predicted A2 score (excluding General Studies)	Number of achieved or predicted advanced extensions awards	Average Achieved A2 score (excluding General Studies)
Social Class						
Two professionals	7.4	58.0	57.4	119.2	.06	118.6
One professional	7.4	57.6	57.2	119.1	.06	116.5
Managerial	7.3	57.9	57.4	119.0	.08	117.1
Clerical	7.2	57.6	56.5	118.7	.06	120.0
Working	7.1	59.0	55.4	118.9	.09	115.0
Class missing	7.4	59.0	57.4	119.1	.10	115.0
Ethnicity						
White	7.4	58.0	57.2	119.1	.06	114.9
South Asian	7.3	57.3	56.2	118.9	.15	112.4
Other ethnicity	7.2	57.9	57.5	119.1	.07	113.3
Gender						
Male	7.3	58.0	57.2	118.9	.06	114.1
Female	7.4	57.8	57.1	119.2	.07	115.0
Type of School						
Comprehensive	7.3	58.2	56.4	118.8	.05	113.0
Independent	7.5	57.8	58.0	119.4	.07	116.2
Grammar	7.4	56.9	57.8	119.2	.07	113.9
Other	7.3	57.9	56.8	119.0	.08	114.3
qualification status						
Pre-qualification applicant	7.4	57.9	57.1	119.1	.07	117.2
Post-qualification applicant	7.2	N.A.	58.7	N.A.	.00	115.6

Note: bold indicates that the score is significantly different at the .10 level or better from that of the reference category. The reference category for social class is 'professional and managerial class'; the reference category for ethnicity is 'white', the reference category for gender is 'male', the reference category for type of school is 'comprehensive school'.

Table 4.2 shows that there is indeed a small but significant social class effect on GCSE attainment. With an A* coded as eight points and an A as seven points, the mean scores indicate that while working class applicants perform brilliantly by any general standards, they perform slightly less brilliantly than the professional class children on GCSEs and also on their achieved AS levels. There is also an effect of ethnicity with a lower score on achieved A2 levels for South Asian candidates than for White applicants. On the other hand, South Asians are the group of applicants most likely to take Advanced Extension Awards. This is likely to be linked to their greater propensity to apply for numerical subjects for which an Advanced Extension Award in Mathematics is useful. With regards to gender, attainment is unlikely to explain the gross disadvantage experienced by female applicants – in fact female applicants apply with higher GCSE, predicted and achieved A2 level scores than their male peers. In contrast, attainment among private school students is in fact higher than among those educated in state comprehensive schools and attainment might therefore explain the higher admission rates for private school applicants as compared to state school applicants. In fact, given the high attainment of this group, it is possible that the net advantage for private school applicants should be even higher than the actually observed gross advantage. Finally, the advantage of post-qualification applicants does not appear to be a result of higher attainment within this group thus suggesting that the simple fact that their attainment is known suffices to result in an advantage in the admission process.

In sum then, the link between social background and attainment among the GCSE and A-level applicants is unlikely to account for the female, pre-qualification and ethnic minority disadvantages but it might explain the negative – but insignificant – coefficient for working class applicants and the positive private school effect.

4.6.2 Other-qualification candidates

This second attainment section focuses on the 199 other-qualification applicants who applied for admissions to Oxford without the combination of GCSE and achieved or predicted A-level attainment. To recapitulate, the analysis of meritocratic controls for this group has to be cruder as the only common measure of ability here is performance in the Alice Heim intelligence test. The relationship between performance on this intelligence test and admissions decisions is plotted in Figure 4.3.

Figure 4.6: Per cent accepted within Alice Heim test attainment

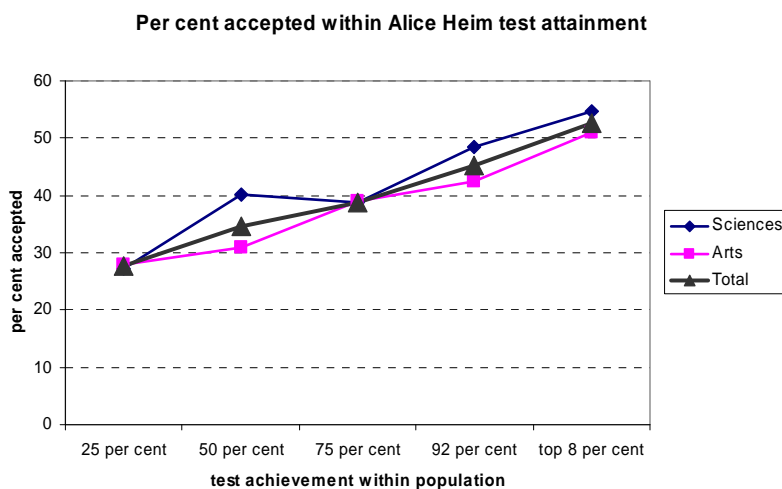


Figure based on all applicants (n = 1929)

As with GCSEs, there is a strong positive relationship between performance on the Alice Heim test and admissions decisions with those scoring in the top eight per cent of the test being twice as likely to gain admission than those who score in the bottom 25 per cent. Unlike GCSEs,

however, the relationship between performance on the Alice Heim test and admissions decisions is linear and not exponential. While high Alice Heim performance increases the chance of gaining an offer, the premium for outstanding performance on this measure is lower than the premium for outstanding GCSE performance. Among the highest attaining applicants on the Alice Heim, just over 50 per cent were admitted whereas 80 per cent of those with a perfect score of A*s in their GCSEs gained a place.

As far as the link between social background characteristics and performance on the Alice Heim test is concerned, there are no significant differences in performance by social class, ethnicity, gender or qualification status. Those educated in private schools, however, perform slightly better than those educated in other schools (see appendix Table 4.10).

Overall, performance on the Alice Heim test is associated with admissions success, but it is unlikely to explain the observed group disadvantages in admissions patterns observed among the other-qualification applicants.

4.7 Analysis III: Formal statistical analysis of structural and meritocratic controls

This section uses formal statistical testing to assess whether structural and meritocratic controls mediate the link between social background characteristics and the likelihood of gaining an offer. The analysis undertakes a comparison of nested binary logistic regression models and discusses the substantive implication of the changes in the chi square model fit statistics when further explanatory variables are added. As in the previous section, the analysis is undertaken

separately for those who have GCSE and A-level attainment and for other qualification candidates

4.7.1 GCSE and A-level candidates

This section then discusses how the introduction of divisional, college level and meritocratic controls affects the gross effects of social background characteristics on admissions decisions among the GCSE and A-level candidates. The comparison of nested models is displayed in Table 4.3.

Table 4.11: Comparison of nested Models for applicants with GCSE and A-level qualifications

	Model Description	Chi square	df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1	Class, Ethnicity, Gender School selectivity, single sex	42.44	10	1,700	---	---	---
Model 2	Replace school with independent, grammar, comprehensive, other	41.76	11	1,700	-0.68	1	No
Model 3	Model 2 + age,	45.57	13	1,700	3.81	2	No
Model 4	Model 2+ PQA	48.72	12	1,700	6.96 (Model 2 vs 4)	1	Yes .01
Model 5	Model 4+ division	76.86	16	1,700	28.14	4	Yes .000
Model 6	Model 5 + college	77.35	18	1,700	0.49	2	No
Model 7	Model 5 + GCSE, GCSE squared	256.03	18	1,700	178.69 (Model 5 vs 7)	2	Yes, .000
Model 8	Model 7+ AS levels, A-levels, AEAs	317.84	25	1,700	61.81	7	Yes .000

All chi square values are significant (p < .000)

In model 1, social background characteristics are entered with type of school operationalised as co-educational or single sex status and whether or not the school is academically selective. The rationale behind this is that the sociological literature on school choice suggests that the mechanisms whereby school adds value to what already pre-exists in the home environment is through selectivity (Sullivan and Heath 2002) rather than fees status. It is also empirically well

established that single sex schools outperform co-educational schools (Lee and Bryk 1986; Jackson 2002). In terms of statistical goodness of fit, this model actually fits the data better than the policy relevant operationalisation of school type as comprehensive, grammar, independent or other school³³. The decision to use Model 2 rather than Model 1 as the base model of gross effects then is motivated by the desire to contribute to current policy debates that firmly focus on school type as the main target area for intervention. Model 3 shows that including the age of the candidate does not improve the model fit (see Chapter 3 section 2.4.1). Adding whether or not the candidate is a pre- or post qualification candidate, however, significantly improves the fit of the model. It should be noted that none of the interactions between post-qualification status and social background characteristics are significant. This means that the advantage of being a post-qualification applicant does not eradicate the female, non-professional class, South Asian or private school effect. Adding divisional application patterns further improves the fit of the model. The observation that college has no impact suggests that the redistribution of applicants throughout the admissions process is effective.

The most significant improvement in model fit occurs in Model 7 where the chi-square more than triples by adding only two extra degrees of freedom – the linear and the exponential effect of GCSE attainment. In the final model, adding all information on achieved and predicted attainment in the Sixth Form – achieved and predicted attainment at AS and A2 level and the number of Advanced Extension Awards – significantly further improves the model fit.

The impact of the different meritocratic and structural control variables on social background characteristic is displayed in Table 4.4. The table shows the full logistic regression models for the gross effects, the net effects in the light of structural controls and the net effects controlling

³³ There are some obvious collinearities between those two operationalisations as grammar schools are both, single sex and selective, an observation that also holds for the most prestigious fees paying schools.

for operationalisations of merit.(all logistic regression models for Table 4.3 are displayed in the appendix in Table 4.10).

The data firstly replicate the gross effects that were established in Chapter 3. There is a gross negative effect for not having two parents in the professional class. This effect is statistically significant for the children from managerial background and those with one rather than two parents in the professional class. The data also replicate the previously discussed female and South Asian disadvantage. Taking into account structural controls reduces the female and South Asian disadvantage slightly. This corroborates with the earlier observation that these groups are slightly over-represented among applicants for more competitive subjects. When adding attainment to the model, however, the female and South Asian disadvantage are again increased because of these groups' high academic achievements. The working class effect becomes even more indistinguishable from zero because of this group's lower attainment but the managerial class penalty is, if anything, increased in the last model. There is also a significant disadvantage for those whose social class is missing. As discussed in Chapter 3, missing social class in educational research is usually associated with a penalty comparable to being in the lower social classes (Rothon 2005).

Table 4.12: Logistic Regression Model of gaining an offer (coded as 1) for candidates with GCSE and AS / A2-levels

	Model 1 Gross Effects		Model 5 Net effects including structural controls		Model 8 Net effects including structural controls & meritocratic controls	
	B	S.E.	B	S.E.	B	S.E.
Social Background						
One professional	-0.35***	0.13	-0.37***	0.13	-0.39***	0.14
Managerial class	-0.42***	0.15	-0.45***	0.15	-0.49***	0.16
Clerical class	-0.41	0.25	-0.42**	0.26	-0.15	0.28
Working class	-0.24	0.24	-0.31	0.24	-0.12	0.26
Class Missing	-1.09***	0.34	-1.16***	0.34	-1.36***	0.36
Female	-0.23**	0.10	-0.19*	0.11	-0.39***	0.12
South Asian	-0.89***	0.29	-0.75***	0.30	-0.89***	0.32
Other ethnicity	-0.25	0.18	-0.22	0.19	-0.16	0.21
School						
Independent	0.24*	0.13	0.22*	0.13	-0.26*	0.15
Grammar	0.36	0.22	0.39*	0.22	0.06	0.24
Other	0.22	0.14	0.23*	0.14	0.04	0.15
Structural Controls						
Post A-level candidate			0.52***	0.20	0.48	0.43
Social Sciences			-0.27**	0.14	-0.31**	0.15
Medicine test takers			-0.72***	0.24	-1.16***	0.25
Maths test takers			0.17	0.22	0.10	0.24
Other subject			0.32**	0.13	0.37***	0.15
Meritocratic Controls						
GCSE					1.77***	0.18
GCSE squared					0.25***	0.02
Mean achieved AS < A					-0.44***	0.17
Mean achieved AS A					0.29*	0.16
Mean predicted A2 < A					-0.76***	0.31
Mean predicted A2 A					0.01	0.24
Mean achieved A2-levels < A					-0.25	0.45
Mean achieved A2-levels A					0.38	0.29
Number of Advanced Extension Awards					0.65***	0.21
Constant	-0.31**	0.13	-0.34***	0.16	-0.12	0.28
DF	10		16		25	
Chi square	42.44***		76.86***		317.84***	
N	1700		1700		1700	

* p < .10, ** p < .05, *** p < .001

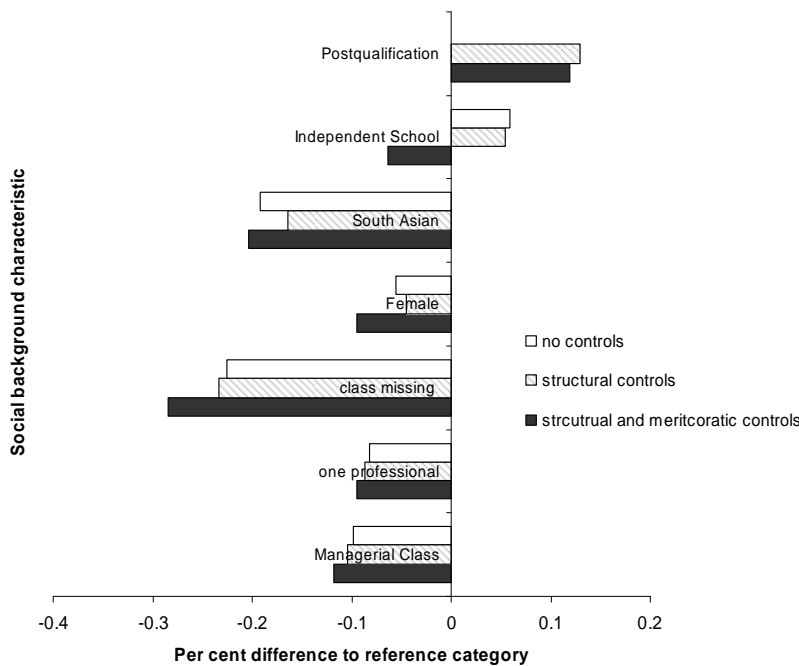
See appendix for Model 1 (selectivity and co-education of school), Model 3 (Model 2 + age), Model 4 (Model 2+ summer school), Model 5 (Model 6 + college).

The following interactions were tested and found to be not significant: Schooling * gender; schooling * ethnicity; Post-qualification status * social class; post-qualification status * schooling; post-qualification status * gender.

It is also noteworthy that the previously significant positive effect of attending an private school is now reversed and becomes a significant negative effect. This means that there is a penalty for those applicants given that they academically outperform their comprehensive sector educated

peers. This penalty is not replicated for those from grammar schools who also outperform those in the non-selective state sector. These changes in statistically significant coefficients when structural and meritocratic controls are added are graphically represented in Figure 4.4:

Figure 7.4: Statistically significant gross and net effects social background characteristics on the chances of gaining an offer



Reference category for comparison: Professional class, white male private school, prequalification applicant with attainment set to reference categories

To sum up the main result from the analysis of structural and meritocratic controls in the admissions process for GCSE and A-level applicants then is that subject choice and attainment greatly increase model fit statistics and significantly add to the explanation and predictions of which applicants for admission gain an offer. At the same time, these controls do not reduce the gross effects of social origin on offer decisions. In fact, the negative effect of class, ethnicity and gender increases marginally when these attainment controls are considered. The analysis

also uncovered that the initially apparent gross private school advantage is reversed to a significant private school net penalty when taking into consideration the higher academic attainment of this group of applicants. It furthermore increases an applicant's chances of gaining an offer if they apply as post-qualification applicants. At the same time, the lack of interaction between post-qualification status and any social background characteristic shows that it does not disproportionately help the groups currently disadvantaged in the admission process to apply as post-qualification applicants.

4.7.2 Other-qualification candidates

The analysis now turns to the other qualification applicants who did not take the qualification combination of GCSEs and A-levels. The formal model that is applied for these applicants is cruder with fewer categories in the operationalisation of social background variables because of the smaller numbers of observations. The analysis here utilizes a collapsed social class schema that combines the clerical, working and missing social classes which contain two, three and 16 observations respectively. Given that a significant proportion of this group of applicants applied from continental Europe, it is unsurprising that the financial capital and aspirations necessary for applying to a university abroad lead to such a small presentation of the lower social classes. Also, the small representation of only five South Asian applicants in this group resulted in the need to merge them with the 52 'other ethnicity' applicants. Ethnicity, then, is operationalised as a dichotomous variable of White and Non-White. Furthermore, school type also had to become a dichotomous variable of 'private school' versus other school. The private school students here are likely to be British applicants studying towards the IB rather than A-levels. As

in previous descriptive explorations of the other-qualification applicants, the only proxy for ability available for all the applicants in this group is the performance on the Alice Heim test.

As for the GCSE and A-level candidates, the first step in the analysis is the comparison of nested Models shown in Table 4.5. The model of gross effects of social background on admissions decisions is barely significant. Adding the pre- or post-qualification status of an applicant increases the fit of the model. The model fit is further increased by adding controls for subject choice (Model 3) but not by adding controls for college choice (Model 4). Among all structural and meritocratic controls for this group, the performance on the Alice Heim test leads to the biggest increase in model fit and is highly significant.

Table 4.13: Comparison of nested Models for applicants without GCSE and A-level qualifications

	Model Description	Chi square	df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1	Class, Ethnicity, gender School type	11.88*	6	199	---	---	---
Model 2	Model 1 + PQA	15.70**	7*	199	3.82	1	Yes (just) .05
Model 3	Model 2 + Division	27.19**	11	199	11.49	4	Yes .05
Model 4	Model 3 + college	28.09**	13	199	0.9	2	No
Model 5	Model 3+ Alice Heim	41.70***	12	199	14.51 (Model 3 vs Model 5)	1	Yes .000

* p < .10, ** p < .05, *** p < .001

The actual models 1, 3 and 5 are now shown in Table 4.6. The models show a significant penalty for everyone who is not of professional class background. This penalty increases as structural and meritocratic controls are added. It is noteworthy that while the pattern of offers by social class follow the same line as for the GCSE and A-level candidates, the penalty for being not in the professional class is noticeably larger. In particular the managerial penalty could reflect a dislike of the wealthy and geographically mobile European elite (see Chapter 6).

There is no female disadvantage and although the coefficient for non-white applicants is negative as in the models for the GCSE and A-level candidates, the standard error here is roughly the same size as the coefficient. There is a significant advantage for being a post-qualification applicant.

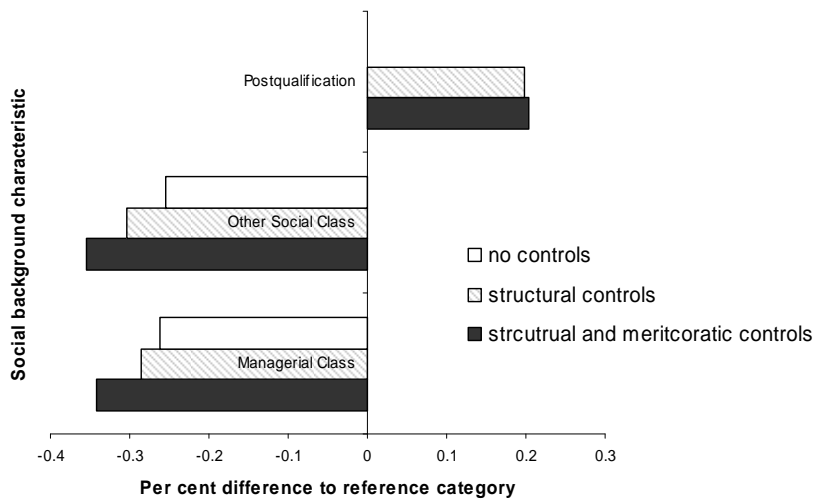
Table 4.14: Logistic Regression Model of gaining an offer (coded as 1) for candidates with qualifications other than GCSE and AS / A2-levels

	Model 1 Gross Effects		Model 3 Net effects including structural controls		Model 5 Net effects including structural controls & meritocratic controls	
	B	S.E.	B	S.E.	B	S.E.
Social Background						
One professional	-0.43	0.37	-0.46	0.39	-0.50	0.41
Managerial	-1.20**	0.5	-1.36***	0.53	-1.57***	0.55
Other and Missing	-1.15*	0.63	-1.49**	0.67	-1.65**	0.70
Female	-0.09	0.32	-0.08	0.34	-0.10	0.36
Non-White	-0.34	0.39	-0.59	0.45	-0.44	0.46
School						
Independent School	-0.36	0.35	-0.33	0.37	-0.45	0.39
Structural Controls						
PQA			0.82*	0.45	0.90**	0.47
Social Sciences			-0.36	0.44	-0.44	0.45
Medicine test takers			-1.11	0.72	-1.49*	0.80
Maths test takers			1.23*	0.66	1.16	0.71
Other			0.51	0.49	0.38	0.50
Meritocratic Controls						
Alice Heim					0.20***	0.06
Constant	-0.08	0.34	-0.12	0.45	-1.86***	0.68

* p < .10, ** p < .05, *** p < .001

Figure 4.5 graphically represents the changes in the statistically significant coefficients when structural and meritocratic controls are added to the model.

Figure 4.8: Gross and net effects of social background characteristics on the chances of gaining an offer for those without GCSE / A-level qualifications



Reference category: Professional class white males at other schools, prequalification candidates with Alice Heim set to mean (10).

For the other qualification candidates, then, structural and meritocratic controls do not explain observed class disadvantages, in fact, these disadvantages increase and the premium for post-qualification applicants remains unchanged when extra controls are added to the model.

4.8 Analysis IV: Divisional patterns

So far then, the analysis has shown that by and large neither structural nor meritocratic controls can satisfactorily explain the differences in offer rates by social background. The next step in the analysis is to explore to what extent admissions patterns by social background vary across different subjects. Here, the Humanities and Social Sciences form distinct categories. Mathematics and Medicine are also analysed in separate analyses because of the desire to include the subject specific tests for applicants to these degree courses (See Chapter 3 section 2.3.6). Those in the Mathematical and Physical Sciences and in the Medical Sciences who do

not sit the test as well as application to the Life and Environmental Sciences form the 'Other division' category.

4.8.1 GCSE and A-level candidates

For the applicants with GCSE and A-level qualification the results of the logistic regression analysis is displayed in Table 4.7.

The divisional breakdown shows first that including the subject specific information for Medicine and Mathematics leads roughly to a doubling in the chi square statistics for those subjects. The inclusion of the tests also reduces the impact of GCSEs to statistical insignificance. The tests also reduce the female and non-white disadvantages suggesting that these groups perform less well in the test. This is supported by the breakdown of test performance by social background characteristics (see Table 4.12 in appendix. For Medicine, the difference in performance by ethnicity and gender are statistically significant and in Mathematics, the direction of the effect also suggests lower performance by South Asians and female applicants). The Medicine test does not, however, explain the class disadvantages in admission. The increase in size of the private school coefficient for Medicine suggests that private school applicants actually do better in the test than their state school educated peers but that their performance is discounted in the admissions process (see also Chapter 6 conclusion).

Table 4.15: Logistic regression predicting gaining an offer for GCSE and A-level applicants by division

	Other division		Social Sciences		Humanities		Medicine			Mathematics				
Social Background														
One professional	-0.21	0.30	-0.14	0.29	-0.70***	0.22	-0.75	0.55	-1.00^	0.63	0.43	0.60	-0.05	0.74
Managerial	-0.46	0.33	-0.32	0.34	-0.54**	0.26	-2.10*	1.13	-1.97*	1.20	0.52	0.66	0.03	0.83
Other and Missing	-0.41	0.38	-0.27	0.43	-0.19	0.28	0.23	0.82	0.70	0.93	2.49**	1.15	-2.40*	1.31
Female	0.47**	0.24	-0.25	0.24	-0.26	0.19	1.06**	0.53	-0.64	0.61	-0.89*	0.52	-0.67	0.62
Non-white	-0.63*	0.36	-0.15	0.33	0.02	0.37	-0.52	0.64	0.01	0.74	-0.60	0.64	-0.30	0.77
School														
Independent School	0.30	0.26	1.20* **	0.28	-0.20	0.19	-0.98	0.61	-1.22*	0.70	0.40	0.49	-0.38	0.68
Structural Controls														
Post qualification	0.60	1.00	0.97	1.06	0.77***	0.28	0.35	1.39	1.65	1.48	0.18	1.54	-0.15	2.03
Meritocratic Controls														
GCSE	2.14** *	0.38	2.15* **	0.41	1.77***	0.25	2.47** *	0.97	1.72	1.10	1.35**	0.61	1.06	0.77
GCSE squared	0.31** *	0.05	0.30* **	0.06	0.25***	0.04	0.34** *	0.14	0.24	0.16	0.19**	0.08	0.14	0.11
Mean achieved AS < A	-0.50	0.35	-0.51	0.37										
Mean achieved AS A	0.22	0.33	0.23	0.34										
Mean predicted A2 < A	-0.74	0.65	-0.86	0.69										
Mean predicted A2 A	0.67	0.50	0.13	0.46										
Mean achieved A2-levels < A	0.01	0.94	--	--										
Mean achieved A2-levels A	0.44	0.59	0.67	0.79										
Number of Advanced Extension Awards	-0.09	0.40	1.31** *	0.46										
Subject specific tests														
Medicine test														
Mathematics test									0.13***	0.04			0.11***	0.02
Constant	-0.43	0.53	-0.56	0.50	-0.18	0.22	-0.43	0.63	-7.57***	2.23	-0.33	0.56	6.14***	1.45
N	408		438		608		127		127		120		120	
Chi square	103.77 ***		91.85 ***		71.93***		22.00 **		43.00		32.326 ***		70.45* **	
DF	16		16		9		9		10		9		10	

* p < .10, ** p < .05, *** p < .001

Humanities no statistical improvement in fit when include A-level measures, chi square improves by 11.63 for 7 df.

Mathematics and Medicine number of observations too small to estimate some of A-level coefficients although statistically significant to include not done as unclear what means.

^ number of observations too small to estimate coefficient

In general, the divisional breakdown shows that, with regards to social class, there is a negative effect in all subject areas except Mathematics for children without two professional parents, although the effect is statistically significant only in the Humanities and Medicine. With regards to gender, there is also a consistently negative effect. While this effect is significant in Medicine and Mathematics before controlling for attainment on the subject specific test, the coefficients become indistinguishable from zero after those controls are added. The female disadvantage remains a statistically significant net disadvantage only in the ‘Other Division’. For non-white

applicants, there is a similar pattern as observed for female applicants with regards to the subject specific tests. The changes in coefficients suggests that this group performs lower on the tests than their white peers. Again, it is only in the 'other' division that a net penalty for being nonwhite persists. For applicants from private schools, there is a significant net disadvantage in the Social Sciences and in Medicine. Being a post-qualification applicant carries the most significant advantage in the Humanities. GCSE attainment is very important and statistically significant for all divisions with the noted change in coefficients for Medicine and Mathematics once test performance is taken into account. For applicants to the Social Sciences and the 'other' division, it significantly improves the model fit also to include measures of predicted and achieved attainment in the Sixth form. The significant impact of having taken Advanced Extension Awards in the Social Sciences is likely to pick up high achievers in mathematics with numerical skills valued in Economics and its joint school subjects.

In sum then, there are divisional variations in acceptance patterns but the large picture of a female, nonwhite, non-professional class and private school disadvantage broadly holds across subjects. It is noteworthy that the subject specific tests trump GCSE attainment but it is also remarkable that the tests do not appear to be blind to social background as female applicants and ethnic minority applicants perform worse on them and private school pupils perform better on them.

4.8.2 Other-qualification candidates

For the other qualification candidates, it is again only possible to undertake less sophisticated divisional analyses than for the GCSE and A-level candidates. Table 4.8 then breaks down the

analysis along a natural sciences versus social sciences and humanities divide. In both subject areas, performance on the Alice Heim test is the most potent predictor of gaining a place. The disadvantage for non-professional class applicants is also apparent in both subject areas although there is only a significant managerial class penalty in the Arts. This mirrors the observation for the GCSE and A-level applicants that the strongest class penalty is for humanities applicants of managerial background (cf. Bourdieu [1979] 1996). In contrast to the GCSE and A-level candidates, however, the post-qualification status is only significant in the Science subjects whereas in the former case it was only statistically significant in the Humanities.

Table 4.16: Logistic regression predicting gaining an offer for other qualification applicants by arts / sciences divide

	Sciences		Arts	
	B	S.E.	B	S.E.
Social Background				
One professional	-0.55	0.66	-0.67	0.52
Managerial	-1.03	0.78	-2.03**	0.86
Clerical, Working, DK	-1.53	1.26	-1.37*	0.84
Female	-0.48	0.55	0.30	0.48
Non White	0.28	0.59	-0.88	0.70
School				
Independent School	0.51	0.60	-1.01*	0.53
Structural Control				
Post-qualification	1.53**	0.78	0.45	0.60
Meritocratic Control				
Alice Heim Score	0.22***	0.09	0.17**	0.07
Constant	-7.05***	2.81	-2.96	2.08
N	75		124	
Chi square	16.18**		22.83**	
DF	8		8	

4.9 Discussion and Conclusion

To sum up, this chapter has shown that structural and meritocratic controls are strongly associated with applicants' chances of gaining a place. Applicants' chances of gaining a place

are higher in less competitive subjects and the applicants with the highest level of prior attainment have the highest chance of gaining an offer. These observations lend strong support to the working of meritocracy in admissions decisions. However, the crucial finding in relation to the research puzzle of differential transition rates into Oxford by social class background is that structural and meritocratic controls do not, by and large, explain these differences. While female applicants and South Asian applicants have a slight tendency to apply to more competitive subjects than their male, white peers, this effect is small and cancelled out by the higher academic attainment of these groups. In the case of Mathematics and Medicine, the inclusion of test performance does explain the female disadvantage and reduces the – insignificant- South Asian disadvantage. The inclusion of tests performance also reduces the effect of GCSE performance to insignificance. This is not necessarily unmeritocratic but it potentially raises social justice concerns that performance in these tests is to some extent not social background blind.

The one coefficient that is most significantly affected by introducing structural and meritocratic controls is private school attendance. This group of applicants initially experienced a gross advantage in the admissions process, but this turns into a net disadvantage. Given the superior attainment of this group, this group is actually under-admitted to Oxford. As the analysis in Chapters 6 and 7 will show, tutors apply discounting to individual applicants' performance based on the overall performance of their schools. Thus, a private school applicant with outstanding grades from a high performing school may not be regarded as having the same potential to achieve highly in the future as an applicant with less stellar grades from a comprehensive school. To investigate whether such discounts are appropriate, the analysis in Chapter 8 will assess how private school applicants perform in their final university examinations compared to their state educated peers.

The chapter also finds that post-qualification status is a significant predictor of gaining an offer. The operative mechanism here is that it reduces uncertainty for selectors about the applicant and whether or not they will actually achieve as highly in their school leaving exams as they are expected to (see Chapter 6). It is noteworthy that the size of the coefficient for post-qualification status for the other qualification applicants is about twice the size as it is for candidates with GCSEs and A-levels. This finding may suggest that for other-qualification applicants the signal of having already accomplished their school-leaving qualification is more important than for the GCSE and A-level applicants. It might be the case that selectors find it easier to evaluate the realistic attainment potential of applicants who apply with the most familiar achievement records containing GCSEs and A-level results than to evaluate applicants with qualifications that tutors do not know well. This observation is also congruent with tutors' preference to reduce uncertainty in the admissions process (see Chapter 6).

But as with the divisional and meritocratic controls, a crucial finding is that post-qualification status does not interact with any social background characteristics. Post-qualification status does not affect applicants from different backgrounds differently. The policy implication of this observation is that a movement to a post-qualification admissions system would not necessarily eradicate inequalities in transition rates into selective higher education by social background.

At the end of Chapter 4 then, the differentials in transition rates by social background have remained largely unexplained. The only coefficient that has changed significantly is the positive effect of having attended a private school which has turned into a significant negative effect.

So far, the analysis has not attempted to capture the factors that the admissions interviews aim to assess. As the interview is a crucial part of the selection process, it is possible that interview-relevant factors explain the differences in gaining an offer that remain after controlling for subject choice and attainment. The research material included several measures of factors such as motivation and learning style that the interview process sets out to capture. The following chapter then, investigates whether the measures of interview relevant factors can account for differences in gaining an offer among different groups of applicants.

Appendix Chapter Four

Table 4.9: Application to different colleges and divisions by social background characteristics for all research participants

	College Position on the Norrington Table			Division applied to					Total
	Top Third	Mid Third	Bottom Third	Humanities	Social Sciences	Mathematics	Medicine	Other Sciences	
Social Class									
Two professionals	29.5	28.5	27.1	30.5	27.4	18.9 (-2.7)	35.2	27.5	28.6
One professional	37.2	38.6	35.7	37.2	37.6	37.1	37.7	37.1	37.3
Managerial	20.3	18.0	24.1	18.0	22.7	24.5	17.3	21.5	20.4
Clerical	4.6	5.9	4.9 (-2.3)	4.5	6.2	9.8	2.5	4.3	5.1
Working	5.2	5.6	4.7	6.0	3.5	5.6	4.3	6.1	5.2
Class missing	3.2	3.4	3.4	3.7	2.5	4.2	3.1	3.5	3.3
Ethnicity									
White	82.0 (3.1)	79.9	70.2 (-4.9)	87.4 (+7.1)	69.9 (-5.3)	67.8 (-3.2)	67.3 (-3.6)	81.3	78.4
South Asian	4.6 (-2.2)	6.5	7.8	2.1 (-5.5)	9.6 (3.7)	9.1	16.0 (5.6)	3.8 (-2.3)	6.0
Other ethnicity	13.4 (-2.1)	13.5	22.0 (4.4)	10.6 (-4.5)	20.6 (3.5)	23.1 (2.6)	16.7	14.9	15.5
Gender									
Male	44.7	50.1 (3.4)	37.8 (-3.6)	38.4 (-4.3)	44.7	66.4 (5.4)	35.8 (-2.4)	51.4 (3.2)	44.9
Female	55.3	49.9 (-3.4)	62.2 (3.6)	61.6 (4.3)	55.3	33.6 (-5.4)	64.2 (2.4)	48.6 (-3.2)	55.1
Type of School									
Comprehensive	31.0	30.4	25.6 (-2.1)	25.7 (-2.7)	30.1	36.4	28.4	32.8	29.5
Independent	38.2	36.0	40.0	42.7 (3.2)	36.0	30.8	39.5	34.3	37.8
Grammar	7.0	6.3	5.1	7.2	5.8	4.2	6.8	6.1	6.3
Other	23.8 (-2.1)	27.3	29.3	24.5	28.1	28.7	25.3	26.9	26.3
Type of school2									
Mixed	66.4	65.5	67.3	63.0 (-2.2)	71.5 (2.8)	62.9	62.3	68.1	66.3
Single Sex	33.6	34.5	32.7	37.0 (2.2)	28.5 (-2.8)	37.1	37.7	31.9	33.7
Not selective	46.9	46.3	42.9	39.7 (-3.6)	51.3 (2.5)	56.8 (2.6)	39.7	47.5	45.8
Selective	53.1	53.7	57.1	60.3 (3.6)	48.7 (-2.5)	43.2 (-2.6)	60.3	52.5	54.2
Qualification Status									
GCSE Pre-qual.	85.3 (2.4)	85.2 (2.0)	75.1 (-5.0)	81.5	79.6 (-2.1)	84.4	84.4	87.2 (2.7)	82.8
GCSE Post- qual	5.6	6.1	8.8 (2.2)	10.9 (5.6)	4.7	2.8	3.1	4.4 (-2.1)	6.6
Other pre-qual	7.6	7.6	13.4 (3.8)	6.0 (-3.4)	13.7 (4.1)	12.1	11.3	6.9	9.0
Other post-qual	1.4	1.1	2.6 (2.0)	1.6	1.9	.7	1.3	1.6	1.6
N	783	678	468	682	481	143	162	461	1929

Figures in bold: adjusted residuals significant, cut off point -2, +2.

Table 4.10: Logistic Regression Model of gaining an offer (coded as 1) for candidates with GCSE and AS / A2-levels

	Model 1		Model 2		Model 5		Model 6		Model 8		Model 9	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Social Background												
One professional	-0.34***	0.13	-0.35***	0.13	-0.35***	0.13	-0.37***	0.13	-0.39***	0.14	-0.39***	0.14
Managerial class	-0.42***	0.15	-0.42***	0.15	-0.42***	0.15	-0.45***	0.15	-0.46***	0.16	-0.49***	0.16
Clerical class	-0.40	0.25	-0.41	0.25	-0.39	0.25	-0.42**	0.26	-0.16	0.27	-0.15	0.28
Working class	-0.25	0.24	-0.24	0.24	-0.23	0.24	-0.31	0.24	-0.15	0.26	-0.12	0.26
Class Missing	-1.06***	0.34	-1.09***	0.34	-1.08***	0.34	-1.16***	0.34	-1.28***	0.35	-1.36***	0.36
Female	-0.24**	0.10	-0.23**	0.10	-0.23**	0.10	-0.19*	0.11	-0.41***	0.11	-0.39***	0.12
South Asian	-0.94***	0.30	-0.89***	0.29	-0.87***	0.29	-0.75***	0.30	-0.82***	0.31	-0.89***	0.32
Other ethnicity	-0.25	0.18	-0.25	0.18	-0.23	0.18	-0.22	0.19	-0.12	0.20	-0.16	0.21
School												
Single Sex School	0.19	0.13										
Selective School	0.11	0.12										
Independent			0.24*	0.13	0.20	0.13	0.22*	0.13	-0.18	0.14	-0.26*	0.15
Grammar			0.36	0.22	0.36	0.22	0.39*	0.22	0.18	0.24	0.06	0.24
Other			0.22	0.14	0.19	0.14	0.23*	0.14	0.09	0.15	0.04	0.15
Structural Controls												
Post A-level candidate					0.53***	0.20	0.52***	0.20	0.70***	0.22	0.48	0.43
Social Sciences							-0.27**	0.14	-0.30**	0.15	-0.31**	0.15
Medicine test takers							-0.72***	0.24	-1.09***	0.25	-1.16***	0.25
Maths test takers							0.17	0.22	0.11	0.23	0.10	0.24
Other subject							0.32**	0.13	0.35***	0.14	0.37***	0.15
Meritocratic Controls												
GCSE									2.04***	0.17	1.77***	0.18
GCSE squared									0.29***	0.02	0.25***	0.02
Mean achieved AS < A											-0.44***	0.17
Mean achieved AS A											0.29*	0.16
Mean predicted AS < A											-0.76***	0.31
Mean predicted AS A											0.01	0.24
Mean achieved A2-levels < A											-0.25	0.45
Mean achieved A2-levels A											0.38	0.29
Number of AEA											0.65***	0.21
Constant	-0.25**	0.12	-0.31**	0.13	-0.33***	0.13	-0.34***	0.16	-0.23	0.17	-0.12	0.28

* p < .10, ** p < .05, *** p < .001

Not shown: Model 3 (Model 2 + age), Model 4 (Model 2+ summer school), Model 5 (Model 6 + college).

Table 4.11: Non GCSE / A-level candidates and performance on Alice Heim test by social background characteristics

	Alice Heim test
Social Class	
Two professionals	8.9
One professional	9.0
Managerial	9.3
Other	8.7
Ethnicity	
White	9.1
Other	8.7
Gender	
Male	9.2
Female	8.9
Type of School	
Other	10.4
Independent	10.8
qualification status	
Pre-qualification applicant	9.0
Post- qualification applicant	8.9

Figures in bold: adjusted residuals significant, cut off point -2, +2.

Table 4:12: Performance on the Mathematics and Medicine Test (mean scores) by social background characteristics

	Mathematics test score	N	Medicine test score	N
Social Class				
Two professionals	59.26	27	51.51	56
One professional	61.55	53	49.41	61
Managerial	60.83	35	48.41	28
Clerical, Working, DK	46.04	28	43.31	16
Ethnicity				
White	58.27	101	50.48	119
Nonwhite	57.02	42	46.19	42
Gender				
Male	59.05	95	51.59	57
Female	55.63	48	48.14	104
Type of School				
Other	54.00	99	48.77	97
Independent	66.68	44	50.26	64
qualification status				
Pre-qualification applicant	57.81	138	49.36	154
Post- qualification applicant	60.40	5	49.43	7
Total	57.90	143	49.36	161

Note: bold indicates that the score is significantly different at least at the .10 level from that of the reference category.

Chapter Five

Statistical Analysis II:

The impact of motivation, learning style and social and cultural capital on admissions decisions

5.1 Chapter Overview

This chapter explores the relationship between extended merit measures, social and cultural capital and admissions decisions. Specifically, the focus is whether academic motivation, aspiration and learning style, social networks and cultural habits explain any of the disadvantages that South Asian, female, non-professional class and private school applicants experience in the competition for gaining a place at Oxford. The chapter concludes that the admissions process does indeed pick up factors other than attainment at school. In particular, extended merit measures and cultural capital measures significantly improve the predictive power and statistical model fit of the admissions models developed in Chapter 4. Nonetheless, the only disadvantage that those new explanatory variables make slight progress in explaining is the South Asian disadvantage and even this penalty remains statistically significant after all of the controls have been added to the models. In fact, the additional controls actually increase the private school penalty. The social class and female effects remain virtually unchanged. Overall, then, the net disadvantages in the admissions process remain for South Asian, non-professional

class, female and private school applicants net of all structural, meritocratic and social and cultural capital controls.

5.2 Introduction

The previous chapter showed that despite the significant influence of structural and meritocratic measures on applicants' propensity to gain a place, a pattern of net disadvantages remained whereby non-professional class, ethnic minority and female applicants are less likely to receive offers than their professional class, white, male peers. Furthermore, the introduction of meritocratic controls led to a reversal of the private school effect from an advantage to a significant penalty given the higher academic performance of these applicants. Finally, post-qualification applicants had a higher chance of gaining a place than pre-qualification applicants. This chapter evaluates the contribution that social theory can make to understanding these patterns. This introduction then discusses the concepts of extended meritocracy and social and cultural capital measures and their expected impact on admissions decisions.

Undergraduate admissions at Oxford is not only based on the academic attainment information modelled in the previous chapter. In addition, all EU applicants for admission are also interviewed. The university informs applicants that 'The purpose of the interviews is to assess your abilities and, most importantly, your potential.... Most candidates will have good results and predicted grades, and school and college reports differ less than you might imagine. The interview provides an opportunity to assess your potential beyond your written record.' (Oxford Colleges Admissions Office 2006). The official documentation states that tutors use the interview to detect applicants' motivation, ability to think and potential to succeed at Oxford

(Oxford Colleges Admissions Office 2006). As tutors regard these student characteristics as valid selection criteria that are associated with performance at Oxford, these criteria could be regarded as extended meritocracy objectives. In other words, if, over and above academic attainment, factors such as motivation, potential and ability and willingness to think explain differences in admissions rates, and if students from different social backgrounds perform differently on these criteria, it could be argued that such differences in admissions rates are meritocratic³⁴.

In addition to the extended meritocracy argument social research has repeatedly found that two social mechanisms impact on educational outcomes. These mechanisms are social capital and cultural capital and are now reviewed in turn.

The role of communities and networks in impacting on individual outcomes is a theme that dates back to the very origins of sociology as a discipline (Durkheim 1902; Weber, Parsons et al. 1930; Tönnies 1935). In recent years, the theme has experienced a revival and the term social capital has emerged to capture an umbrella of research that deals with connectedness. Like economic capital, the basic idea of social capital is that it allows individuals (Granovetter 1974; Brehm and Rahn 1997) small communities (Coleman 1988) and arguably even entities as big as nation states (Putnam, Leonardi et al. 1993; Putnam 2000) to do something they would not be able to do if they did not possess this form of capital.

The most influential research that addresses specifically the link between educational attainment and social capital, however, regards connectedness as a community level resource. Coleman's landmark study on religious schools argued that the superior performance of these schools in

³⁴ This evaluation might still be controversial, if, for example, the criteria were set up in a way that would make it easier for certain groups to shine than for others.

terms of students' academic attainment and very low drop-out rates and teenage pregnancy is a function of the connectedness of parents. The fact that parents meet in church creates a network closure whereby the children's behaviour can be monitored effectively. It has also been argued that one adult headed households generally have less social capital than households where two parents are present (Coleman 1988). This is because the former households have fewer networks and are more likely to be economically disadvantaged resulting in less spare time for the single earner to be involved in activities outside the home. While Coleman's work has been most influential it is not directly applicable to the context of admissions research.

At its most tangible, social capital research then shows the specific benefits individuals gain from networks and connectedness to other members of society. For example, Granovetter showed that the most desirable jobs are passed on through networks of acquaintance, through 'loose' ties of people whose main social circle is different to the job seekers and who therefore have access to different information (Granovetter 1974). The quantity of networks, then, for example the sheer number of entries in your address book has actually been related to salaries. The key transferable mechanism that is relevant to this admissions research is that networks provide access to information that one would not otherwise have. For this very reason, the admissions questionnaire included a question on connections by asking whether the applicant knew anyone who had attended Oxbridge in their family, school, or other social circles. Such knowledge could potentially provide helpful information about the Oxford admission process that might translate into an advantage in the admission process. Knowledge of the admissions procedures to Oxford might also advantage applicants simply by providing familiarity with the process that might translate into feeling more at ease during the interview.

In recent years, social capital research has developed somewhat away from exploring such mechanisms of connectedness to simply measuring the numbers of network ties an individual has. Those measures in turn are related to outcomes ranging from national differences in well-being to commitment to the democratic process (Putnam, Leonardi et al. 1993; Schudson 1996; Skocpol 1996; Putnam 2000). It is perhaps less clear which mechanism would account for a link between network ties and admission decisions if those ties did not carry with them any kind of admissions relevant information. Nonetheless, given the popularity of this research approach, the survey included measures of the applicants' and their parents' or guardians' networks.

An even more prominent form of resource that has been closely linked to educational outcomes is cultural capital. This form of capital constitutes of knowledge, habits learned at home, attitudes and aspirations (Bourdieu 1979; Bourdieu and Passeron [1977] 1990). Specifically, quantitative and qualitative research has shown that differences in cultural capital account for differences in educational attainment and educational aspirations by social background that are not just a function of a link between social background and innate ability (however controversially measured) (Willis 1977; DiMaggio 1982; De Graaf 1986; Lareau 1987; Sullivan 2001; Van der Werfhorst, Sullivan et al. 2003). Cultural capital rich parents can use the educational system to their advantage by strategically choosing schools, enrichment activities, curricula for their children (Lamont 1992; Savage 1992; Ball 1993; Power 2002; Townsend 2003). Furthermore, the children of the cultured middle class are equipped with the right set of attitudes and knowledge that teachers reward in their student evaluations and that help them to navigate the 'hidden curriculum' of customs, speech codes and habits of schools (Bernstein 1971; Wells 1981; Nash 2001). One of the underlying mechanisms here is that teachers find it easier to relate to students who share the same customs and values as themselves. This well

established way of how similarities in values and attitudes are translated into educational outcomes is of utmost importance for this admissions research. The face-to-face interview interaction between a professional, middle class, predominantly male intellectual and an applicant for admission to higher education is a set up for educational selection in which these things could matter. For this mechanism of social reproduction to work, it is not required to assume any intent by the interviewers who select the next cohort of undergraduates to consciously prefer applicants who are 'like themselves'. The actual process of how people take to others who are like themselves is likely to occur subconsciously.

The survey material for this research, then, included several ways of quantifying an applicant's cultural knowledge and habits. A crucial consideration was to measure habits and knowledge associated with the high culture of the intellectual milieu. These measures included general knowledge of arts, music, literature and politics beyond the subject of study and the value placed on books and reading.

The survey also included a cross-over measure between cultural capital and policy intervention specific to the Oxford application context. Applicants were asked whether or not they had attended a summer school. In the UK there is no highly developed 'summer camp' culture among the middle classes as it is, for example, the case in the USA. This measure actually picks up those few applicants who attended a charity run programme for disadvantaged teenagers to aspire to a university education that does justice to their ability (Smith 2005) Sutton Trust Summer Schools, www.suttontrust.com) . The objective of summer schools is to provide the participants with cultural capital in the form of aspirations, confidence and knowledge of selective higher education that middle class applicants are likely to obtain through their family socialisation. Moreover, the simple label 'Sutton Trust' applicant signals to selectors that this

particular applicant has been singled out as highly gifted but disadvantaged compared to traditional higher education applicants. Research in the US has shown that ethnic minority applicants, for example, enjoy compensatory sponsorship in higher education admission (Grodsky 2007). The statistical models presented here cannot disentangle whether the skills derived from attending a summer school or merely the pure signal of attendance or both processes drive these findings. The evidence from interviews with selectors suggests that signal of being labelled educationally disadvantaged may be sufficient to influence actual admissions discussions (see Chapter 7).

5.3 Hypotheses:

The above discussion of extended merit measures as selection criteria and the role of social and cultural capital in educational outcomes then specifically suggests the following three hypotheses.

H5.1: Observed group differences in the likelihood of gaining an offer are due to differences in motivation and learning style. Tutors want students who are motivated and deep learners. These groups that are advantaged in the admissions process score highest on measures of motivation and learning style. (*Extended Meritocracy Hypothesis*).

H5.2: Differences in the propensity of gaining an offer are linked to differentials in networks and information among applicants. Applicants with a family or school tie to Oxbridge have a higher chance of gaining an offer because they have higher knowledge of the admissions system and feel more at ease with the process. This advantages middle class and private school

applicants and those applying from households where two adults are present (*Social Capital Hypothesis*).

H5.3: Observed group differences in the propensities of gaining an offer for study at the University are due to differences in cultural capital. Selectors prefer those with the most similar cultural capital to themselves. Professional class, White, British applicants are most likely to share the same cultural habits as the selectors for admission and are therefore advantaged in the admissions process (*Cultural Capital Hypothesis*).

H:5.3.1: Applicants who have participated in a summer school have a higher chance of gaining an offer than those who have not because of the special extra cultural capital and signalling value that this intervention provides (*Compensatory Sponsorship Hypothesis*).

5.4 Analysis

5.4.1 Variables

The detailed construction of the variables of interest used in the analysis is discussed in Chapter 3. In this chapter, social background is operationalised as social class, gender, ethnicity and type of school. The analysis includes the structural and meritocratic control variables used in the analysis in chapter 4. To recapitulate, these variables were subject choice, qualification status, GCSE attainment, achieved and predicted AS level attainment, achieved and predicted A2 level attainment, the number of advanced extension awards and for applicants without these qualifications, the attainment in the Alice Heim reasoning test. The extended merit measures are

operationalised as scores on the deep learning and motivation scale, the applicants' aspirations for their degree outcome, the importance of a first class degree and the applicant's main objective for their time at university. In addition, the Alice Heim test performance was already included as a meritocratic control for the other-qualification candidates in the previous chapter is now used as an extended meritocracy test variable for the GCSE and A-level candidates. Social capital is measured by the network involvement of the applicants and their parents, single adult household status and the number and quality of ties to Oxbridge. Lastly, performance on the culture quiz, love of reading for pleasure, the number of books in the home and summer school attendance make up the operationalisation of cultural capital.

5.4.2 Method

The analysis first uses descriptive statistics to show the link between extended meritocracy, social and cultural capital variables and admissions decisions. Building on those descriptions, the second step of the analysis uses binary logistic regression analysis to model how the addition of these new measures impacts on the net effects of social background characteristics on gaining an offer. The outcome of the logistic regression analyses then is gaining an offer (coded as 1) versus being unsuccessful in the application for a place (coded as 0).

5.5 Analysis I: Description of motivation and learning style

This first section of the analysis then describes the acceptance patterns by scores on motivational and learning style measures as operationalisations of the extended meritocracy hypothesis.

Table 5.1 displays the link between those measures and offer decisions. We can see that the pattern of offers is broadly compatible with the extended meritocracy hypothesis. There is an advantage for those candidates who score high on the Alice Heim test and measures of motivation, aspiration and learning style. Conversely, lower scores on these measures are associated with lower rates (see appendix Table 5.10). Scores do not vary by social class, schooling or when comparing South Asian to White applicants. It is, however, noteworthy that female respondents score higher on both measures than their male peers. The positive effect of motivation and deep learning on the likelihood of gaining a place, then, if anything increases the differences in offer rates by gender.

In terms of aspirations for degree attainment, those who hope for a first class degree also have a higher chance of gaining an offer than those who hope for an Upper Second (no respondent hoped for a degree class below an Upper Second). It is noteworthy that the only differences in aspiration levels by social background variables are that South Asian students and Post-A-level students have significantly higher aspirations than their peers (see appendix Table 5.10). It is particularly noteworthy that female applicants aspire as highly as their male counterparts. This is an important observation for the follow up through university where empirically male students at Oxford gain a significantly larger proportion of firsts than female students (see Chapter 8). There is also a significant lower chance of success for the small number of 30 applicants who state that gaining a first is not important to them at all. Academic aspirations are thus meaningfully linked to admissions decisions with proportionally more places offered to applicants with high academic aspirations. But as previously observed for the deep learning and motivation measures, the breakdown by social background characteristics makes it unlikely that these measures explain differences in offer rates. In fact, based on these observations one would expect South Asians to receive more, not fewer offers than they actually do.

Table 5.1: Per cent of applicants gaining an offer within performance on motivational and learning style measures

	Alice Heim Test	Deep Learning score	Motivation Score	Degree class hoped for	Degree class realistic expected	Importance of first class degree	Objective of time at university
Learning Style Scales							
lower quartile	27.7	32.39	30.17				
Half	34.4	35.12	37.19				
three quarters	38.9	39.08	35.14				
upper quartile	48.4	39.37	39.45				
Degree class (hoped for)							
First				38.35	36.80		
Other or DK				32.98	36.50		
Importance of first							
Very, fairly, not, DK						37.12	
Not at all important						13.33	
Objective of university							
Career experience							25.00
Social Life							35.57
Academic Success							39.74
N		1929	1736	1929	1929	1929	1929

Figures in bold: Adjusted residuals significant.

A striking pattern also emerges with regards to which aspects of university life was most important to applicants. Here, those who consider academic success as the main goal of their time at university have the highest chance of gaining an offer. Among this group, the lower social classes, namely the clerical and working class, are significantly over-represented but so are White and Comprehensive school applicants. The social class coefficients (Appendix Table 1) may mirror that those most dependent on education as a way to achieve upward social mobility place the highest emphasis on academic attainment. Among those who valued their social life and extra-curricular activities most highly an average proportion of applicants gain a place. There is a significant and substantive penalty for those who view the purpose of their time at university as primarily advancing their career goals. This observation ties in with the underlying preference expressed by tutors to teach students who are intrinsically motivated by the subject matter they study rather than by external labour market rewards (see Chapter 6).

There is no significant class, gender or school pattern in viewing career advancement as the main goal of university education. Two groups of applicants, however, the other-qualification pre-qualification applicants and non-white applicants, are significantly over-represented among this group (Ballard and Vellins 1985). It is thus possible that the emphasis on university as career advancement might go some way to explaining the ethnic and other-qualification applicant penalties.

In sum then, the extended meritocracy measures concerning motivation, learning style and aspiration are meaningfully related to admissions decisions. The breakdown of the scores on these measures by social background characteristics, however, suggests that they are unlikely candidates for explaining the social class, gender and type of school patterns of acceptances. But it is conceivable that the focus on career might go some way to explaining the South Asian and other-qualification applicant disadvantages.

5.6 Analysis II: Description of social capital

In this second section of the analysis various measures of social capital are linked to offer decisions. Table 5.2 then shows firstly that none of the measures of candidates' or their parents' or guardians' networks are associated with significant differences in gaining an offer. This is not completely unsurprising given that standard outcomes of such social capital measures tend to be gaining advantageous employment, happiness in life and not university enrolment. The more tangible and specific measures of connectedness to elite higher education, namely a link to the Universities of Oxford and Cambridge, however, shows significant differences in acceptances. Here it is noteworthy that to have one parental link to Oxbridge does not help the applicant. If

anything there is a slight but insignificant disadvantage. For those with two parents with an Oxbridge connection, however, there is a large and statistically significant advantage. One way to interpret this finding is that the one parent Oxbridge connection generally picks up on the father having been educated at Oxbridge whereas the both parents Oxbridge measure picks up the exceptional number of women who studied at Oxford during a time when very few women had a chance to study at one of the university's four women colleges. The two Oxbridge parents measures might then pick up mothers with exceptional cultural capital and educational aspirations. It is possible that in families where only the father went to Oxbridge, possibly during a time when admissions decisions were more related to social background than they are today, parents might underestimate the fierceness of the competition for places and therefore push their very good children but short of outstanding to apply to their alma mater³⁵. Other patterns are that no South Asian candidate has two parents with an Oxbridge education, and that private school students are most likely to have two Oxbridge parents. Perhaps surprisingly, none of the grammar school applicants have two Oxbridge parents.

Among those who have at least one Oxbridge connection of some sort– which could be through family or school ties – there is also a class pattern with more connections among the white, middle class and private school community.

³⁵ There is, however, also a collinearity issue with the measure of parental education and social class as those with two professional parents are significantly over-represented among this group (See Table A2 in appendix).

Table 5.2: Per cent of applicants gaining an offer within social capital measures

	Candidate's networks			Parental Networks			
	Sports	Community	Religion	Parents Oxbridge	Any Oxbridge connection	Organisational membership	Single Parent / Guardian
Participation							
Never or rarely	35.35	37.80	35.69				
Three or more times a year	37.34	35.62	38.20				
Oxbridge connection							
No parental Oxbridge connection				36.38			
One parent				33.57			
Both parents				56.14			
No Oxbridge connection at all					34.05		
at least one Oxbridge connection					39.03		
Organisational membership							
None						36.17	
at least one						36.90	
Single Parent / Guardian Family							
No							37.7
Yes							30.7
	1919	1918	1919	1929	1929	1929	1929

Figures in bold: Adjusted residuals significant.

Finally, Table 5.2 also shows that coming from a single headed household has a significant negative effect on admissions chances. This ties in with knowledge that single headed households have fewer networks ties than two-adult headed households (Coleman 1988; Portes 1998). But again, there is a collinearity issue in this measure as this measure is also associated with lower cultural capital. The one noteworthy link to social background characteristics here is that those whose social class is missing are significantly over-represented among the single adult headed households. This observation ties in with Rethon's findings that social class in educational surveys is not missing randomly but generally associated with other characteristics of disadvantage such as single-parent family status and lower educational attainment (2005).

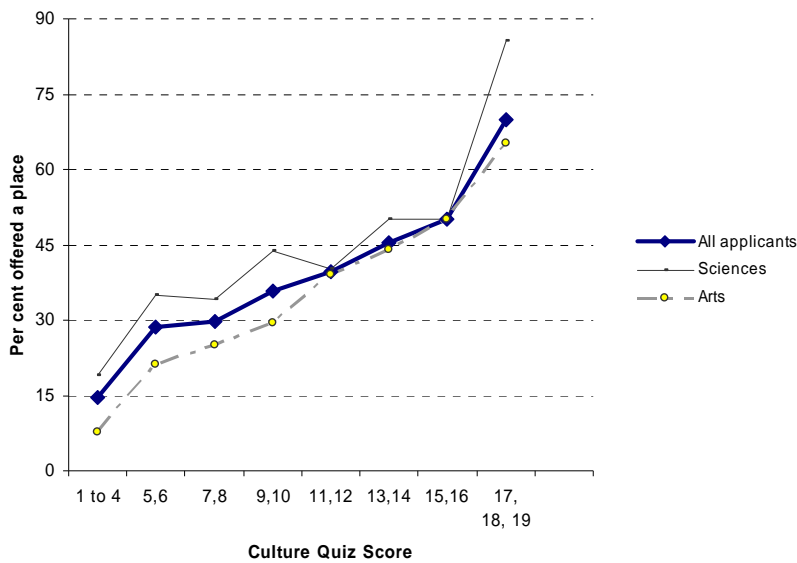
In sum then, social capital in the form of Oxbridge connectedness appears to play a role in the admissions process. This advantage for knowledge of the Oxbridge system advantages already privileged groups and its inclusion in a formal model could help to explain the professional class

and white advantage. Social capital, however, is an unlikely candidate for explaining the female disadvantage and, if anything, should lead to an private school advantage and not the observed disadvantage.

5.7 Analysis III: Description of cultural capital

The third group of factors that this chapter explores are cultural capital measures. The most striking relationship here is between performance on the culture quiz and admission decisions. As illustrated in Figure 5.1, the relationship is mostly linear with an exponential penalty for very low scorers and an exponential advantage for the highest scorers. The breakdown of performance on the culture quiz by social background characteristics shows a striking social class pattern whereby those with two professional parents outperform all other social groups. The lowest social classes perform least well with the worst performance observed for those whose social class is 'missing'. Furthermore, high performance on the culture quiz shows a statistically significant association with being white, post-qualification status and private school educated. The culture quiz is then a possible candidate to explain some of the class and ethnic patterns in admissions decisions. But as previously observed in relation to social capital and extended merit measures, controlling for cultural capital would actually lead to a private school advantage rather than disadvantage. Quiz performance also does not appear likely to explain gender differentials in admissions rates.

Figure 5.1: Per cent of applicants gaining an offer within performance on culture quiz



In addition to the culture quiz, two further measures of cultural capital are related to admissions decisions. Applicants who read widely outside their school curriculum and those with over 500 books in the home have a higher chance of gaining an offer than their peers with low scores on these measures (see Table 4.3). These two cultural capital measures follow the same class and school pattern that were observed with regards to the culture quiz. There is again a pronounced ethnic penalty with significantly more reading for pleasure outside the school curriculum and more books in the home reported among white applicants than South Asian applicants. In addition, female applicants are keener readers than male applicants.

Finally, the difference in gaining an offer by summer school attendance, while not statistically significant, is of policy interest. The breakdown by social class shows an over-representation of students from working class backgrounds and ethnic minority applicants among this group. This suggests that the measure captures Sutton Trust summer participation. In this sense, then, summer school attendance is a compensatory intervention that is designed to help those from backgrounds with little history of higher education to compete for a place at Oxford. The

positive direction of the summer school impact suggests a positive impact of this intervention. On the other hand, the over-representation of other-qualification applicants among this group possibly suggests that the summer school measure might also include some of the very privileged candidates who can and want to pay for extra tuition.

In sum then, the culture quiz and the reading measures may explain the ethnic and class pattern of admissions decisions. These measures cannot, however, help to explain the female and private school effects. Summer school attendance, on the other hand, could slightly modify class and ethnic effects of cultural capital as this intervention is related to lower social class origin and ethnic minority status.

Table 5.3: Per cent of applicants gaining an offer by cultural capital characteristics

	Reading habits	Books in the home	Summer School
Frequency of reading books for pleasure			
Read fewer than four books in last year	28.92		
Read four or more books in last year	39.16		
Number of books in the home			
Fewer than 500 books		33.94	
more than 500 books		42.90	
Summer school intervention			
No summer school attended			36.30
Summer school attended			39.26
	1929	1929	1929

Figures in bold: Adjusted residuals significant.

5.8 Analysis IV: Formal statistical analysis of the effect of motivation, learning style, social and cultural capital

After having described the relationship between the extended merit variables, social and cultural capital and admission decisions, the proof of the pudding is in how these measures affect the admissions model of social background characteristics and meritocratic and structural controls

developed in the previous chapter. On the one hand, the new measures may add new information that could explain the differential acceptance patterns by social background characteristics. On the other hand, it is also conceivable that the measures improve the model fit and tap into a new dimension of factors that influence admissions decisions without actually explaining the differential admissions patterns. Finally, it is possible that the effect of the measures introduced in this chapter is already captured by school attainment, in other words, motivation, learning style and social and cultural capital might be related to high attainment but not to the likelihood of gaining an offer net of attainment. In order to control for this latter possibility, the formal analysis again controls for attainment and is therefore presented separately for GCSE and A-level candidates and for other qualification candidates.

5.8.1 4.1: GCSE and A-level candidates

The first formal analysis is then to undertake a comparison of nested models to assess whether any of the new measures introduced in this chapter improve the model fit as measured in the chi square statistics. In the first step of the analysis shown in Table 5.4 performance on the Alice Heim test is added to the model. This measure of intelligence improves the model fit significantly which suggests that over and above GCSE attainment, selectors also pick up the very high achievers on this ability measure.

Table 5.4: Comparison of nested Models for applicants with GCSE and A-level qualifications

	Model Description	Chi square	df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1	Class, Ethnicity, Gender, school, PQA, division, GCSE, AS levels, A-levels, AEAs	317.84	25	1,700	--	--	--
Model 2	Model 1 + Alice Heim intelligence test	332.405	26	1,700	14.565	1	.000
Model 3	Model 2 + Deep and surface learning, goal of university education	354.158	29	1,700	21.753	3	.000
Model 4	Model 3 + Oxbridge connection	354.251	30	1,700	0.123	1	No
Model 5	Model 3 + Score on culture quiz, summer school attendance and reading habits	377.781	32	1,700	23.53 (Model 3 vs Model 5)	3 (Model 3 vs Model 5)	.000

All chi square values are significant ($p < .000$)

To develop Model 3, the improvement in model fit for adding all other learning style and motivation measures individually is firstly assessed. Four out of the six learning style and motivation measures, namely deep learning, aspiring for a first, the importance of first, and the goal of university education, individually significantly improve the model fit. Realistic degree outcome expectations, however, are insignificant addition to Model 2. Also, while performance on the motivation scale improves the model fit for models that do not include attainment, it appears that the effect of motivation is co-linear with school performance and thus does not add any new information. As some of the aspiration variables are likely to be related, a further analysis, forward wald regression, is then conducted to keep only the most influential motivation and learning style variables. This analysis then results in the model 3 presented in the nested model comparison, namely Model 2 with the addition of the deep learning scale and the goals of university education. The latter measure appears to pick up the same dimension as an aspiration to achieve a first and the importance of achieving academically.

In contrast to the significant improvement in model fit by adding extended merit measures, none of the social capital measures individually or collectively come close to improving the model fit. Model 4 thus merely illustrates that the conceptually most interesting social capital variable, i.e. having access to an Oxbridge connection, does not improve the model fit.

The additions of cultural capital in Model 5 then build on the extended meritocracy model represented in Model 3. All cultural capital measures except the number of books in the home improve the model fit when added individually. The culture quiz score alone increases the chi square by 15 over one degree of freedom and reading habits lead to a highly significant increase by seven. Even summer school attendance a variable that was not previously significant in the descriptive admission statistics based on all applicants is significant by increasing the chi-square by four. This might be the case because with the non-British applicants filtered out, this variable is now a purer proxy for disadvantage than it was previously the case. This time, the forward wald regression keeps all the three significant cultural capital variables in the model. The final model of extended meritocracy and cultural capital measures for the GCSE and A-level applicants then includes a total of six new measures and increases the chi square by 50. In other words, the admissions process picks up on extended merit measures not captured by school attainment as well as the applicants' aspiration for university and their values in terms of reading habits and cultural knowledge.

The next step is then to consider whether the addition of new explanatory variables mediates the relationship between social background characteristics and admission decisions. Turning to Table 5.5, it is apparent that the class coefficients for the professional and managerial class remain largely unchanged in the new statistical model. The significant coefficient for missing social class is slightly reduced in line with the reduction of the insignificant coefficient for the

clerical and working class. This reflects the lower scores of these groups on the cultural capital measures as compared to professional class applicants. In line with the observed higher performance of girls than their male peers on several of the new measures, the female advantage is, if anything, slightly increased. The private school coefficient remains unchanged. The only coefficient that has somewhat reduced is the South Asian penalty which is a function of this group's lower performance on the cultural measures and an over-representation of minorities among those who view career advancement as the main purpose of their time at university. But even the inclusion of these mechanisms ultimately decrease the South Asian penalty only modestly. The coefficient remains significant and substantially large.

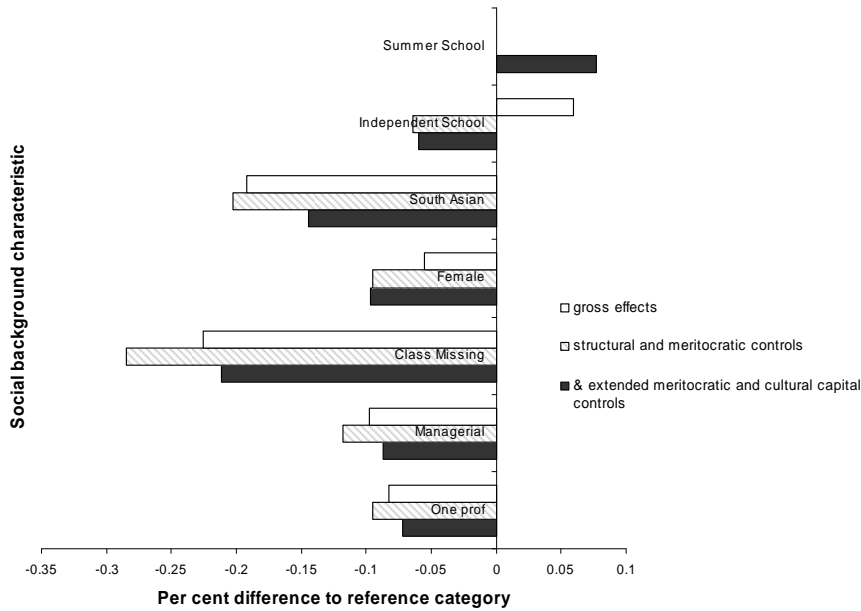
Figure 5.2 represents graphically the progress that this chapter has made in explaining the differences in the propensity to gain an offer by social background for the GCSE and A-level applicants.

Table 5.5: Logistic Regression Model of gaining an offer (coded as 1) for candidates with GCSE and AS / A2-levels

	Gross effects		Model 1 Structural and meritocratic controls		Model 5 Extended Merit and Cultural Capital controls	
	B	S.E.	B	SE	B	SE
Social Background						
One professional	-0.35***	0.13	-0.39***	0.14	-0.33**	0.14
Managerial class	-0.42***	0.15	-0.49***	0.16	-0.40**	0.17
Clerical class	-0.41	0.25	-0.15	0.28	-0.05	0.29
Working class	-0.24	0.24	-0.12	0.26	-0.01	0.27
Class Missing	-1.09***	0.34	-1.36***	0.36	-1.16***	0.39
Female	-0.23**	0.10	-0.39***	0.12	-0.45***	0.12
South Asian	-0.89***	0.29	-0.89***	0.32	-0.71**	0.34
Other ethnicity	-0.25	0.18	-0.16	0.21	-0.06	0.22
School						
Independent	0.24*	0.13	-0.26*	0.15	-0.27*	0.15
Grammar	0.36	0.22	0.06	0.24	0.10	0.25
Other	0.22	0.14	0.04	0.15	0.05	0.16
Structural Controls						
Post A-level candidate			0.48	0.43	0.65	0.45
Social Sciences			-0.31*	0.15	-0.15	0.16
Medicine test takers			-1.16***	0.25	-0.97***	0.27
Maths test takers			0.10	0.24	0.34	0.26
Other subject			0.37***	0.15	0.63***	0.16
Meritocratic Controls						
GCSE			1.77***	0.18	1.61***	0.18
GCSE squared			0.25***	0.02	0.23***	0.03
Mean achieved AS < A			-0.44***	0.17	-0.51***	0.18
Mean achieved AS A			0.29*	0.16	0.26	0.17
Mean predicted A2 < A			-0.76***	0.31	-0.66**	0.32
Mean predicted A2 A			0.01	0.24	0.14	0.26
Mean achieved A2-levels < A			-0.25	0.45	-0.43	0.47
Mean achieved A2-levels A			0.38	0.29	0.30	0.30
Number of Advanced Extension Awards			0.65***	0.21	0.73***	0.21
Extended Merit Measures						
Alice Heim Test					0.05***	0.02
Deep Learning Scale					0.02	0.01
Goal of university: Career					-0.66***	0.17
Goal of university: Social Life					-0.31**	0.16
Cultural Capital						
Culture Quiz Score					0.07***	0.02
Keen reader					0.31**	0.15
Summer School attendance					0.32**	0.16
Constant						
			-0.31**	0.13	-0.12	0.28
	Df					
	10		25		32	
	Chi square		42.44***		317.84***	
	n		1,700		1,700	

* p < .10, ** p < .05, *** p < .001

Figure 5.2: Significant social background effects on the chances of gaining an offer for GCSE and A-level candidates



5.8.2 4.2: Other qualification candidates

The analysis of the other-qualification candidates uses the same procedure as the previous section on the GCSE and A-level candidates. To recapitulate, the Alice Heim test was already included in the previous chapter as a meritocratic control for this group of applicants. With regards to the new extended merit measures added in Model 2 in Table 5.6, the pattern of significant variables is the same as it was for the GCSE and A-level applicants. The inclusion of deep learning and the goal of university education increases the model fit. The aspirational measures of aspiring for a first class degree and the importance of a first are not significant, however, when entered separately. It is possible that among this group of applicants who are frequently not British, there is less familiarity with British degree classifications and therefore the answers to this question are less meaningful. Turning to the social capital measures that

have all been insignificant for the GCSE and A-level applicants it is surprising to observe a strong effect for the other qualification applicants. Here, having any connection to Oxford (e.g. including teachers or other people known by the applicant) significantly impacts on the chances of gaining an offer. This effect, however, is not apparent when only looking at whether or not an applicant has a parental Oxbridge connection. It is perhaps surprising is that the direction of the effect is a strong penalty. One possible explanation is that this coefficient could reflect the impact of Oxbridge educated teachers who spend time abroad and raise aspirations to apply to Oxbridge among students who might perhaps not be singled out for Oxbridge application in the UK.

Finally, Model 4 looks at the inclusion of cultural capital measures. Again, perhaps surprisingly, none of the measures increase the model fit. There are several potential explanations for this. Firstly, the culture quiz was consciously tailored towards measuring British middle class cultural knowledge. Non-British applicants can hardly be expected to know Tracy Emin and it is possibly more of a stretch to know George Eliot and Lloyd George. Also, summer school attendance is likely to mean something quite different for this group of applicants. Among this group of other-qualification applicants, summer school attendance might signify economic capital and aspiration to participate in further educational development during the vacation rather than social disadvantage.

Table 5.6: Comparison of nested Models for applicants without GCSE and A-level qualifications

	Model Description	Chi square	Df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1	Class, Ethnicity, gender School type , PQA, division, Alice Heim	41.70***	12	199	---	---	---
Model 2	Model 1 + Deep and surface learning, goal of university education	56.17***	15	199	14.47	3	.000
Model 3	Model 2 + Oxbridge connection**	64.90***	16	199	8.73	1	.000
Model 4	Model 3 + Culture Quiz***	66.66***	17	199	1.76	1	No

All chi square values are significant ($p < .000$)

The next step in the analysis is again to consider how the addition of new explanatory variables impacts on the association between social background and admission decisions. Turning to Table 5.7, it is apparent that the disadvantage for not having professional class parents is increased. Other coefficient of substantive interest do not change significantly with the ethnicity, gender and school effect remaining insignificant and the post-qualification status continuing to signal a strong advantage. In other words, the addition of the extended merit and cultural capital measures do not account for the differences in offer rates by social class.

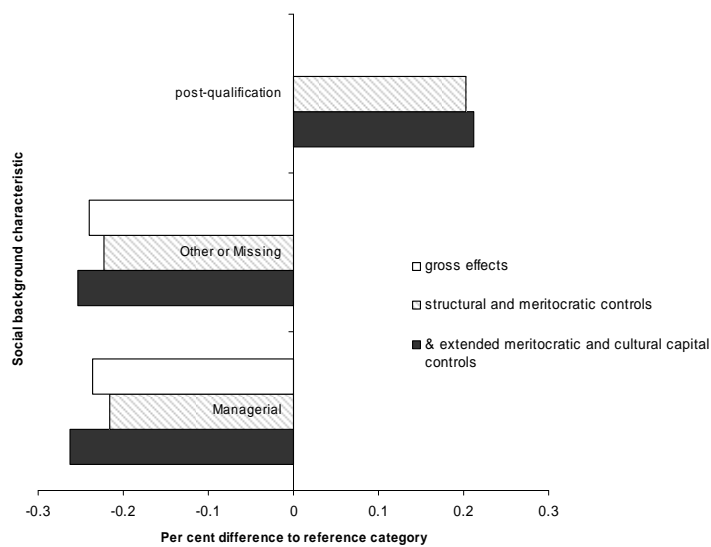
Table 5.7: Logistic Regression Model of gaining an offer (coded as 1) for other qualification candidates

	Model 1 Gross Effects		Model 3 Net effects including structural controls		Model 5 Net effects including Extended controls	
	B	S.E.	B	S.E.	B	S.E.
Social Background						
One professional	-0.43	0.37	-0.50	0.41	-0.65	0.45
Managerial	-1.20**	0.5	-1.57***	0.55	-1.87***	0.61
Other and Missing	-1.15*	0.63	-1.65**	0.70	-1.93**	0.80
Female	-0.09	0.32	-0.10	0.36	-0.25	0.39
Non-White	-0.34	0.39	-0.44	0.46	-0.28	0.51
School						
Independent School	-0.36	0.35	-0.45	0.39	-0.34	0.44
Structural Controls						
PQA			0.90**	0.47	0.86*	0.51
Social Sciences			-0.44	0.45	-0.77	0.52
Medicine test takers			-1.49*	0.80	-1.78**	0.83
Maths test takers			1.16	0.71	1.00	0.77
Other			0.38	0.50	0.34	0.56
Meritocratic Controls						
Alice Heim			0.20***	0.06	0.23***	0.07
Deep Learning Scale					0.12***	0.04
Goal of university: Career					-1.21**	0.50
Goal of university: Social Life					-0.41	0.54
Social Capital						
Oxbridge connection					-0.55***	0.20
Constant	-0.08	0.34	-1.86***	0.68	-9.59***	2.95

p < .10, ** p < .05, *** p < .001

To summarise this section, the modelling for the other-qualification candidates is cruder than for the GCSE and A-level applicants. The small number of observations in this group also complicates the hunt for meaningful substantive relationships between factors of interest. Nonetheless, it is striking that similar to the GCSE and A-level candidates, there is a strong non-professional class penalty also for the other qualification applicants. In fact, one might argue that the reason that the managerial penalty is more marked for this group possibly because there is less certainty about the meaning of attainment information. This in turn opens the door to the selection of the most socially similar individuals, i.e. the professional class applicants (see chapter 6).

Figure 5.3: Significant social background and qualification status effects on the chances of gaining an offer for other qualification candidates in three statistical models.



5.9 Analysis V: Divisional patterns

So far, the analysis has shown that the addition of extended merit measures and social and cultural capital has significant and substantively meaningful effects. However, little progress has been made in explaining the differential offer rates by social background. The measures make some contribution to explaining the South Asian penalty but not the class or school effects and, if anything, the female penalty is increased. This section then explores whether the extended merit and social and cultural capital measures are significant in different divisions and whether they explain divisional differences in offer rates by social background. The divisional breakdown used in the analysis is the same as in Chapter 4 where the Humanities and Social Sciences form distinct categories. Mathematics and Medicine are also analysed separately because of the desire to include the subject specific tests for applicants to these degree courses. Those in the Mathematical and Physical Sciences and in the Medical Sciences who do not sit the test as well as application to the Life and Environmental Sciences form the ‘Other division’ category.

5.9.1 GCSE and A-level candidates

Turning to the discussion of Table 5.7, the first thing to note is that there are divisional differences in which of the new measures are important. The culture quiz only contributes explanatory power to modelling admissions patterns in the Social Sciences and Humanities. The discussion section will consider to what extent cultural knowledge may be a legitimate criterion for admission to these subjects. Furthermore, the Social Sciences division is the only division in which the Alice Heim test is significant. This could be an effect of the large emphasis on spatial and logical thinking in the Alice Heim test that might be picked up by Economics and philosophy tutors in subject specific tests or in interview exercises. This may also explain why

the Alice Heim test is not significant for Mathematics and Medicine. While similar skills might be required here, the subject-specific centralised tests are likely to be better measures for the selection-relevant skills than the Alice Heim test. Along with the Other division and Mathematics, the perceived purpose of university life is also important in the Social Sciences. Overall, these new measures further decrease the impact of class, gender and ethnicity that were insignificant to start with. The significant private school penalty and the post-qualification status advantage however remain unaffected.

For the Humanities, the culture quiz and the deep learning score are the two factors that further significantly improve the model fit. It is possible that the instrumentality measure of the purpose of university is not significant here because significantly fewer applicants state that they go to university to advance their career in the first place. The inclusion of the culture quiz score reduces the managerial class advantage to insignificance although the direction of the class effects remains along a line of an advantage for applicants with two professional class parents. The other social background coefficients that were insignificant to start with remain insignificant. If anything, the slight negative private school effect is somewhat increased and approaches levels of statistical significance. The post-qualification applicant status premium remains roughly unchanged. In the 'other' division, where the only addition to the model is the purpose of university measure, the managerial class penalty now becomes statistically significant and the non-white penalty becomes just insignificant. The female penalty and the impact of other factors remain virtually unchanged.

For the two subjects with centralized tests, notably fewer of the new measures are significant. In Medicine, none of the additional measures add to the model fit. In Mathematics, instrumentality and summer school attendance, are included in addition to the meritocratic and structural

controls. The summer school coefficient ties in with the reports from tutors in Mathematics and related natural science disciplines that access is particularly close to the tutors' hearts in those fields. The strong career penalty may reflect a particular strongly held view among Oxford academics in those fields that their main purpose is not to educate the next generation of accountants and actuaries but the next generation of academics. Perhaps surprisingly, the inclusion of these measures does not affect the non-white or class coefficients. This means that, perhaps contrary to the suggestion that ethnic minority applicants might have a more instrumental approach towards higher education, they are not over-represented among those who display this attitude in Mathematics or Medicine. Interestingly, while the inclusion of the Mathematics test had reduced the female penalty to insignificance, the inclusion of the deep learning score in particular leads to the re-appearance of a significant female penalty in Mathematics.

In sum then, there are meaningful variations in the impact of the additional measures introduced in this chapter across academic disciplines. By and large, however, the previously established social background effects survive the addition of the extended meritocracy and cultural capital controls.

Table 5.8: Logistic regression predicting gaining an offer for GCSE and A-level applicants by division

	Social Sciences		Humanities		Other		Medicine		Mathematics	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Social Background										
One professional	-0.04	0.29	-0.63***	0.23	-0.31	0.29	-0.78	0.66	0.28	0.82
Managerial	-0.09	0.35	-0.41	0.28	-0.57*	0.33	-1.51	1.22	0.57	0.98
Other and Missing	-0.15	0.44	0.02	0.30	-0.49	0.38	0.63	1.01	-2.40^	1.52
Female	-0.17	0.25	-0.31	0.20	-0.50**	0.24	-0.46	0.64	-1.19*	0.71
Non-white	0.07	0.34	-0.08	0.40	-0.73	0.36	-0.28	0.80	-0.35	0.90
School										
Independent School	-1.23***	0.28	-0.30	0.20	0.39	0.24	-1.12	0.73	-0.59	0.76
Structural Controls										
Post qualification	0.92*	0.52	0.74***	0.30	0.53	0.56	1.85	1.50	-0.56	2.14
Meritocratic Controls										
GCSE	2.10***	0.39	1.72***	0.26	2.50***	0.36	2.23*	1.23	1.09	0.85
GCSE squared	0.30***	0.05	0.24***	0.04	0.35***	0.05	0.32*	0.18	0.15	0.12
Number of Advanced Extension Awards	1.38***	0.43					1.66**	0.72		
Medicine Test							0.14***	0.04		
Maths test									0.12***	0.03
Extended Meritocratic Controls										
Alice Heim Test Score	0.09**	0.04								
Deep Learning			0.05***	0.02						
University for career	-0.98**	0.39			-0.57**	0.29			-3.12***	1.10
University for Social life	-0.64**	0.33			-0.66**	0.32			-0.13	0.85
Cultural Capital										
Culture Quiz Score	0.09**	0.04	0.14***	0.03						
Summer School									1.93**	0.91
Constant	-2.33***	0.64	-4.30***	0.99	0.21	0.28	-8.75***	2.61	-7.05***	1.75
N	434		598		402		123		119	
Chi -square	94.44***		69.71***		85.25***		46.59**		84.20***	
DF	14		10		11		11		13	

p < .10, ** p < .05, *** p < .001

The models shown here do not include AS an A2 predictions and attainment.

Another possible mechanism for the negative female coefficient is that female applicants fare worse in subjects were they constitute the majority of applicants and better in subjects were they are in the minority. This hypothesis is investigated in Table 5.9. Subjects are coded according to whether there is a statistically significant dominance of either gender in the application process. Specifically, the following subjects were coded as being male dominated: Computer Science, Geography, Mathematics, Physics and PPE. The following subjects were coded as female dominated: English, Experimental Psychology, Human Sciences, Law, Modern Languages and Medicine. All other subjects fell into the ‘neither gender dominant’. Table 5.9

then shows that the coefficient for female applicants is negative for subjects where they are in the minority as well as for subjects where they are in the majority or where there is equal representation. While the dominance of a particular gender in the application process does not appear to affect the pattern of a female disadvantage, it is, however, important to bear in mind that subjects differ widely in their representation of male and female students³⁶. This is especially important for the analysis of final degree results. Currently ongoing research by Ogg and Zimdars (see Ogg 2007) suggests that gendered subject composition constitutes part of the explanation for the lower proportion of First class degrees awarded to female students. In other words, more First class degrees are awarded in subjects in which female students are under-represented, thus structural elements are part of the explanation of the female disadvantage in gaining a First class degree at Oxford.

Table 5.9: Logistic Regression Model of gaining an offer (coded as 1) for candidates with GCSSE and AS / A2 levels by dominance of male / female or neither male or female applicants to subject

	Male dominance among applicants		Female dominance among applicants		Neither gender dominant among applicants	
	B	S.E.	B	S.E.	B	S.E.
Social Background						
One professional						
Managerial	0.43	0.32	-0.40*	0.24	-0.46**	0.21
Clerical	0.13	0.36	-0.67**	0.29	-0.20	0.25
Working	-0.24	0.59	-0.26	0.45	0.22	0.46
Class missing	-1.60*	0.80	0.09	0.41	0.23	0.43
Female	~	~	-1.21	0.85	-0.44	0.52
South Asian	-0.61**	0.28	-0.56***	0.21	-0.33*	0.18
Other Ethnicity	-0.63	0.62	-2.07***	0.75	-0.52	0.45
School						
Private	0.39	0.45	0.22	0.37	0.12	0.38
Meritocratic Controls						
GCSE	-0.57**	0.29	-0.55***	0.22	-0.13	0.18
GCSE squared	2.65***	0.40	2.08***	0.28	1.87***	0.24
Constant	0.10	0.77	0.96***	0.35	0.36	0.38
Constant	-0.35	0.29	-0.24	0.25	0.02	0.21
df	11		11		11	
chi square	88.42***		93.72***		81.10***	
n	357		575		624	

* p < .10, ** p < .05, *** p < .001; ~coefficient cannot be estimated

³⁶ I wish to thank Walter Müller and Geoffrey Walford for this helpful pointer.

5.9.2 Other qualification candidates

For the other-qualification applicants, it is again only possible to introduce a rough divisional divide. The impact of the new measures on offer decisions is displayed in Table 5.8. While the culture quiz did not significantly improve the model fit when looking at all other qualification candidates, the table shows that looking only at the Arts applicants, high culture quiz performance significantly increases the chances of gaining a place. But again this addition does not explain away the previously established significant class pattern in offers. For the Sciences, the deep learning scale is the one new measure that improves the model fit. The inclusion increases the managerial class disadvantage.

Table 5.10: Logistic regression predicting gaining an offer for other qualification applicants by arts / sciences divide

	Sciences		Arts	
	B	S.E.	B	S.E.
Social Background				
One professional	-0.87	0.74	-0.76	0.55
Managerial	-1.44**	0.83	-1.78**	0.87
Other and Missing	-1.63	1.25	-1.52*	0.91
Female	-0.79	0.60	0.46	0.52
Non-white	0.29	0.62	-0.43	0.74
School				
Independent School	0.85	0.67	-1.00*	0.57
Structural Controls				
Post qualification	1.46**	0.85	0.45	0.62
Meritocratic Controls				
Alice Heim Test Score	0.27**	0.10	0.12	0.08
Deep Learning	0.16**	0.07		
Cultural Capital				
Culture Quiz Score			0.24***	0.09
Constant	-15.15***	4.79	-5.30**	2.27
	75		122	
	22.57*		29.13**	
	9		9	

* p < .10, ** p < .05, *** p < .001

5.10 Discussion and Conclusion

This chapter tested three hypotheses to investigate whether extended merit measures, social capital and cultural capital account for the group differences in the propensity of gaining an offer that remained after controlling for structural and meritocratic controls.

The descriptive analysis showed that the operationalisations of all three hypotheses were meaningfully related to admissions decisions. Firstly, those with the highest academic aspirations, the highest motivation and a deep learning style had a higher chance of gaining an offer than those who scored low on these measures. Secondly, those with a parental or school connection to Oxford or Cambridge and those coming from a two-adult headed household were more likely to gain an offer than those without such social capital. Finally, those with high levels of high culture, that is those with the most books in the home and the keenest readers had a higher chance of gaining an offer than those with low scores on these measure.

The inclusion of the new measures in the statistical modelling of admissions decisions for the GCSE and A-level candidates showed that the model fit was significantly improved by including extended merit and cultural capital measures. With regards to the effect of social background characteristics on admissions decisions, however, the main effects remain largely unchanged. The only coefficient that the new measures make slight progress in explaining is the South Asian disadvantage and even that remains large and significant. For the other-qualification candidates the extended merit measures and having an Oxbridge connection are significant. The inclusion of these measures increases the non-two professional class parents disadvantage and does not affect the post-qualification application coefficient. This is noteworthy because one might have

expected that the inclusion of a careerist outlook on university education and cultural capital measures would go some way to explaining the managerial class and South Asian disadvantages.

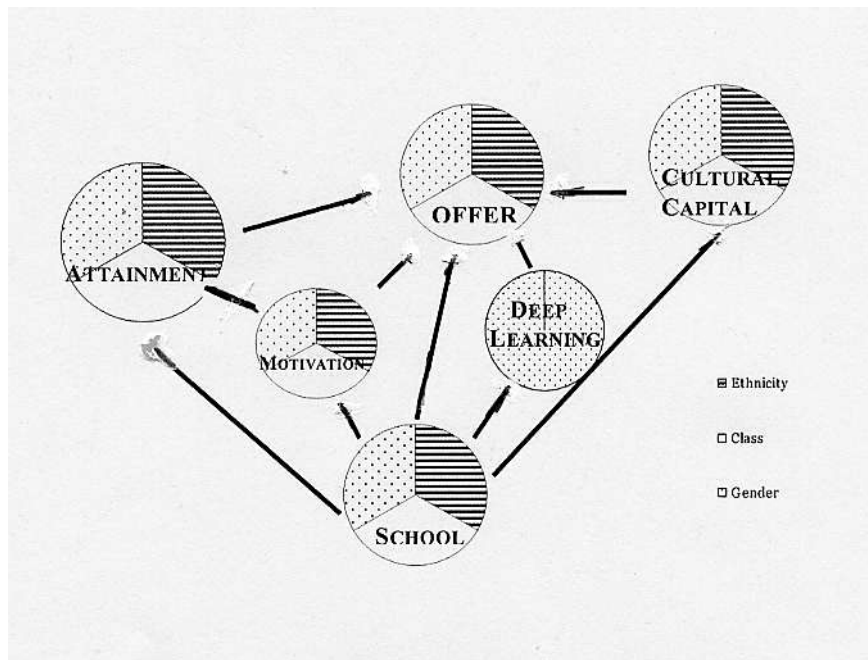
For the general access debates, it is of particular interest that summer school attendance increases the chances of gaining a place. This suggests tentatively that either these initiatives provide participants with relevant skills that allow these applicants to succeed in the competitive admissions process to Oxford or that tutors award a premium to candidates labelled as access students. The analysis in Chapters 6 and 7 will show that selectors use participation in an access initiative such as the Sutton Trust summer schools as shorthand for disadvantage. This signal can be crucial especially for marginal candidates.

As expected, there are divisional variations regarding which of the extended merit and cultural capital factors play a role in different subjects. Specifically, cultural capital measures only play a role in Arts subjects. It is possible to argue that for these subjects the cultural capital measures actually pick up on degree relevant knowledge. In that sense, it is not incompatible with the university's mission statement that ability and potential determine admissions decisions. On the other hand, it is also certainly the case that not all applicants have had the same opportunities to develop knowledge of high culture. It could be argued that it is therefore unfair to observe an association between cultural knowledge and admissions decisions.

While the new measures then relate meaningfully to admissions decisions across subjects, they do not account for most of the observed differences in gaining an offer. In fact, in the case of Mathematics, the new variables lead to a re-emergence of the significant female penalty in the admissions process.

In sum then, this chapter and the previous chapter have shown that subject choice, attainment, extended merit measures and cultural capital are important in the selection process to Oxford. Many of these factors are influenced by social background characteristics and schooling. Figure 5.4 illustrates graphically how all these factors correlate with the social background characteristics ethnicity, class and gender.

Figure 5.4: Flow Chart of relationship between social background characteristics and admissions relevant factors



But despite the crucial impact of these factors, there remains a pattern whereby there is a net effect of social class, ethnicity, gender and type of school on an applicant's propensity to gain an offer. This suggests that other considerations not captured by the statistical models enter the admissions process.

The net disadvantage experienced by private school applicants, for example, is likely to be a function of considerations about government targets for state school intake and wider beliefs and

values that tutors hold about regarding the kind of student should be admitted to Oxford. The negative effect for private school applicants would then quite possibly be lauded in the general discourse on admissions to higher education and seen as offering greater social justice to state school educated applicants.

With regards to social class, the main effects of vertical stratification in society at large result in a small pool of non-middle class applicants among the applicants for admission. Those from the lower social classes who have succeeded in the educational system to the point of applying to Oxford do not appear to face further penalties in the admissions process (Turner 1960). The class effects within the different fractions of the middle class, however, may indicate some class preferences. The penalty for the children of managers may indicate a dislike of the capital rich middle classes among the tutors. In terms of policy implications, it is unlikely to become a top priority to increase the intake of managerial class children to Oxford. But it is important to note that there might be a further underlying mechanism here whereby professional class selectors prefer children of the same class profile as themselves. If one generalises this mechanism to state that, as an underlying principle, selectors prefer those who are most like themselves, it is noteworthy that the aggregate profile of Oxford selectors also mirrors the pattern of net advantages by social background observed in this study: selectors are middle class and predominantly white and male. The simple psychological mechanism whereby we prefer people like ourselves may then explain the differences in transition rates that remain after all possible controls are taken into account (see Chapters 6 and 7). It is also not possible from the available data to rule in or out the possibility that conscious or unconscious discrimination occurs in the selection process.

Appendix Chapter Five

Table 5.11: Performance on motivation and learning style measures by social background characteristics

	Alice Heim test	Mean deep learning	Mean motivation	Hope for first	Career objective of university	Academic success objective of university
Social Background						
Two professionals	10.7	48.3	15.9	69.5	16.8	63.2
One professional	10.6	48.4	16.0	69.2	15.9	66.3
Managerial class	10.4	48.6	16.2	72.3	15.8	64.3
Clerical class	9.9	48.5	16.4	74.3	15.0	75.0
Working class	9.6	49.0	16.3	71.7	14.1	73.7 [^]
Class Missing	9.2	48.0	16.0	68.8	22.4	65.5
Gender						
Male	10.7	47.6	15.8	71.5	16.0	62.7
Female	10.3	49.1	16.3	69.3	16.3	68.4
Ethnicity						
White	10.8	48.2	16.1	70.3	13.1	68.4
South Asian	9.2	49.1	15.9	81.0	22.1 [^]	62.8
Other ethnicity	9.2	49.0	16.0	67.4	28.2	55.4
School						
Comprehensive	10.3	47.9	16.1	71.4	15.4	70.4
Independent	10.7	48.7	15.9	69.5	16.1	61.4
Grammar	11.0	49.3	16.3	74.6	13.9	73.8 [^]
Other	10.2	48.3	16.1	69.3	17.7	65.1
Structural Controls						
Pre-qualification (GCSE, A-level)	10.6	48.3	16.0	70.0	14.1	68.1
Post – qualification (GCSE, A-levels)	10.8	49.1	15.3	79.7	17.9	59.0 [^]
Pre-qualification (other qualification)	9.0	49.6	16.4	69.2	35.3	51.5
Post-qualification (other qualification)	8.9	49.5	17.1	60.0	10.0	63.3
Total	10.5	48.4	16.1	70.3	16.2	65.9
n	1929	1929	1929	1929	1929	1929

Figures in bold: Differences in means (for continuous variables) or adjusted residuals (for categorical variables) significant.

There were only 30 observations where first not at all important hence it was not meaningful to break this variable down by social background.

Table 5.12: Performance on social capital measures by social background characteristics

	Two parents Oxbridge	Any Oxbridge connection (yes)	Single Parent
Social Background			
Two professionals	4.9	60.6	10.5
One professional	2.9	59.3	14.2
Managerial class	2.0	48.0	13.7
Clerical class	0.0^	30.3	16.2
Working class	0.0^	44.6	17.8
Class Missing	1.6	35.9	20.3^
Gender			
Male	4.3	57.0	13.5
Female	1.9	52.2	13.6
Ethnicity			
White	3.3	57.0	13.6
South Asian	0.0^	44.8	12.9
Other ethnicity	2.3	45.0	13.4
School			
Comprehensive	1.9	47.5	13.2
Independent	4.4	63.0	14.5
Grammar	.0	52.5	13.9
Other	2.8	50.0	12.4
Structural Controls			
Pre-qualification (GCSE, A-level)	3.0	54.7	13.5
Post – qualification (GCSE, A-levels)	5.7^	65.9	15.4
Pre-qualification (other qualification)	1.2	49.7	11.8
Post-qualification (other qualification)	3.3	36.7	6.7
Total	3.0	54.3	13.5
n	1929	1929	1929

Figures in bold: adjusted residuals (for categorical variables) significant.

Table 5.13: Performance on cultural capital measures by social background characteristics

	Mean Culture Quiz Score	Read more than four books a year	More than 500 books in home	Summer School attended
Social Background				
Two professionals	10.7	80.8	43.2	14.7
One professional	10.0	77.5	31.9	15.0
Managerial class	9.5	77.9	23.9	13.2
Clerical class	9.5	65.	14.9	18.8
Working class	8.5	60.6	11.1	29.3
Class Missing	8.3	62.5	28.1	14.1
Gender				
Male	10.1	72.4	33.1	12.6
Female	9.9	79.8	30.0	17.8
Ethnicity				
White	10.2	77.7	33.4	14.2
South Asian	8.6	66.4	11.2	16.4
Other ethnicity	9.3	74.8	29.9	21.1
School				
Comprehensive	9.4	75.2	25.5	18.1
Independent	10.5	78.8^	36.6	11.1
Grammar	9.5	77.9	28.7	10.7
Other	9.9	74.4	31.3	19.9
Structural Controls				
Pre-qualification (GCSE, A-level)	10.0	76.2	30.9	14.3
Post – qualification (GCSE, A-levels)	11.4	77.2	35.8	15.4
Pre-qualification (other qualification)	8.8	79.9	31.4	25.4
Post-qualification (other qualification)	10.5	86.7	50.0	13.3
Total	10.0	76.5	31.4	15.4
n	1929	1929	1929	1929

Figures in bold: Differences in means (for continuous variables) or adjusted residuals (for categorical variables) significant.

Chapter Six

Qualitative Analysis I:

The selectors' goals in the admissions process and the role of information

6.1 Overview

Chapters 6 and 7 offer a thick description of the admissions process at Oxford based on 23 interviews with admissions tutors, fieldwork notes from conversations and eight observations of actual admissions meetings in which tutors decided on which students to offer places at Oxford. Specifically, these two qualitative chapters move beyond the statistical analyses of admissions patterns presented in the previous chapters to uncover the generative mechanisms behind them that advantage white, male, comprehensive school educated applicants from professional class backgrounds over South Asian, female, private school educated and non-professional class applicants.

The analysis first lays out a basic model of decision making. This is followed by a description of the goals that selectors pursue in the admissions process and the underlying preferences behind these goals. The second part of the chapter describes

the array of information that selectors consider in their decision making. This chapter then shows that the selectors actually consider several of the factors that were entered into the regression models in the previous two chapters. For example, GCSE results were not just used as a proxy for other relevant qualities but explicitly entered into the decision making process. Furthermore, the analysis is able to suggest mechanisms whereby the objectives of the admissions process and the information that tutors consider could explain some of the differentials in transition patterns observed in the previous chapters. In particular, progress is made towards understanding the private school net disadvantage and the preference for professional class applicants.

Throughout the following two chapters, the anonymity of research participants is protected by using pseudonyms. Individual research participants are only identified by their academic discipline which is operationalised as Arts or Sciences. A reference to ‘Arts tutor 1’ signifies a respondent from the Humanities or Social Sciences. Science tutor 1 would be a Natural Science selector. In addition, interviews were conducted with two administrators, one from the college and one from the university, along with a senior tutor.

6.2 Introduction

‘Admissions tutors are clearly key actors in the set of practices which culminate in the entry (or otherwise) of an applicant to a higher education institution. They determine the outcome of an application, since they determine whether or not a conditional or unconditional offer is made and on what basis.’ (Thompson 1997, p. 109).

In the previous statistical analyses, the selectors were a black box which translates applications into offers and rejections and somehow produces an admissions pattern whereby net of structural and meritocratic controls, some social background characteristics are associated with a premium or penalty in the admissions process. Having addressed the question of who is selected for a place at Oxford, the next question is to ask ‘why’ this occurs. In other words the task is an ‘interpretative understanding (verstehen) of social behaviour in order to gain an explanation of its causes, its course, and its effects.’ (Weber [1920] 1968, p.1) This chapter and the next aim to open up the decision making black box and to understand admissions patterns from the selectors’ perspective.

6.2.1 Basic model of goal oriented actor

Making decisions between alternatives – in this case different applicants for admission - is a very basic human activity. As such, it has attracted research from a wide range of disciplines including psychology, economics, management, social policy, sociology, jurisprudence, mathematics, statistics and political science (Bell, et al. 1988; Crombez 2000; Kahneman and Tversky 2000, p.1; Tajima and Fraser 2001). Research emphases can be either descriptive – as is the case with this study – or normative or applied. In other words, researchers investigate how people actually make decisions, how they should make decisions, and how they could make better decisions (see Bell et al, 1988, p. ix, pp. 16 – 18). In the Social Sciences, the most generic model that structures decision research is the goal-oriented decision maker.

The model works on the simple assumption that individuals pursue an objective or goal and then opt for a course of action that they believe advances this objective. This paradigm constitutes a soft version of rational choice or rational action models that assume that decision makers have an expected utility that they maximise by calculating the benefits of a decision minus the costs (see e.g. Abell 2005; Coleman 1990; Elster 1999; Goldthorpe 2000)³⁷.

The outline of this chapter comes from the above soft rational choice model. The first section is devoted to understanding the tutors' goals, the costs associated with a bad or suboptimal decision, and the rewards of a good decision. The second section investigates which information tutors consider in assessing applicants for admission. The chapter concludes with a discussion of the main findings and links the analysis back to the observed differentials in acceptance rate by social background characteristics.

Readers who are not familiar with the features of the Oxford admissions system are advised to consult the overview of admissions procedures in the appendix to this chapter before moving on to the next section.

³⁷ Within this model, it is possible to accommodate the research of social psychologists who have studied many of the micro-mechanisms in decision making but who lack a similar, generic, 'single, coherent structure' that combines them all into one theory (March, 1988, p. 37).

6.3 Analysis I: Selectors' goals and preferences

6.3.1 Purpose of selection

The model presented in the introduction stated that goal-oriented actors make decisions that they believe are most likely to advance a particular aim. It is thus crucial to understand what the admissions tutors themselves view as the purpose of selection: what is it they want to achieve in their admissions decisions?³⁸ It is, furthermore, important to understand the underlying values that individual selectors hold. The only other qualitative study of interview selection panels for admission to higher education³⁹ of which I am aware found that admissions decisions do not only reflect the committee's judgements of an applicant but also the values of the selectors (Lane, 2002, p. 173). Finally, empirical research has shown that the factors we consider salient in decision making depend on whether we have a 'high investment' or a 'low investment' in the process as well as the potential risks a suboptimal decision carries. For example, people looking for a spouse or a permanent employee take different factors into consideration than those looking for a fling or someone to do a

³⁸ There are also variations in the commitment to the actual selection process. Perhaps surprisingly, the current admission system that is often fiercely defended by the University of Oxford as an institution does not enjoy the unanimous support of the tutors executing it. The participating tutors were roughly split in half on whether they wanted to select their own students – and although this small sample of tutors is not representative of opinion in Oxford, it was apparent among the respondents that this dimension cut across subject and college allegiances as well as seniority. Several tutors stated they did not want to be involved in selection and a desired reform was to move away from selecting their own students towards a centralised admissions procedures that would not necessarily include interviews (four Arts tutors and three Science tutors). The feeling is that 'whoever you take, you work something out. You may or may not work something out. But this is not a reason for them not to come in the first place... I have no commitment to picking my own student' (Arts tutor 1). In contrast, some tutors felt equally strongly about selecting their own students based on the grounds that they have to teach them for three years, invest a lot of work in them and spend time with them every week (two Science tutors and five Arts tutors).

³⁹ This was the only study yielded in searches on Web of Science, Mimas, Erie, Dissertation Abstracts, Jstor, Educational Abstracts and psychology search engines.

one-off job (Myers 1999). This means that it is important to understand what the tutors' own stakes in the process are and what costs they incur for a wrong decision.

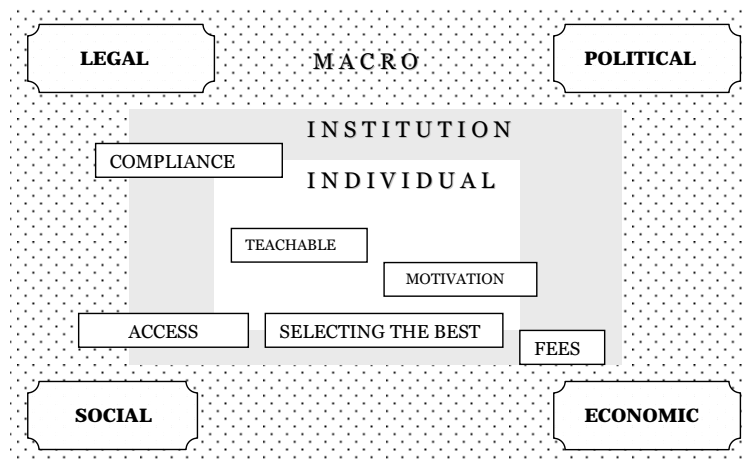
The first thing to note when assessing tutors' objectives in selection is that these do not occur in a vacuum but are embedded in the context of institutional objectives and the macro-social, political and legal climate. In fact, admissions tutors themselves frequently described their own admissions practices and, thus implicitly, the goals of the selection process itself in terms of wider institutional goals and the macro-social context.

Prominent in the macro-context is legislation that institutional and individual objectives in selection must comply with,⁴⁰ newspaper coverage of individual admissions cases at Oxford and the political debate linking top-up fees to access targets in terms of the undergraduate intake by type of school (see Figure 6.1). In particular, legal issues loomed large for selectors and frequently research participants described changes in admissions practices through a language of bolstering the legal defensibility of the process. For example, tutors who had moved from interviewing alone to interviewing in pairs linked this to changes in the university's guidelines as

⁴⁰ There is European legislation requiring the equal treatment of all EU citizens and national anti-discrimination legislation covering ethnicity, gender and disability designed to ensure equal treatment of different groups. Furthermore, the Data Protection Act has impacted admissions processes in that references are no longer confidential but may be read by the applicant, a fact that many tutors feel has decreased the quality of information available for their decisions. The Freedom of Information Act was also referenced by tutors as there was a feeling that it prevented them from undertaking some analyses of their own admissions procedures. Because they could be requested as public information, tutors feared they might lead to bad publicity if they contained anything potentially incendiary. Employment legislation is also important as Britain embraces the concept of 'positive action,' that is, giving an extra chance to particular groups of applicants to reach the interview stage. Outreach to previously under-represented groups is thus positively encouraged. Britain does not, however, embrace the concept of affirmative action or quotas, that is, giving an advantage to an applicant because he displays certain characteristics. As discussed in the introduction, higher education is a particularly difficult area to draw lines between positive and affirmative action because of the conceptual difficulty of whether a university is an 'academy' or a 'modelling agency.' **Karabel, J.** 2005 *The chosen : the hidden history of admission and exclusion at Harvard, Yale, and Princeton*, Boston: Houghton Mifflin..

well as to macro changes within an increased ‘culture of litigation’ and a ‘legally dangerous’ environment in which ‘difficult admissions decisions’ are made. This sentiment was voiced by two Arts and two Science tutors. With regards to wider social issues, such as social justice concerns and widening access, the vast majority of participating tutors themselves embraced the idea of giving more opportunities to applicants from disadvantaged backgrounds (see section 2:2 on contextual information). The macro-objectives of accountability and social justice concerns are largely mirrored at the institutional level. The university’s own mission statement, for example, states that its objectives are, among others, to ‘attract students of the highest calibre, from the UK and internationally’ and a commitment to ‘widening access by actively seeking applications from students from diverse backgrounds’ (<http://www.admin.ox.ac.uk/admin/mission.shtml>).

Figure 6.9: Individual Objectives of the selection process as embedded in the organisational and political context



Beyond the endorsement of these macro-social and institutional values it emerged, perhaps surprisingly, that the purpose of selection and interviewing in particular were

not a clearly crystallised concept for many respondents. When prompted to elaborate on the purpose of admission only two tutors – Arts tutor 11 and Science tutor 4 – made some reference to their subject’s published criteria. Only Science tutor 4 could actually recall what they were. This corresponds with the observation by a Senior Tutor, who commented that although all subjects publish their selection criteria, ‘if you stopped tutors in the street you might not find that they tripped off their tongues.’⁴¹

Interviewers needed to think about the objectives of the admissions exercise and whether they had personal objectives independent of the objectives prescribed by the institution. This was especially true of those relatively new to selection, but also included some of the more experienced interviewers. Science tutor 2 contemplated: ‘Why do you take a student? And why do you not take another student? Do you take them because they are really clever? Or do you take them on the basis of what you believe they will be in three years?’ (cf. Arts tutor 1). Nonetheless, further probing and an analysis of values tutors expressed throughout the research produced three themes associated with the general desirable outcome of selection. These are, firstly, to admit students with academic ability and potential, secondly, to admit motivated students with a good work ethic, and, thirdly, to admit those who are teachable. The following quote from Arts tutor 4 captures tutors’ preference for these three elements:

‘It’s really ability and motivation. Because you can have highly able students who don’t do anything once they get here and doodle all the time and they’re hopeless. No fun at all to teach them. And then you have those who are really up for doing a lot of work. It’s a very un p.c. thing to say but not everyone has the same ability at everything so, you know...I would say those who put in a

⁴¹ By now all individual subjects specifically elaborate the objectives of their admissions procedure by publishing subject-specific criteria for selection. This is a recent change and when this project began in 2002 such information was less readily available.

lot of effort are more rewarding than those who, you know, sit back and say I am bright and I will get through, and often do but it's not very much fun for the tutor.'

In addition to these three generic objectives, it emerged that tutors in Humanities subjects were also looking to select students with a love of reading. The following sections discuss these four objectives in turn.

6.3.1.1 Academic ability and potential

Tutors want to select students who will succeed academically – students who will be ‘the best’. There were, however, differences in the definition of success and ‘the best’ student. Some tutors regard ‘the best’ as those with the ability to achieve a first class degree (the highest degree class awarded in British final university examinations) as illustrated by Arts tutor 11’s sentiment:

‘I mean, the college is going to select the people who they think are going to reflect best for the college in the Norrington Table. I mean, no-one has ever said that explicitly. But, obviously, every college wants the best possible student and they want the top firsts.’

The theme also emerged in conversation with Science tutor 2 and Arts tutor 2. Other tutors conceptualised ‘the best’ as those with potential that could be ‘stretched and developed’ and did not voice an implicit expectation that their students would achieve a first. This was mentioned by three Arts tutors, two Science tutors, and the Senior Tutor. Arts tutor 3 was genuinely appalled to learn that some of his colleagues would express such an instrumental approach toward selection as one based on expected degree outcome. ‘I am sorry people say that, I think they are putting the cart before

the horse! It is like wanting to do research for the sake of the R.A.E!⁴² Furthermore, two Arts tutors, one Science tutor and the Senior Tutor rejected the ‘selecting for a first’ model based on the grounds that it was impossible to predict who would get a first and that also not everybody could possibly get a first. Despite the small numbers involved, it is noteworthy that all of the Humanities tutors interviewed for this study fell into the second category of respondents, the allegiance of the natural science tutors was split and the participating social science tutors gravitated towards the view of a first class degree as the bottom line of selection. This difference relates to two theoretically quite distinct ideas of what tutors view as the role of higher education: it goes back to the difference of higher education as a ‘modelling agency’ that is more in tune in selecting those who already display signs of first class ability versus the idea of higher education as an ‘academy,’ which turns students into what the institution wants them to be (Karabel, 2005, see also Chapter 1).

Beyond the disagreement of whether one can select for a first, tutors in all disciplines were looking for a combination of actual knowledge of the subject, generic abilities and potential (three Arts tutors and four Science tutors). Which of the three dimensions was most emphasised differed to some extent from subject to subject, but even for the same subject there were differences between colleges regarding which factors were considered most important.

⁴² R.A.E. stands for the ‘Research Assessment Exercise. These exercises determine the financial wellbeing of departments and universities by evaluating most prominently the research output of academic staff (www.rae.ac.uk).

6.3.1.2 Motivation and work ethic

Apart from being academically outstanding, tutors expressed a desire to teach students who are motivated, interested and alert and who would enjoy their course at Oxford. Specifically, tutors used the following words to describe desirable characteristics in their students: ‘interested, enthusiastic and passionate about their subject’ (five Arts tutors, three Science tutors, Senior Tutor), students who ‘really want to know and understand the way the world works’, who ‘thrive for intellectual understanding, are curious and alert and follow the current discourse’ (quotes taken from interviews with three Arts and three Science tutors and one Arts observation) and who ‘love reading’ (three Arts tutors). Someone who displays active engagement with the subject, ‘who cared about it, as not merely something that was instrumental but which was something that was important for her or him to make a difference with’ (Arts tutor 2, for further discussion of this theme see section 1.2.1).

As a further evidence of motivation, tutors also look for a good work ethic: a ‘capacity of sustained and intense work’ (Science tutor 4). All respondents emphasised how intense the workload is at Oxford. As Arts tutor 4’s comment on his course shows, ‘[it] is one of the toughest in the country if not in the world. They have to go up, you know, a quantum leap in the first year. And you have to make sure that those who you are taking will not come and collapse.’ To that end, tutors are looking for someone who is focused (Arts tutor 1), works hard and is committed to learning (two Arts tutors, Science tutor 2), responsible for himself and successful in independent study (Arts tutor 3), disciplined and can organize his time (Arts tutor 3, Senior Tutor). Unfocused students (Arts observation) who have no concept of the

idea that one is here to work hard and who would make ‘a great member of the JCR’ (Arts tutor 11) or ‘cause trouble’ (Science tutor 2) rather than participating in the scholarly community do not fit the tutors’ objectives in the admissions process.

6.3.1.3 Teachability

A further objective of the admissions process the majority of participating tutors endorsed is that of selecting ‘teachable’ applicants. Several tutors explicitly linked teachability to ‘suitability for the tutorial system’ and ‘ability to benefit from the Oxford way of learning’ (Senior Tutor; the sentiment was also voiced by four Science and six Arts tutors). Under this objective, the admissions interview is seen as a ‘mini-tutorial’ (Science tutor 4) or a ‘dry run of the tutorial teaching style’⁴³ (Arts tutor 15, also in two further Arts interviews). In essence, teachable students listen well and are active learners: interactive, responsive and willing to engage in a discussion, flexible in their thoughts, inquisitive, able to accommodate new information, unafraid to ask for more information and seem to enjoy the tutorial way of learning (five Science and six Arts tutors, Arts observation). An unteachable student is the opposite: rigid, opinionated, arrogant, unwilling to be challenged, excruciatingly shy, an unstoppable talker that ‘fires from all sides’, does not listen well, does not work hard and is passive learner (four Arts and five Science tutors, Arts observations). They are ‘the people who just go to lecture and take their notes and write their essays and sit silently. I mean it’s just a waste of time, frankly teaching them in tutorials’ (Arts tutor

⁴³ although when pushed some tutors said that in an actual tutorial students would have time to prepare and not be put on the spot in interpreting unseen material (two Arts tutors). This possibly raises questions about the external validity of interviews with regards to actual degree performance.

13). The Arts tutor's sentiment was echoed by her fellow Science tutor 7 who stated that 'if somebody sits there [in the interview] dumbstruck, ok, it could be nerves ...but, if it not nerves, but if it is how they expect to learn, passively, by receiving information, then it is not very constructive, and not very useful.'⁴⁴

Related to teachability, tutors unanimously stated that they were looking for thinking ability. The interview was reported to serve mainly as a way to observe 'thought in action' to assess applicants with a particular way of thinking. Tutors wanted to admit applicants who could think in critical, coherent and precise ways that made them interesting and teachable. In contrast, uninspiring and fussy thinking was undesirable. Table 6.1 below summarises the positive and negative thinking traits tutors described in candidates. The thinking discourse was particularly influential in actual admissions meetings where an interview performance described as 'lively and critical' rather than 'fussy and wooden' could make the difference between gaining an offer or not (Arts observation).

⁴⁴ Regarding whether a student would fit into the tutorial system, this Science tutor remarked in full: 'There is not a lot of point in them coming to tutorials if they are never going to speak or ask questions or someone who sits in the back of a lecture theatre and reads. So, I guess we would like somebody who would engage with you and with what you are doing, not just expect to passively receive, I think that is the difference between large lecture theatres and tutorials. So, if somebody sits there dumbstruck, ok, it could be nerves - one reason for giving them so many interviews is that by the third time, they are so bored, they open up to speak. But, if it not nerves, but if it is how they expect to learn, passively, by receiving information, then it is not very constructive, and not very useful. So, probably, to do with how they engage.'

Table 6.17: Desirable and undesirable thinking attributes

Positive	Negative
<ul style="list-style-type: none">• students who want to think• capable of thinking for themselves• critical• clear, structured, precise• original• clever• deep, thoughtful• quickness, can absorb new material and information• liveliness and divergence of mind• the ability to make connections• sorting out what is relevant from what is not relevant (Arts tutor 1).• Flexible (i.e. can modify some position they've taken in the light of discussion, or defend this position)	<ul style="list-style-type: none">• lack of depth• dumb• un-inspiring, not sparky• uninteresting, wooden• not clever• middle of the road• stubborn• inflexible, un-reflexive• fussy

6.3.1.4 Love of reading

In the Humanities and, to some extent, in the Social Sciences, tutors also use the interview to find evidence that an applicant has the ability to read and ‘enjoys sitting down with a book’ (Arts tutor 15, also five further Arts tutors). Tutors look for students who have read widely (Senior Tutor), pay attention to the language (two Arts tutors), see language being used and able talk about it (as opposed to being merely able to grasp the content) and who are very good at critical and engaged reading (Arts tutor 15). Several tutors also pointed out that it really was a question of surviving an undergraduate degree in Oxford: ‘you have to be able to read. I mean you get enormously long reading lists.’ (Arts tutor 13). This suggests that tutors regard reading skills as a legitimate and valid selection tool associated with actual degree performance.

Tutors also personally regarded reading as an important lifestyle component. In one interview, respondent Arts tutor 3 stated without prompt that he came from a ‘supportive and educated family with a lot of books in the house’. When asked to elaborate on how books translate into academic success, Arts tutor 3 said, ‘Reading is a good thing to do and it is easier when it is valued and the parents don’t say what you do with your nose in a book. It shows and nurtures curiosity, what you can learn from books is very motivating.’ In the selection process, not enjoying reading, being a slow reader or not voluntarily engaging in reading outside the core school curriculum was reported to work against an applicant (two Arts tutors, Arts observation, Senior Tutor).

6.3.2 Underlying preferences and stakes in process

6.3.2.1 Intrinsic rewards versus instrumentality

Beyond these more general statements of wanting motivated, hardworking students that could, to some extent, also be gathered from the publicly available admissions literature, there actually lies a deeper set of values held by tutors. These values have proved decisive for understanding interview based admissions decisions in the US where, among otherwise similarly qualified applicants, preference was given to those who convinced the committee that they saw the degree course not as a job but as a ‘career’ (Lane, 2002, p. 173 &177). Similarly, it emerged that all participating

Oxford tutors had a deep-seated preference for admitting students who wanted to study a subject for its own sake as opposed to merely advancing their career prospects. Tutors also stated that their own motivation for being academics in their chosen field was the intrinsic value of the knowledge and, in several cases, a desire to produce such knowledge for the good of society. This underlying value dimension is illustrated by the following three quotes from a Humanities, Natural Sciences and Social Sciences tutor respectively: ‘I mean they’ve got to be interested in the subject for it’s own sake.’ (Arts tutor 13, see also Arts tutor 4)

‘It is so difficult to do physics if you don’t love it. If you hate it you will hate it more and more. You have to be fascinated by it...you have to have natural curiosity about the way the world works and be fascinated with the scientific method. You just have to love these things. ... You don’t do science for the pay. You don’t do it to make money out of it but because you love it.’ (Science tutor 3)

‘We’re very pleased when people decide to go out and do research, um, even though we know that, it’s probably a negative in terms of their lifetime incomes...I mean we do occasionally, often, get people for whom this isn’t a platform, who have a much more instrumental view about their courses. And I suppose I also teach people doing Economics and Management and I think, more of those people have that instrumental view. I mean I think, um, I mean I came into Economics because I wanted to make the world a better place. If you’re going to study the social world, then it seems to me that, although there are interesting intellectual problems thrown up by Economics ... the ones I study are important because, they have a lot of potential for improving people’s lives. And so I like, you know I would like my students to feel the same thing.’ (Arts tutor 2)

Finally, one tutor suggested that instrumentality was in fact a generational shift. At her retirement, Science tutor 9 was disappointed to note that her generation of academics had come to university with a burning desire to learn and know more and regarded the opportunity as a treasured prize to have the opportunity to do so. In contrast, the young had a more instrumental in approach to education – ‘you go to university to get a better job. Today’s students come to Oxford for interview because

of pressure from their parents and peers - it is what you do - it is no longer a 'prize' but a right.'

6.3.2.2 Predictability (reducing risk)

Perhaps unexpectedly, it also emerged that all participating tutors unanimously considered the enterprise of making admissions decisions as risky and expressed a desire for admitting lower risk students. Admissions decisions were reported to occur under conditions of uncertainty and, ultimately, not all admissions decisions produced the desired result of admitting able, motivated, hard working and teachable students:

“I think it’s all these choices are risky in terms of, um, whether they’ll be able to cope, or whether they’ll go into kind of autopilot once they get here and, and there’s no point in denying the fact that mistakes are made all the time’.
(Arts tutor 4⁴⁵).

It emerged that tutors have a preference for admitting students who are not 'risky'. The students labelled as 'risky' were actually a very diverse group that included intellectual borderline candidates as well as super-achievers. The one thing that united these students appeared to be that there was something in their application dossier or interview performance that made their behaviour over the next three years difficult to predict (Arts observations, Science observation).

For example, several tutors reported that while they endorsed widening participation as an objective, they found it risky to admit applicants from no-name schools with

⁴⁵ Arts tutor 4 continued to state, 'And mistakes are made in relation to students from all kinds of social and academic and school backgrounds.'

references of unknown trustworthiness. Those who ‘you know it would be nice to give a chance to...they might respond to tutorial system, um, but it’s got to be the right sort of risk.’ (Arts tutor 13) A related risk is admitting those with only ‘pure untrained ability’ and lower levels of attainment who cannot ‘cope with the course...and all you do over the next three years is to somehow steer them through, so that they can somehow get a degree, a lower second or something and just, you know get on with their lives.’ (Arts tutor 4). The Senior Tutor also voiced concerns in terms of institutional rather than individual objectives, suggesting that admitting too many applicants who are merely good rather than brilliant means that ‘one risks a kind of dilution, with the, you know the Oxford brand of education really.’ At the same time, home schooled students were also perceived as a risk because of concerns about how they would deal with the formal tutorial setting: ‘they might go into autopilot once they are at Oxford’ (Arts observation, also Arts tutor 4). Tutors also treated as risky those students who raised any doubts as to whether they would make their grades (Senior Tutor, Science observation) or who might turn down an offer (Science observation). The uncertainty of the selection process and the risk aversion of tutors in this research project resonate with literature on decision making under conditions of uncertainty. Previous research has shown that decision making in such contexts tends to encourage the selection of individuals with characteristics most similar to the selectors themselves (Moss Kanter 1977).

6.3.2.3 Tutors' costs and benefits

The tutors incur costs if students with undesirable attributes are admitted. Those are students who do not work hard (all), who 'are going to be trouble' (Science tutor 2), who turn up to tutorials 'huffing and puffing' (Science tutor 9) and who get involved in extracurricular activities to the point that it affects their studies (three Arts tutors, Science tutor 1). The costs for tutors included having to spend more time on student discipline, having less interesting tutorials and risking low attainment that could affect esteem among colleagues.

Conversely, tutors reported that the main reward for admitting the right student was the intrinsic satisfaction that comes from student's progression and the attendant esteem among colleagues. Tutors enjoyed observing their student do well. For some tutors this meant that the students they selected and taught achieved a first class degree which tutors found intrinsically rewarding (two Arts tutors). Moreover, selecting high achieving students also raised tutors' personal esteem among their colleagues and made them more comfortable in recommending the student to colleagues: 'It's much nicer to send one of your students out to somebody if you are saying they are nice to teach.' (Arts tutor 13, see also Arts tutor 3). For others, doing well meant a student reaching his potential even if this did not involve a first class degree. Several tutors recalled incidents of specific students overcoming adversity such as growing up with no advantages, having a religious family that has difficulty getting to terms with a high achieving daughter leading her own life, or a student achieving surprisingly highly because of his inspiring peer group (three Science and three Arts tutors).

6.4 Analysis II: Pre-interview information

The key to decision making is information. Information reduces uncertainty about a decision and allows for an informed evaluation of the likely outcomes of different choices. Uncertainty is generally inversely related to good and valid decisions (Baron and Kerr 2003; Bell, et al. 1988; Gladwin 1982). Tutors thus seek to reduce uncertainty and increase the chances of making the best decision by drawing on a vast array of different pieces of information, namely, achieved and predicted attainment at school, school references, applicants' personal statements, written work, interview performance, contextual information and, in some cases, subject specific tests. The discussion section at the end of this chapter elaborates on the implications of information for the differentials in offer rates.

6.4.1 Academic attainment, application form and subject tests

6.4.1.1 Academic attainment

Among the pre-interview information, academic attainment is absolutely seminal and is crucial not only for the decision on which students to invite for interview but also for actual post-interview admission decisions.

6.4.1.2 Post qualification status

The most basic way in which attainment impacts on admissions decisions is that those who have already attained (post-qualification applicants) have a higher propensity for gaining an offer than those who still have to attain (pre-qualification applicants). Indeed, one tutor reported that ‘post-qualification applicants, they are like gold’ (Science tutor 3). Their higher value compared to pre-qualification applicants is that there is certainty about their attainment and no concern that they might not meet their offer conditions, they are ‘a bird in the hand, not a bird in the bush’ (Senior Tutor). Tutors reported that they looked upon post-qualification applications favourably, especially with regards to filling the last couple of places where reducing uncertainty is a main concern. It was observed in two meetings that post-qualification application status could be decisive.

6.4.1.3 A-levels

Beyond the application status, the main attainment information for the majority of candidates is attainment at school in the forms of GCSE and predicted or achieved A-level results. The following observation is illustrative of the weight that this information carries in the admissions process:

‘In my heart of hearts I have worries about judging people by G.C.S.E. results. I don’t think... that G.C.S.E. or even A.S.-levels bring out the best in the talented students. But, they’re the best indicators we have - we have to make the most of them.’ (Arts tutor 3)

Attainment is of utmost importance but it is perhaps surprising that the weight of A-levels in the selection process is frequently trumped by GCSE attainment. This is not because A-level attainment is not important (College Administrator, five Arts tutors, three Science tutors). Rather, tutors ‘have to think of ourselves as selecting out of those who get three or four A’s. Because there are so many who do, who can’t get into Oxford’. (Arts tutor 13). This academic almost non negotiable requirement is a historic change as Arts tutor 13 remarks on her last student intake prior to retirement: ‘This year for example, for the first time ever, I’ve been doing this now for you know nearly thirty-five years, ALL of the people we gave a place to [for my subject at my college] got three As - or at least three A’s - at A level⁴⁶.’

In general, applicants for admission to Oxford are now predicted three As and being predicted four full As ‘certainly does not hurt’ (Science tutor 8). A ‘B’ at AS level is not desirable (Science tutor 8, Arts tutor 1) and actual attainment of AAB for post-A-level candidates is a ‘desummoning offence’ in many subjects (Science tutor 3) as students who fail their three A offer are not usually admitted.

Achieving at least three As at A-level is therefore neither completely necessary nor sufficient for gaining a place at Oxford. The condition is not sufficient, on the one hand, because in exceptional circumstances an applicant can be admitted with a record of AAB. On the other hand, the condition is not sufficient because there are more applicants with three As than places and because there is unobserved heterogeneity in A-level attainment⁴⁷.

⁴⁶ ‘I mean this is just a different sort of regime from even ten years ago when, you know, perfectly good candidates got As and a B and you know and went on to get their two –ones.’

⁴⁷ Several tutors commented that the introduction of an A* at A-level would actually allow them to use A-levels as a differentiator (Science tutor 1, Arts tutor 3): ‘I think, if the government allowed A-

6.4.1.4 GCSEs

Therefore, while A-levels are somewhat useful as a de-selection tool for a limited number of applicants, they are often not the most useful tool in selecting those whom tutors actually want to admit. Alongside with pre-interview tests, GCSEs constitute an objectively quantifiable measure that actually differentiates between applicants prior to the interview stage (Science tutor 1, Arts tutor 2). Moreover, in light of aforementioned considerations of reducing uncertainty, a further advantage of GCSE attainment is that it is already accredited, whereas A-level attainment is still outstanding for the majority of applicants. GCSE results are therefore a significant factor in short-listing decisions.

But while GCSE attainment is more heterogeneous than predicted or achieved A-level attainment, one needs to remember that schools have pre-screened applicants for admission (Science tutor 3) and, consequently, GCSE attainment is usually extremely high. As shown in the statistical analyses in the previous chapter, the heterogeneity of GCSE attainment is frequently confined to attaining A*s as opposed to As rather than attainment of an A versus a lower grade. It is uncustomary for candidates with low GCSEs to apply and someone with a GCSE record that prevents her from a realistic chance of gaining a place is not called for interview. GCSE attainment of B or below is undesirable and a string of Bs ‘really does count against’ an applicant (Arts tutor 3, Science tutor 8). Tutors do, however, pay close attention to the GCSE attainment in

levels to have an A*, then we might be able to select who to interview on the basis of that data. But, since we don’t know what their marks were, they just get an A and we know that schools over-predict A-levels by 46 per cent, or the A-levels are higher than what the school they thought the student would achieve.’ (Science tutor 1). It was noted that the University of Cambridge asks for the percentage score achieved in AS levels rather than just the grade (Arts tutor 9).

particular subjects when making summoning decisions⁴⁸. Humanities tutors care about attainment in arts subjects that hone essay writing skills whereas science tutors value analytical and numerical skills highly. Therefore, a B in a science subject is forgivable for a Humanities applicant but a B in the arts subject they want to study usually constitutes a desummoning offence. The same mechanism reversed holds true for science subjects, where a C in English doesn't automatically disqualify an applicant from the competition but a B in Maths would; or, for students from very good schools even an A rather than an A* would (two Arts and three Science tutors). The social science tutors actually like to see high marks not only in essay writing subjects but also in logical analytical disciplines thus requiring 'all rounder' candidates.

Despite the important information GCSEs give tutors to differentiate between applicants in a quantifiable and, importantly, a legally defensible manner, several participating tutors also expressed some unease about the dominant role assumed by GCSEs in admission and even more so in summoning decisions. One of the concerns is that there is a contextual element in GCSE attainment and that some schools are better at teaching GCSEs than others (see section 2.2.1). There is also a concern that GCSEs do not do justice to a students' potential as expressed by Science tutor 3:

'You know, some students at GCSE level don't really care, because it's too easy, so they might under-perform simply because they didn't even bother to study it, because they figured that you know that it's just too easy... With A levels they might hit something they really enjoy, right? And they can improve markedly.'

⁴⁸ There were two exceptions to this rule. In one science subject, GCSE attainment was converted into a ranking of applicants using a mathematical algorithm that gave equal weight to all GCSE subjects (two Science tutors). In one arts subject, GCSE attainment was not crucial (Arts tutor 13) in summoning decisions as summoning here was based primarily on applicants' written work (see Chapter 7).

A related but not universally shared concern voiced is that GCSE teaching is ‘mechanical’ (Arts tutor 12) and ‘spoon fed’ (Science tutor 1), focussed on getting through the exams’ or reciting information rather than assessing students’ thinking ability (two Arts and two Science tutors). But the doubt about the schooling system extended to A-levels, which many tutors regarded as increasingly a ‘mechanical exercise of regurgitating information’ that does not sufficiently identify the kind of student they want to admit to Oxford (two Arts tutors). As a University Administrator (another don close to retirement) conceded: ‘I have taught some incredibly dull British students with three As.’

Apart from actual attainment, the UCAS application form contains two further sections with personal information about the applicant: a reference usually written by a senior teacher at the applicant’s school and a personal statement written by the applicant. The use of both pieces of information varies widely and will now be discussed in turn.

6.4.1.5 References

Beyond the predicted A-level grades that schools estimate in their references, tutors generally read references with a large grain of salt. While references were once considered rather useful in flagging up caveats or special characteristics about an applicant, only one tutor stated that he now considered references to be ‘very interesting’ (Arts tutor 5). There was general concern that teachers’ ability to ‘reveal interesting information’ was curtailed as applicants had access to their references

under the Data Protection Act (three Arts tutors, Science tutor 9). References were regarded as written to a formula and too uniformly good and undifferentiated to be helpful: ‘they are all glowing, and if there is any caveat at all in the reference this does make you wonder’ (Science tutor 7, also Arts observation, two Science and three Arts tutors). Tutors reported that only very occasionally did they find very specific information that was actually helpful in their decision making process. Such information about a candidate could be positive or negative. The following comment was perceived as helpful in singling out a high achieving student: ‘She is so outstanding, for example, say, oh, she got 284 out of 300 total in Art History...or, she is consistently in the top 5 per cent in her year.’ (Science tutor 8) In contrast, a report that described a student as ‘hard working and trying to reach their potential’ was interpreted as flagging up that the applicant did not always succeed despite significant efforts (Arts tutor 14). But even such helpful comments were regarded as somewhat problematic as several tutors reported that the dividing line between informative and useless references partly aligned on the private versus state school divide (two Arts tutors, Science tutor 8, Senior Tutor).

‘You can see very different sort of levels of Oxbridge experience in the references that schools write and, you know, to characterize crudely: You get some terrific write ups from, you know, public schools that send a lot of candidates and you get extremely artful in reading between the lines in realising that this is, you know, not a first rank candidate but someone who is being sold quite strongly. And then, I think, sometimes, you know, State schools seem to be terribly frank (laughs) and that, you know, and if you put simple reliance on references might disadvantage them. But I think people are reading those references with that sort of contextual intelligence.’ (Senior Tutor).

Several tutors also commented on national differences in reference cultures which made it more challenging to assess non-British applicants. On the one hand, North

American references were generally perceived as very glowing and ‘unless the person can walk on water it is a bad reference!’ (Science tutor 7). In contrast, continental European references were written in national contexts where there is little exaggeration and frequently references are ‘good if they do not say something negative about a student’ (Arts tutor 14).

6.4.1.6 Personal Statement

Some of the concerns voiced regarding the trustworthiness and validity of information provided in the reference were echoed in comments concerning the personal statement. Several participating tutors described the personal statements as written to a formula with a lot of help, resulting in statements that had ‘gone through the 10 zillionth draft’ (Science tutor 9). The help in writing such statements was regarded as systematically advantaging private school applicants (Arts observation). Some respondents were also aware that sometimes Oxford dons themselves were involved in helping their own children, their children’s friends, their children’s siblings and others in writing personal statements for application to Oxford (two Arts tutors).

In general, there was a subject divide in how the personal statement was used. Science dons regarded personal statements as generally useless or possibly only useful as confirmatory information after an admissions decisions had been made (Science tutor 8). In contrast, Humanities tutors found the personal statement useful to different degrees. The Social Sciences were split in their evaluation. Several of them believed that the personal statement could be ranked numerically like attainment

information, although with a rather low weighting attached to it (e.g. Arts tutor 2). Other social science tutors felt the statement was irrelevant (Arts tutor 11).

The following quote from the interview with Science tutor 1 illustrates a view frequently found among science tutors that personal statements are not very useful and should be read with a lot of contextual information in mind:

*'We do not take personal statements into account. Now, a) they are written by the school, b) they tell you they are doing fantastic things, they play the flute to Grade 8 and they paint old ladies houses. And it is all very impressive. Many times it is the school that has arranged those things because they knew it looks good. And public schools can do that better than state schools.'*⁴⁹

In contrast, Humanities tutors frequently reported to use the personal statement as a way to begin the interview (four Arts tutors). In fact, two of the interviewed tutors had given sixth formers on open days the advice to use the personal statement as an opportunity to flag up what they wanted to talk about in their interview (two Arts tutors). Furthermore, Humanities tutors found the personal statement useful as 'how they [the applicants] can express themselves and how they can structure it gives you an idea of how the student thinks, their personality and general cultural awareness – conditional on assumption that they actually wrote it themselves' (Arts tutor 3, also two further Arts tutors). But only in one instance did a participating tutor recall that the personal statement had significantly influenced his opinion about a candidate. The incident regarded a 'fanciful' personal statement that started off by saying 'once upon a time, there was a little girl called, whatever her name, whose dearest wish was to study at Oxford'. But even in this case the student was actually admitted as other selectors had liked her '...and I can't say whether [her getting in] was because of her

⁴⁹ This sentiment was reiterated by Arts tutor 1 and two additional science tutors.

fanciful personal statement or despite it.’ (Arts tutor 3) In actual admissions meetings the only observed use of the personal statement was to recall a mental image of the candidate such as her travel experience or residence (Arts observation). It was not apparent that the personal statement was used as a selection tool.

6.4.1.7 Written work

Many subjects in the Humanities and Social Sciences, and several subjects in the Natural Sciences ask applicants to send two pieces of written work with their application file. This information is put to varying uses. One particular Arts subject at a particular college, for example, used the written work as the main basis for summoning decisions. Arts tutor 9 explained this procedure: ‘My view is that the exam results are something we need to give a lot of weight to, but kind of in a measured sort of way. Which is to say that exam results need to be trumped by written work.’ Written work was consequently regarded as more important than GCSE attainment (Arts observation). Arts tutor 12 elaborated further that ‘it is so important to have as much direct intercourse with the candidate - both with the written work and with the interview. That is when you really get to grips with them without all the filters that the education system has introduced.’ (Arts tutor 12; also Arts observation, Arts tutor 5). A perhaps unintended use of the written work was also that some tutors felt they could get a feel for the quality of an applicant’s school: ‘It’s amazing, you get their essays sent in and they’re absolutely covered with ticks – you know including their mistakes have been ticked!’ (Arts tutor 13). Overall, there were several incidents where applicants’ written work was conscientiously re-marked

(two Arts tutors, Arts observation) or studied to provide a segue-way for interviews questions (two Arts tutors).

On the other hand, roughly an equal number of tutors regarded the written work as not very useful. There were some concerns about the authenticity of submitted essays (two Arts and two Science tutors). While the quotations from Arts tutor 12 and Arts tutor 9 in the previous paragraph show how strongly these arts tutors feel about written work, their colleague at another college had a rather different view:

'[written work is] somewhat difficult to assess on an even playing field, because they, we do ask for course work and the tutors are normally, they come with a form from the school saying how much work, how much assistance the candidate may have received. Now, there is such a range of variation in that, that it's very difficult to, use that as a kind of basis - as an objective basis for not interviewing somebody. Because you just don't know if the person you think is brilliant probably received a lot of help from their tutor and this other person may not have at all. So that's another reason that we don't really have enough, uh, material to go on from what we receive at the application package to make a shortlist.' (Arts tutor 4)

Tutors generally distrusted the cover sheets that were submitted in conjunction with the written work that stated how much help a student had received with the assignment (Arts observation). A further shortcoming of written work was voiced by Arts tutor 2 who said that 'having read a lot of this material over the years, it tends to be very much a, um, it's the sort of thing that's in the text books and you don't really learn very much about the candidate's from it. My colleague in [different subfield] puts quite a lot more weight than I do on written work⁵⁰.' (Arts tutor 2) Like several other tutors, Arts tutor 2 only 'skim-read' the submissions of written work (also mentioned by Science tutor 8).

⁵⁰ Arts tutor 2 had actually made a case to waive the written work requirement but as his colleague did not agree the requirement was not withdrawn.

To summarise, there were varying practices within subjects and colleges regarding the importance of written work. In some instances, written work was ‘important for getting through the net’ (Arts tutor 11) and for receiving an invitation for interview whereas in other instances written work was not more than random noise with no or little impact on the selection process.

6.4.1.8 Additional subject-specific tests

Because applicants with the highest possible A-level attainment outnumber available places, many subjects have opted to collect additional information about applicants’ academic ability in the form of a subject specific test. Specifically, such tests are designed to differentiate between the heterogeneity of ability covered by an A at A-level and are ‘much harder than A- levels’ (Science tutor 3). Several tutors commented that if A-levels were allowed to have an A* for exceptional performance, it would reduce the need for these additional tests but that such subject specific tests are necessary in the absence of such a national differentiator (two Science tutors and Arts tutor 4, c.f. SAT literature⁵¹).

⁵¹ In practical terms, the majority of subjects that use tests administer them while applicants are in Oxford for their interview. This is the case for Psychology, English, PPE, Maths, Physics, Classics and Modern Languages. Three subjects, however, namely, Law, Medicine and History, administer their tests prior to the interview and use them as shortlisting devices to limit the number of applicants invited for interviews (two Arts tutors and Science tutor 4). Law is a national test while Medicine is administered by a consortium of six universities. The History test is only for entry into Oxford. In the case of History, the top 80 per cent are summoned, in Medicine the top third. Medicine changed to the preadmissions test BMAT in 2003. The data for the quantitative analysis presented in Chapter 5 were collected in 2002 (at which point the Medicine test was set at the time of the interview). It should be noted that pre-interview tests are recent changes and there were no shortlisting tests when this research commenced in 2002 (English is expected to use a pre-interview test from 2006 onwards). Subject specific tests are either marked by an applicant’s first choice college or centrally for all applicants to a subject. In three out of the four subjects that marked their tests in college, centralised answer sheet were used to avoid scope for ‘variation or eccentricity’

Across the board, tutors reported that subject-specific tests carried significant weight in selection decisions⁵². The participating tutors said that they trusted the information derived from the test more than other selection tools, such as the interview: ‘interviewing is a pretty invalid way of selecting people, so you want an objective measure.’ (Science tutor 1). Humanities tutor Arts tutor 4 felt the test was actually more valid in terms of the kind of work that undergraduate students were expected to deliver during their degree course: ‘I think tests may be unfair but interviews are even more - and at least given the fact that the students will be coming here will ultimately be assessed in terms of written examinations and not, unless you’re doing modern languages or something like that, through oral examination. The interview in a sense is the anomalous thing.’

But ultimately tutors reported also wide variation in the use of the same test in their admissions decisions. In some cases they were used as rigid cut off points - ‘I think that some of my (older) colleagues at other colleges, especially since the abolition of the entrance exam, tend to seize on this [subject] test as the one thing that seems to provide certainty about candidates.’ (Arts tutor 3) In other instances, tests only made a ‘genuine difference to whether candidates get a place or not’ for some applicants (Science tutor 7). For example, some subjects produced a correlation line of applicants overall school performance and their individual test performance. An applicant from a good school whose test performance was below this correlation line

(Arts tutor 3) which participating tutors viewed as rather small, especially when tests involved grammar or numerical answers (two Arts tutors and Science tutor 3). In addition, one science subject adjusted marks across colleges to control for possibility that some college markers are more generous with their marks than others (Science tutor 1). In methodological terms, such a practice might lead to questionable validity given the very small numbers involved.

⁵² The one exception to this rule is Medicine where the interview is most important as the test is already taken into account in the high bar of gaining an interview.

was then less likely to be admitted and an applicant from a bad school who fell above the line was more likely to be admitted (three Science tutors). Yet others saw subject-specific tests only as a selection tool but not as a de-selection tool: ‘somebody who does well on the [subject] test should be taken but somebody who doesn’t do as well should not necessarily be rejected.’ (Arts tutor 3). Overall, the tests were reported to be important pieces of information but few subjects used the information they provided in a formulaic way. Generally, it was within individual tutor’s discretion how to read the test performance in the context of other pieces of information about an applicant.

6.4.2 Contextual information

Oxford has a long tradition of taking a ‘holistic’ approach towards applicants and to consider all the different pieces of information available about an applicant. While sociological research generally focuses on the ‘usual suspects’ of class, ethnicity and gender as factors that influence individual’s life chances, the most seminal contextual factor in the admission process was an applicant’s schooling. All but one participating tutor stated that they paid some attention to schooling information. In fact, the non-British tutor, Science tutor 2, remarked after his first admissions round that ‘I actually learnt quite a lot about the secondary schooling in the UK as a result of this [admissions] process. Public schools and comprehensive schools. The public schools are said to be good.’

On the one hand, the seminal role of schooling is likely to reflect the framing of admissions debates in newspapers and government policies. On the other hand, the Access Agreement that universities are required to sign with the Office of Fair Access (OFFA) in exchange for the right to charge top-up fees contains benchmark targets in terms of the school profile of the undergraduate intake and might therefore also play a role (University of Oxford 2004).

Tutors' opinions and practices regarding the role of contextual information other than school usually had to be elicited explicitly. Generally, tutors stated that social class, gender and ethnicity never entered the admissions process and several interviewees expressed their surprise at being asked to comment on these issues (three Arts tutors). This section on contextual information discusses, firstly, the role of schooling information before, secondly, turning to an exploration of the role of social class, ethnicity, gender and region. The influence of having music scholar status and the role of personal mitigating circumstances are also briefly reviewed.

6.4.2.1 School information

Tutors are generally aware that students have had different prior opportunities to achieve academically because of differences in their secondary education. How this information should be used, however, is normatively a slippery slope not only in the context of admissions to Oxford but also in national debates about access to higher education (Schwartz Commission 2004).

The comments from two tutors for the same subject illustrate the extent of the controversy. On the one hand, Arts tutor 6 felt that ‘the government should stop messing about with the university system’ and that it was not the role of universities ‘to compensate for social inequalities’. On the other hand, Arts tutor 10 saw it as part of his job as selector to ‘compensate for the failures of civil society.’ Science tutor 1 contemplated that:

‘Tutors think they are doing a balancing act. Well, you are doing things like balancing access... I think people do it and always have in Oxford, informally. I remember years ago - in the early 70s, the Classics - no, Philosophy, Ancient Philosophy - tutor and there is no question that he used to say ‘Oh, yes, but for somebody from that, comprehensive, or secondary modern, or whatever it was then - this is a very good performance!’ - So, I think Oxford has always looked at that sort of thing. The question now is that given the data availability should we be using it more formally? And ... I - I don’t really know what I think about whether we should just produce a ranking and do that’. (Science tutor 1)

The university’s official training on schooling shows that these questions are difficult and not conclusively solved at the institutional or the national level. This is Arts tutor 15’s report from the official university admissions training day:

‘the only thing that surprised me ...about the admissions briefing thing was that the thing that is most prominent in the press in Britain about discrimination at Oxford is always the question of class and the question of the kind of school that someone’s applying from, but that was not - we didn’t talk about it. ... The only thing they mentioned with regard to type of school was that there was some kind of legislation which...deals with rating schools and rating them according to their average grades across the entire year group. And they said that it was legitimate if there were two students who were doing extraordinarily well who had slightly different G.C.S.E. grades that, the comparison of how - say one of them had seven A stars and one A and one had eight A stars, the person who had seven A stars and.. if in comparison to their year group that’s still an outstanding grade and the other person comes from a school which produces one hundred percent A star grades then that can be taken into consideration... . But that was the only thing they mentioned about the, about the schooling issue.’⁵³

⁵³ It is also noteworthy that the university’s training has in fact changed slightly even within the last

It is striking that the university appears very careful not to prescribe a policy of considering schooling in selection decisions but instead allows tutors room for discretion. But this does not make the task easier for individual tutors. Social science tutor Arts tutor 1 described how an exercise of comparing applicants from different schools and adjusting their performance really amounted to a counterfactual thought experiment of saying ‘had this person been at another school, they would have actually done better.. . It is possible, I guess it is possible to say that. But, it is a difficult one.’ Science tutor 9 who volunteers for Access initiatives and practices lower summoning threshold for candidates from schools with low general attainment also voiced doubts that the assumption that good students in bad schools are disadvantaged was fully justified - ‘maybe in a bad school, the teachers are actually delighted to have one bright students and the student gets a lot of special treatment and attention.’

Weighting differences in schooling opportunities turns very quickly into a moral maze and it is unsurprising that different subjects and individual tutors take different approaches towards considering schooling in the selection process. In other words, schooling information is available as an additional piece of information for tutors who want to use it, but tutors themselves can exercise choice as to whether and to what extent they wish to use this information. A further, sometimes overlooked consideration is that contextual information on schooling and access is only

two years. The interview training day that I attended in 2003 featured an invited representative of the Oxford Access program who explicitly drew tutors attention to considering contextual information on schools. This presentation was controversial and sparked a forceful debate initiated by one law tutor who raised the following point: ‘Why should I give an advantage to someone from a bad school from inner London? How is that more worthy than considering the educational disadvantage experienced by a rural white British boy from the North of England?’

considered for English applicants and not for applicants from the devolved British regions of Northern Ireland, Scotland or Wales or for any non-British applicants. Finally, one respondent also noted that while access debates were usually framed in terms of schooling, this may not always get at the class inequality that such considerations seek to address. College Administrator had noted that when the social class information was added to an application dossier after the final admissions decisions had been made, many poor students went to very good private schools: ‘Because if they are really bright they get scholarships to the best private schools - just because someone is from Eton or Winchester doesn’t make them rich snobs’.

6.4.2.2 Other special considerations

6.4.2.3 Social Class

Given the seminal nature of schooling debates in monitoring of higher education intake, it follows that considerations of social class, ethnicity and gender were less dominant themes in the conversations with admissions tutors. Generally, tutors did not talk about social class as a dimension in admissions decisions without being prompted to comment on the issue. The university training for admissions tutors also does not include information on social class, although tutors were alerted that it is not customary in all home environments for adolescents to talk about literature or politics with an adult (Arts tutor 15).

Tutors do not, in fact, have access to formalised social class information about applicants during the admissions process. Nonetheless, several observations and comments from tutors suggested that tutors occasionally made inferences about applicants' social origin. In one admissions meeting, Arts tutor 10 recalled being somewhat irritated that he interviewed an 'Access candidate with a very posh accent and pearl earrings,' indicating that he perceived a mismatch between the information that labelled this applicant as disadvantaged and the physical appearance of the person. In another instance Arts tutor 2 recalled fondly a 'Northern working class lad' whom they 'gave a chance' and Arts tutor 14 described one applicant as very '*nouveau riche*' (also Arts tutor 10). Such descriptions indicate that personal interaction with candidates can lead tutors to make conscious and unconscious inferences about an applicant's social origin. Furthermore, these impressionistic snapshots may help unravel the generative mechanisms behind the findings from previous chapters that children of managerial parents have a lower likelihood of transition than children of professional parents. The attribute '*nouveau riche*', at least, was a negative characteristic indicating social distance from the applicant and some disapproval of the large economic capital but small cultural capital entailed in this social status.

6.4.2.4 Ethnicity

Tutors were generally surprised to be asked about the role of ethnicity in admissions decisions. The following statements from tutors in the sciences, Social Sciences and Humanities represent this sentiment: 'As for ethnicity... we take them as they come'

(Arts tutor 3). ‘I don’t think that [ethnicity] matters at all. Not in the slightest’ (Arts tutor 11) – there is ‘no inbuilt bias in terms of ...ethnic background’ (Science tutor 4). – or ‘I would actually, if anything, be biased in favour of a minority student’. (Science tutor 1, also Arts tutor 13). In one Arts observation after a clearly good candidate was put on the ‘sure admit’ pile, Arts tutor 10 remarked that it was ‘also’ nice that the person was black and brought some diversity to the admitted undergraduate body (Arts observation).

When probed to comment further on ethnicity, tutors usually elaborated that it was impossible to say anything definite as each individual tutor only ever interviews very few – if any - ethnic minority applicants. Moreover, several tutors had trouble recalling how many minority applicants they had interviewed in the previous year and, in some instances, whether or not these applicants had received an offer. Two tutors asked in a light-hearted manner whether Welsh and Irish applicants counted as minorities. After some thinking, Arts tutor 14 stated that she had admitted an applicant of Indian origin and said jokingly, ‘and at the same time dyslexic and dyspraxic. Everything! So all in one. Only he is not a woman (laughs).’

Several participating tutors also pointed out that ethnic minority status could not necessarily be used as shorthand for economic deprivation and gave specific examples of a British ethnic minority applicant applying from a top school (Arts tutor 14). University Administrator observed that most of the Chinese students that are admitted to Oxford come through the British public school system. In sum, tutors did not regard ethnicity as a consideration in their admissions decisions.

6.4.2.5 Gender

With regards to gender it is the university's policy that it should never enter admissions decisions (Arts tutor 15). As with ethnicity, research participants were surprised to be asked about gender. As Senior Tutor remarked: 'gender is not a sort of concern... our numbers just look... broadly reflective of society, so we're not really trying to, to monitor that one too closely.' The first reaction of all interviewed tutors was unanimously to state that their admissions procedures are gender blind and five tutors⁵⁴ explicitly stated that they did not strive for a gender balance in their intake. There was however, one incident where a participating tutor displayed gender stereotyping. When prompted to remark on the gender-gap in finals in his discipline, the tutor explained that gaining a first was not as important to female students as it was to male students because women's careers were usually within the home (Arts tutor 2). This suggests that, in the margin, gender-stereotyping occurs and this could possibly impact on admissions decisions, although it is difficult to estimate how much it can explain of the gender effect observed in the previous chapters.

6.4.2.6 Admitting Groups

Gender was linked to another concept that emerged perhaps unexpectedly in several interviews: the idea of admitting a group of students rather than each student individually based solely on their own merits (cf. Fetter 1995). Four participating

⁵⁴ Arts tutor 3 and four Science tutors

tutors – Science tutor 9 and three Arts tutors – stated that at the absolute margins, gender could play a role because of its link to group dynamics.

‘We try not to have someone from one gender alone. We make eight offers and hope that seven are coming. And, the last two years, we took a lot of girls. But we made sure that two boys were there. And, this year it is the other way round. ...when you reach the point where you really can’t say anymore who is better. That is when such considerations come into play. Also because of the group dynamic. For example, the question is about how many of the guys who might be brilliant have a really poor work ethic. And how many of that can you afford. This can really backfire. They could get a high first or a third. And how many of these can you afford to have? If you have one, the group will keep them under control - the group will discipline him.’ (Arts tutor 14)

Here, the risk that an individual student poses is not just a function of his or her individual characteristics but also a function of the characteristics of the other applicants admitted in the same year. The peer group of a marginal applicant then can decide whether this person would develop the work ethic needed to succeed at university.

6.4.2.7 Region

The most striking feature of the Oxford admissions system with regards to the geographical spread of acceptances is the lower success rate of non-British EU applicants and British citizens applying from overseas compared to British applicants residing in the UK. Whereas the success rate for British applicants applying from Britain is one in three, the figure for other applicants is one in five (University Administrator). These figures contrast with the tutors’ own reported selection behaviour, namely that nationality was not important: ‘We don’t rate that. At least

not explicitly. Nobody said, oh, she is Greek, we won't take her, we will have an English student.' (Science tutor 2). 'Everybody is just trying to get the best people.' (Science tutor 8, also Arts tutor 11). Some tutors noted that the broader curriculum – such as the IB – taken by many overseas applicants gave them a broader knowledge base than their British counterparts (two Arts tutors).

University Administrator suggested that the lower success rate of overseas applicants was partly a function of subject choice as overseas applicants were over-applying to very competitive courses such as Economics and Management. This information was somewhat contradicted by the casual empiricism of several other tutors who observed that human sciences, modern languages and classics attracted particularly large numbers of overseas students. These subjects are less competitive than, for example, History and English, which attract fewer foreign applicants (Science tutor 8, Arts tutor 3).

The overseas applicants can be split into the 'Oxford interview' and 'not Oxford interview' groups. The first group consists of all applicants from the geographic region of Europe and all applicants for fine art and medicine (www.ox.ac.uk). A further third of overseas applicants is interviewed in interview centres in the East Asia or North America (University Administrator, Science tutor 7, www.ox.ac.uk). The remaining overseas applicants are considered without an interview. But University Administrator remarked that, in actual fact, the policy concerning overseas applicants is more diverse than suggested in this official model: 'It is entirely up to the individual colleges what to do with the candidates who can't be interviewed'. Responses here vary from insisting that overseas applicants travel to Britain even if they have been

interviewed overseas to colleges not allowing overseas candidates who want to attend an interview at Oxford to come on the grounds that the colleges fund the interviewer team to go overseas for the purpose of interviewing candidates there.

Oxford has run overseas interviewing centres since 1996. In 2005, 740 applicants from overseas were interviewed at seven different centres and 120, or 16 per cent, of these candidates were admitted (University Administrator). Interview teams consist of three to five fellows who cover different areas of expertise and who are senior members of the Oxford community such as senior tutors or proctors. The rationale is that selectors in Oxford will trust the judgment of their senior colleagues. University Administrator noted, however, that ‘you still get situations where someone has been at [a college] in Classics for 20 years and has been Senior Tutor and then you have people in Oxford in Classics saying ‘who is he? How do we know we trust his judgement?...Oxford is full of a lot of very large egos.’

The actual overseas interviews are very similar to the interviews that happen in Oxford although sometimes they are less subject specific in cases where a non-subject expert conducts an interview. Overseas interviewers send an interview report form back to Oxford. These forms include a black and white picture of the applicant, an overall ranking of the applicant on a scale from one to ten, a rating of the applicant’s skills from excellent to poor, a detailed commentary about the interview and a breakdown of the interviewers’ marks for specific parts of the interview.

If an overseas applicant applies for a course that entails a test at the interview, this test is taken overseas and the results are faxed to Oxford. University Administrator

reported that this arrangement can be problematic especially when tests fall on Sundays. As it is usually not possible to supervise overseas applicants on a Sunday, they then cannot sit their test until Monday ‘and even if they sit them at 8 AM Monday morning in Vancouver, it may already be too late for the test to be marked that day and results may not be available when admissions decisions are taken’ (University Administrator). In fact, this very incident was observed in an admissions meeting for a subject with a Sunday test. Although ‘overseas applicants’ was an item on the meeting agenda, it was eventually dropped as the test results were not in and the overseas applicants were not admitted (Science observation, similar incident Arts observation). ‘That is actually not fair. But the subjects say that there are small numbers of candidates involved.’ (University Administrator) It is also more likely that information on overseas applicants will go astray. In one Arts observation the interview report from overseas was not available at the admissions meeting and the written work could also not be found. One of the overseas interviewers felt strongly that this fortune of overseas applicants was regrettable:

‘Overseas applicants can bring different flavour to a group and a lot of overseas candidates are incredibly determined. When I am interviewing overseas I can really feel the drop in tension palpable when interviewing an overseas person and an expat... I think we could lose half of our home intake and fill the places with highly determined overseas and EU intake who are more fun to teach. I have taught some incredibly dull British students with three As. If that is what we are here for - and part of the forest thinks we are - then fine.’ (University Administrator)

This enthusiasm was not generally shared among the Oxford interviewers. Senior Tutor remarked that overseas applicants had a ‘ghostly presence on paper’. There was a sentiment in both Sciences and Arts that the lack of personal interaction was undesirable and the trustworthiness of information collected overseas was

questionable. 'With the overseas, it is more difficult because you don't see them...and it is much better to see them. Of course you can still make mistakes but it is a lot better.' (Arts tutor 14) 'For candidates who are unable to come here, you basically have the test and the reference. For some there is an interview score but they get interviewed by a generic science person which does not for the time I have been here been [someone in my subject], so these interviews are completely useless' (Science tutor 7, also Senior Tutor). It was also noted that 'the immediate comparability' with the interviewed candidates was lost. The lower success rate of overseas candidates can then be directly linked back to the preference for predictability discussed in section 1.2.2 of this chapter. A major factor working against overseas applicants does appear to be the greater uncertainty that comes with foreign qualification and the lack of personal interaction.

An alternative or supplementary explanation for the lower success rate of overseas students that was put forward by University Administrator is discrimination or xenophobia. In University Administrator's opinion there was ultimately a feeling in Oxford and Britain more generally that 'We don't like foreigners - it is quite simple really.' There is indeed some empirical support that the British public at large does display this sentiment (Gijsberts, et al. 2004; Rothon and Heath 2003). Occasionally, there were indications in conversations with tutors that nationality came into consideration in admissions decisions or at least that it was used to draw inferences about a person. Arts tutor 11 remarked that tutors generally disliked applicants who came across as arrogant and that this characteristic 'was a little bit common among some of the German students that would come and they would be very, very confident and rub people up the wrong way.' The respondent went on to qualify the statement

later by saying, ‘But they were all right. They go through exactly the same process.’ Nonetheless, residual doubt remains as to whether some national stereotyping may go some way in explaining even the lower admissions rates of non-British applicants who attend an interview at Oxford. In addition, however, tutors’ risk aversion also applies to some extent to this group of applicants as their non-standard qualifications and references can increase the uncertainty involved in their admissions decision.

6.4.2.8 Music scholars

Several colleges that were originally medieval religious foundations stipulate in their college statute the existence of music awards for undergraduate students. Sixteen colleges offer choir awards⁵⁵ and 23 colleges offer organ awards⁵⁶. To this day, these colleges operate a slightly different admissions process for applicants who will play the organ and some colleges also give special consideration to those applying for choral awards. Unlike other students, admission here is based ‘on the basis of their ability and potential in both singing and academic study’ (www.new.ox.ac.uk/the_chapel_and_choir). In practice, this means that a college may, for instance, earmark two places in their undergraduate incoming class for organ scholars. The selection process for the music part of an organ award occurs in September and is completed before the standard admissions deadline for Oxford applications on October 15. Once a student has been nominated as an organ scholar

⁵⁵ Christ Church, Exeter, Keble, Lincoln, Magdalen, New, Oriel, Pembroke, Queen’s, St Edmund Hall, St John’s, St Peter’s, Trinity, University, Worcester

⁵⁶ Balliol, Brasenose, Christ Church, Corpus Christi, Exeter, Hertford, Keble, Lady Margaret Hall, Lincoln, Magdalen, Merton, New College, Oriel, Pembroke, Queen's, St Catherine's, St Edmund Hall, St John's, St Peter's, Somerville, Trinity, University, Worcester.

in the music competition, one college reported that the academic requirement this person needed to fulfil was ‘to be capable of achieving a 2:1’ (Arts observation). In one particular instance, a tutor recalled admitting an organ scholar who had been quite far down the subject ranking and whom the fellows for this subject thought would have to work hard to achieve a 2:1. The student was then admitted but made aware that he would have to work harder than his peers to achieve academically. The student ended up achieving the lowest but one 2:1 in the university in his graduating year (Arts tutor 10). The admissions philosophy of admitting a music scholar who is ‘at least’ capable of achieving a 2:1 thus contrasts with the general selection process of the applicants who might achieve a first and who would achieve a comfortable 2:1. The Oxford music awards are the only aspect of the admissions system where a systematic admissions preference is given to non-academic accomplishments. The scale of the music scholar phenomenon means in practice that a much smaller number of students is affected and is certainly not of the same scale as the preferential treatment of alumni children, donor children, athletes and minorities in the admissions process to US Ivy League institutions (Espenshade and Chung 2005; Espenshade, et al. 2004; Fetter 1995; Steinberg 2002). Nonetheless, the selection of music scholars introduces a different dimension to the attainment and potential based meritocracy concept generally used as the guiding principle for selection into Oxford.

6.4.2.9 Personal mitigating circumstances

In several instances tutors also took into consideration personal mitigating circumstances to contextualise an aspect of an applicant’s performance. Examples

included discounting one mediocre interview against two very good interviews because the applicant had just learned minutes before the mediocre interview that his terminally ill mother had been taken to hospital (Arts observation). In another case, one bad GCSE grade was discounted on the grounds that the applicants' cat had died in morning of exam (Science tutor 8) and in one case a college tried to secure a second interview for an applicant with a bad test performance on the grounds that the person had not slept the night before (Science observation). The discounting due to personal circumstances in these cases resulted in an attempt to secure further interviews for applicants rather than an outright offer for a place. Mirroring the gravity of the circumstances, the applicant with the sick parent received three further 'second' interviews whereas the applicant who had not slept well only received a further 'courtesy' interview that was not expected to result in a place. In contrast to competitive admissions in the US, general life events that signified adversity were not used in any way to discount actual academic attainment or interview performance. Tutors did occasionally recall personal life history events such as fleeing the war-ridden Baghdad or the genocide in the Balkans (Arts observation). While there was obvious sympathy with such personal tragedies at a personal human level, however, it was not observed that having experienced such events was used to discount less than brilliant academic attainment or interview performance.

6.5 Discussion and Conclusion

To recapitulate, the statistical analyses in the previous chapters established that applicants who were South Asian, female and from backgrounds without two

professional parents were less likely to gain an offer than white, male applicants with two professional parents. Initially, private school applicants appeared to fare better than their state school educated peers, but this gross advantage reversed to a net disadvantage when controlling for academic attainment. Finally, post-qualification applicants had a higher chance of gaining an offer than pre-qualification applicants and British applicants had a higher chance of gaining a place than EU and overseas applicants. This chapter set out to understand the generative mechanisms behind these patterns by reporting the goals that tutors pursued in the admissions process and how tutors used pre-interview information about applicants.

It is first important to report that tutors did not refer to issues of social class, ethnicity and gender without being prompted. When asked directly to comment on these issues, tutors generally went out of their way to state that these factors had no impact on their admissions decisions. Applicants' schooling was the only background information that tutors reportedly considered during the admissions process. Despite statements that gender, class and ethnicity do not consciously enter decision making processes; there were several indications in the conversations that could account for differentials in gaining an offer for applicants with different social background characteristics.

Perhaps the most powerful but also surprising clue to the differential transition patterns was tutors' strong preference for predictable students and an aversion to making 'risky' choices in a process described by Arts tutor 4 as 'crystal-ball glazing'. This preference affirms literature on employment selection that suggests that the more uncertainty there is involved in an appointment decision, the greater the chance that

selectors show a preference for ‘socially similar’ individuals (Moore 1962, Kerr 1960). This process is sometimes called homo-social reproduction (Moss-Kanter 1977, p. 54). Moss-Kanter observed that selectors have a ‘desire for smooth social relationships and a preference for selection of those people with whom communication would be easiest,’ as they share a common language and common understandings (Moss-Kanter 1977, p. 57; see also Lane 2002; Myers 1999; c.f. Bourdieu 1977). Socially similar individuals are perceived to be the most predictable and trustworthy because selectors can better read them than socially dissimilar individuals.

This clue requires us to take another look at the profile of selectors for admission to the University of Oxford. Table 6.2 below displays the profile of the selectors to Oxford (see also Chapter 3). First, the table shows that the overwhelming majority of full-time academic staff at Oxford is male. Only one in five academics at Oxford is female. Second, the number of ethnic minority academic staff is small. There is the caveat to consider that ethnicity is undisclosed for over 20 per cent of academics. But among those whose ethnicity is known, 2.5 per cent are disclosed as Asian compared to 3.6 per cent of the British population at large and 7.4 per cent among all students accepted to higher education (figures taken from Table 2.2 in chapter 2). Furthermore, by virtue of their profession, all academics fall into the professional class⁵⁷.

⁵⁷ It is worth remembering at this point that tutors do not have social class information in front of them when they make admissions decisions nor do tutors or the dominant discourse on admissions consider social class as the seminal action zone for intervention to compensate for inadequacies in civil society (see also Chapter 1). This may explain why no adjustment of performance occurs with regards to social background. Therefore, those with the most similar habits to the tutors themselves in terms of home environment, reading habits and interaction patterns fare particularly well in the admissions process without either the tutors themselves or the general public necessarily being aware of this process **Bourdieu, P.** 1979 *La distinction : critique sociale du jugement*, Paris: Editions de Minuit..

Table 6.2: Oxford Academic Staff by background characteristics

All academics	
Gender	
Female	20.5
Male	79.5
Ethnicity	
White	72.8
Asian	2.1
Black	0.4
Other	2.5
Not known	21.6
N	1399 ⁵⁸

Source: Personal Communication with Liz Mitchell, Staffing figures(Mitchell 2005).

Just using the mechanism of preferences for socially similar individuals in the face of uncertainty appears to be a plausible explanation for differential admissions rates by ethnicity, gender and social class for applicants with the same attainment at secondary school. At the same time, the lack of a disadvantage for working class applicants, the premium given to access candidates as well as contextualising by school type⁵⁹ show that there is a lot of goodwill among selectors to make admissions decisions in a socially equitable manner. This could suggest that the mechanism of homo-social reproduction works mostly at the subconscious level and that therefore differential transition rates are mainly an unintended consequence of the actions of selectors (cf. Weber 1930).

⁵⁸ The divisional distribution does not add up to 1399 as there are 36 academics classified as in ‘other’ departments. The figure of 1399 is the headcount. The full time equivalent of 1345.9 is not sufficiently different to warrant a separate sampling of part-timers.

⁵⁹ The private school net disadvantage shows that when there is awareness that preferential treatment might occur, conscious discounting can be utilised to adjust the evaluation of applicants. Generally, private school applicants seem more likely to display characteristics desired by tutors than their state school educated peers. These characteristics include teachability, love of reading and an intrinsic desire to study their chosen subject. For example, with regards to the love of reading, a number of tutors themselves wondered ‘whether the selection criteria inherently favour, you know, particular sorts of education ...when you’ve got things you know like a love of literature and an appetite to sort of explore the subject’ (Senior Tutor). Arts tutor 13 remarked that ‘there are schools where they [the students] hardly see a book!’ The net disadvantage of attending a private school suggests that tutors adjust their admissions decisions according to what is socially desirable as well as to what many tutors themselves consider to be the most socially responsible way to admit new undergraduates.

The risk aversion mechanism also seems a likely candidate for explaining the differential in acceptance rates by qualification status and region. For qualification status, the main difference between post-qualification applicants and pre-qualification applicants relates to differences in certainty surrounding their attainment. The attainment of post-qualification applicants is certain whereas the attainment of pre-qualification applicants is uncertain. This makes it less risky to admit post-qualification applicants. A similar argument can be constructed for regional patterns in acceptances. Admitting overseas applicants involves more uncertainty than admitting British applicants. The reason is that selectors have frequently not met non-EU applicants in person and tutors are generally less familiar with non-British credentials. There is also more uncertainty surrounding the post-selection behaviour of overseas applicants: some are globally oriented and apply to Harvard, Princeton and Stanford and perhaps their own national universities at the same time as they file applications to Oxford. This means that there is more uncertainty surrounding their acceptance of a place than there generally is for British applicants⁶⁰.

A second clue for explaining differences in acceptance rates by social background was tutors' preference for admitting students who pursue higher education for the intrinsic satisfaction of studying rather than instrumentally for career advancement. This preference may not necessarily be neutral with regards to social background. First, related to the argument that it is easier to read those who are similar to ourselves, tutors may perhaps assume that those who are most like themselves in other respects also share their intrinsic passion for their subject. Second, it is a commonly held belief that ethnic minority applicants in particular tend to gravitate around

⁶⁰ It is also possible that there is greater social distance between the tutors and non-British applicants. This explanation is less likely to be salient, however, as there is a substantial percentage of non-British tutors among the selectors.

vocational subject because as they are more instrumental in their general view of higher education (Ballard 1994; Ballard and Vellins 1985; Kotecha 2006). It is difficult to empirically substantiate whether tutors use ethnicity as a cognitive shortcut to evaluate the instrumentality of applicants. Frequently, tutors who were asked whether they had noticed a link between instrumentality and other applicant characteristics responded that the numbers involved were too small to draw any inferences. One Social Sciences tutor, however, reported that instrumentality was generally more common among students on the more vocational Economics and Management degree than on the more academic Philosophy, Politics and Economics programme. When pushed to think about how this related to the different compositions of these subjects in terms of ethnicity, the tutor responded that:

'My sense is that a fairly large proportion of our applicants for Economics and Management come from British South Asian, ah, backgrounds. Um and, they will sometimes, um, display, I mean candidates from that background, will sometimes display a more, mm, instrumental view about - oh no I'm not sure. ... I don't know, well, maybe, maybe, maybe the Economics and Management people are more instrumental and certainly statistically, we we tend to get more um, more people from Asian backgrounds doing Economics and Management. (.) Yeah so that might be a pattern.' (Arts tutor 2)

It is noteworthy that this response is less concise than the usual high level of precision and articulation which tutors display in response to more predictable admissions questions. This may indicate that the dimension of instrumentality and social background characteristic is not a consciously thought through idea in the same way that many tutors had thought about school type, for example⁶¹. At the same time it is possible that subconscious links between instrumentality and social background characteristics may, in the margins, account for some of the differences in offer rates.

⁶¹ Moreover, this tutor is obviously trying to avoid the methodological trap of drawing individual level inferences from aggregate level observations.

This mechanism then, might work alongside the risk aversion mechanism and closely linked preference for homo-social reproduction in the absence of other differentiators.

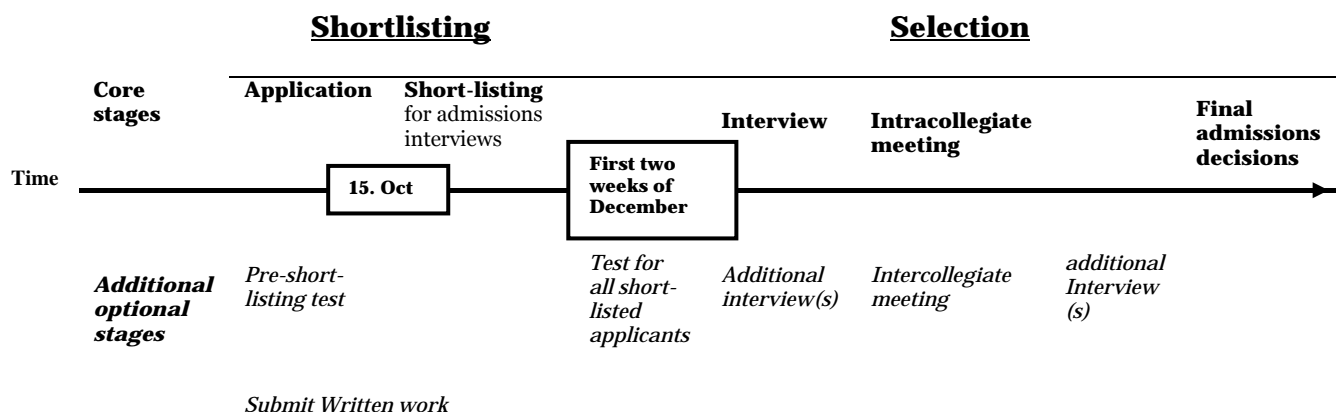
In addition to the analyses of selectors' goals and underlying preferences in the selection process, the chapter illuminated the use of attainment, schooling and other UCAS information. The vast majority of participating tutors reported that they contextualised attainment in terms of the schooling context which leads to a discounting of the performance of applicants from the best schools and a bonus in the admissions process for those who are a big fish in a small pond. The discussion of attainment also showed that, in line with the statistical analyses, attainment at GCSE was more dominant in the discussion of applicants than attainment at A-level. Contrary to the University of Oxford's statement that attainment was used as a proxy for ability, the analyses showed clearly that GCSEs were regarded as valuable information in their own right. It is possible that controlling for the subject composition at GCSE would have fine-tuned the statistical analysis as several tutors reported paying closer attention to attainment in degree relevant GCSEs than in other subjects. Contrasted with the importance of attainment in secondary school for admissions decisions, other pieces of information such as the reference and the personal statement received comparatively little attention by selectors. For the British applicants, references appeared only to play a role when they reported something exceptionally good or bad. It is possible, however, that in the margins the 'more honest' (Arts tutor 14) approach towards writing references in continental European countries and the lack of experience in writing Oxford recommendation letters for some overseas referees contributed to the lower confidence in the quality of overseas applicants.

In sum, this chapter moved beyond the statistical exploration of admissions patterns to an understanding of the processes involved in admissions decisions from the perspective of the selectors. The findings from this chapter suggest that the mechanisms of risk aversion in the face of uncertainty and homo-social reproduction are plausible and empirically substantiated explanations for the previously observed differential transition rates into Oxford. These mechanisms appear to operate largely as an unintentional by-product of the desire to admit students whose behaviour over the course of their undergraduate degree is predictable. In addition to risk aversion, it emerged that a further mechanism in selection was the socially responsible discounting of attainment in the context of an applicant's secondary education.

Appendix

Basic Features of the Admissions Process to Oxford

Table 6.18 The basic features of the admissions process



Undergraduate admissions at Oxford are undertaken by the subject tutors of the 30 colleges and seven permanent private halls that admit undergraduate students. In many subjects, students list a first choice college and often a second and third choice college of preference for their studies. A couple of subjects strongly encourage open applications or randomly allocate second choice colleges. This application model allows for subject as well as college variations in admissions practices. In particular, subjects differ regarding the extent to which they have coordinated their admissions procedures and it is possible for different applicants for the same subject to have different experiences of the admissions process depending on the college to which they have applied.

On average, tutors shortlist 90 per cent of home applicants for interview at Oxford based on the application form of an applicant and, where applicable, samples of written work and a pre-interview test in the case of Medicine, Law and History. The

actual selection for all short-listed European applicants then occurs in December. Except for the case of Engineering, candidates usually stay for at least one night in Oxford, many stay for three or four days and are accommodated in their first choice college. Several subjects administer a subject specific test while applicants are in Oxford in order to provide an extra piece of information for evaluation. Candidates usually have two interviews in their first choice college with the actual reported range being one to four interviews. Interviews usually last 25 minutes and are conducted in pairs, alone or in panels. Several subjects operate a system whereby applicants are automatically interviewed by a second choice college. Other subjects have mid-interview intra-collegiate meetings in which tutors ‘sell’ the applicants they thought worthy of a place at Oxford but whom they could not take themselves to other colleges that still have spaces open. Such meetings also function as a benchmarking exercise that allows tutors to see how their pool of applicants in a particular year compares to the quality of applications received by different colleges⁶². The variation of applicant quality across colleges has led to an element of ‘college lottery’ in the admissions process that most subjects have sought to redress. After tutors have interviewed their second – and in some cases third – choice applicants, final admissions decision are made within every subject group. Some subjects then operate a subject-wide pool system that is designed to mitigate the effect of losing

⁶² Subjects and individual tutors differ regarding the extent to which this trading opportunity is used. Some tutors are happy to fill all their spaces from their first choice applicants, either because they are convinced that these are the best students they can get or because they want to avoid the time investment that further interviews entail. Other tutors may decide to consciously leave open spaces for second choice applicants. Occasionally a college would put forward a candidate that they were still seriously considering but for whom they wanted an additional opinion, for example because the applicant had been terribly nervous in the interview. The meeting structure varied from subject to subject and also within ‘subject groups’ internal to a subject. For example, in one observation it was a rule that each candidate who was put forward for a second interview would be guaranteed to get one. This was partly because colleges had asked candidates to stay for an extra night and it would have been embarrassing to tell them that they didn’t have a further interview after all. Other meetings did not have such rules. In another subject, the allocation of second interviews was undertaken subject-wide and it was enforced by the chair that every candidate with a certain test score but no firm place would be seen again.

students because they do not achieve their three A offer conditions in their A-levels (and the very rare event that the student turns down an offer). The university recommends that subjects should offer 10 per cent more places than they actually want to take, which is, in fact, a low loss of applicants by international standards with the most selective US institutions losing 31 per cent of their offers (http://www.princeton.edu/pr/reports/admission_study/adm-report.html). Several larger subjects operate less formal pools within their college where they make eight offers in the hope to admit seven students. Offer letters are sent out no later than the middle of January. For post-qualification applicants, these offers are unconditional but those who are still in secondary education are required to reach a certain level of attainment before they begin their undergraduate study at Oxford in the next academic year; or, in the case of deferred entry applicants, the year thereafter.

Chapter Seven

Qualitative Analysis II: The interview and post-interview decision making

7.1 Overview

This chapter sets out to investigate whether any of the processes in the actual admissions process further contribute to explaining the puzzle of differential admissions rates to the University of Oxford. The analysis provides a detailed description of the processes and mechanisms used in both decision making and the admissions interview. The chapter finds that the discourse used during admissions meetings is generally blind with regards to ethnicity, gender, school and class when it comes to applicants who scored consistently well across a range of admissions-relevant measures (the ‘sure admits’). Schooling and access considerations, however, often play a role in the decision to invite applicants for interview and these considerations can enter the admissions decisions for marginal candidates. In particular, schooling information was used to fine-tune the profile of the admitted students. In such instances, the decision to award a final place for undergraduate study could come down to whether a student had attended a state or a private school with the state school applicants generally winning the contest. The findings also show that the structure of the

decision making process itself further explains the disadvantage experienced by overseas applicants who are not interviewed at Oxford.

The chapter's main contribution to solving the overarching puzzle of differential transition rates by social origin is that these differentials appear to result mainly from the straightforward admit/reject decisions rather than a result of the thoughtful discussions of marginal places. This also means that those who have the skills and attributes most valued by the selectors over and above attainment – i.e. the 'sure admits' – happen to be most socially similar to the selectors. This observation appears to further buttress the argument advanced in Chapter 6 that admissions decisions follows a pattern of unintended social reproduction – in other words that people have a tendency to relate and assess more easily socially similar individuals.

7.2 Analysis III: Interview and Decision making

7.2.1 Pre-interview decision making: Summoning – subject and college level differences

Once all the UCAS forms have reached admissions tutors or admissions panels, the first decision making task is to invite applicants for interview. All participating subjects had some procedure in place whereby some applicants were screened out of the admissions process prior to the interview stage. In the past, this process was referred to as 'desummoning' but the current official university discourse describes this exercise as a short-listing process. Not only does the latter term carry a more positive connotation – it is more pleasant to think of

candidates as being unsuccessful in making a shortlist than being disinvited to attend an interview – there is actually a meaningful substantive shift behind this play with words. Conceptually, ‘de-summoning’ implies only ‘disinviting’ those with no chance of gaining an offer. In contrast, a shortlist means that only those with the highest chance of gaining an offer are selected for interview. As application numbers have risen over the years, the short-listing model is more widely adopted in order to uphold an interview process originally designed to cope with much smaller numbers of applicants. Nonetheless, short-listing systems currently co-exist with de-summoning models in screening for interviews. The procedures in two Arts subjects illustrate the point. In one college based system, the college tutors for the subject calculate the maximum number of interview spots they can possibly offer between themselves in the available time. They then invite the maximum number of applicants to interview. In the particular case observed for this research, 90 per cent of all British and European candidates, or six applicants per place, were invited to interview (Arts observation). In contrast, another Arts subject with a more departmentally based admissions policy centrally caps the number of interviews per place at 2.5 candidates. This means that, irrespective of the number of applicants, only those with the highest chance of gaining a place are interviewed⁶³.

In addition to subject level variation in summoning, there are also differences across colleges for subjects that undertake summoning at the college rather than the subject level. Generally, the oldest and most famous colleges attract more applications than their newer and less endowed neighbours. Naturally, colleges with fewer applicants per place have a higher capacity to interview prospective students than colleges with a high volume of applications

⁶³ This particular subject has a method whereby each college can invite two applicants per place themselves and, in addition, a faculty board allocates another 0.5 applicants per college place to the college. These differences in competitiveness at interview by subject also highlight the importance of including subject level controls in the quantitative analyses presented in Chapters 4 and 5.

per place. Arts tutor 5, the tutor of admissions for a college with a relatively low ratio of first choice applicants explained that:

'As a college, we don't really de-summon, we would only do this when we think the application is not serious or 'deranged' - a person with no qualifications or someone who has not submitted any work. But we prefer to give an interview - if they have gone through the trouble of putting us down it is a courtesy to interview them and to treat them as a human being.' (Arts tutor 5)

This outlook is contrasted by the experience of a tutor for the same subject at a different college where the high volume of applications had resulted in a more 'ruthless' approach to short-listing. These college-level differences in competitiveness can also mean that the chances of being invited for interview are not necessarily the same across all colleges.

7.2.1.1 Role of attainment and contextual information

Beyond college and subject level difference in the approach to summoning, the vast majority of de-summoning decisions are generally based on attainment and predicted attainment in secondary education. There are two exceptions to this observation. First, Medicine has started short-listing based on a national pre-admissions test, the BMAT. Second, the Humanities tutors at one particular college covered in the study short-listed primarily based on samples of the applicants' written work as a measure of subject relevant skills rather than school grades⁶⁴. Even among the subjects that practice attainment-based short-listing, there are again some differences regarding the precise ways in which attainment enters short-listing decisions. Some subjects use college-level attainment bench-marking whereas others use

⁶⁴ Applicants for this subject were required to submit two pieces of written work with their application file. Two different tutors marked one piece each and if the piece was regarded as lower than 2:1 degree class quality and there were no mitigating factors in the UCAS form, candidates were not short-listed for interview (see Chapter 6.4.1.7).

subject-level coordinated procedures. The procedures of de-summoning by using a combination of a mathematical algorithm of attainment and human input is described by Science tutor 1 as follows:

‘The tutor in charge of admissions [in the faculty] drew up a list of de-summoned candidates on the basis of the UCAS form ratings... Now, how do you decide on that? Well, the problem is that almost everybody is predicted three As. So, the GCSEs loom larger than they should as you have the GCSEs. So, what he did is he looked at data from the past years, to see if you had 3A, or 4 A* or 5A*, what was your chance of getting an offer. And, he found the number of stars below which you had almost no chance of getting in - in practice. ... And, so, he produced a list on the basis of how the GCSEs - using the criterion from past years - and said, ‘these are the people we are going to de-summon.’ He then sent that list to all the college tutors and said: ‘Could you now look over all these people and decide either that somebody who has been de-summoned shouldn’t have been or if you think somebody else should be de-summoned?’ Now, the main concern are people are de-summoned on that list mainly because they didn’t do all that well in their GCSEs. And, clearly, this could be because they had glandular fever, because they come from a poor school, because there was family break-up, because they are Access students, and so on. So, a proportion of students were added to the summoned list because college tutors thought it not correct to de-summon that person.’*

This quote illustrates two crucial features of the short-listing process that emerged as general underlying guiding principles irrespective of subject and college-level procedures. First, there is very strong emphasis on attainment. Second, tutors have – and often feel strongly about – discretion to take what the Schwartz review called a ‘holistic’ approach to select applicants who would have perhaps not been admitted under a simple attainment based decision making system (Fetter 1995; Schwartz Commission 2004; c.f. Steinberg 2002).

In addition to exceptional personal circumstances such as the case of illness mentioned in the previous quote by Science tutor 1, school type and the identification of an applicant with a ‘widening participation’ initiative lead tutors to grant an interview even in the case of less-than-stellar academic accomplishments⁶⁵ (Science tutor 9 and four Arts tutors). In the

⁶⁵ Applicants whose dossier flags them up as ‘Access’ candidates, ‘Sutton Trust’ candidates or someone

following quote, Science tutor 9 explains how she uses schooling in her short-listing decisions:

'If someone is predicted AAB, I would de-summon if they apply from a good maintained school or a good private school. But I do look for pointers of the context, I look the school up on the HEFCE⁶⁶ site for the point score of the school and if this is significantly below average I would not de-summon. Basically, I would interview all from a poor school.'

In contrast, several participating tutors stated they would not make concessions in cases where A-level predictions were below three As. This view has to be understood in the context where Oxford as an institution has moved away from allowing applicants to embark on an undergraduate degree without at least three As. Tutors who did not make concessions for imperfect A-level predictions nonetheless frequently considered school information in the evaluation of GCSEs: 'if someone was applying from a, who met the entrance criteria and who had three A's predicted, um, and who came from a school less than sixty percent G.C.S.E. passes we would automatically interview that person.' (Arts tutor 1). In one reported instance, for example, a candidate was short-listed for an interview for admission to a very competitive Arts subjects despite having attained an E and a D in two GCSEs. The tutor argued that the applicant was part of the first cohort at his school going through the Sixth Form. Within the context of this particular school, even those grades actually marked

applying from low performing schools are frequently interviewed as long as they meet the most basic requirements. Access Candidates are applicants who apply to the University of Oxford with an additional application form that puts their educational achievements in context. To qualify for the scheme, applicants need to have a predicted attainment of at least AAB and attend school or college in a state sector in the UK that has little or no tradition of successfully applying to Oxford in the school or college. Many access candidates attend a school in an inner city area and come from schools and/or families with low or no levels of entry into higher education (<http://www.diffusion-design.co.uk/access/tutors.php>). Sutton Trust Applicants are applicants who apply to University after having participated in a Summer School run by the Sutton Trust Charity. Priority to participate in these fully funded university taster courses is given to applicants from non-professional class backgrounds with no family and school history of higher education who attend low performing schools but who achieve outstandingly within them (<http://www.admissions.ox.ac.uk/liaison/summer/sutton.shtml>; <http://www.suttontrust.com> (Both Viewed on June 26 2006).

⁶⁶ HEFCE stands for the Higher Education Funding Council for England. HEFCE publishes detailed reports on individual British schools.

an outstanding performance (Arts tutor 14⁶⁷). One aspect that is perhaps sometimes overlooked in public debates about access to selective higher education is that taking into account educational disadvantages translates, on the other side, into taking account of advantages. In short-listing decisions, it negatively affected applicants' chances to have attended a good school and not to have achieved outstandingly well. One science tutor commented that 'we even de-summon people who have 'only' got an A at GCSE in [subject they want to study] rather than an A* if they come from a very good school.' (Science tutor 6).

Short-listing is therefore a complex process that seldom follows a formula or operates with simple cut-off points. Applicants with the same attainment record can fare differently depending on the context in which their attainment was achieved. For some subjects, other information such as performance in pre-interview tests or the quality of submitted written work decide who is invited for an admissions interview and who is not. The multifarious considerations that enter the summoning process are graphically illustrated in a decision tree model in Figure 7.3 in the Appendix to this chapter (Gladwin 1989).

7.2.2 The Interview

Once the short-listing process has been completed, the next phase in the decision making process is the collection of new information in the form of the admissions interview. Unlike other universities in the UK and, in fact, worldwide (USA, France but not Japan), Oxford and Cambridge systematically interview all their applicants for undergraduate study. The

⁶⁷ This applicant was not, however, ultimately successful in the competition for a place.

interview can take different forms in terms of how many times a candidate is interviewed; the content of the interview, the number of interviewers interviewing an applicant and the relative weight assigned to the interview in comparison to other pieces of information in the final admissions decisions. These variations of the interview are now described in turn.

7.2.2.1. The set up

Interview set ups can differ across subjects and colleges. Interview length, however, is generally standardised at approximately 20 to 25 minutes per interview. The number of interviews in applicants' first choice colleges generally ranges from one to four with a median of two interviews. Applicants for joint degree programmes such as History and Economics generally have more interviews than their peers who applied for single honours (i.e. just History) as they are interviewed by tutors in both subjects. Some colleges also operate a system of general interviews that is designed to complement the subject specific interviews⁶⁸. Several subjects guarantee a second interview at a different college for all applicants but some subjects only interview marginal candidates twice. The number of interviewers in individual admissions interviews is also not fixed and is reported to range from one to three. While the official university policy discourages interviewing alone because of threats of litigation, a sizeable minority of eight⁶⁹ tutors reported continuing to interview one-on-one and 11⁷⁰ tutors reported interviewing in pairs⁷¹. In several instances

⁶⁸ These interviews are frequently conducted by the senior tutor of the college and aim to assess 'general intellectual ability' (Arts tutor 1), 'personal organisational skills', (University administrator) 'personal circumstances and motivation' (Arts tutor 13, Arts tutor 5). 'They won't ask them subject based questions but more ...personality, application-based questions'; '[the general interview] is more about their sort of personal, circumstances, and their ambitions, and their interests' (Arts tutor 15).

⁶⁹ Four Arts tutors and four Science tutors, Arts observation.

⁷⁰ Six arts tutors and five Science tutors and Arts observation.

subjects with two or more interviewers aimed for a gender balance among the selectors, but as one tutor remarked, 'if we're lucky, we're able to include one woman ... but inevitably, the teaching establishment in Oxford is rather male dominated' (Science tutor 4, also mentioned by two Arts tutors). This observation of the unequal representation of men and women on selection panels might further support the argument of homo-social reproduction advanced in Chapter 6.

In sum, the set up of 'the admissions interview' can vary between colleges and subjects and it can vary by the number of interviews, the number of interviewers and the make-up of interview panels. When the selectors participating in this study were prompted to elaborate why they had chosen a particular approach, they generally replied that their interview style was adopted from their predecessors or colleagues or had changed in line with university guidelines.

7.2.2.2 Standardisation

⁷¹ Arguments were made in favour of both arrangements with one tutor reporting that he felt the validity of his admissions decisions had improved in pair interviewing (Science tutor 3). In contrast, another fellow science tutor felt strongly that one-on-one interviewing had a greater potential to bring out the best especially in those applicants least familiar with the kind of social interaction of an interview with an Oxford don: 'it is less intimidating and by the third time [interview], they are so bored, they open up to speak!' (Science tutor 7). In one instance interviewing was conducted in a panel of three (Science tutor 2, also Science tutor 8 and Arts tutor 1 for re-interviewing candidates). In some joint subjects with several sub-disciplines a mixed approach was practiced within the same college whereby candidates get one interview with a pair of interviewers and a second one-on-one interview (three Arts tutors, Arts observation). In instances where tutors had changed their practice from interviewing alone to interviewing in pairs, the main driving force appeared to be the macro-legal climate in which the admissions process is embedded (See section 1.1.) In joint interviewers there can be two subject tutors who cover different areas of expertise (two Arts and two Science tutors), one subject tutor and one other tutor who assesses generic skills question (Law observation), or a tutor who interviews with a graduate student who might just be there to take notes (Science tutor 3, Arts tutor 1) or perform a specific task (Arts tutor 15).

With regards to the actual interview content, there were again some differences regarding the kind of questions that were asked and their standardisation⁷². With the exception of Medical Science, where divisional guidelines prescribe standardised interviews, the decision to standardise or not cut across the Humanities, Social Sciences and natural sciences divide. Standardisation of interviews was reported by five tutors⁷³ and varying degrees of equally, un-standardised interviews were also reported by five tutors⁷⁴. The amount of thought that tutors had put into their views on standardisation suggested that this was a controversial topic on which tutors were prepared to defend their particular position. It is worth delving more deeply into the controversy because it uncovers some interesting behaviour that seems at odds with the utility-maximisation models popular in the modelling of action in the Social Sciences.

It is first noteworthy that the tutors on both sides of the standardisation divide viewed their position as rooted in equal opportunities discourse. As discussed in Chapter 1, the concept of equality of opportunity is a cornerstone of democratic societies, but, unfortunately, it is also an essentially contested concept. In support of standardising interview questions, tutors frequently referred to guides of best practice and equal opportunities and empirical research on selection interviews which suggested that interviews were ‘more valid if you give

⁷² The interview often starts with a kind of warm up or ‘space filler’ (Science tutor 7) based on the personal statement (Science tutor 8, Science tutor 4, Arts tutor 3), their exposure to the subject at school (three Arts tutors), generally what the applicant had read about subject (Arts tutor 15, Science tutor 1) and the applicant’s reasons for wanting to study the subject (two Arts tutors, Science tutor 1). In most cases, the purpose is just to relax the applicant and ‘nothing depends on this’ (Arts tutor 1). But opinions were split regarding answers to another popular warm-up question: ‘Why do you want to study the subject?’ and sometimes the addition, ‘Why do you want to study it at Oxford?’ Some tutors felt the answer was not important unless students said something ‘really dumb’ (Arts tutor 11), one tutor thought the entire question was appropriate ‘because we don’t think it gets us very far in assessing these people,’ (Arts tutor 1) but two tutors, in fact, assigned a grade to the answer offered in response to this question (Science tutor 1, Arts tutor 3). For them, it helped to ‘identify those who have really thought about the course from those who, seriously - from those who haven’t’ (Arts tutor 3). In one instance, first time interviewer Science tutor 2, unaware of the recommended practice for interviewing, reported that his interviewing team started interviews by asking why the applicant had chosen their particular college at Oxford.

⁷³ Two Science tutors and two Arts tutors.

⁷⁴ Three Science tutors and two Arts tutors.

everybody the identical task. So... I ask everybody the same question in the same order.’ (Science tutor 1⁷⁵). The reason for not standardising interviews also related to equal opportunities, in addition to the desire to be flexible in the interview. First, several tutors wanted to have the flexibility to tailor the interview to the knowledge base of each applicant. This need arose because, even for applicants taking the same A-level subject, the actual subject syllabi can differ significantly depending on the examination board chosen by the applicant’s school. In such instances, several tutors stated that they selected the specific interview exercises or questions from a range of prepared material appropriate for candidates with different knowledge profiles (three Science and two Arts tutors). A second, possibly more surprising, reason for randomly varying some questions was the concern voiced by four tutors⁷⁶ that candidates might communicate interview questions to their fellow applicants. Science tutor 9 explained this phenomenon

“...because they talk to each other! I have them all here in my office before the interview and tell them what will happen and I say: ‘look this is a competition... I have four places, and there are nine of you. It is not in your best interest to assist each other in the competition by talking about the interview.’ But they get different graphs because they still do! I can hear them coming out of the interview and saying outside the door: ‘Guess what they asked me!’”⁷⁷

Science tutor 9’s concern was echoed by the Humanities selector Arts tutor 13 who found that ‘if you ask the same questions then you start to get recycled answers!’. Social scientist Arts tutor 1 was also concerned that standardisation offered ‘an advantage on people who come later down on the people who are earlier on’ (Arts tutor 1).⁷⁸

⁷⁵ Science tutor 1’s subject had in fact considered standardizing questions for all applicants across colleges but decided that this was not feasible as the same applicant might be interviewed by several colleges.

⁷⁶ Two Science tutors and two Arts tutors.

⁷⁷ This sentiment was also voiced by four Science and two Arts tutors.

⁷⁸ Tutors shared my amazement at this behavior, which appears slightly irrational. Science tutor 9 said, ‘I guess it is a high energy, hype situation and they just want to talk about the experience.’ Science tutor 3 elaborated further on this point: ‘you know it’s a mind set that these kids get into, right? You know, they see their peer group as their friends, you know, and you’re not in their peer group, right? So if you’re not a friend, okay, well okay you’re not necessarily an enemy but you know, you’re sort of, you know you’re not, you’re not someone who’s helping them so to speak. And you know, there’s a natural human inclination, I think, to

7.2.2.3 Content – in search of the perfect question

‘The most important thing in the interview is having the right questions. And, really thinking incredibly carefully about the sorts of questions to ask students from different backgrounds, different countries, different schooling experiences, different A-level subjects. And, which, therefore, don’t really rely on knowledge but push them on the criteria that are really central to the degree course and to achieve in Oxford.’ (Arts tutor 11).

Selectors generally reported to use the interview to get a handle on how the applicants think (Chapter 6.3.1.1). The interview is regarded primarily as selection tool for admitting those who can think and achieve at university versus ‘those who’ve simply got this far because they’re good at doing exams’ (Science tutor 4, theme also mentioned by five other tutors⁷⁹). Recalling the discussion of meritocracy in Chapter 1, the selection interview was reported to be generally more concerned with detecting potential rather than educational achievement.

But despite the theoretical distinctiveness of the concepts of achievement and potential, in practical terms tutors were divided in their opinion as to whether it was actually possible to tap only into underlying potential without tapping into knowledge and educational achievement. Some tutors found that the interview process allowed them to successfully and straightforwardly see ‘uncoached ability shining through training, knowledge and schooling’ (Arts tutor 11, also three further Arts tutors and the Senior Tutor). Others were less convinced that potential independent of ability came through in interviews (three Science tutors and Arts tutor 4). The following two quotes illustrate the different sentiments:

help your friends., right? Even if it sometimes doesn’t help you.’
⁷⁹ Two Arts and two Science tutors and University Administrator.

'If that person just starts thinking, and starts thinking cogent, well structured, original responses, clever responses, to a difficult question - then it doesn't matter where they come from. It really doesn't. And you can be as good as that if you come from a dodgy comprehensive, special measure school and if you come from Rugby. You can see that in somebody. And, it shines through. And it shines through the languages and it shines through confidence and it shines through and knowing this and how to play the system. And if you had an interview prep from a great school, you can still come and get totally stuck on a difficult question because you just can't see how to come up with an answer' (Arts tutor 11).

This view is contrasted by the following doubtful statement:

'Ability's not something that develops in utter independence of everything else you know. I mean what do you do? Yes, students who've come from educated backgrounds, who've been exposed more to in breadth literature or whatever have possibly a better chance of proving themselves more able for entry into a course where that's what they'll be doing. Not that that is necessarily a good indication of motivation, or indeed of ability, but certainly of a certain kind of acculturation of training, yes, for sure. And I think that's in a sense what is very difficult to assess in interviews - to see through the training.' (Arts tutor 4).

Science tutor 8 also acknowledged that it was difficult in the admissions interview to 'control for knowledge. Because, obviously, the more knowledge you have - it is not obvious - but it is likely to be easier to say something to an unexpected question...' It is noteworthy that none of the science tutors adhered to the view that the selection interview could tap into potential independent of ability. This observation may reflect underlying difference in the subject content between Arts and Sciences where perhaps in the latter it is more difficult to design questions that tap into potential without tapping into knowledge. After critically reviewing his own interview questions, Science tutor 3 pondered that even though he only assumed the most basic knowledge of science for his interview exercise he did not think that he had managed to design a question that could show potential and deep thinking completely unrelated to any knowledge of science:

'I don't consider myself very good at it- at identifying who has potential, right? in the interview process. ...I've thought of one question to do this, right? Potential. But I tried it on my graduate student. You know my new graduate student, last year because she came up through the Oxford system and she was going to help out with this interview process. And so, you know, I was talking about questions. How do you ask a question that might show, regardless of what they've done, whether they think deeply about things? Right? So the question I came up with: 'What is the cause of evil in the world?' (Laughs). Right?....But I asked it to her and she says " If you'd asked me that question, I wouldn't have been here." '

The episode illustrates, on the one hand, the challenges involved in designing interview questions unrelated to knowledge. On the other hand, the reaction from Science tutor 3's graduate student also potentially raises the question of whether selecting science based more on potential rather than knowledge would necessarily lead to the selection of high-achieving Science students.

Overall, interview questions emerged as an even more controversial issue than the previously described disagreement regarding standardised questions. The majority of participating tutors felt strongly about this point and, in some instances, interview questions were cited as a source of serious disagreements among colleagues. One Social Science tutor pointed to the difference in eliciting knowledge and potential as the source of her argument with colleagues from a Humanities subject over admitting a joint school applicant. The two subjects had arrived at opposite evaluations of the applicant's performance in his specific subject interviews. Arts tutor 14 offered an explanation:

*'...very different ways of interviewing in [these two subjects]. I really got the impression that they wanted knowledge. And they wanted 'historical imagination' - would you prefer to live in Stalinist Russia or Hitler's Germany? And, I think it definitely helps to have knowledge for that. Whereas in [my subject] we really want people who can think.'*⁸⁰

⁸⁰ In this instance, the Social Science tutors won the battle for the applicant. The student is currently enrolled in the second year and doing outstandingly well in both the Humanities and the Social Science subject.

It is perhaps helpful to look at some of the actual interview questions that tutors used in order to understand the underlying controversies surrounding the detection of ability and potential in selection interviews. In the following summary, an attempt – however controversial – has been made to classify interview questions and exercises as either primarily based on demonstrated ability or primarily based on potential.

The following interview exercises seemed to involve a clear element of demonstrated ability: speaking in the target language (e.g. German or Italian) during a modern language interview, solving a mathematical formula for an economics, mathematics, physics or medicine interview, or solving a probability exercise in the Biology selection process. There are also other questions that may simply be easier to answer with a knowledge base although someone with no knowledge of the issues might also make a reasonable attempt at them. Such questions include the comparison between Stalinist Russia and Hitler's Germany mentioned in the previous quote from Arts tutor 14 or comparing the evolution of human emotion with evolution in biology.

Interview questions aimed at measuring potential had three possible starting points. First, they could start from something that only required the most basic subject knowledge that an applicant should have covered at school. Second, tutors used the interview to ask questions that concerned issues on which anyone should have some by virtue of living in a social world and harbouring a basic interest in the subject matter of the proposed degree course at Oxford. In an interview, an applicant might then encounter a very broad question such as 'Should there be a ban on smoking?'; 'Why do people give gifts?'; 'Can science relate to ethical and religious questions?'; 'What would you look for in a coalition partner if you were the leader of a political party?'. Third, interviewers might provide some material to a candidate just

prior or during the interview. Such material could be a graph, a poem, a literary extract, the text of a statue, an extract from the bible or a political classic, a conditional ‘if...then’ sentence, a biological artefact or a hypothetical scenario.

What these approaches have in common is that selectors use the material or the broad questions to see how far they can push the candidate beyond the boundaries of school knowledge and to explore how applicants react when new ideas are ‘thrown at them’⁸¹. The idea is that the playing field is equalised by giving everybody the same information and only evaluating applicants’ thinking skills⁸². In practice, pushing an applicant into unfamiliar territory might look something like this: ‘what would happen to the energy if I replaced this frictionless block with a rotating object?’; ‘you said x but what about scenario y?’ What tutors want to know is ‘How do the applicants answer a question that they’ve never encountered before?’; ‘What is their thinking ability that shines through irrespective of their educational experience?’ (Arts tutor 11, theme mentioned by nine tutors⁸³).

Many of these potential-based interview questions or exercises have no right or wrong answer; or, at least, this is contingent on the assumptions that are made. These ‘tricky and tough questions’ then go beyond A-level syllabi (Arts tutor 4, also Arts tutor 14, Science tutor 8). Several tutors who used this approach found that this method achieved a differentiation between applicants. Specifically, some applicants that look good on paper ‘really miss the point of the exercises’ and ‘fail spectacularly’ (Arts tutor 13, also Science tutor 4, Arts tutor 14) and others ‘really shine’ (Arts tutor 11).

⁸¹ The existence of coaching agencies such as Oxbridge Applications, however, challenges the assumption that all students compete in the interview on an equal playing field.

⁸² In two instances, candidates had a significant chunk to read and therefore had the material overnight. One tutor observed that applicants used their mobile phones to call their schools, parents or others to ask for help. The vast majority of participating tutors who used exercises, however, gave applicants the material during the interview or around 15 minutes before the interview while they were waiting.

⁸³ Five Arts tutors and four Science tutors.

This section has illustrated some of the variety in approaches to interviewing and asking questions currently practiced in the Oxford selection process. But these descriptions yield few clues to understanding the differential transition rates by social background characteristics observed in the statistical analyses in Chapters 4 and 5. The next section investigates whether the personal interaction of the interview situation can offer some further hints.

7.2.2.4 Interpersonal interaction

Tutors voiced in many different ways that they tried to select new undergraduates based on objective criteria. Therefore, they tried to eliminate the influence of personality characteristics such as likeability from conscious selection processes. At the same time, tutors also acknowledged that interviews did not occur in an interpersonal vacuum. Respondents reported that applicants for admission frequently displayed strong emotions in their interviews. This could range from tears to joy to anxiety-driven speechlessness and nervous unstoppable talking. Ultimately, tutors acknowledged that in this interpersonal interaction it could happen that one got along better with some than with other candidates. Three tutors described that occasionally something just ‘clicked’ intellectually in an interview between them and their interviewees, but there were also reports that sometimes there was no spark or that an applicant even triggered a personal dislike⁸⁴. After more than two decades of interviewing and at the verge of her retirement, Science tutor 9, for example, saw a certain inevitability regarding the human dimension of interviewing and ‘whether a question sparks a

⁸⁴ Candidates also form friendships with other candidates and get caught kissing in the kitchen before their interview. The latter incident led a selector to comment that not all applicants take the selection process as serious as ‘they should’.

response or not' which she ascribed partly to the interpersonal dynamics of the interview. Science tutor 3 elaborated on this sentiment while also expressing his underlying value that likeability should not matter in the interview process:

'The problem that you have is when you start to engage with somebody, inevitably when you are dealing with human beings you are going to have rapport with some people, and you're going to have less rapport with other people, okay? And what I discovered is that in the past, is that I really have to try and force myself to ...not be biased by the fact that we were engaging with each other in the course of solving this problem, right? When in fact what was going on was I was basically helping this person solve the problem the whole way, right? And they weren't actually doing anything, right? And that, that's very bad. That person shouldn't get into Oxford University just because they happen to have a manner and a personality that I have cottoned onto'.(Science tutor 3)

Despite the inevitability that human interactions do not occur in a vacuum, in actual admissions meetings and in tutors' own descriptions of admissions interviews and decision making processes, selectors often signalled that personality traits did not, and normatively should not, play a conscious role in the selection process. In one observation of an Arts selection meeting, in particular, selectors usually prefaced a verdict of 'not admitted' with 'nice person, but' or 'very likeable, but' (see Table 7.1⁸⁵). The array of positive and negative personality characteristics mentioned by selectors in observations and interviews are listed in Table 7.1. The breakdown by admissions decision illustrates that personality traits do not necessarily align with admissions decisions. While there are more negative characteristics in the 'not admitted' section of Table 1, some students with undesirable characteristics were admitted. Several students described as 'nice', 'likeable', or 'lovely' were not admitted⁸⁶. One, perhaps unexpected, comment is the characterisation of an applicant as a 'business leader' in an Arts observation. In the light of the discussion of the selectors' preference for

⁸⁵ It is perhaps noteworthy that all the selectors present in this intra-collegiate meeting were male. The applicants who were not admitted despite being nice or likeable were generally female. Nonetheless, overall, more female than male applicants were admitted in this meeting.

⁸⁶ A selector might, of course, not genuinely find the person likeable, but want to consciously and publicly declare his or her neutrality to personality traits.

cultural rather than economic middle class applicants in Chapter 6.3.2.1, however, it is possible that this is actually one of the worst things to say about an applicant. It makes sense that this characteristic then was associated with the decision not to admit the student.

Table 7.19: Personality traits and admissions decisions

Personality traits	
Positive admitted	Positive, not admitted
<ul style="list-style-type: none"> • he was <u>also</u> charming and nice, really nice guy. (Arts tutor 14) • serious, sincere (Observation Arts) • mature (Arts tutor 1) • inspiring (observation Arts) • understated, but.... (observation arts) • energy (Arts tutor 13) • sparky (Arts observation, Arts tutor 14, Arts tutor 1, Arts tutor 11) • pulled herself together after tears (Arts tutor 14) • extrovert (Science tutor 3) 	<ul style="list-style-type: none"> • 'I liked him a lot, but...?' (Arts observation) • 'very likeable, but...?' (Arts observation) • 'lovely person, but...?' (Arts observation) • 'really nice' (science observation) • 'won't be any trouble' (science observation) • 'imaginative, but...?' (Arts observation)
Negative not admitted	Negative admitted
<ul style="list-style-type: none"> • very quiet (observation Arts) • quick-fireability (observation Arts) • passive (Arts tutor 13, Science tutor 7) • painfully nervous (Arts tutor 11) • business leader (observation Arts) • arrogant (observation Arts) • great member of the JCR, socialite (Arts tutor 11) 	<ul style="list-style-type: none"> • fanciful style (Arts tutor 3) • very arrogant and unteachable (Arts tutor 3) • quiet and hard to teach (Arts tutor 1)

To conclude this section, in the observed admissions meeting and in the interviews with selectors, respondents frequently went to some length to signal that personality characteristics did not influence the selection process in any conscious way. At the same time, there were also some suggestions regarding the inevitability of getting along with some but perhaps not

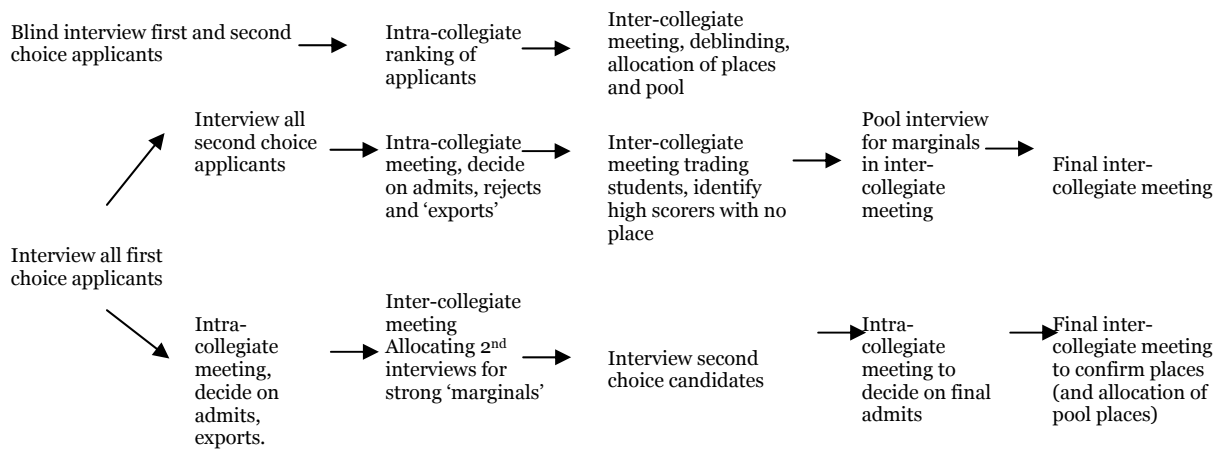
with all applicants for admission. It is thus difficult to establish whether or to what extent applicants' personalities may unconsciously affect selection decisions. The next section of this chapter is devoted to a detailed description of the procedures involved in selecting undergraduate students. There will be some indication that the actual process of making selection decisions goes some way in explaining at least the disadvantage experienced in the selection process by overseas applicants.

7.2.3 Post-interview decision making process

This section describes the stages in the decision making process following the admissions interview. Any given applicant for admission is usually interviewed by at least two different people in separate interviews. After an interview, the interviewer or the interviewers come to some agreement about how to evaluate an applicant's interview performance. Afterwards, there is generally at least one 'intra-collegiate' meeting at which the selectors from a given college come to some decision about each applicant they have interviewed. This decision can be admit, reject or put the applicant forward for second interview. Second interviews are usually allocated at an 'inter-collegiate' meeting at which representative from different colleges are present. This model of reaching selection decisions is perhaps the most common way how final admissions decisions are made but some subjects operate slightly different procedures. These variations are displayed in Figure 7.1 below⁸⁷:

⁸⁷ Engineering, for example, operates an admission system based around a centralised admissions panel.

Figure 7.10: Decision making stages in the admissions process: Interview and beyond



7.2.3.1. Evaluating interview performance

After an interview, selectors need to reach a decision on how to evaluate the interview performance of an applicant. Unlike British school examinations such as GCSEs and A-levels, there is no absolute ‘gold standard’ for admissions interviews that supposedly stays constant over the years. The academic quality of applicants and their profile in terms of attainment as well as type of school distribution fluctuates from year to year. The ranking of an individual applicant within a cohort of applicants is therefore always relative to the strength of other applicants in the same year. Tutors observed that this fluctuation in applicant quality has led to the perseverance of a belief at secondary schools that there is something mysterious about the selection system at Oxford. It is possible that an outstanding student from a particular school does not receive an offer from Oxford or Cambridge in a certain year although a weaker student from the same school might gain admission in subsequent years (Arts tutor 11). In one inter-collegiate arts observation (see section 7.2.3.4) a tutor stated that the four students he wanted to be considered for admission by other colleges “would have received an offer in a ‘normal’ year”. He was thereby signalling that

he believed that his subject had received exceptionally strong applications during the admissions cycle.

This fluctuation in applicant quality has also led several tutors who interviewed alone to rank each interview against the other interviews in that admissions round rather than against a more absolute numerical ranking system:

'The easy thing that you can do is you can usually put people in a rank order, you compare them relative to each other. So what I'll do is, you know, I'll take the first person and I'll lay the sheet down and then when the second person comes up beside, well, I'll ask: 'is this person better or worse than the other one?' And I'll put them on top or underneath, and I just keep doing that. And by the time the interview process is done, I have a stack of papers with a rough rank order of who I thought was top and who I thought was the worst' (Science tutor 3).

Other tutors interviewing alone and all the tutors who interviewed in pairs or panels, however, reported that they assigned absolute marks to an interview such as A, B, C or 65, 70 (two Arts tutors and Science tutor 8). Tutors acknowledged that with this approach it was sometimes difficult to grade the first few applicants and occasionally the first marks were later adjusted upwards or downwards in the light of the performance of applicants interviewed later in the selection process (Arts tutor 14, Science tutor 3).

In joint interviewing, there were also differences in whether the two or more tutors would initially rank candidates independently (Science tutor 4, Senior Tutor, Arts tutor 14) or whether marks were agreed upon in an open discussion immediately after the interview along the lines 'what do you think?' (Science tutor 2, three Arts tutors, Arts observation). The differences in interviewer agreement, however, appeared to cut across the open / covert grading divide with agreement as well as occasional disagreement reported from all tutors

irrespective of the evaluation method. In general, tutors found that judgments of the same interview tended to be similar. But even here there was an exception as one tutor reported that her and her co-interviewers' opinions diverged significantly in the joint interviewing of an applicant for a joint honours degree course: 'we didn't even agree on how the student had performed on our own or on the other person's question.' (Arts tutor 11). Generally, however, disagreement was more likely to occur between rather than within interviews. But even between interviews tutors reported that interviews more frequently complemented each other than led to conflicting evaluations of an applicant (three Arts tutors, Senior Tutor). In instances where there was disagreement about an interview performance, several mechanisms were in place to overcome such differences (see section 7.2.4).

7.2.3.2 Intra-collegiate meetings

The interview evaluation process is usually followed by an intra-collegiate meeting. At this meeting, each applicant is discussed by everyone in a particular college who has interviewed the candidate. In most instances, tutors are at their discretion to make the majority of admissions decisions at this point⁸⁸. The observed format of such meetings was generally an exchange of interview marks followed by an evaluation of the overall performance of applicants that considered interview performance in conjunction with all other pieces of information such as educational attainment. Tutors would then decide which students to admit and which ones to reject based on all the available information about an applicant. In two instances, it was observed that colleges were also allowed to nominate one 'marginal

⁸⁸ In one subject with coordinated procedures, the intra-collegiate meeting only served to establish which students the college would like to admit but the subject coordinators were in charge of final student allocations based on applicants' preferences and the availability of places.

candidate' and 'exports'. The 'marginal candidate' is an applicant who will be offered a place by the college if the tutors do not interview an applicant from another college that they would prefer to admit. Generally, marginal candidates are expected to gain a place somewhere in Oxford. 'Exports' are just below the marginals in terms of how admissible they were judged by the college tutors. Often, those designated as 'exports' are interviewed by another college but they are less certain to gain a place at Oxford. The marginal candidate of generally more competitive colleges usually stands a better chance of getting an offer from a less competitive college than those designated as marginals by colleges where competition had not been as fierce in the first place. The trading of marginals and exports at the inter-collegiate meeting is now discussed in some detail.

7.2.3.3 Inter-collegiate meetings

Many subjects⁸⁹ operate a system whereby all colleges that teach a particular subject or, in the case of very large subjects, subgroups of colleges come together after the intra-collegiate meetings in an inter-collegiate meeting. These inter-collegiate meetings are designed primarily as a mechanism to achieve fairness in admission. It continues to be the case that the oldest and wealthiest colleges attract more, and frequently better, applicants than the younger and less wealthy foundations. In the past, it was possible that the 'college lottery' of which college an applicant had applied to could impact on an applicant's chances of gaining a place. The inter-collegiate meetings are likely to deserve credit for the fact that college level

⁸⁹ An exception to this observation is the Medical Sciences Division which operates a system of 'college blind' interviewing. Interviews were allocated by a committee or chair of undergraduate admission. Tutors did not know at the time of the interview whether an applicant had made a college choice on their application form at all or which of the interviewing colleges they had put down as their first choice.

competitiveness did not in the quantitative analyses in Chapter 4 and 5 affect the chances of gaining a place.

The purpose of such meetings is to benchmark the quality of applicants across colleges and to trade applicants. The process of the meetings is now discussed in more detail. At the inter-collegiate meeting, colleges that feel that their own first choice applicants are not as well qualified as perhaps the ‘exports’ from other colleges can bid to interview the exports offered at the meeting. This process is generally known as the ‘buying’ and ‘selling’ of applicants. These market analogies also explain why the annual inter-collegiate gathering is more colloquially simply known as ‘the cattle market’⁹⁰. The details of this process are as follows: all participating colleges in a certain meeting take the application files of their ‘exports’ to the gathering⁹¹. Then colleges ‘sell’ their applicants in alphabetical or reversed alphabetical order⁹². There is generally a clear hierarchy in buying and selling with traditional ‘buying’ college often selling their exports slowly, or in some instances not at all. In contrast, the marginal candidates and exports from historic ‘selling’ colleges were frequently snatched up

⁹⁰ In fact, four participating tutors could not actually remember what the official name of the cattle-market was.

⁹¹ Different subjects have different rules regarding the number of exports a college can have. In one instance, for example, a college could take up to 10 per cent of their applicants to the market. It was also observed in several meetings that not all colleges brought the full number of exports to the market that they were entitled to bring. This was particularly true for ‘buying’ colleges. The rules of buying and selling also differed across colleges. Some inter-collegiate meetings had a policy that all participating colleges needed to offer further interviews to the exports from other colleges whereas in other meetings colleges are allowed to declare that they were ‘full’ and not able to interview further students. In terms of admissions outcomes, these different policies may not actually lead to very different results. The compulsory interviewing is a ‘courtesy’ practice. Generally, ‘marginal’ and ‘export’ applicants needed to stay in Oxford for an extra night to be available for interview on the next day. In one subject, this set up had led to embarrassing situations in the past where marginal applicants from ‘buying’ colleges did not secure a second interview and had spent another night in Oxford in vain. The subject inter-collegiate meeting had therefore introduced ‘courtesy interviews’. This means that all marginals and exports presented at the inter-collegiate meeting would be guaranteed another interview although some of these interviews were ‘courtesy only’, that is, there was no actual interest by the interviewing college to admit the applicant.

⁹² In one meeting, it was suggested that it would be more efficient if the traditional top ‘selling’ colleges were to sell their exports first in order to benchmark what the top marginal applicants looked like (Arts observation). Perhaps because such a practice would make the unwritten college hierarchy in application quality explicit, this notion was rejected. In one observation, one college hesitated to offer an interview to a marginal from a traditional ‘buying’ college stating that, ‘We want to wait to offer your candidate a second interview until [big prestigious college] has announced their marginals’.

in seconds. In two meetings, applicants were sold to other colleges in a 'sales' pitch (Arts observation, Science observation). In other meetings, information on candidates was circulated on spreadsheets and the chair asked for volunteers for second interviews for high scoring applicants (Science observations). The crucial pieces of selling information at this point were school attainment, test performance, interview performance at the applicant's first choice college and type of school. Generally, state school educated applicants sold better than private school applicants. This ties in with the self-reported preference voiced in the interviews with selectors in Chapter 6 that many tutors aimed to take into account the educational opportunities of an applicant in the selection process.

There was no mention of ethnicity in the buying and selling of applicants. Gender was only mentioned when the sales pitch included a reference such as 'her school attainment' or 'his interview performance'. Generally no references were made to the first names of applicants and surnames were used without the gender-identifying title Mr. or Ms. In one Science observation, the chair even said in a light-hearted manner after calling out the surname of an applicant up for either rejection or a second interview: 'Will he go? Or she? Or whoever it may be?' Ethnicity and gender information were then mainly only available from the paper application forms and did not form part of the formal buying and selling process.

Another complementary way of trading applicants was the 'black market'. In 'black market' trading, competitive colleges with a large volume of high quality of applicants pass on files to less competitive colleges 'under the table'. This process was reported to occur generally prior to the interview process although there was also at least one incident of post-interview black-market trading (Arts tutor 3). There are no official procedures for such exchanges and black market transactions appeared to be based on informal ties between individual tutors at

different colleges. The more competitive college in this transaction might, for example, simply telephone a tutor at a less competitive college and state that it had too many applications – would the other college be interested in taking some? If the exchange occurs prior to the interview process, this implies that the receiving college considers the applicants acquired on the black market on par with its own first choice applicants (Arts observation).

7.2.3.4 Pool Meetings

The University of Oxford, unlike, for example, leading US institutions, currently does not have to consider ‘yield’ issues. This means that almost all applicants for admission who are offered a place at Oxford accept their offer. Leading universities in the US such as Harvard or Yale, for example, admit 20 to 40 per cent more students than they actually want to enrol because some students decline their offers and enrol at other universities. In contrast, Oxford tutors are in the fortunate position that they rarely encounter incidents in which applicants decline their offer for a place. Nonetheless, the current pre-qualification admissions system means that Oxford selectors still have to undertake a limited amount of enrolment management. In a given year, it is estimated that 10 per cent of admitted students fail their offer conditions and their actual attainment makes them ineligible to enrol at Oxford. Usually, this occurs when an applicant attains two As and one B in their A-levels instead of the required triple A grades. To safeguard against this loss in student numbers, some subjects operate subject wide or even college level ‘pool’ systems.

A subject then might decide to over-admit students by about 10 per cent and places them into a pool. Pool students receive ‘open offers’ from Oxford. This means that they are

guaranteed a place at Oxford but that their offer letter does not specify a college. The college at which this student enrolls depends on whether another student fails his offer conditions and leaves a space open. Some subjects operate pools at the college rather than subject level. Here, individual college tutors might, for example, make seven offers and hope that six students will actually enroll. Whether or not to offer such a pool is within the discretion of the subject tutors at a particular college. Arts tutor 1, for example, recalled an incident where the admissions process had left him in doubt that one particular applicant would actually achieve his predicted grades. Therefore, Arts tutor 1 decided to make one more offer than he had spaces available, although there was no precedent of a pool at his college. As it turned out, the applicant in question achieved his predicted grades but another applicant who had appeared like a 'sure bet' did not. As a result, the college ended up with the right number of new undergraduates even if they were not quite the ones they had expected. This incident again illustrates the uncertainty involved in the admissions process: ultimately, 'you just don't know' (Arts tutor 1) who will achieve (see section 6.3.2.2).

During the research, one pool meeting was observed in a science subject. This was a meeting with representatives from all colleges of the University of Oxford. The college delegates arrived with a list of names of all the subject's applicants for admission, each applicant's score on the subject test, each interview score, the number of A* at GCSE and school type. In a first round, tutors nominated all applicants that they felt should be considered in the pool. Approximately 30 individuals were put forward. Then the process went through several iterations in which applicants at the bottom of the performance observed in the pool were 'eliminated' until only 12 applicants were left. These 12 applicants received open offers for study at Oxford. At the end of the pool meeting, one tutor noted that the students admitted through the pool were frequently better qualified in terms of their prior educational

attainment than applicants admitted through the normal admissions process. In other words, many of the 18 students who were unsuccessful in attaining pool places would have been admitted under a purely attainment based admissions system. The chair of the meeting suggested that the explanation for this phenomenon lay in the discretion that college tutors were allowed in making college-level admissions decisions. This could allow the interview to dominate more in the decision making process. In contrast, the allocation of pool places was taken by all 80 college delegates present at the pool meeting which meant that decisions were guided by more quantifiable measures such as test performance, GCSE and A-level performance rather than interview scores.

7.2.4 Mechanism and processes in decision making

After having discussed the procedures for reaching decisions, this section details the processes involved in reaching decisions in the intra- and inter-collegiate meetings.

7.2.4.1 The sure admits and the sure rejects

The ideal selection scenario tutors prefer to face is one in which candidates have performed consistently well in the interview, at school and in subject specific tests. In Arts tutor 1's words, 'we hopefully find that we're taking eight people and that the top eight in all of these variables are the same eight people which we then can select.' In reality, tutors might encounter this ideal scenario for some but generally not for all applicants. In interviews with selectors and observations of admissions meetings usually around half or two-thirds of new

undergraduate places were allocated to applicants who had consistently scored very highly on all admissions relevant criteria⁹³ (four Arts tutors, Science tutor 3, Arts observations).

In actual admissions meetings, the task of admitting the consistently high scorers – the ‘sure admits’ – was accomplished with perhaps surprising speed. It was usually equally straightforward to allocate some poor-across-the-board applicants to the sure reject pile. The sociological literature refers to this process as coarse sorting and this mechanism is a generic feature of selection processes (Espeland and Stevens 1998). In practice, this meant that in intra-collegiate meetings, the chair first noted down the interview marks from all tutors (three Arts observations). In the second iteration the chair then read out the admissions information that the subject considered most crucial. In one arts observation, for example, the chair stated a candidate’s surname, his school attainment, test performance, and interview performance: ‘Smith – ‘excellent, 70 +, A, A, A – that’s in, isn’t it’ (Arts observation). The other two tutors in the meeting showed non-verbal support for this decision by smiling and nodding. Conversely: ‘Bailey, poor, 55, B, B, C – out’ was an equally straightforward case. In contrast: ‘Williams, moderate, 67, A, B, B+ - let’s discuss in the next round’ (Arts observation) was put aside in the first iterations. Some of these straight forward cases were not discussed at all and only occasionally would tutors voice their support for a straight forward ‘admit’ or ‘reject’ decision by saying, ‘Oh good, I hoped someone else would like him too. I thought he was really good’ (Arts observation), or, “the unstoppable talker! I was torn between whether I wanted to reform him or never see him again. But he is a ‘no’, really.” (Arts observation).

⁹³ Outlier cases reported included one year in which tutors filled all their spaces this way (Science tutor 3) and one in which it left no place filled (Science observation)

After this initial coarse sorting, selectors were left with three piles of applications: ‘the really good ones, the sort of takeable ones, and the ones that are hopeless’ (Science tutor 3, reported by all tutors, observed in all meetings). The remaining meeting time was now devoted towards sorting the applications on the middle pile. As Science tutor 7 reflected: ‘You just end up spending 94 percent of the energy deciding out of eight, which to give the last three places to.’ (Science tutor 7). This ties in with general decision making theory and observations of selection meetings in other countries and contexts that shows that resources such as time are always allocated to the decisions that involve the greatest uncertainty (Espeland and Stevens 1998; Fetter 1995; Kahneman and Tversky 2000; Steinberg 2002; Tversky and Kahneman 1974).

It is noteworthy for the research puzzle of differential acceptance rates by social background that neither schooling nor any social background information came into play when deciding on those that had scored highly across all admissions relevant measures⁹⁴. In admissions meetings, applicants were referred to only by their surnames and at this stage there were usually no comments on any background characteristics such as gender and ethnicity. This means that between approximately one-third and two-thirds of admissions decisions did not involve any weighing of different aspects of an applicant’s application dossier. These decisions were based solely on outstanding performance in educational attainment, the admissions interview and subject specific testing material or written work. In the hunt for a mechanism that generates unequal transition rates, this means that the net effect of social

⁹⁴ While background information such as schooling did not enter the decisions for sure admits, in three observations educational opportunities were considered before moving an application file to the reject pile. Applicants flagged up as ‘access’ or ‘Sutton Trust’ were then not automatically eliminated from consideration but all their application information was again reviewed carefully to see whether they had anything ‘going for them’. (The Sutton Trust is an educational charity that runs Summer Schools for academically able children with no history of higher education in their family. See Chapter 5 for a detailed discussion of Summer School attendance and its positive effect in statistical models). Access considerations alone were insufficient to change a negative admissions decision to a sure admit but some candidates were moved to the middle pile of marginal candidates rather than the reject pile.

background characteristics on selection decisions can only enter the selection processes through the interview evaluation of the sure admits or in the discussion of the marginal applicants. The analysis now investigates the decision making process for those marginal candidates.

7.2.4.2 The dilemma of the marginal candidates

At this point in the selection process, admissions tutors usually have between one-third to two-thirds of places left. To fill these places, they have a pile of applicants who were neither outright rejects nor outright admits in the first decision round. In two observations, there was an actual break in the meeting in between admitting the sure admits and the marginal applicants. This break seemed to emphasise that the next round would be a different undertaking to the previous admissions discussion⁹⁵.

Deciding among the marginals was frequently described as a challenging process and several tutors expressed a lack of comfort with this part of the selection process⁹⁶. For example, in one Arts observation the chair remarked on the final decision of offering places to two out of four remaining marginal candidates: ‘We are in impossible territory, really...There is no way of doing this. You cannot put a sheet of paper between them.’ (Arts observation). A similar sentiment was voiced by the chair of an inter-collegiate Science meeting who looked at the

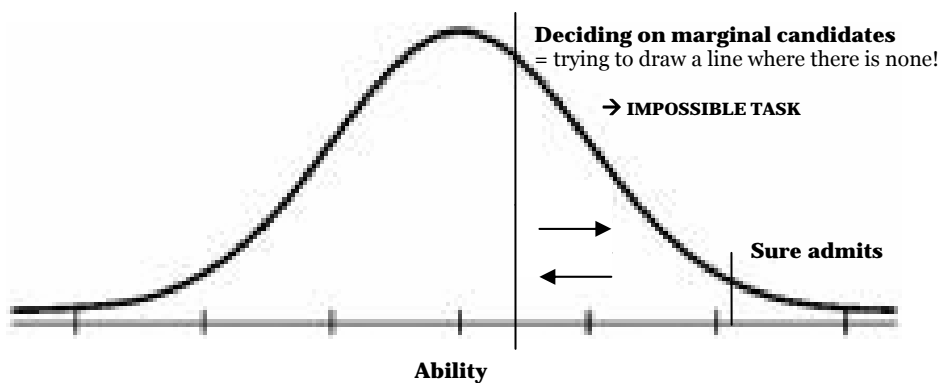
⁹⁵ In two meetings, admissions tutors took stock of the profile of their sure admits to ‘get a feel’ for the emerging new cohort before deciding on the marginal candidates (Arts observations). The information considered here was gender and school information. In one meeting, the chair also included information on the applicants’ A-level subjects in the stock, as those without a certain subject combination were expected to require some extra support in their first year at Oxford.

⁹⁶ In fact, one tutor suggested that best way of dealing with marginals was not to take them: Oxford would then take ‘only as many students as there are top students that rank highly across the board of measures’ (Senior Tutor)

long list of over 30 marginal candidates and concluded that ‘All these guys we could take’. (Science observation). In conversations, three tutors reflected on the decision among marginals as ‘arbitrary’, ‘shambolic’ and an ‘inexact science’.

Science tutor 1 illustrated the dilemma he saw in this stage of the admissions process in the following graphical model.

Figure 7.11: Science tutor 1's graphical representation of the applicants' ability



In this model the sure admits are easy to spot because they are clearly at the top of the ability distribution. The marginals, however, are located somewhere on the slope where it is more difficult to draw a line separating one applicant from another one. This problem is exacerbated if an applicant scored highly on some, but not on other, admissions relevant measures. Science tutor 1 regarded selecting among the marginals as an exercise of ‘trying to draw a line where there is none’. In terms of degree outcomes, the marginals were described as a group of students all capable of achieving a 2:1 at university but unlikely to achieve First class honours degrees.

The decision making among marginals was perhaps not made easier by the general lack of prior agreement on how to move forward at this point in the meeting. In only one meeting had tutors agreed on a formulaic way to reach decisions among marginals. In the majority of cases, there were no prior established decision making rules or formulaic approaches for undertaking this task. Instead, tutors developed decision making rules and criteria to differentiate among the marginals as they discussed the applicants. These processes are now discussed.

7.2.4.3 Weighting information

The key consideration for the marginal candidates becomes what weight to attach to different pieces of information. ‘You have the interview scores, you will have GCSE, you will have AS-level, you will have [subject specific test results] and, inevitably, you will get some people who are better in three out the five and somebody who is better at two out of the five, and you have to decide between all these different factors.’ (Arts tutor 1, see also Arts tutor 11). In organizational theory, this process is called commensuration, that is, trying to find a common metric to quantify the different qualities of applicants (Espeland and Stevens 1998). As an observer in admissions meetings, it was possible to study some of these approaches to decision making.

Formulae

In one case where the subject tutor at a particular college had taken a meta-decision on how to decide by devising the following algorithm for weighting information on all applicants:

'...we agonised over it and because there are so many variables involved, we thought it would be better just doing it mathematically so what we do is we assign um different weights... to the [subject test] score, the interview score at [this college] and the interview score at the other college and we apply rating of 40 : 40 : 20 to these three components. So the [test performance] is quite important. The interview score [from this college] is quite important because we've got to teach them for the next few years. And the interview score at the other college is important but we think not quite as important as our own.' (Science tutor 4⁹⁷).

In two other subjects, the chair of the admission committee employed an algorithm to rank all applicants for admission across all colleges based on test attainment, school grades and interview scores. In one subject, this score was based on school attainment (50 per cent), subject specific test (25 per cent) and interview performance that college tutors ranked out of 5 points (25 per cent). This means that a lot of weight is on the interview performance at the margins. In the second instance, the algorithm did not include interview performance but it adjusted the attainment of each individual applicant by the performance of the applicant's school. These two rankings systems, however, were just used as another piece of information for selectors and they were not binding for admissions decisions. While the most highly ranked applicants on the algorithm were generally all admitted, there was a discrepancy between the rankings of marginal applicants and whether or not they were actually admitted. This suggests that in real admissions decisions, individual tutors weigh different elements of the admission process in a way that varies from the formula. One of the subject chairs responsible for calculating the subject's overall ranking thought that the discrepancy in admissions decisions arose because his colleagues placed greater weight on the selection interview than the 25 per cent for which he allowed in his algorithm.

⁹⁷ It should be noted that this particular subject short-listing was already very heavily based on attainment and this is the rationale for why it did not enter the formula at this stage.

The vast majority of subjects do not utilise an algorithmic way to decide among the marginal applicants. The admission processes is very ‘holistic’ (Schwartz Commission 2004)⁹⁸ in the sense that the weight attached to different pieces of information is individualised. There is also scope for contextual information on schooling to enter the selection process. But before discussing the influence of contextual information on selection decisions, the next section will first review how strong opinions are used in selection decisions.

Strong opinion and vetoes

Another more informal way of weighing information is to allow the strong opinion or instinct of one selector to be decisive. Decision-making by strong opinion appeared to be a generally accepted way of deciding among marginals. In all observed intra-collegiate meetings the chair asked whether anyone felt particularly strongly about a marginal candidate (also Science tutor 2, Arts tutor 11). In meetings where such a strong opinion was voiced, this was decisive unless it was met with an equally strong counter-opinion. This strong opinion mechanism was observed to operate even in a large inter-collegiate meeting with more than 80 admissions tutors. Here, one tutor’s plea for a marginal student secured this applicant a place among the pool candidates.

Related to the decision making mechanism of a strong opinion was the occurrence of vetoes. It appeared to be an unwritten rule that any selector in an intra-collegiate had the right to veto an applicant. Vetoes appeared to be rare among selectors for the same subject but they were

⁹⁸ The holistic evaluation of candidates at Oxford (and Cambridge) certainly precedes these recommendations, thus showing that the micro-institutional-individual link discussed in Chapter 6.2 is a lateral process.

observed in several discussions of joint school applicants. Joint school applicants (e.g. Physics and Philosophy, History and French) only receive an admissions offer when the application is endorsed by all the joint school subjects. Each subject then has the right to veto an applicant even if another joint school subject wants to admit the applicant (Science observation, Arts observations⁹⁹). Such vetoing could occur pre-emptively without any open conflict. In one Arts meeting, for example, a selector stated that despite the applicant's outstanding academic record he had a strong feeling that this person had peaked and would not succeed at Oxford. This marked the end of the discussion of this applicant and the file was placed on the reject pile. But there were also cases of open and strong disagreement, between different subject groups. Arts tutor 14 reported that the discussion of the final place for the new intake was very controversial as the two joint schools had arrived at opposite evaluations of the two applicants who were competing for this final offer. After a three-hour discussion of this single case and the decision to 'sleep on it', a decision was finally reached.

The strong-opinion mechanism appeared to give an increased weight to interview performance over other pieces of information. In three cases, the strong negative opinion concerning an applicant's interview performance resulted in a rejection (Arts tutor 11, Science observation, Arts observation). These rejections included an applicant with a stellar record of 12 A*s at GCSEs and four predicted As at A-level and one student with six predicted As at A-level (Science observation, Arts observation). On the other hand, one applicant with mixed GCSEs and indications that his predicted attainment of three As at A-level was perhaps slightly over-optimistic was saved by his interview performance (Arts observation). In only one case during this research was a strong positive opinion of an applicant backed by information other than interview performance. In this instance, one tutor

⁹⁹ In arts subjects with a numerical element it was also reported that the tutor who judged these numerical abilities could veto otherwise good applicants as not capable of coping with these aspects of the course (Arts observation, Arts tutor 1).

felt strongly that a particular applicant should be admitted as he had applied from an extremely poor performing secondary school and performed outstandingly well within that context (Science meeting). These observations tentatively suggest that a strong opinion resulting from the interview performance could trump perhaps more easily quantifiable performance measures. This finding converges with a study of an admissions panel in the US which found that a strong opinion could quickly dominate admissions decisions (Lane, 2002).

It is also worth noting that the seniority status of the person voicing an opinion did not appear to matter. This finding contrasts with admissions research in the US, where there are indications of a hierarchy regarding whose opinions count most in an admissions panel (Stevens 2007). Tutors who were more junior than their colleagues in terms of age or experience reported that their opinion was taken seriously in meetings and that they felt they could make a case for or against an applicant just like more senior staff (two Arts tutors, Science tutor 2, Arts observation). This view was also voiced by senior selectors. Arts tutor 13, who was close to retirement, described how the previous year she had been dissuaded from accepting a particular student by her junior co-interviewer.

The source of strong opinions

The previous section showed that the strong opinion of a selector matters but it was silent on what might trigger such reactions. This section suggests some possible sources of strong sentiments, although it is not possible to identify the provenance of such impulses conclusively. One possible source of strong feelings is what decision theorists call a process of ‘recognition primed’ decision making (Klein 1989). In the context of selection to higher

education it means that something in the answers or behaviour of an applicant primes selectors to feel that this person should or should not be admitted. One feature of recognition primed decision making is that it can remind experienced interviewers of previous applicants with similar trait and thus lead them to decide based on the similarities of the current applicant with a previous one. For example, Science tutor 9 noted on her retirement that in her early days of admitting undergraduate students, she would find herself thinking that an applicant simply ‘felt’ like the kind of student who would thrive in the undergraduate course at Oxford. In Science tutor 9’s opinion, this approach to selection had largely been replaced by a bureaucratic accountability system of selection that was designed to replace instincts with hard and fast criteria. Nonetheless, selectors still reported that sometimes they ‘just clicked’ with an applicant or ‘sensed First class potential’ and that this feeling led them to support an applicant in the final admissions meeting. There were two instances in the research where it was observed that an applicant characteristics or appearance triggered a recognition primed association chain. In one instance, a selector described an applicant as a ‘future business leader’ (see section 7.2.2.4). This characteristic alone appeared to warrant immediate rejection. In a second instance, a tutor referred to an applicant as an ‘Access candidate with pearl earrings’. The pearl earrings may have evoked the image of an inadmissible upper-class student, stereo-typically more concerned with keeping up her tweed jackets and pearl earrings than with academic pursuits (Arts tutor 10 in Arts observation). On the other hand, the Access label on the application file triggered the opposite response. The competing recognition of different clues led to an unclear course of action with regards to admitting the student.

It is, furthermore, extremely difficult to gauge the extent to which factors such as likeability and personality trigger strong opinions about an applicant. Unlike, for example, admission

into selective US institutions, considerations of character or extra-curricular well roundedness are not criteria for admissions and are rejected as legitimate selection tools: ‘We are not looking fore people who have dug wells in China or who play the violin to Grade 8, although this is worthwhile. We are looking for people keen to study [this subject] and evidence that they really like it.’ (Arts tutor 3, also two Science tutors and Arts tutor 1). But there was at least one instance when a participating tutor reported how her colleague had taken a personal dislike to an applicant’s personality and then went out of her way to ensure that this person was not admitted. Arts tutor 11 suggested that her colleague accomplished this task by re-framing the applicant’s interview performance, suggesting that he knew the interview questions in advance. Arts tutor 11’s colleague said:

“They knew. They were too good. I don’t believe them. I think they have been talking.’ And I said ‘How can you possibly know that and how can you possibly disadvantage that student? Because, just because they came at the end of day two and they were very, very good, you can’t possibly use that instinct - and I didn’t think that at all, I thought the student was excellent - because she pushed him to a level she hadn’t pushed any of the other students before and he still performed.’”
(Arts tutor 11)

The veto exercised by Arts tutor 11’s colleague meant that this student was not admitted despite reportedly fierce disagreement. The incident shows that strong opinions can be decisive even if their source is contested. It also illustrates that it is possible for a feature of the admissions process beyond the control of the individual applicant (i.e. the use of standardized interview questions) to be used in later discussions against an applicant. This raises normative issues related to the equal opportunities requirement in education-based meritocracies discussed in Chapter 1 (see also Arrow, et al. 2000; Habermas 1976; Rawls 1993).

Elimination by aspect and balancing acts

Even after taking into account strong opinions and vetoes, tutors usually still encountered a scenario where they have some places left to fill and several marginal applicants eligible to fill them. But at this stage, formulaic decision making or strong opinions constitute exhausted avenues by which to structure the selection process. Decision could now take two further forms, namely, elimination by aspect and balancing interests (Kahneman and Tversky 2000; Tversky and Kahneman 1974).

Arts tutor 15 reported that at the end of a long meeting, the selection panel eventually decided to select the final place by eliminating applicants based on their GCSE attainment. The selectors put the application forms of the remaining marginal applicants next to each other and then eliminated the applicant with the weakest GCSE record. After several iterations of chopping the pool of eligible applicants from the bottom, they only had one applicant left. This person was offered the final place. A similar process of elimination by aspect was observed in a Science meeting. Faced with the decision to select 12 offers out of 30 takeable applicants for the subject pool, tutors started eliminating the applicants with the lowest attainment. In this instance, however, the process was not simply attainment based but also had holistic evaluation features. Three applicants were flagged up because there was something special in their application file – one was dyslexic, one suffered from a chronic illness and a third one was in a special measures school (i.e. a very poorly performing school). These applicants were not automatically eliminated when they did not make a cut off point but received further consideration. One of the three special action applicants – the one from the poor school – was admitted partly due to support from one particular tutor in the

final round. This instance of decision making was thus a combination of elimination by aspect, holistic evaluation and strong opinion.

Another variant of selection based on certain aspects, namely, logrolling of different characteristics, was practiced in one Arts observation. In this case, the three selectors had narrowed their final decision down to four applicants for two places. Two of these applicants were male and two were female. All four applicants had scored inconsistently across different selection measures and none of the selectors felt strongly about admitting or rejecting any of the four. At one point the chair suggested taking the two male applicants, a suggestion that met with neither approval nor disapproval. After some more thought, the chair then suggested that they should balance different concerns of the admissions process by taking the two female applicants. The reasoning was that one should be offered a place because she had an amazing school record and the other one because she was an 'Access' candidate. The former applicant was from a private school and the latter from a state school. It seemed to be implied that admitting the first applicant would serve the goal of admitting the best academically qualified students and admitting the second applicant would serve social justice concerns. It also appeared easier to use gender as a way to sort the remaining four applicants into two groups rather than to attempt balancing these different concerns across gender by, for example, admitting the private school educated female applicant and a state school educated male applicant. The final decision was to admit the two female applicants.

7.2.4.4 Considering educational opportunities in admissions decision

The analysis in section 7.2.1.1 showed that educational opportunities were considered in the summoning process. But in line with the public endorsement of positive action rather than affirmative action in the UK¹⁰⁰, the playing field was again considered more equitable among the applicants who are invited for interview. Section 7.2.4.1 showed that among the ‘sure admits’ schooling information does not play a role: students have to shine in subject specific tests, interview and academic attainment to be offered a place. In only one observation was schooling information mentioned with regards to a sure admit. The selector remarked that, ‘as an added bonus,’ this applicant would count towards the subject’s state school intake because the student had changed from a private school to a state grammar school for the sixth form (Arts observation¹⁰¹). Occasionally, school information was used as reassurance that tutors had made the right admissions decision, to ‘confirm the judgment. I mean, we had a few people who didn’t - they didn’t get 10 A*s at GCSEs which some people had, but they still had several A*s at GCSE, but they came from a school where they had significantly outperformed the school.’ (Arts tutor 1, Arts observation)

For some but not all selectors or subject meetings, schooling information can, however, enter the discussion of the most marginal applicants, notably during the point at which tutors feel there are no objective ways left to differentiate between applicants. Here, access considerations can swing an admissions decision in favour of an applicant. More frequently, however, schooling information was used as a rejection rather than a selection tool, that is, in the decision to move an application form from the ‘marginal’ to the ‘reject’ pile. This happened with regards to applicants who had not achieved outstandingly well despite coming from very good schools. An illustration: ‘And there was one girl from a very, very good

¹⁰⁰ Positive action allows organisations to give special help to applicants in the recruitment process. Affirmative action would also allow organisations to consider race or gender, for example, as part of the selection process. This practice is not compatible with current UK law.

¹⁰¹ This highly skilled navigating of the educational system is not uncommon among professional class applicants.

school who wasn't doing very well. And, I think that came to bear upon the discussion. Because if that student had had every chance given to them and they are still not excelling - so why is that?' (Arts tutor 11) Along the same lines, Arts tutor 1 wondered, '...I then ask myself - why hasn't done this person really well? Isn't it that they haven't done very well because they are not hard working? Is it that they haven't done very well because - I don't know. You really have to then, your mind then starts working. Why haven't they done very well so far if they actually have the potential? And, especially if they have gone to a good school.' In both these instances the candidates were not admitted, partly because their performance had not been outstanding relative to the school's performance as a whole, although their individual attainment was respectable in absolute terms.

Once selectors had decided which applicants to admit, schooling information could also impact A-level offer conditions that applicants receive. The standard offer for study at Oxford is attainment of three As at A-level but in exceptional cases tutors can lower this offer for applicants who have experienced significant educational disadvantages. In such cases, the triple A could be lowered to AAB (three Science tutors, Arts observation): 'We feel free to make a lower offer to someone who has potential but who got a B in a subject from e.g. a school in South London and we feel has not been taught well. ' (Arts tutor 5). In exceptional cases, schooling information was also reported to be considered when an admitted student did not make their three A offer condition (Senior Tutor). Furthermore, in one Arts observation, the selectors decided based on the ranking of their sure admits which ones they wanted so much that they would have them even if they missed their three A offer. This was not a consideration of disadvantage but the belief that three As alone were not necessarily the best predictor of who would be the best student.

7.2.4.5 Overseas applicants and the selection process

Throughout the selection process, there were indications that overseas applicants who did not attend an interview at Oxford faced structural disadvantages during the selection process. In two of the observed admissions meetings, the performance of overseas applicants on the subject-specific test did not arrive in time for the selection meetings. This virtually disqualified these applicants from consideration. In one instance, the chair stated that the university's overseas liaison team had reminded him prior to the meeting not to disregard overseas applicants (Science observation). Nonetheless, the missing test-performance and the lack of an Oxford interview meant that college tutors were reluctant to reserve places for these applicants. In another meeting, the chair made a case for a particularly academically strong overseas applicant who had also scored very highly on the subject-specific test. As none of the other tutors seemed particularly keen on following up the case, the chair volunteered to conduct a subject-specific telephone interview with the applicant (Science observation). In a third case, the overseas application files were put aside at some point during the observed intra-collegiate meeting for consideration at a later stage. There was no return to the files during the meeting that I observed. As all available places were filled during this meeting it seems unlikely that the overseas applicants were admitted.

When overseas applicants were systematically considered, there was generally a high level of uncertainty surrounding the meaning of attainment in different contexts. In one science observation, an American applicant with an SAT score of 780 out of 800 was disregarded as not outstanding because he had not achieved the highest possible SAT score. In actual fact, an SAT score of 780 places an applicant in the top percentile of attainment and is thus similar

to achieving a very high A at A-level. Also, in an inter-collegiate Arts meeting, a German applicant with a perfect Abitur score of 1.0 received unenthusiastic offers for a second interview. This seemed to be at least partly due to the lack of understanding concerning her perfect score in a foreign school leaving examination (Arts observation). In two meetings, the selectors asked me in my role as a researcher whether I could interpret certain foreign qualifications as the tutors were not completely certain how to evaluate an applicant's attainment.

In the margins of the selection process, there also appeared to be some ethnocentrism or discrimination against overseas applicants. In one selection meeting, the chair stated that he was of the opinion that the pool of open offers should be for British applicants only¹⁰². He expressed his regret that this violated EU legislation and they therefore formally had to also allow European applicants into the pool. Nonetheless, this chair used his discretion to bar overseas candidates from being put forward to the pool. This anti-foreigner sentiment follows the discussion of overseas applicants in Chapter 6.

Overseas applicants appear to fare worse in the admissions system partly due to structural features of the selection process as well as the lower certainty that surrounds their academic achievement and potential. Those not interviewed at Oxford are also less likely to trigger strong positive or negative opinions from tutors as those making final selection decisions have not had any contact with the applicant. There was some suggestion that overseas and perhaps European applicants might also face some discrimination in the selection process.

¹⁰² On this occasion, the chairperson changed halfway through the meeting which meant that the person in charge was unaware of my presence. This may have resulted in less inhibition for the second chair to speak his mind. Permission to attend the meeting was obviously granted by the first chair and the academic administrator for the subject.

The selection process as described in this section is graphically represented in the Appendix (Figure 7.4).

7.2.4.6 Other features of the selection process: randomness and trust

In addition to the previous descriptions, there were several features of the selection process that did not fit neatly under one of the previous headings or the explanation of unequal admissions rates for applicants from different social origins. Nonetheless, they warrant mention to complete the picture of the selection process.

One such aspect is the element of randomness or ‘noise’ that can enter selection processes. For example, in one intra-collegiate meeting the selectors wrote the names of their ‘sure admits’ and ‘exports’ on the white board in the meeting room (Arts observation). Unfortunately, the marker pen was running low and the name of the final export was hardly legible. The export students were to be informed that they had to stay in Oxford for another night to be available for further interviews the next day. One of the selectors copied the names of the exports on a piece of paper and left to put it on the public notice board. It was only upon his return that the selectors realised that the last export had been left off the list because of the poor legibility of his name on the board. The time pressure to get to the next meeting meant that there was no chance to rectify the mistake. Furthermore and perhaps justifying the omission of the last export, the selector who had written down the names said the candidate would not interview well at other colleges despite his stellar GCSE attainment. After the inter-collegiate admissions meetings, however, another selector from the initial intra-collegiate meeting confided in me that it was ‘a shame’ that the college tutors had not

taken their final export: 'he was a lot better than most of the exports from other colleges. He would have certainly been offered at least one and perhaps two interviews. He might have gotten in.'

There were a couple of other random occurrences. In one inter-collegiate Science meeting, the delegates from one college simply left before second interviews were allocated. This meant that the tutors from that college could not support their first choice applicants' cases in securing another interview, nor were they available to interview applicants from other colleges to benchmark the quality of their own first choice applicants. In a different Science meeting, one college with no historic record of high competitiveness stated very early in the inter-collegiate meeting that it was 'full' and uninterested in interviewing other applicants. A tutor from a different college told me later that, in his opinion, the tutors just did not want to spend another day interviewing second choice applicants. These occurrences show that in the margins of the selection process, applicants' chances of gaining an offer can be influenced by random events or luck.

So far, the analyses have also paid insufficient attention to the role of trust in the selection process. Despite the disagreements that can occur between tutors or colleges, or both, the selection system ultimately rests on trust. Specifically, the selection process for new undergraduates at Oxford not only involves a personal interaction between selectors and candidates but also frequent interactions between selectors during interviews and intra-collegiate and inter-collegiate meetings.

Trust in other selectors' judgement and cooperation are necessary to the decision making process. There were several instances during the research when trust issues seemed seminal.

These displays of trust appeared to be of two sorts. On the one hand, tutors displayed what might perhaps be called ‘institutional trust’. This was trust in the historic positions of colleges with regards to applicant quality. Hence, in inter-collegiate meetings it was observed that a historic ‘buying’ college would not buy from another historic ‘buying’ college before having had an opportunity to see what the exports from the historically more competitive colleges looked like. It seemed to be the case that even when a first time admissions tutor promoted applicants for a historic selling college – and these might be applicants that were no better on paper than some from the historic buying colleges – this tutor could sell applicants well. This seems to suggest that the trust in the good product (i.e. the applicant) the tutor had to offer was independent of the individual tutor offering it but rested with the position of the college. The second distinct type of trust then was individual level trust. Especially in the allocation of second interviews, the second college would frequently not ask for the full application profile of their potential import because the tutors trusted their colleagues to have summarised all information truthfully. Another example of this type of trust was observed in an intra-collegiate Arts meeting. The three Arts tutors for the subject had interviewed applicants separately. But in their own interview marking sheets tutors had written internal comments such as ‘takeable if someone else feels strongly about her’ or ‘not takeable but willing to review if others feel strongly about the person’ (Arts observation). In this particular case, the selectors had been working as a group over several years and seemed to trust that sometimes one of their colleagues was in a better position to decide whether or not to take a particular student. Furthermore, by signalling that they trusted and respected other selectors’ opinions, tutors might perhaps also improve their own credibility when voicing a veto or strong support about a particular applicant¹⁰³.

¹⁰³ There was also one example where a tutor accepted an applicant only based on the recommendation of a colleague he trusted (Arts tutor 3). The tutor in question had himself not interviewed a single applicant he found admissible for his last spot among the incoming cohort of new undergraduates. The tutor had also been unable to find a suitable export from another college within the inter-collegiate meeting of a subset of

Finally, the word trust was also used in connection with the selection of overseas applicants. One reason why overseas applicants were seen as involving more uncertainty was because selectors frequently did not know the person who had interviewed applicants in overseas selection centres. The information provided by overseas interview reports was consequently often regarded as being of questionable trustworthiness. This observation is then likely to be a further contributing factor to the disadvantage for overseas applicants.

7.3 Discussion and Conclusion

To recapitulate, this chapter set out to establish whether any features of the selection process and the interview would help to explain the statistical observation of differential admissions rates of different groups of applicants. The investigation offered a thick description of the processes and mechanisms of decision making as well as a detailed description of the admissions interview.

The main finding from this chapter is that social class, ethnicity and gender are at no point consciously considered in the selection process. This means, in turn, that professional class

colleges. At a point in the admissions process when all applicants for admission had already left Oxford again, the tutor learnt that one particular college had enjoyed a particularly strong year of applicants and had had to turn away some qualified students. As this college was part of another inter-collegiate group, Arts tutor 3 had not had access to this information before. After calling the college tutor with the surplus of good students, Arts tutor 3 filled his last place based on the recommendation of his colleague who he 'respected and trusted'.

and white applicants, for example, must have achieved higher interview ratings than their managerial class, female and ethnic minority peers with the same attainment records in order to explain the results from the statistical analyses. This also implies that the differential transition patterns are primarily a direct effect of interview rankings rather than a result of the careful and detailed holistic considerations that enter the discussion of marginal applicants. This direct effect could be because white, male, professional class applicants perform objectively better in interviews. But it is not possible to rule in or out that interviews go better for applicants because of social proximity to selectors (see Chapter 6) or cultural capital.

The analysis also offered further insights into the processes that generate the negative net effect of private schooling on gaining an offer. For marginal applicants, schooling information could be decisive. Moreover, during inter-collegiate meetings, state school applicants ‘sold’ much better than private school applicants. It is also possible that private school applicants simply score lower on the admissions interview¹⁰⁴.

The chapter also found that the structure of the decision making process itself appears to explain a large proportion of the lower success rates experienced by overseas applicants who are not interviewed at Oxford. Furthermore, the greater uncertainty surrounding the interpretation and predictive power of educational attainment for non-British applicants makes these applicants less desirable for selectors. At the margins of the selection process, discrimination can also disadvantage overseas applicants.

¹⁰⁴ While the analysis of final degree outcomes presented in Chapter 8 will indeed support the idea that private school applicants admitted to Oxford have lower potential to achieve First class degrees than their state school educated peers, there were no indications in the selection process that this was a consideration in the discounting of the private school performance.

Overall, this chapter has described the similarities and differences across subjects and colleges in summoning applicants for interviews as well as in interview and decision making processes. Progress was made in explaining the overseas applicants' disadvantage in the selection process and the bonus for having attended a state school. The other previously observed inequalities in transition appear to be a function of the lower interview score of ethnic minority, female and non-professional class applicants.

Appendix Chapter Seven

Figure 7.12: Decision Tree Model summoning decision

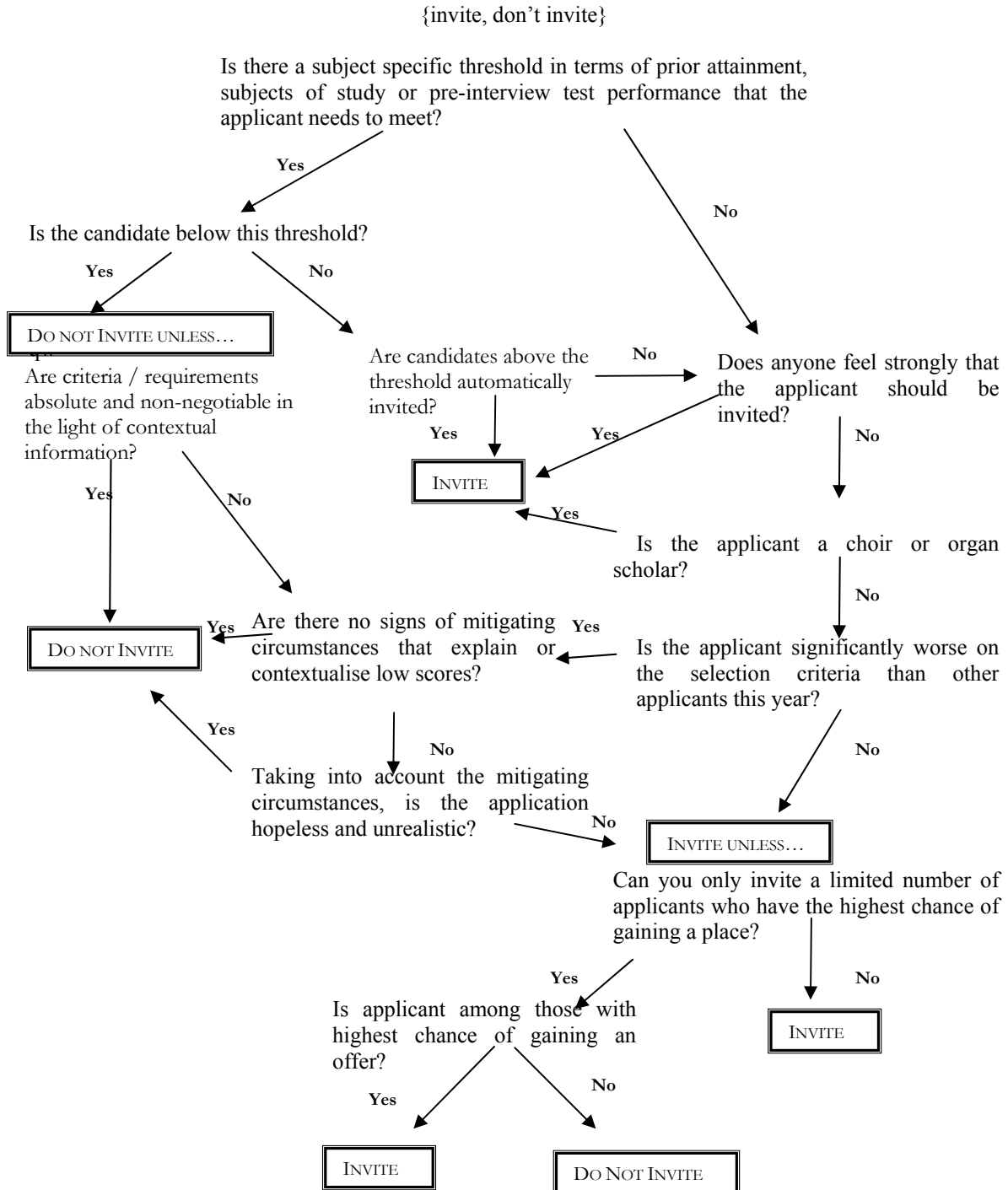
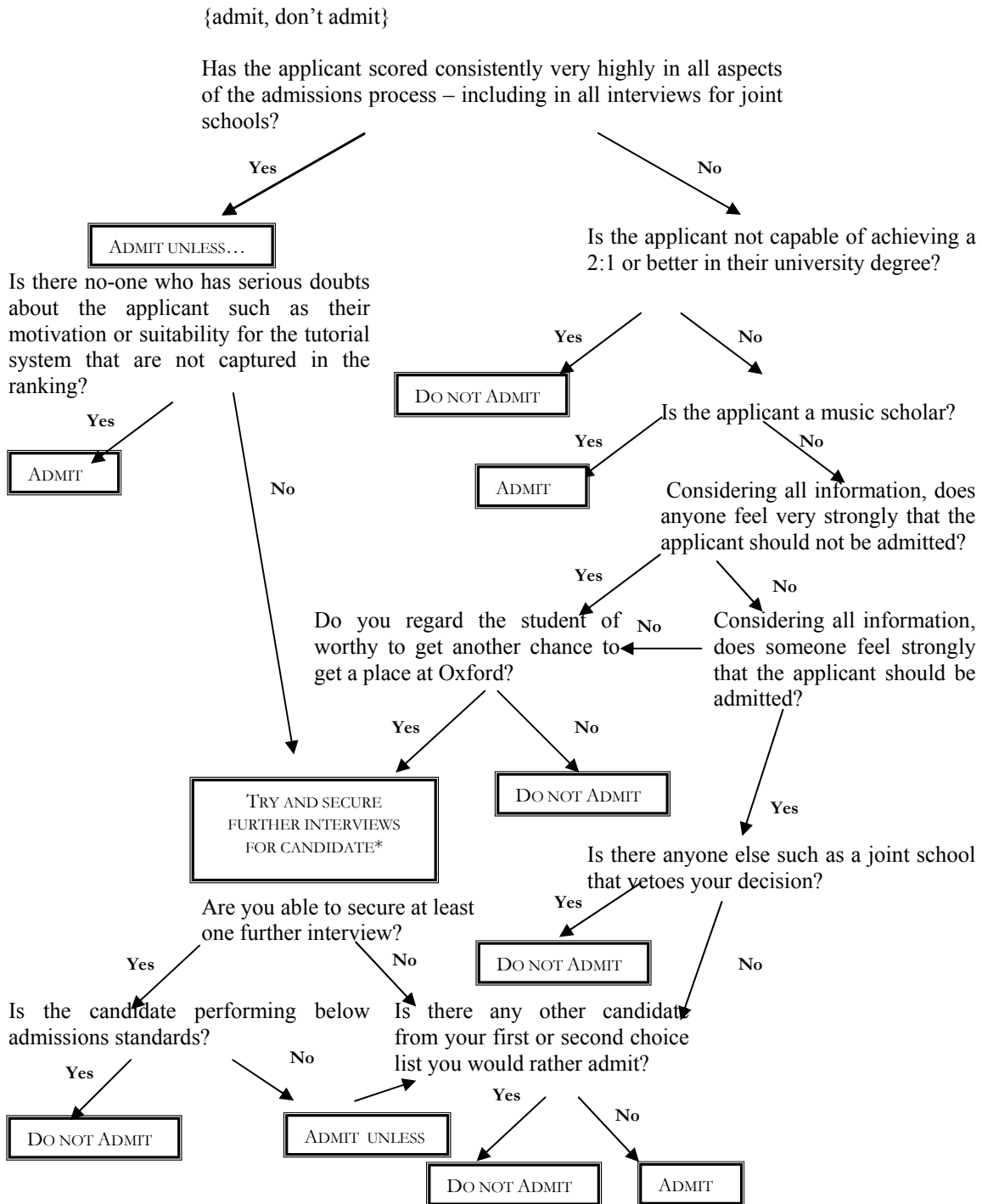


Figure 7.4: Decision Tree Model admissions decisions



*inter-collegiate meeting or 'under the table'

Case Studies of Admissions Decisions

Case Study 1:

Use of contextual information on schooling in summoning and admissions decisions

This case study concerns a student from a bad school who was summoned for interview despite prior attainment that would usually constitute a de-summoning offence. The case study is selected because it is typical of the way that participating tutors in interviews and observations of summoning meetings use contextual information about a candidate's school. The fact that this particular applicant did not ultimately succeed in gaining an offer is not typical for students with worse schooling than other applicants but illustrates that there is a limit to how much contextual information is – and can be – considered in the actual admissions decisions.

'With the UCAS forms we get a lot of information about the schools. So, we know whether it is a grant maintained school - one with relatively more freedom - and then we have information on the grade average in the school. And the percentage of higher education entrants. We have a lot of information. We know whether it is easy or hard for someone to reach A-levels. And, especially with GCSEs we really take that into account. So we really consider that.'

The admission tutors at this college went on to summon someone with predicted three As but a D and an E for two of his GCSEs. The applicant came from a school that had just expanded to have a sixth form and this student was in the first cohort going through. When prompted at interview, it turned out that his E was the second highest grade in the school for this particular subject:

'So, we have someone who WITHIN his school in [this subject] was really very good but the school itself is so dramatically bad that he is bad within the national competition. And, it is also obvious that the school can't teach [these two subjects]. So, we do really consider this information.' The student was summoned, although, ultimately, he did not gain a place: 'I don't think he made it. There were too many others. ... at some point you reach the point where you ask yourself - on the one hand you think if someone IS clever, and has really good grades despite coming from a bad school - then you make a concession if someone comes from a bad school and doesn't have brilliant scores - but then, if he is also not brilliant in other bits - I mean you reach the point where you think, well he has now been at a really crap school for seven years, does he have the precondition that you need to succeed? At some point, the scale tips to the other side. So, we consider the information about the school, we don't expect him to have the best grades. And he didn't do well in the written test. We actually have quite a lot of information that we can consider.' (Arts tutor 14)

With other tutors the sentiment was apparent that they really want to admit disadvantaged students: 'we had one student from a very, very, very disadvantaged background, they had come through the Oxford Access Scheme. And all of us wanted to accept him, without any hesitation. And because, against the odds, that student had performed in school, but clearly couldn't cope with the interview process. And couldn't really cope with the exam either. And, we tried very, very hard to admit him. But couldn't to be fair to other applicants, reinterviewed, at other college, don't know what happened' (Arts tutor 11).

Case study 2:

Loss aversion: two 'potentially brilliant but risky' applicants for the Social Sciences

Tutors want students who are able and motivated. Just being bright and gifted is not a sufficient condition for gaining an offer as illustrated by this extreme example of two very academically able male applicants to the Social Sciences. James's case was recalled by a respondent and Christopher's case was observed at an inter-collegiate admissions meeting. The underlying issue goes beyond the example though. 'The question is about how many guys who might be brilliant but might have a really poor work ethics you can afford to admit. This can really backfire. They could get a high first or a third.' (name omitted) It is noteworthy that the instances of the bright but risky candidates that tutors recalled all involved male applicants and not a single female applicant.

James and Christopher's applications to the same Social Science subject at Oxford were separated by two years but they shared one crucial feature: they were both very unusual candidates. James has two academic parents and he had always been home-schooled. One of his interviewers described him thusly: 'He was phenomenal! I was so impressed with him'. Although Christopher studied towards full four A-levels in the normal sixth form of a school, he took an additional two A-levels at his own leisure and he appeared fully on track to achieve As in all six of them. The coursework he had submitted in his application file was actually derived from these self-taught courses. At the inter-collegiate meeting he was described as an 'unusual candidate, incredibly gifted and very bright'.

Nonetheless, both of these applicants were up for second interviews at the inter-collegiate meeting because they were regarded as too risky. The tutor doing the sales-pitch actually stated 'Christopher might be high risk but he might get a high first – the question is whether it is worth the gamble'. Both James and Christopher's first choice colleges took the view they were not worth the gamble, but both thought that 'some other college might take a different view'.

In the tutors' controversial discussion of James the dimensions of teachability and fitting in were also discussed and my respondent recalled that other tutors 'thought he wouldn't fit in. They thought he wasn't teachable... he was a very certain type of person. Very young man - very old beyond his years.' This sentiment was echoed by the sales pitch done for Christopher where the tutor noted a 'question mark over flexibility of thinking especially in tutorials, very bright but questionable teachability'.

In the end, Christopher got a second 'courtesy interview' but no place. And James? I don't know. The respondent thought he got in but was not sure with the body language of unease suggesting that actually she felt very uneasy with whatever happened to James. 'That would have been crime - that would have been terrible had he not got in. Because, if Oxford wants the best students and you are not taking the best students because they are not going to fit in the JCR - if they can't get in here, where are they going to be? I mean, Oxford really should be a place for those sorts of people.'

The undesirability of risky student is not an Oxford specific phenomenon. At an application workshop at the national Admissions Conference 2004, I witnessed administrative selectors for 20 British universities (Russell and non-Russell) evaluating the application of a very able applicant who had achieved high grades in most of his GCSEs but failed those subjects he was not interested in. The reference suggested that he was outstanding with extra pampering but could fail spectacularly without it. None of the selectors wanted to admit the candidate - 15 selectors rejected the applicant outright and five wanted to interview him.

Chapter Eight

University Examination Results

8.1 Chapter Overview

After the detailed discussion of the selection progress of Oxford undergraduates in the previous chapters, this chapter investigates how this selection process is related to subsequent degree performance. Final university results were collected for students admitted to Oxford as well as for those who enrolled at other universities (see Chapter 3.2.3). The empirical analysis finds a strong link between GCSE attainment and degree performance for both Oxford and non-Oxford graduates. Furthermore, at Oxford only, being female or educated at a private school are associated with a lower chance of achieving a First class degree compared to being male or state school educated. This effect is not apparent among graduates from universities other than Oxford.

8.2 Introduction

A valid selection process ‘discriminate(s) between candidates in terms of subsequent performance’ (Sparrow and Hiltrop 1994, p. 119). This subsequent performance is frequently measured by degree outcomes such as Grade Point Average (GPA) in the American context and degree class or percentile in the British contexts (Hoskins, Newstead et al. 1997; Rau and Durand 2000; Ferguson, James et al. 2003). It is worth remembering, however, that there are other important outcomes of a university education. Some of these outcomes cannot be captured at the point of graduation but only become apparent later in life. These outcomes include monetary and non-monetary outcomes in the labour market such as earnings and job satisfaction (Pascarella and Terenzini 1991; Chevalier and Conlon 2003). But at least as important are social outcomes that range from friendship groups to educational homogamy in the selection of marital partners (Qian and Preston 1993; Bowen 1997, p. 24; DiPrete and Buchmann 2006). Furthermore, American evaluation research in particular investigated outcomes of higher education in terms of an appreciation of diversity, civic involvement and outstanding accomplishments in non-academic areas such as sports or music (Fetter 1995; Bowen and Bok 1998; Steinberg 2002; Stevens 2007). Prior to what Soares calls the meritocratic revolution of Oxford in the 1960s (Soares 1999), Oxford also publicly prided itself in the number of prime ministers and senior civil servants, judges and military personnel it produced (Boyd 1973). Slightly away from the public eye, Oxford continues to take pride in the number of civil service fast streamers it produces (Oxford University Careers Service 2006). The previous qualitative chapters have also shown that among today’s tutors there was no single conception of what constitute valid outcomes of the admissions process. To

reiterate, some but not all tutors expressed the view that students were admitted based on their potential to achieve a First class degree. At the same time, tutors seemed at least as interested in admitting students who were motivated, interested and alert and who would enjoy their course at Oxford and whose potential would be stretched. From the perspective of the tutors then, valid outcomes appear to be not only attainment per se but also enjoyment of the university experience and the value added.

This diversity of conceived outcomes poses a challenge in terms of measuring the validity of selection. For the operationalisation of concepts, it means that the outcome variable is underdefined. This chapter then focuses only on the narrow definition of degree performance as one possible outcome of university education. It will be a worthwhile challenge for future research to look at the array of possible outcomes and their relationship to attendance of a particular university (see Chapter 9). The next sections discuss the theoretical foundations for the subsequent empirical analysis. First, I will review meritocratic factors that might affect outcomes. This includes a discussion of what might be called ‘extended meritocracy’ measures and cultural capital. Second, the discussion will appraise structural factors that might affect degree outcome.

8.2.1 Meritocratic factors

Let us firstly turn to the substantively most interesting discussion of the link between meritocratic factors and extended meritocracy measures and degree outcome. Among

the meritocratic influences are school attainment, motivation, aspirations, and arguably, university destination.

The previous chapters have shown that attainment at secondary school is a crucial selection tool. If valid, then we will generally expect to see that students with higher attainment at secondary school are more likely to attain highly at university than their peers with lower pre-university attainment levels¹⁰⁵. This expectation, however, has to be slightly adjusted in the light of the interview performance. Interviews are designed to capture dimensions of potential and ability that are distinct from the attainment records at secondary school available through the paper-based application dossier. Therefore, those who were unsuccessful at the selection into Oxford despite high attainment records should have scored low on the interview. Conversely, students admitted to Oxford with slightly lower attainment than the mean of admitted students must have demonstrated capacity to achieve at university in other ways. This means that for the 'sure admit' students at Oxford high secondary school attainment might be associated with attaining a high degree class. If potential was captured in a valid way in the selection interview, however, we would not expect an association between secondary school attainment and degree performance for the marginal candidates. In contrast, the paper based admissions systems at universities other than Oxford could result in selection more heavily based on secondary school attainment. If valid, we would then expect to see a stronger positive association between attainment at secondary school and degree performance for non-Oxford graduates than for Oxford graduates.

¹⁰⁵ This observation would not necessarily be true for mature students with non-traditional qualifications Hoskins, S., S. E. Newstead, et al. (1997). "Degree Performance as a Function of Age, Gender, Prior Qualifications and Discipline Studied." Assessment & Evaluation in Higher Education **22**: 317-328.. This is not explored in this chapter as there were almost no mature students in the sample of initial research participants.

A similar argument can be made in relation to groups of applicants who were at an advantage during the selection into Oxford given their attainment at secondary school. If valid, the advantage experienced by post-qualification, male, state school and white applicants compared to pre-qualification, female and private school applicants means that there should not be a difference in the likelihood of gaining a good degree at the margins. In other words, when comparing applicants with the same attainment levels, those who are disadvantaged in the admission process are expected to gain a lower proportion of First class degree.

Generally speaking, it is also expected that study habits and motivation or 'academic ethic' will have an impact on degree performance (Shils 1997). This notion seems intuitively right, although the results of empirical research on this issue depend very much on the operationalisations of study habits and the study population. In many study designs, it is difficult to disentangle the effect of university study habits and aspirations on degree outcomes from pre-existing levels of ability and attainment (Rau and Durand 2000, p. 23).

One way of thinking about approaches to studying and learning is the difference between 'deep learning' relative to 'surface learning' (Biggs 1987; Beattie, Collins et al. 1997; Ramsden 2003). The idea here is that students who adopt a deep learning approach tend to be more intrinsically motivated by a thirst for knowledge and a desire to fully comprehend the relationships between different topics of study than students who adopt a surface approach to studying. In this latter approach, knowledge is more likely to be regarded as a means to passing examinations. The qualitative data

from interviews with selectors for admission to Oxford suggest that selectors have a preference for admitting deep learners over surface learners. If this was a valid selection criterion then we would expect deep learners to achieve more highly in university examinations than surface learners (Trigwell and Ashwin 2003; Ashwin 2005).

Finally, the previous chapters also suggested that selectors have a preference for students who view the main purpose of their time at university to achieve academically and for those who hope to achieve a First at university. If valid, we would expect students with this value system to achieve more highly than those who regard the social life and extracurricular involvement as their main goal at university.

Furthermore, the analysis in chapter 5 showed that high levels of cultural capital were rewarded in the admissions to arts subjects. If valid, then we would expect to see an association between high cultural capital and attainment in arts subjects.

In theory, university destination should not impact on the likelihood of gaining a certain degree class. The Quality Assurance Agency for Higher Education (QAA), set up in 1997 (<http://www.qaa.ac.uk>) is specifically designed to ensure that degree classes are comparable across higher education institutions. There is, however, significant doubt in the literature whether this goal is actually achieved (Bratti 2001; VandeLinde 2002; Bekhradnia, Whitnall et al. 2006, point 19). The issue of comparability of degree classes has not been resolved for very high achievers as previous research has only been able to evaluate differences in A-level attainment and not in GCSE performance. If, for this group of students, degree classes were

comparable across institutions, then we would expect that a valid selection process would result in selecting more high achievers and fewer low achievers for study at Oxford than among those who subsequently graduated from other universities. This is because valid selection avoids false positives whereby selected individuals do not live up to predictions as well as false negatives whereby able candidate are not selected (Sparrow and Hiltrop 1994, p. 120).

8.2.2 Structural factors

In addition to these meritocratic factors, there are two structural factors that might influence students' attainment at university regardless of individual ability and effort. These factors are college destination within Oxford and subject choice.

The Oxford colleges differ in terms of wealth, date of foundation, and size (Mansbridge 1923; Green 1986; Howarth 1997). For undergraduates studying at Oxford this can make the student experience at Oxford variable by college and it has been suggested that degree performance is also related to college membership (McMullen 2007). Some empirical insights come from looking at the Norrington Table. The table ranks colleges every year according to the degree classes obtained by the college's undergraduates (see Chapter 3). There is indeed a strong association between the position of a college on the Norrington Table (see appendix Figures 2 and 3) and college wealth with a very high correlation coefficient for the rankings of the

two dimensions of $.73^{***106}$. But a sometimes overlooked aspect of the relationship between college affiliation and degree outcome is the high correlation of the Norrington Table with the competitiveness at entry, that is the number of applicants per place at a given college ($.69^{***}$) (University of Oxford 2002, p. 160; University of Oxford 2003, p. 164). The null-hypothesis then is that college membership does not actually add value over and above differences in applicants' ability and potential to achieve at university. There should thus be no association between college membership and degree outcome net of the prior merit of the students.

Furthermore, subject choice has been suggested as a second structural influence on degree performance. There is evidence that Firsts are not awarded in equal proportions across different disciplines even within the same university. Science subjects are frequently awarded more Firsts than arts subjects (Bekhradnia, Whitnall et al. 2006; Higher Education Statistical Agency 2006). Given the universally good attainment at secondary school, it seems unlikely that such differences can solely be attributed to differences in ability between arts and science students (VandeLinde 2002). Subsequent analyses will therefore include controls for subject or division of study.

8.3 Hypotheses

¹⁰⁶ This wealth allows colleges to, for example, facilitate the academic work of the students, and in turn the correlation between facilities such as library books and the Norrington table is a significant coefficient of $.41^{**}$.

The above discussion then suggests the following four hypotheses related to meritocratic and structural factors as well as extended merit measures and cultural capital for the empirical analysis of degree outcomes:

H1: Attainment at university is meritocratic (*meritocracy hypothesis*).

- a. Students who graduate from Oxford are more likely to achieve a First class honours degree than those who graduate from other universities. Oxford students are also less likely to achieve a degree lower than an Upper Second class honours degree than those who graduate from other universities.
- b. There is a positive association between outstanding attainment at secondary school and degree performance for the students with the highest attainment at school (the 'sure admits'). But as the marginal students admitted to Oxford are homogenous with regards to their potential to achieve at university, the relationship between attainment at secondary school and degree outcome for this marginal group is expected to be a flat line.
- c. Among those who enrolled at universities other than Oxford, the association between school performance and degree outcome is stronger as this group is selected more heavily based on school attainment.
- d. There are no differences by social background or type of school in the propensity to gain a First class degree at Oxford given prior differences in secondary school attainment.

H2: Study habits and aspirations are related to degree performance (*extended meritocracy hypothesis*).

- a. Deep learners are more likely to achieve highly than surface learners.
- b. Students who regard the main purpose of their time at university to achieve academically are more likely to achieve First class degrees than those who rank academic achievement less highly.

- c. Students who aspire to achieve highly are more likely to achieve highly than those with lower aspirations.
- d. As a valid selection tool in the Humanities and Social Sciences, high levels of cultural capital are predictive of the propensity to gain a First class degree in these subjects (*cultural capital hypothesis*).

H3: Controlling for individual student characteristics, there are subject level variations in gaining a First (*structural hypothesis 1*).

H4: Controlling for individual student characteristics, there is no association between college membership and degree outcome (*structural hypothesis 2*).

8.4 Data and Methods

The analysis draws on two data sources. First, there is the original admissions survey from 2003. Second, information on the original respondent's degree results was collected in 2006 for those who completed their undergraduate studies in 2006. A total of 668 observations are available for the analysis (see Chapter 3 data and methods for further details).

8.4.1 Variables

The response variable throughout the analysis is attainment at degree level. The variable has three values, namely First class honours degree, Upper Second class degree and any degree class lower than an Upper Second class degree. Overall, 24.7 per cent of the research participants gained a First class degree, 62.9 per cent gained an Upper Second and 12.4 per cent attained a degree class lower than an Upper Second. As one would expect given the high level of pre-university attainment in this group, general attainment levels among the study population are very high compared to all full-time students in Higher Education. By comparison, among all full-time higher education graduates nationally in 2006, only 11.3 per cent of students gained a First class degree, 45.4 per cent gained an Upper Second and 43.3 per cent achieved lower than an Upper Second (Higher Education Statistical Agency 2007).

The coding of further variables of interest is detailed in Chapter 3. To recapitulate, social background is operationalised as social class, gender, ethnicity, type of school and summer school attendance. Structural and meritocratic controls are operationalised as subject choice, college affiliation (collapsed into three categories), qualification status (pre- or post-qualification applicant), GCSE attainment and attainment in the Alice Heim reasoning test. The extended merit measures are operationalised as scores on the deep learning and motivation scale, aspirations for degree outcome (First versus lower degree class), applicants' main objective for their time at university, the frequency of reading books for pleasure and applicants' scores on the culture quiz. The association between these different variables is displayed in Tables 8.15 and 8.16 in the Appendix. For the multi-variate analyses, several categorical variables were collapsed further to allow for an estimation of regression coefficients when small numbers are involved. Because of the small number of

observations for attainment lower than an Upper Second, the operationalisation of schooling had to be reduced to a dummy variable of private school versus all other kinds of schooling. It is of substantive interest that there were no grammar school students among those who achieved lower than a 2:1 and an equal proportionate representation among those who achieved a First and those who achieved a 2:1. In methodological terms this means that including grammar school as a variable would have split the data for the regression thus resulting in coefficients of questionable accuracy. As there was no social class pattern in the data and very small numbers of observations with regards to the lower social classes, class was collapsed into a dummy variable of two professional class parents versus all other social backgrounds.

8.4.2 Method

The analysis first uses descriptive statistics to show the gross link (i.e. the link without taking into account attainment) between social background characteristics, structural and meritocratic measures and degree performance. Building on those descriptions, the second step of the analysis uses a comparison of multinomial logistic regression models to see whether structural and meritocratic measures account for any of the gross effects of social background characteristics on attainment at university. The outcome of the multinomial regression analyses is achieving either a First or an outcome lower than an Upper Second as compared to achieving an Upper Second class degree.

8.5 Analysis I: Descriptive analysis of the relationship between degree class and social background, structural and meritocratic factors

The first step in the analysis is to investigate whether there are any gross differences in degree class attainment by social background and structural characteristics. This analysis is undertaken in Table 8.1. The second part of this section describes the relationship between meritocratic factors and degree outcome.

8.5.1 Social background and structural factors and degree attainment

On the left hand side, Table 8.1 shows how social background characteristics and schooling related to degree outcome. The right hand side of Table 8.1 displays the frequencies of different degree classes by structural factors.

The most striking pattern link between social background and attainment in Table 8.1 concerns the comparison of attainment between male and female students. Male students gain significantly more First class degrees but also more degrees lower than an Upper Second than their female peers whose attainment, in turn, is centred around an Upper Second. There are no significant differences in attainment by social class. Regarding ethnicity, Table 8.1 shows that white applicants are significantly under-represented among those who attain lower than an Upper Second.

In addition to these social background effects, there are schooling and qualification status effects on the propensity to attain lower than an Upper Second. Grammar school attendance, post-qualification status and a different qualification profile than GCSEs and A-levels at university entrance are significant protections against low degree class attainment.

Table 8.1: Finals results by social background and structural characteristics (all figures are in row per cent)

<i>Social Background characteristics and Schooling</i>	First	Upper Second	Lower Second or lower	<i>Structural Factors</i>	First	Upper Second	Lower Second or lower
Social Class				qualification status			
Two professionals	22.8	67.3	9.9	Pre-qualification	24.6	62.3	13.2 (2.0)
One professional	25.6	60.9	13.6	Post- qualification	26.4	69.8	3.8 (-2.0)
Managerial	27.0	60.3	12.8	Candidate with GCSEs	24.8	62.2	12.9
Clerical	21.2	36.8	15.2	Candidate without GCSEs	23.8	67.5	8.8
Working	16.7	66.7	16.7	Division			
Class missing	40.0	50.0	10.0	Medical Sciences	33.3	62.1	4.5 (-2.0)
Ethnicity				Life/ Environmental Sc.	14.7 (-2.1)	80.0 (3.3)	5.3 (-2.0)
White	26.1	63.1	10.7 (-2.7)	Mathematical/Physical Sc.	26.8	42.8 (-5.5)	30.4 (7.2)
South Asian	15.0	62.5	22.5 (2.0)	Humanities	29.6^ (1.9)	66.5	3.9 (-4.4)
Other ethnicity	20.5	61.4	18.2	Social Sciences	18.8 (-2.2)	67.2	14.0
Gender				University Destination			
Male	28.3 (2.2)	53.3 (-5.1)	18.4 (4.6)	Oxford	24.8	65.0	10.2
Female	21.1 (-2.2)	72.3 (5.1)	6.5 (-4.6)	Other Russell	23.4	59.7	16.9
Type of School				Other	26.0	60.2	13.8
Comprehensive	26.4	59.0	14.6	College's position on Norrington Table (for those admitted to Oxford)			
Private	23.5	63.8	12.7	Highest Third	27.8^ (1.6)	61.5	1.1
Grammar	21.4	76.2	2.4 (-2.0)	Middle Third	24.5	62.2	13.3
Other	25.6	62.2	12.2	Lowest Third	19.0^ (-1.8)	66.7	14.3

Note: bold indicates that the adjusted residuals are significant (< -2.0 or > + 2.0). ^figure almost significant.

The right hand column of Table 8.1 displays degree attainment by structural factors. Here, the most striking pattern regards divisional variations in awarding different degree classes. There is a great variance of attainment in the Mathematical and Physical Sciences and a centring of degree performance around the Upper Second for the Life and Environmental Sciences. Furthermore, the Medical Sciences and Humanities award very few grades below a 2:1 whereas the Social Sciences award proportionately fewer Firsts. Contrary to the expectation stated in hypothesis 1a, however, there is no statistically significant association between attending Oxford and attaining a First class degree. There are, however, fewer degrees below an Upper Second awarded at Oxford than at other Russell Group universities. By and large, university destination does not appear to exert a major gross impact on degree class. Finally, hypothesis 4 suggested that college membership would not influence attainment levels for the students admitted to Oxford net of the ability of the students. There is in fact no statistically significant pattern in the data even when not accounting for GCSE attainment. The direction of the relationship, however, shows that the mean number of Firsts in colleges in the top third of the Norrington Table is higher than the number of Firsts among colleges in the bottom third of the Norrington Table. The multivariate analyses in the next section will help to evaluate more conclusively whether this pattern is driven by differences in prior attainment between students enrolling at different colleges.

It is worthwhile to consider how the gross differences in degree attainment relate to the admissions patterns observed in previous chapters. To recapitulate there was a gross and net penalty for female applicants, ethnic minorities and pre-qualification

applicants in the admissions process. Now the description of degree results suggests that female students attain fewer Firsts and that ethnic minority and pre-qualification applicants are over-represented among those with attainments lower than a Lower Second. This would suggest that the penalty in the initial admissions process to Oxford might have been valid in terms of later degree performance. But again, a multi-variate analysis is needed to see whether meritocratic or structural factors drive these findings.

8.5.2 Meritocratic factors and degree attainment

This second descriptive section explores the relationship between merit and extended meritocracy measures and degree performance. First, Figure 8.1 plots the relationship between GCSE attainment and gaining a First. Second, Table 8.2 displays the relationship between extended merit measures and degree performance.

Figure 8.13 Percentage of Firsts by GCSE attainment

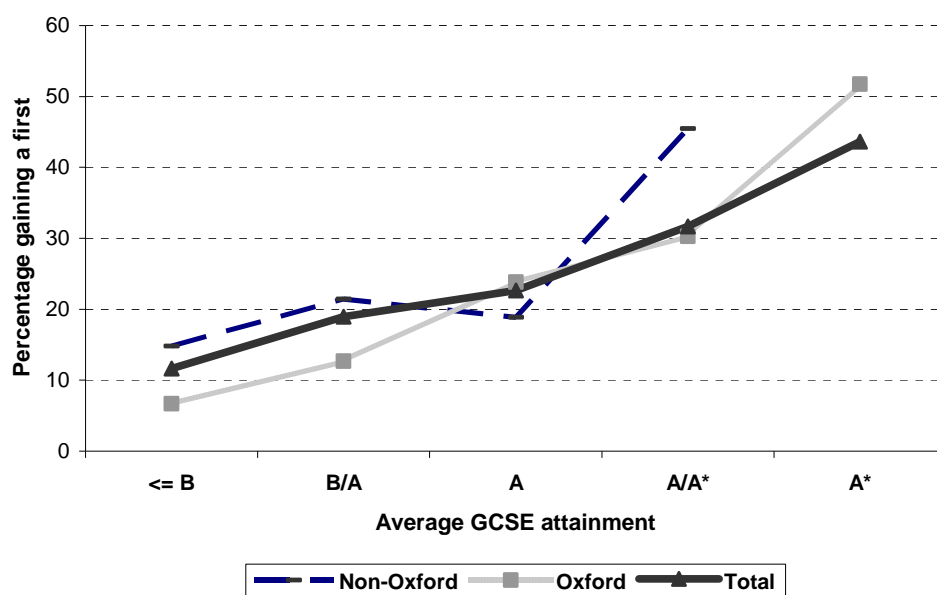


Figure 8.1 shows the existence of a positive monotonic association between average GCSE attainment and subsequent attainment of a First class honours degree in final university examinations. Among applicants with a GCSE average of B or below just 10 per cent of students gained a First class degree. This is contrasted with a 44 per cent proportion of Firsts among those with a perfect set of grades at GCSE consisting of A stars (A*) in all subjects.

The figure also shows the relationship between GCSE attainment and gaining a First separately for those who went to Oxford University and those who went to other higher education institutions. The breakdown shows that contrary to hypothesis 1b the line for Oxford is steeper than for the other universities with a lower percentage of Firsts among those with GCSE averages of B or below (8 per cent as opposed to 14 per cent for non-Oxford graduates) and a higher premium of over 50 per cent Firsts

for perfect GCSE attainment. Due to the small number of students not attending Oxford with a perfect GCSE average of A star it is not possible to estimate this observation.

The analyses in Chapter 5 found that in addition to GCSE attainment, extended merit measures were related to admission into Oxford. Table 8.2 shows that several of these measures also relate to degree performance. Specifically, performance on the Alice Heim test, the cultural capital quiz, the academic motivation and work ethic scales as well as the importance of academic success as the goal of the time at university are associated with degree performance.

The first observation in Table 8.2 refers to the Alice Heim reasoning test. Overall, the mean performance of those who obtained a First class degree is significantly higher than the mean performance among those who obtained an Upper Second or lower. This pattern is particularly pronounced in Science subjects which might be an effect of the large spatial thinking component of the Alice Heim test. The higher mean test performance of scientists with lower attainment than an Upper second could be an effect of the general wider spread of attainment in science subjects. This may suggest that ability as measured by the Alice Heim tests is a predictor but not a sufficient condition for high attainment. It is possible, for example, that some high ability scientists scored low on degree relevant measures of motivation and study habits.

Second, chapter 5 found the culture quiz to be related to admissions decisions in arts subjects. It now emerges that high culture quiz scores are also a significant predictor of degree attainment in the arts. Arts students with a First class degree, scored on

average 1 point higher than those with an Upper Second. There are no significant differences in performance on the culture quiz for degree outcomes in the sciences, where this measure cannot be easily constructed as measuring degree relevant skills.

The third significant association concerns answers to the following question ‘which of the following four [aspects of university life] is the most important one to you? 1 ‘Getting experience to help my career plans’, 2 ‘participating in non-academic activities, 3 ‘Doing well academically’ and 4 ‘Having a good social life’. The proportion of students who ranked academic success most highly is significantly larger among those who subsequently obtained a First class degree than among those who obtained an Upper Second, which in turn is significantly higher than among those who achieved less highly than an Upper Second. Finally, low scores on the academic motivation scale and work ethic scale were associated with low degree performance.

Perhaps unexpectedly, Table 8.2 does not show any differences in hoping for a First prior to university enrolment and subsequent degree performance. This measure was previously found to be related to admissions decisions with high aspiring applicants gaining more places than their perhaps less driven peers. The same holds true for reading books for pleasure which was also a significant predictor of gaining an offer to Oxford in previous analyses but is now not related to degree performance in a statistically significant way.

Table 8.2: Degree performance by scores on meritocracy and extended meritocracy measures available from pre-admissions survey (column per cent or means; n = 668)

	First	Upper Second	Lower Second or lower
Alice Heim Test (significance with reference to Upper Second)			
All	11.70***	10.59	11.28
Mean (Sciences, n = 279)	12.20**	10.84	12.33**
Mean (Arts, n = 389)	11.34 [^]	10.43	9.76
Culture Quiz (significance with reference to Upper Second)			
All Mean	11.01**	10.22	9.12**
Mean (Sciences, n = 279)	9.69	9.23	9.14
Mean (Arts, n = 389)	11.98***	10.83	9.00***
Aspirations and study habits			
Degree class hoped for not First	28.8	29.1	25.3
Degree class hoped for First	71.2	70.9	74.7
Most important aspect of university is academic success	73.9 [^]	68.8	57.8
Something other than academic success most important	26.1 [^]	31.2	42.2
Read fewer than four books for pleasure in last year	23.6	23.3	30.1
Read four or more books in last year	76.4	76.7	69.9
Mean Score on 'exams are like a game' scale (higher = more like a game)	6.49	6.60	6.94
Mean Score on Risk taking attitude to examinations (higher = more risk taking)	3.02	3.21	3.77 [^]
Mean Score on Anxiousness scale (higher = more anxious)	54.05	53.64	50.36
Mean Score on academic Motivation scale	16.89**	16.24	15.34***
Mean Score on Work Ethic scale	7.34	7.33	6.54**
Mean Score on Deep and Surface Learning scale	48.56	48.47	47.23

* p < .10, ** p < .05, *** p < .001; [^]borderline .10 level, bold (for means) Analysis of variance significant (reference category Upper Second), (for categorical variables) adjusted residuals significant.

8.6 Analysis II: Formal statistical analysis of structural, meritocratic and extended meritocracy measures

This second analysis section uses formal statistical testing to investigate how structural and meritocratic controls impact on the association between social background characteristics and degree outcome. This analysis is necessary because it

could be the case that all or some associations between social background and degree outcomes are spurious; that is they can be explained by structural and meritocratic measures. For example, female students are less likely to gain a First but Firsts are also less common in the Social Sciences and more common in the Natural Sciences. If female students were found to be over-represented in the Social Sciences and under-represented in the Natural Sciences, this structural effect could account for the association between gender and degree class (Yule 1903; Bickel, Hammel et al. 1975).

The multi-variate analysis then begins with a comparison of multinomial logistic regression models and discusses the substantive implication of the changes in the chi square statistics when further explanatory variables are added. The pooled analysis is based on the 566 applicants for whom information is available on their GCSEs and on their final university examinations¹⁰⁷. The analysis compares the likelihood of achieving particularly high or low at university as compared to achieving an Upper Second honours degree. Subsequent analyses are undertaken separately for those students who enrolled at Oxford versus those who enrolled at other universities. In a final analysis, the effects of meritocratic and structural factors are modelled separately for students in the Social Sciences, Humanities and Natural Sciences.

8.6.1 Analysis of all degree results

¹⁰⁷ The observations for students with qualifications other than GCSEs (n = 102) is too small to allow for a meaningful statistical analysis.

The first analysis involves all applicants for whom GCSE information and degree class is available. Table 8.3 shows the comparison of different multi-nomial regression models. The initial social background model is improved by adding qualification status, division, whether the student enrolled at Oxford or a different university and GCSE attainment. The resulting model can be termed the meritocratic model with structural controls (Model 5). The only extended meritocracy measure that further increases the chi square is cultural capital (Model 8). The full regression models are displayed in Table 8.4.

Table 8.3: Comparison of nested multi-nomial logistic regression models predicting degree outcome (First, Upper Second, Other). Analysis includes all applicants with GCSE and A-level qualifications

	Model Description	Chi square	df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1 (Base Model)	Class, ethnicity, gender, school	50.72	10	566	---	---	---
Model 2	Model 1+ PQA	61.07	12	566	10.35	2	.001
Model 3	Model 2 + division*	101.58	20	566	40.51	8	.001
Model 4	Model 3 + Oxford dummy	106.96	22	566	5.38	2	.10
Model 5 (Meritocratic Model with structural controls)	Model 4 + GCSE, GCSE squared	142.68	26	566	35.72	4	.001
Model 6	Model 5 + with predicted mean grades for A-levels, achieved AS levels and Advanced Extension Awards	158.70	42	566	16.02	16	No
Model 7	Model 5 + Alice Heim	145.99	28	566	3.31	2	No
Model 8 (extended meritocracy model)	Model 5 + Culture quiz	146.41	28	566	3.73	2	Borderline .10
Model 9	Model 8 + Hope for First	146.61	30	566	0.20	2	No
Model 10	Model 8 + Importance of First	148.27	30	566	1.86	2	No
Model 11	Model 8 + Motivation	149.21	30	566	2.80	2	No
Model 12	Model 8 + work ethic	147.00	30	566	0.59	2	No
Model 13	Model 8 + Keen Reader	146.99	30	566	0.58	2	No
Model 14	Model 8 + deep learning**	146.71	30	566	0.30	2	No

All chi square values are significant ($p < .000$), *analysis by subject dummies instead of division resulted in χ^2 of 248.24 over 148 df. Division was considered a preferable operationalisation to subject.

In addition, the following interactions were tested as extensions of Model 5 and not found to be significant Oxford*Female (χ^2 144.60, df 28), Oxford * Private school(χ^2 144.57, df 28), Oxford * Social Sciences (χ^2 145.76, df 28), Oxford*GCSEs categorised (χ^2 144.86, df 36).

** The following scales were also tested and found not to be significant: Risk taking scale (χ^2 146.63, df 30), Exams are like games scale (χ^2 146.45, df 30) and anxiousness scale (χ^2 147.33, df 30).

Table 8.4: Multinomial Logistic Regression of attainment in final university examinations. All graduates.

	First vs. Upper Second						Below Upper Second vs. Upper Second					
	Base Model		Meritocratic Model		Extended Meritocratic Model		Base Model		Meritocratic Model		Extended Meritocratic Model	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	-0.63***	0.18	-0.94***	0.29	-1.79***	0.54	-1.09***	0.22	-2.37***	0.50	-2.50***	0.81
Social Background												
Not two professionals	0.04	0.22	0.05	0.23	0.00	0.23	0.03	0.31	0.08	0.33	0.08	0.33
Asian	-0.90	0.63	-0.92	0.67	-0.87	0.67	0.12	0.66	-0.28	0.71	-0.27	0.71
Other non-white	0.07	0.38	0.12	0.42	0.22	0.42	1.49***	0.39	1.28***	0.46	1.30***	0.46
Female	-0.54***	0.20	-0.62***	0.22	-0.60***	0.22	-1.70***	0.32	-1.31***	0.35	-1.30***	0.35
School												
Private	-0.08	0.21	-0.38*	0.23	-0.41*	0.23	-0.23	0.29	0.02	0.32	0.01	0.32
Structural Controls												
Post-qualification Applicant			0.59	0.38	0.54	0.38			~	~	~	~
Social Sciences			-0.34	0.28	-0.20	0.29			1.05**	0.51	1.07**	0.52
Medicine Test Takers			0.05	0.50	0.20	0.51			0.53	0.91	0.54	0.92
Maths Test takers			1.10**	0.46	1.34***	0.48			3.05***	0.60	3.09***	0.62
Other			-0.39	0.28	-0.21	0.29			0.98**	0.50	1.02**	0.53
Oxford graduate			-0.49**	0.23	-0.55**	0.23			-0.45	0.32	-0.45	0.33
Meritocratic Measures												
GCSE centred			1.58***	0.35	1.50***	0.35			-0.65^	0.41	-0.67	0.42
GCSE centred squared			0.22***	0.05	0.21***	0.05			-0.11*	0.06	-0.11*	0.06
Extended Meritocracy Measures												
Culture Quiz					0.07*	0.04					0.01	0.05
Chi-square	50.72***		142.68***		146.41***		50.72***		142.68***		146.41***	
df	10		26		28		10		26		28	
N	566		566		566		566		566		566	

Note: The reference category for social class is 'two professional parents'; the reference category for ethnicity is 'not Asian', the reference category for gender is 'male', the reference category for type of school is 'other than private school'. The reference category for post-qualification applicant is 'pre-qualification applicant', the reference for division is 'Humanities', the reference category for Oxford graduate is 'non-Oxford graduate'. ~ parameter cannot be estimated; * $p < .10$, ** $p < .05$, *** $p < .001$

The base model for high attainment in Table 8.4 shows that without accounting for possibly mediating meritocratic or extended meritocracy factors, being female is

negatively associated with the propensity of gaining a First. The base model for low attainment also shows that low attainment is not merely the mirror of high attainment. The female coefficient is again significant and negative thus suggesting that female students are both less likely to achieve a First and also less likely to achieve lower than an Upper Second. In addition, there is a positive association between being non-white and low attainment.

The meritocratic model with structural control adds several powerful predictors to the base model. In particular, as observed in the previous descriptive explorations, high GCSEs attainment is associated with high degree attainment. GCSEs also provide some protection against low attainment. Furthermore, there is a positive but insignificant relationship between holding post-qualification application status and high degree attainment. Only one out of the 46 post-qualification applicants attained lower than an Upper Second thus also supporting the idea that post-qualification status protects against low attainment. The model also replicates the previously discussed divisional patterns in awarding degree classes with a spread of the attainment of Mathematics students with more Firsts and lower degree classes and few lower degree classes in the Humanities (reference category). Contrary to hypothesis 1a, being an Oxford graduate as opposed to graduating from any other UK institution is associated with a statistically lower propensity to achieve a First class degree after controlling for merit.

The more interesting analysis, however, is to see how the addition of structural and meritocratic controls affects the social background coefficients. We can see that the negative effect of being female on degree attainment becomes more pronounced with

the inclusion of GCSEs as female students attain more highly on GCSEs (see Chapter 4). The female effect on low attainment is reduced when accounting for the higher GCSE performance of this group but it remains large and significant. The other ethnicity coefficient is slightly reduced which is an effect of the lower mean GCSE in this group as well as their over-representation in the Natural Sciences that award more lower degree classes than other subjects. But perhaps the most surprising change in coefficients occurs with regards to private school students. There had been no association between private school attendance and gaining a First in the base model, but the addition of structural controls and accounting for this group's superior GCSE performance has now turned private school attendance into a significant negative effect on gaining a First. In other words, private school students with the same GCSE attainment record as their state school educated peers are less likely to achieve a First class degree. The inverse does not hold true for low attainment where there is no school difference in the propensity to attain lower than an Upper Second controlling for structural and meritocratic factors. Tests were also undertaken regarding whether the main effects of e.g. gender on degree outcome are the same for different groups of graduates such as Oxford versus non-Oxford graduates. No statistically significant interactions could be found between Oxford and being female or attending a private school. The direction of the interaction coefficients, however, indicate that female students, private school students and social science students perhaps perform worse at Oxford than at other universities. It is possible that these interactions would have been reached statistical significance if the observations were based on larger numbers (see Chapter 9).

In the extended meritocracy model, cultural capital is added to the analysis. The score is positively related to gaining a First but has no effect on low attainment. Cultural capital does not largely affect other social background coefficients although the negative effect of private school attendance on degree outcome increases slightly due to this group's higher performance on the culture quiz.

8.6.2 Analysis of degree results for Oxford students only

The next step in the analysis is to assess whether the patterns of association vary depending on whether students enrolled at Oxford or at other universities. Table 8.5 shows the comparison of multinomial regression models for the 320 students who graduated from Oxford. As in the previous model, post-qualification status and division are significant structural controls (Model 5). The Oxford college that student attended had no effect on degree outcomes gross or net of academic attainment. Bearing in mind that this findings is based on a relatively small number of observations, it tentatively suggests that college attendance exerts little influence on degree attainment. The most potent predictor of attainment for the Oxford students only is again GCSE attainment. In addition, the extended merit measures culture quiz and viewing the primary purpose of their time at university to be academic success were significant (Model 7). Overall, then the predictors included in the Oxford only model are almost identical to the ones included for all students except for the addition of the value of academic success. The full models are displayed in Table 8.6.

Table 8.5: Comparison of nested multi-nomial logistic regression models predicting degree outcome (First, Upper Second, Other). Analysis includes only applicants with GCSE and A-level qualifications. Analysis of Oxford graduates only.

	Model Description	Chi square	df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1	Class, ethnicity, gender, school	38.99	10	320	---	---	---
Model 2	Model 1+ PQA	44.34	12	320	5.35	2	.10
Model 3	Model 2 + division	94.85	20	320	50.51	8	.001
Model 4	Model 3 + college *	95.35	22	320	0.50	2	No
Model 5 <i>(Meritocratic Model with structural controls)</i>	Model 3 + GCSE, GCSE squared	131.96	24	320	37.11	4	.001
Model 6	Model 5 + A-level predictions, AS levels and AEA	149.25	40	320	17.29	16	No
Model 7 <i>(Extended Meritocracy Model with structural controls)</i>	Model 5 + culture quiz and primary purpose of university academic success**	141.40	28	320	9.44	4	.10

All chi square values are significant.

* College level was again added to the model to see whether it improves model fit net of attainment (i.e. as a value added measure). This analysis yielded an insignificant model fit improvement of χ^2 131.77 over 28 df.

** Also tested for improvement in fit when adding Alice Heim (134.96, df 26), Hope for First (136.23, 26), Motivation (144.57, 30), Work Ethic (141.90, 30), Reading habits (142.99, 30), deep learning (141.51, 30), Risk taking scale (χ^2 145.08, df 30), Exams are like games scale (χ^2 142.58, df 30) and anxiousness scale (χ^2 143.87, df 30).

Turning to the analysis of Table 8.6, we can see the same pattern of social background effects on degree attainment as in the previous analysis of all graduates. In most instances the patterns are more pronounced when looking only at the Oxford students. For example, the negative female and private school and the almost significant post-qualification status coefficients for gaining a First are stronger in the Oxford only model than in the model for all graduates. This is not true, however, for the negative female coefficient with regards to low attainment. The strong impact of GCSEs on gaining a First is slightly reduced by the addition of the culture quiz and the

importance of academic success. As in the previous model, the protection against low attainment for females is slightly reduced but remains significant when accounting for GCSE performance. In addition, there is a positive relationship between valuing academic success at university highly and degree performance. The inclusion of this extended merit measure also reduces the effect of GCSEs. This suggests that high GCSE scores and valuing academic success are related but also that net of GCSEs students' values can influence attainment levels (see appendix).

Table 8.6 : Multinomial Logistic Regression of attainment in final university examinations. Analysis of Oxford graduates only.

	First vs. Upper Second						Below Upper Second vs. Upper Second					
	<u>Base Model</u>		<u>Meritocratic Model</u>		<u>Extended Meritocratic Model</u>		<u>Base Model</u>		<u>Meritocratic Model</u>		<u>Extended Meritocratic Model</u>	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	-0.41*	0.22	-0.67*	0.40	-2.30**	0.83	-1.56***	0.33	-3.89***	1.10	-6.13***	1.70
Social Background												
Not two professionals	-0.25	0.30	-0.34	0.33	-0.34	0.33	0.36	0.42	0.87*	0.50	0.82^	0.51
Asian	-0.85	1.10	-0.32	1.14	-0.12	1.14	~	~	~	~	~	~
Other non-white	-0.57	0.66	-0.48	0.72	-0.32	0.74	1.90***	0.54	1.84***	0.66	2.11***	0.68
Female	-0.77***	0.27	-1.05***	0.32	-1.04***	0.32	-1.71***	0.45	-1.16**	0.56	-1.14*	0.55
School												
Private	-0.21	0.29	-0.68**	0.33	-0.65**	0.34	0.10	0.40	0.23	0.49	0.25	0.50
Structural Controls												
Post-qualification Applicant			0.88^	0.54	0.90^	0.57			~	~	~	~
Social Sciences			-1.00**	0.43	-0.91**	0.44			1.48	1.15	1.71	1.17
Medicine Test takers			-0.15	0.63	0.08	0.64			1.32	1.50	1.75	1.53
Maths Test takers			0.82	0.65	1.05	0.68			4.79***	1.16	5.34***	1.23
Other			-0.82**	0.38	-0.51	0.42			1.79*	1.09	2.32**	1.13
Meritocratic Controls												
GCSE centred			2.90***	0.58	2.79***	0.59			0.03	0.69	-0.21	0.72
GCSE centred squared			0.41***	0.08	0.39***	0.08			-0.01	0.10	-0.05	0.10
Extended Meritocracy Measures												
Culture Quiz					0.08	0.05					0.14	0.09
Academic Success most important aspect of university					0.80**	0.40					0.54	0.60
χ^2	38.99		131.96		141.40		38.99		131.96		141.40	
df	10		24		28		10		24		28	
N	320		320		320		320		320		320	

Note: The reference category for social class is 'two professional parents'; the reference category for ethnicity is 'not Asian', the reference category for gender is 'male', the reference category for type of school is 'other than private school'. The reference category for post-qualification applicant is 'pre-qualification applicant', the reference for division is 'Humanities', the reference category for Oxford graduate is 'non-Oxford graduate'.

~ parameter cannot be estimated; * $p < .10$, ** $p < .05$, *** $p < .001$

8.6.3 Analysis of degree results for Non-Oxford students only

The analyses in Tables 8.7 and 8.8 explore the relationship of social background characteristics and degree outcome for students who had applied to Oxford but who subsequently graduated from universities other than Oxford. Perhaps surprisingly, for this group of applicants the division of subject of study does not improve the predictions of attainment, nor is it important whether the students went to a Russell Group university or another higher education institution. It is possible that a larger number of observations might alter this. The inclusion of GCSE attainment and A-level predictions and attainment improve the model significantly. Unfortunately, the small number of observations for the latter measure results in coefficients of questionable accuracy. But what this suggests is that, unlike for the Oxford intake, A-level predictions and attainment vary more in this group and are meaningfully related to degree performance. GCSEs among this group are also more heterogeneous but generally less outstanding than among the Oxford intake. It is again remarkable that GCSE attainment is a weaker predictor of degree performance than for the overall model or for the Oxford model. As in the overall model, the culture quiz is the only extended merit measure that increases the chi-square (Model 7). The full regression models are displayed in Table 8.8.

Table 8.7: Comparison of nested multi-nomial logistic regression models predicting degree outcome (First, Upper Second, Other). Analysis includes only applicants with GCSE and A-level qualifications. Analysis of *Non-Oxford* graduates only.

	Model Description	Chi square	df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1	Class, ethnicity, gender, school	27.24	10	246	---	---	---
Model 2	Model 1+ PQA	32.58	12	246	5.34	2	.10
Model 3	Model 2 + division*	39.94	20	246	7.36	8	No
Model 4	Model 2 + university (Russell vs other)	33.23	14	246	0.65	2	No
Model 5	Model 2 + GCSE, GCSE squared	44.97	16	246	12.39	4	.05
Model 6	Model 5 + A-level predictions, AS levels and AEA	71.23	30	246	26.26	14	.05 but many coefficients can't be estimated
Model 7	Model 5 + Culture quiz**	49.12	18	246	4.15	2	borderline .10

All chi square values are significant

*Also tried to run with arts, science dummy (33.34, 14) which also did not improve model fit

**Other extended merit measures did not significantly improve the model fit: importance academic (46.65, 18), Alice Heim (45.97, df 18, Hope for First (45.29, 18), Motivation (48.16, 18), Work Ethic (46.06, 18), Reading habits (45.25, 18), deep learning (45.07, 18), Risk taking scale (χ^2 50.78, df 20), Exams are like games scale (χ^2 50.33, df 20) and anxiousness scale (χ^2 49.13, df 20).

Perhaps the most striking finding from Table 8.8 is that the previously observed female disadvantage in gaining First class degrees appears to be specific to Oxford. While for other universities being female provides a protection against low attainment as in the model for all graduates and the Oxford graduates, the negative female effect on gaining a First is not replicated for the non-Oxford graduates. The negative private school effect on the propensity to gain a First also appears to be restricted to Oxford as there is no significant difference in degree performance by school for the non-Oxford graduates. The relationship between high GCSEs and gaining a First is not significant in this model although high GCSE attainment provides a protection against

low attainment. High scores on the culture quiz also provide such protection. Overall, the model for the non-Oxford graduates finds no significant social background associations with gaining a First. It is possible that the Asian effect, for example might have been pushed above significance levels with larger numbers of observations.

Table 8.8: Multinomial Logistic Regression of attainment in final university examinations. Analysis of *Non-Oxford* graduates only.

	First vs. Upper Second						Below Upper Second vs. Upper Second					
	<u>Base Model</u>		<u>Meritocratic Model</u>		<u>Extended Meritocratic Model</u>		<u>Base Model</u>		<u>Meritocratic Model</u>		<u>Extended Meritocratic Model</u>	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	-0.96***	0.29	-0.98***	0.30	-1.40***	0.59	-0.61**	0.30	-0.72**	0.33	0.25	0.68
Social Background												
Not two professionals	0.50	0.34	0.56	0.35	0.55	0.35	-0.39	0.51	-0.57	0.53	-0.52	0.53
Asian	-1.05	0.78	-1.08	0.79	-1.04	0.79	0.27	0.71	0.26	0.74	0.18	0.75
Other non-white	0.44	0.49	0.52	0.58	0.61	0.58	0.97*	0.58	1.11	0.69	0.98	0.71
Female	-0.24	0.31	-0.30	0.32	-0.31	0.32	-1.69***	0.44	-1.60***	0.46	-1.59***	0.47
School												
Private	0.12	0.32	-0.01	0.33	-0.01	0.33	-0.60	0.42	-0.17	0.45	-0.20	0.45
Structural Controls												
Post-qualification applicant			0.38	0.55	0.32	0.55			-	-	-	-
Meritocratic Controls												
GCSE centred			0.67	0.45	0.62	0.46			-1.25**	0.53	-1.09**	0.55
GCSE centred squared			0.09	0.06	0.09	0.06			-0.19***	0.07	-0.17**	0.07
Extended Merit Measure												
Culture Quiz					0.04	0.05					-0.10^	0.06
χ^2	27.24		44.97		44.97		27.24		44.97		44.97	
df	10		16		18		10		16		18	
N	246		246		246		246		246		246	

~ parameter cannot be estimated; * p < .10, ** p < .05, *** p < .001

Note: The reference category for social class is 'two professional parents'; the reference category for ethnicity is 'white', the reference category for gender is 'male', the reference category for type of school is 'other than private school'. The reference category for post-qualification applicant is 'pre-qualification applicant', the reference for division is 'Humanities', the reference category for Oxford graduate is 'non-Oxford graduate'.

When comparing the predictors of attainment in the Oxford and in the non-Oxford model, it is noteworthy that the 'importance of academic success' at university is only

important for the Oxford graduates. This ties in with the finding from the qualitative analyses that selectors aim to admit students with potential and the wish to achieve highly based on the assumptions that those students would actually achieve more highly in the Oxford system than those who lack such ambitions. In this sense, the observation that actual degree performance at Oxford is related to aspirations validates this selection criterion.

8.6.4 Divisional analysis of degree results

The final exploration of the predictors of final degree performance concerns divisional analyses. In the light of the differences in awarding Firsts, Upper and Lower Seconds by division observed in Tables 8.1 and 8.4, the models put forward in Tables 8.9 to 8.14 assess whether different predictors are associated with final degree performance in different subject groups. Specifically, this section looks at the predictors of attainment in the Social Sciences, Humanities and Natural Sciences.

The analysis begins with finding the best model for predicting degree performance in the Social Sciences. Table 8.9 shows that the base model is improved by adding post-qualification status, Oxford attendance, GCSE performance and the score on the motivation battery. The full models are displayed in Table 8.10.

Table 8.9: Comparison of nested multinomial logistic regression models predicting degree outcome (First, Upper Second, Other). Analysis includes only applicants with GCSE and A-level qualifications. Analysis only for graduates in the Social Sciences

	Model Description	Chi square	df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1	Class, ethnicity, gender, school	14.79	8	160	---	---	---
Model 2	Model 1+ PQA	18.81	10	160	4.02	2	^ borderline .10
Model 3	Model 2 + university (Oxford)	26.56	12	160	7.75	2	.05
Model 4	Model 3 + GCSE, GCSE squared	33.04	16	160	6.48	4	^ borderline .10
Model 5	Model 4 + A-level predictions, AS levels and AEA	42.12	26	160	9.08	10	No
Model 6	Model 5 + Motivation Score **	38.30	18	160	5.26	2	.10

**Other extended merit measures did not significantly improve the model fit: importance academic ($\chi^2 40.93$, 20), Alice Heim ($\chi^2 34.88$, df 18), Hope for First ($\chi^2 39.79$, 20), Work Ethic ($\chi^2 39.62$, 20), Reading habits ($\chi^2 39.17$, 20), deep learning ($\chi^2 38.78$, 20), Culture quiz ($\chi^2 38.83$, 18), Risk taking scale ($\chi^2 41.49$, df 20), Exams are like games scale ($\chi^2 41.10$, df 20) and anxiousness scale ($\chi^2 38.53$, df 20). In addition, the following interactions were tested but not included in the final model: Oxford*female ($\chi^2 41.00$, df 20) and Oxford*Private school ($\chi^2 41.10$, df 20).

We can see that there is a pronounced negative effect of being female and of private school attendance on the propensity of gaining a First. Oxford social science graduates are also significantly less likely to gain a First than graduates from other universities. There are, however, no significant interactions between Oxford status and either private school attendance or being female (see notes below Table 8.9). GCSEs and the Motivation score are also powerful predictors of gaining a First. The motivation score reduces the impact of GCSEs slightly but it does not change the female or private school effect. With regards to low attainment, the only significant

effects controlling for attainment are the protection provided by being a private school student and an Oxford graduate.

Table 8.10 Multinomial Logistic Regression of attainment in final university examinations for graduates in the Social Sciences

	First vs. Upper Second						Below Upper Second vs. Upper Second					
	<u>Base Model</u>		<u>Meritocratic Model</u>		<u>Extended Meritocratic Model</u>		<u>Base Model</u>		<u>Meritocratic Model</u>		<u>Extended Meritocratic Model</u>	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	-0.45	0.37	-0.42	0.52	-2.43**	1.23	-0.99**	0.42	-0.26	0.54	-1.32	1.15
Social Background												
Not two professionals	-0.48	0.53	-0.20	0.59	-0.05	0.60	-0.48	0.56	-0.01	0.63	0.11	0.65
Non-White	-0.63	0.68	-0.30	0.74	-0.19	0.76	0.61	0.53	-0.29	0.69	-0.30	0.70
Female	-1.31***	0.49	-1.78***	0.58	-1.79***	0.59	-0.74	0.48	-0.44	0.58	-0.53	0.60
School												
Private	-0.18	0.47	-1.14*	0.64	-1.13*	0.66	-0.30	0.50	-1.34*	0.75	-1.32*	0.76
Structural Controls												
Post-qualification Applicant			1.31	0.92	-0.02	1.15			~	~	~	~
Oxford graduate			-1.22*	0.64	-1.12*	0.68			-1.37**	0.71	-1.33*	0.72
Meritocratic Measures												
GCSE centred			2.26***	0.88	2.09**	0.91			-0.43	0.94	-0.46	0.95
GCSE centred squared			2.70**	1.18	2.04*	1.25			0.13	1.34	-0.21	1.42
Extended Meritocracy Measures												
Motivation Score					0.21*	0.12					0.12	0.12
χ^2	14.79		33.04		38.30		14.79		33.04		38.30	
df	8		16		18		8		16		18	
N	160		160		160		160		160		160	

Note: The reference category for social class is 'two professional parents'; the reference category for ethnicity is 'not Asian', the reference category for gender is 'male', the reference category for type of school is 'other than private school'. The reference category for post-qualification applicant is 'pre-qualification applicant', the reference for division is 'Humanities', the reference category for Oxford graduate is 'non-Oxford graduate'.

~ parameter cannot be estimated; * p < .10, ** p < .05, *** p < .001

The Humanities are the subject group in which extended meritocracy measures add most power for predicting degree attainment. In addition to the base model and the meritocratic model (Model 4). Five extended meritocracy measures are additional significant predictors of degree performance. These predictors are the score on the

culture quiz, the score on the work ethic battery, reading books for pleasure, the importance of academic success and hoping to obtain a First class degree.

Table 8.11: Comparison of nested multinomial logistic regression models predicting degree outcome (First, Upper Second, Other). Analysis includes only applicants with GCSE and A-level qualifications. Analysis only for graduates in the Humanities

	Model Description	Chi square	df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1	Class, ethnicity, gender, school	3.78	8	176	---	---	---
Model 2	Model 1+ PQA	7.22	10	176	3.44	2	Borderline .10
Model 3	Model 3 + university (Oxford)	10.73	12	176	3.51	2	Borderline .10
Model 4	Model 3 + GCSE, GCSE squared	34.45	16	176	23.72	4	.001
Model 5	Model 4 + A-level predictions, AS levels and AEA	41.36	26	176	6.91	10	No
Model 6	Model 4 + Culture quiz**	40.68	18	176	6.23	2	.05
Model 7	Model 6 + Work Ethic	45.52	20	176	4.84	2	.10
Model 8	Model 7 + reading for pleasure	50.45	22	176	4.93	2	.10
Model 9	Model 8 + importance of academic success	58.01	24	176	7.56	2	.05
Model 10	Model 9 + Aspire for first	67.05	26	176	9.04	2	.001

**Other extended merit measures did not significantly improve the model fit: Alice Heim (χ^2 34.98, df 18), deep learning (χ^2 62.43, 26), Motivation (χ^2 41.18, 20).

** The following scales were also tested and although the risk and anxiousness scales were significant, it was not meaningfully related to degree outcomes: Risk taking scale (χ^2 72.80, df 28), Exams are like games scale (χ^2 69.05, df 28) and anxiousness scale (χ^2 74.45, df 28).

The detailed models in Table 8.12 show that there is a gross negative effect of being female on gaining a First class degree. This effect becomes stronger when controlling for GCSE performance. However, when including the extended meritocracy

measures, the female effect becomes insignificant. This is because female humanities students scored on average significantly lower on the culture quiz (9.1 out of 20) than their male peers (10.2 out of 20). The culture quiz that had been important in the selection of students into Oxford humanities degrees (See Chapter 5) is also a powerful predictor of degree outcome. Reading more than four books for pleasure a year and regarding academic success as the most important aspect of university life are also significant. Rather surprisingly, aspiring for a first is negatively associated with very high degree performance although it also protects against low performance. This may suggest that aspirations for high attainment that are unrealistic in the light of GCSEs, other study habits and cultural knowledge do not aid the cause of achieving a First class degree in the Humanities. Finally, post-qualification application status is associated with higher chances of gaining a First. In the humanities then, attainment alone is not as good a predictor of degree performance as in other disciplines.

Table 8.12 Multinomial Logistic Regression of attainment in final university examinations for graduates in the Humanities

	First vs. Upper Second						Below Upper Second vs. Upper Second					
	Base Model		Meritocratic Model		Extended Meritocratic Model		Base Model		Meritocratic Model		Extended Meritocratic Model	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	-0.37	0.32	-0.81*	0.46	-4.40***	1.58	-2.49***	0.72	-2.88**	1.25	5.86	4.27
Social Background												
Not two professionals	-0.19	0.36	0.07	0.40	0.07	0.42	0.18	0.76	0.18	1.01	-0.99	1.42
Non-White	-0.68	1.12	-0.20	1.18	-0.11	0.88	~	~	~	~	~	~
Female	-0.69**	0.34	-0.77**	0.40	-0.52	0.41	-0.70	0.75	-0.50	0.99	-1.00	1.20
School												
Private	0.07	0.34	-0.29	0.40	-0.11	0.43	0.26	0.75	0.56	1.11	0.63	1.48
Structural Controls												
Post-qualification Applicant			0.78	0.54	1.11**	0.57			~	~	~	~
Oxford graduate			-0.01	0.39	-0.41	0.41			-1.39	1.16	-0.68	1.40
Meritocratic Measures												
GCSE centred			1.67***	0.54	1.61***	0.57			-5.91	4.05	-8.98*	5.49
GCSE centred squared			0.52	1.02	0.23***	0.08			-3.75	5.57	-1.76	7.47
Extended Meritocracy Measures												
Culture Quiz					0.18**	0.08					-0.57^	0.38
Work Ethic					-0.04	0.10					-0.18	0.30
Books for pleasure					1.14^	0.76					-3.40*	1.87
Aspire for first academic success important					-0.90**	0.45					-3.71*	2.14
					1.63***	0.55					2.89	2.32
χ^2	3.78		34.45		67.05		3.78		34.45		67.05	
df	8		16		26		8		16		26	
N	176		176		176		176		176		176	

Note: The reference category for social class is 'two professional parents'; the reference category for ethnicity is 'not Asian', the reference category for gender is 'male', the reference category for type of school is 'other than private school'. The reference category for post-qualification applicant is 'pre-qualification applicant', the reference for division is 'Humanities', the reference category for Oxford graduate is 'non-Oxford graduate'.

~ parameter cannot be estimated; * p < .10, ** p < .05, *** p < .001

The final analysis in this chapter concerns the predictors of degree performance in the natural sciences. To recapitulate, in two of the natural science subjects, Medicine and

Mathematics, the research project was able to include the subject specific admissions test in the modelling of selection decisions. Both tests were found to be highly potent predictors of admissions decisions. However, degree result, or rather performance on the pre-clinical component of the Medicine degree were only available for 33 of the 161 Medicine test takers who had participated in the study. For the 143 Maths test takers, results were available for 55 students. At this point in time, there is no meaningful or significant relationship between scores on the admissions tests and finals performance in either of the two subjects (see Table 8.13). It is, however, possible that the figures are misleading as in Oxford, for example, the highest achievers in Mathematics tend to enrol on four year degree courses and their degree class would not be known at this point. Because of the small numbers of observations involved though, unlike for the analyses in Chapters 4 and 5, the analysis here focuses on all natural science subjects in one single model rather than breaking it down by Medicine test, Mathematics test and Other natural science subjects.

Table 8.13: Mean performance on subject specific tests by degree outcome

	First	Upper Second	Lower Second or lower
Performance on subject admissions specific tests			
Medicine test (valid n = 33)	57.8	57.8	46.5 (n = 2)
Maths tests (valid n = 55)	61.1	61.0	70.88 (n = 25)

For the combined natural science subjects then, the base model is improved by adding the structural and meritocratic controls qualification status, subject of study, and GCSE attainment. Whether or not the degree was obtained at Oxford was not significant. In addition, the Alice Heim reasoning test was significant and so was Summer School attendance. To remind the reader, the argument was advanced in

Chapter 5 that summer school attendance functions as a proxy for having attended an Oxford outreach programme for disadvantaged high achievers. In the analysis of admissions decisions, summer school attendance was only significant in the natural sciences. The modelling of extended merit measures and degree outcomes now suggests that the over-admission of summer school attendants was not, or not only a charitable act of compensating for previous inequalities in opportunities. In fact, the selection tool picked out applicants with particular potential to achieve First class degrees. This makes a business case for admitting access candidates – access considerations may not only be socially desirable but in fact improve the selection of high achieving individuals (Goss 1994).

Table 8.14: Comparison of nested multinomial logistic regression models predicting degree outcome (First, Upper Second, Other). Analysis includes only applicants with GCSE and A-level qualifications. Analysis only for graduates in the Natural Sciences

	Model Description	Chi square	df	N	Difference in chi square	Difference in DF	Significance of difference in fit
Model 1	Class, ethnicity, gender, school	28.87	8	250	---	---	---
Model 2	Model 1+ PQA	40.78	10	250	11.91	2	.001
Model 3	Model 2 + Medicine and Maths	64.72	14	250	23.94	4	.001
Model 4	Model 3 + Oxford	65.53	16	250	0.81	2	No
Model 5	Model 3 + GCSE, GCSE squared	76.11	18	250	11.39	4	.001
Model 6	Model 5 + A-level predictions, AS levels and AEA	78.96	28	250	2.85	10	No
Model 7	Model 5 + Alice Heim	80.05	20	250	3.94	2	Borderline .10
Model 8	Model 7 + Summer School	87.74	22	250	7.69	2	.05

**Other extended merit measures did not significantly improve the model fit: importance academic (χ^2 82.48, 22), Hope for First (χ^2 80.23, 22), Work Ethic (χ^2 80.75, 22), Reading habits (χ^2 80.86, 22), deep learning (χ^2 81.46, 22), Culture quiz (χ^2 80.17, 22), Motivation (χ^2 82.68, 22), Risk taking scale (χ^2 89.35, df 24), Exams are like games scale (χ^2 90.67, df 24) and anxiousness scale (χ^2 89.68, df 24).

The full model displayed in Table 8.15 shows no significant social background effects on high attainment except when summer school attendance is included in the extended meritocratic model. With regard to low attainment, being female provides protection against low achievement but being non-white is positively associated with low degree attainment. Summer School students are also more likely to attain lower degrees thus suggesting that the spread in attainment for summer school attendants is wider than for those who did not participate in summer school outreach programmes. GCSEs are a potent predictor of high attainment. High performance on the Alice Heim test is also associated with high degree performance. But in contrast to the Humanities subjects the female coefficient is not significant although the direction is negative. The structural control dummy whether a student graduates from a mathematics course is also significant. This ties in with the observation in the description of divisional patterns in achievement that the spread in attainment is particularly wide in the Mathematical Sciences.

Table 8.15 Multinomial Logistic Regression of attainment in final university examinations for graduates in the Natural Sciences

	First vs. Upper Second						Below Upper Second vs. Upper Second					
	Base Model		Meritocratic Model		Extended Meritocratic Model		Base Model		Meritocratic Model		Extended Meritocratic Model	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	-0.47*	0.25	-1.41***	0.37	-3.25***	0.92	-0.76***	0.28	-1.45***	0.40	-3.03***	0.99
Social Background												
Not two professionals	-0.10	0.33	-0.04	0.41	0.10	0.43	-0.12	0.42	0.38	0.50	0.42	0.51
Non-White	0.33	0.55	0.29	0.69	0.48	0.71	1.51***	0.56	2.00***	0.76	2.22***	0.78
Female	-0.45	0.31	-0.24	0.42	-0.23	0.43	-1.94***	0.48	-2.43***	0.72	-2.43***	0.72
Summer School					1.37***	0.51					1.11*	0.66
School												
Private	-0.40	0.32	-0.61	0.42	-0.47	0.44	0.05	0.38	0.49	0.49	0.55	0.50
Structural Controls												
Medicine			0.62	0.57	0.64	0.59			-0.57	0.93	-0.50	0.93
Mathematics			1.31***	0.53	1.25**	0.55			1.64***	0.53	1.50***	0.55
Post-qualification Applicant			~	~	~	~			~	~	~	~
Meritocratic Measures												
GCSE centred			1.51***	0.55	1.43***	0.56			-0.29	0.63	-0.38	0.63
GCSE centred squared			1.78**	0.81	1.99**	0.86			0.57	0.83	0.75	0.89
Extended Meritocracy Measures												
Alice Heim					0.13*	0.07					0.12	0.08
χ^2	28.87		76.11		87.74		28.87		76.11		87.74	
df	8		18		22		8		18		22	
N	250		250		250		250		250		250	

Note: The reference category for social class is 'two professional parents'; the reference category for ethnicity is 'not Asian', the reference category for gender is 'male', the reference category for type of school is 'other than private school'. The reference category for post-qualification applicant is 'pre-qualification applicant', the reference for division is 'Humanities', the reference category for Oxford graduate is 'non-Oxford graduate', the reference category for Summer School is 'No Summer School attended'.

~ parameter cannot be estimated; * p < .10, ** p < .05, *** p < .001

8.6 Discussion and Conclusion

This chapter set out to investigate four main hypotheses regarding degree performance of the study participants whose degree performance was available in 2006. Broadly, the hypotheses related to meritocratic, extended meritocracy, and structural factors.

With regards to the working of meritocracy and extended meritocracy, the analysis showed several unexpected findings. Firstly, contrary to the expectation that graduates from Oxford would be more likely to gain a First class degree than their peers who had been unsuccessful in a competition for a place at Oxford, net of attainment at intake, fewer First class degrees were awarded at Oxford than at other institutions. This finding suggests that the University of Oxford could be awarding more First class honours degrees or that other higher education institutions could perhaps award fewer if degree classes were indeed to be comparable across higher education institutions (Quality Assurance Agency 2006).

But perhaps more interesting and perhaps unexpected in terms of the substantive implications of this research, the analysis also found evidence to reject the hypothesised flat relationship between GCSE attainment short of outstanding and attainment for the Oxford graduates. Instead, there was a positive linear association between GCSE attainment and final degree performance for both, Oxford and non-Oxford graduates. In other words, the students who were picked out by Oxford selectors as having high potential despite lower GCSE attainment than perhaps the

majority of admitted students did generally not achieve as highly as those with high or outstanding GCSE scores.

One interpretation of this finding is that the interview created false positives. Some students were admitted to Oxford with lower prior attainment in preference over some applicants with higher attainment records. But the empirical findings suggest that lower attaining students had, in fact, less potential to achieve highly at university.

An alternative explanation could be, however, that those students admitted with lower GCSE grades did indeed have the same potential as those with higher GCSE grades to achieve a First class degree at Oxford. The subsequent academic environment in Oxford, or indeed at other universities, however, did not allow students with high potential but perhaps slightly lower prior attainment levels to achieve their potential. This would mean that GCSEs and degree results reward similar skills and work habits that are unrelated to the potential that selectors could see in a face-to-face interaction with applicants.

Either one of the above explanations would seem to suggest that those making admissions decisions for Oxford are most likely to select the next generation of high attaining university students by paying even closer attention to GCSEs than it is currently the case – that is by using an attainment based model of meritocracy. This finding is particularly noteworthy as the recent review of higher education admission recommended that purely attainment based approaches to selection should be replaced by more holistic evaluations that focus on potential and the context of attainment (Schwartz Commission 2004). It also raises issues of social justice, as it is well documented that opportunities to attain highly in secondary school are not equally

distributed among students from different social class origins and ethnicity (Mare 1981; Erikson and Jonsson 1996; Rothon 2005).

The final hypothesis regarding the working of meritocracy in degree attainment (H1d) stated the expectation that social background characteristics or type of school would not influence the propensity of gaining a First, net of prior attainment and admissions decisions.

To recapitulate, the previous analyses of admissions patterns in Chapter 4 and 5 found that for applicants with the same attainment for the same subject of study, there was a net advantage in the selection process for applicants who were male, state school educated, white and who had post-qualification status. The over-selection of these individuals could be validated by a higher propensity of students with these characteristics to achieve highly at university. This expectation is largely supported by the analyses. Post-qualification applicants performed better than pre-qualification applicants, state-school applicants performed better than private school applicants, male applicants performed better than female applicants and, although not statistically significant, white applicants performed better in most models than non-white applicants. Two coefficients are particularly noteworthy for the Oxford intake. Among the Oxford graduates only, there is a negative effect of being female and of having been educated in a private school on the propensity to obtain a First class degree. This finding seems to suggest that the discounting of private school performance and female performance at the admissions stage was not only justified but did not go far enough.

Let us examine these findings in further detail. With regards to the private school effect, it is possible that private schools create attainment over and above the natural ability of their students (Halsey, Heath et al. 1980; Sullivan and Heath forthcoming 2008). Therefore, a student educated in a private school with the same attainment as a student educated in a state school may not be matched with the latter in terms of academic ability and potential. It is also possible that the learning and teaching style at state schools is a better preparation for the more independent and self-motivated learning style at university level than it might perhaps be the case at private schools with a more ‘spoon feeding’ style of learning (Cassidy 2002). It is possible that such subtle differences in approaches to learning and underlying ability between private and state school students only play out at the very highest ability level and that therefore the negative private school effect is only observable among Oxford graduates and not among the graduates from other universities¹⁰⁸.

With regards to the female disadvantage, one could also make the argument that among the group of very high achievers, female applicants with the same attainment record as male applicants have, in fact, lower underlying levels of ability. An alternative explanation is that female and male applicants are admitted with very similar levels of ability and potential but that something during the undergraduate time at Oxford helps male students to fulfil their potential more than female students. Such an effect could be driven by the predominance of male tutors (see Chapter 3) or the particularity of the Oxford examination system with less modular or continuous models of assessment than at other universities.

¹⁰⁸ An alternative explanation for the private school effect would be that the academic environment at Oxford in particular alienates private school and prevents their success. This would seem a rather unlikely explanation given Oxford’s historic record in educating students from the private sector.

A second set of hypotheses concerned the relationship between extended meritocracy measures and degree attainment. In particular, the analyses in Chapter 5 showed that the culture quiz was related to admissions decisions in the Humanities and the Social Sciences. The importance of academic success was a significant predictor of gaining an offer in the Social Sciences and in Natural Science subjects, the score on the deep learning scale was significant in the Humanities, and the Alice Heim reasoning test predicted admissions decisions in the Social Sciences. This suggested that selectors at Oxford picked up on student characteristics other than pure academic attainment that they believed to be predictive of potential to achieve at university.

The analysis of degree performance shows that measures other than academic attainment are indeed associated with high degree performance. Specifically, in the Humanities, the culture quiz, reading books for pleasure and the importance of academic success are predictors of gaining a First. In the Social Sciences, the motivation score is significant, and in the Natural Sciences the Alice Heim test is also significant. These findings validate the general idea of using characteristics other than attainment in the selection of undergraduate students, even though the additional predictors of admission were not always the same as the additional predictors of degree performance.

However, some measures were associated with both admissions decisions and degree performance. This observation is true for the culture quiz in the Humanities, thus validating it as a selection dimension. Whether cultural knowledge is a fair way of selecting undergraduates is a different question as it is likely this particular knowledge is more accessible in some home habitus than in others (Bourdieu and Passeron

[1977] 1990). In the Natural Sciences, having attended a summer school was positively associated with gaining an offer and with gaining a First, but it was also associated with degree performance below an Upper Second. This lends some support to the validity of taking access considerations into account in the selection process. It is possible that the motivation needed to participate in a summer school also helps students to succeed at university.

In general, many more of the extended meritocracy measures are associated with degree performance at Oxford than is the case for the non-Oxford graduates. This could be due to the smaller number of observations for the non-Oxford graduates but it may also suggest that at Oxford in particular, prior attainment alone does not predict academic success.

Finally, this chapter investigated the structural hypotheses H3 and H4 that there would be subject level variations in gaining a First but no college level variations after taking into account the achievement records of the admitted students. Both hypotheses were confirmed. This means that applicants who are similar in aspirations, motivation and attainment may achieve rather different degree classes because of subject level differences in the number of Firsts that are awarded. The analysis also found no college effect on degree performance for Oxford students net of initial student characteristics although there is a modest gross association.

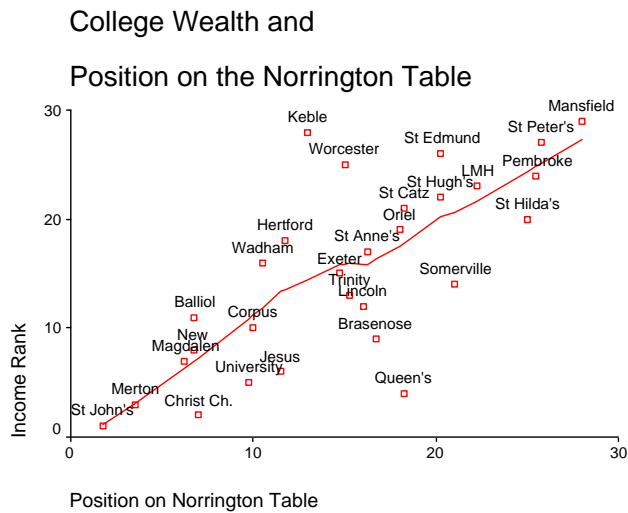
To sum up, this chapter showed that attainment at GCSE was the single most powerful predictor of high attainment at degree level. Specifically, the analysis rejected the hypothesised flat relationship between non-outstanding GCSE attainment

and degree performance at Oxford. At the same time, extended merit measures were significant in particular for predicting attainment at Oxford. These observations lead to a mixed finding that, on the one hand, the selection process into Oxford seems to be valid to the extent that it picks up on motivational characteristics that are perhaps not accessible through paper-based admissions systems. At the same time, the strong association between GCSEs and degree performance in this study suggests that purely attainment based models of selection could fare even better in selecting the highest attaining students. At least the finding suggests that rejecting students with outstanding GCSE records could create false negatives.

Furthermore, the findings could feed into current policy debates about higher education. Recently, the Schwarz review of admission to higher education concluded that selectors should take a holistic approach to evaluating applicants and contextualise attainment (Schwarz Commission 2004). With regards to private schools, this chapter finds support for this idea as private school students perform less well once admitted to Oxford. At the same time, the significant impact of motivational measures and cultural capital for degree performance may suggest that contextualisation by social background is not always the most valid way of improving the selection of students with high potential to achieve highly at university. Furthermore, the association between GCSEs and degree performance suggests that students who had fewer opportunities to shine at their GCSEs are handicapped even at university level with regards to the chances to attain highly. At the same time, those who have attained highly in secondary schools despite less than perfect conditions – for example, Summer School students- do indeed appear to have higher potential to achieve at university.

Appendix

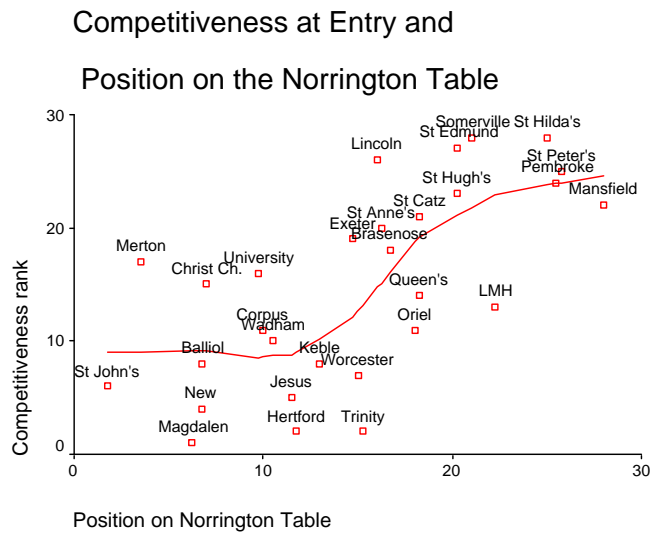
Figure 8.2



Data source for competitiveness at entry from 2000 - 2002: University of Oxford 2002, p. 160; University of Oxford 2003, p. 164.

Data Source for position on the Norrington Table from 2000 – 2002: Cohen 2002, Norrington Table Limited 2002.

Figure 8.3



Data source for competitiveness at entry from 2000 - 2002: University of Oxford 2002, p. 160; University of Oxford 2003, p. 164.

Data Source for position on the Norrington Table from 2000 – 2002: Cohen 2002, Norrington Table Limited 2002.

Table 8.16: Correlation between different measures of ability, cultural knowledge and motivation (n = 1,929, except GCSE where n = 1,556)

	Alice Heim	Culture Quiz	Motivation	Work Ethic	Deep and Surface Learning	GCSE centred
Alice Heim	1					
Culture Quiz	.23***	1				
Motivation Score	-.04	-.05*	1			
Work Ethic	-.13***	-.08***	.54***	1		
Deep and Surface Learning	-.10***	.11***	.33***	.28***	1	
GCSE centred	.22***	.21***	.17***	.09***	.02	1

* p < .10, ** p < .05, *** p < .001

Table 8.17: Comparison of means for different measures of ability, cultural knowledge and motivation (n = 1,929, except GCSE where n = 1,556)

	Alice Heim	Culture Quiz	Motivation	Work Ethic	Deep and Surface Learning	GCSE centred
Hope for First	10.5	10.0	16.3***	7.2*	48.8***	.01
Hope for degree class lower than First	10.4	9.9	15.6***	7.0*	47.4***	.00
Academic Success most important aspect of university life	10.5	10.1*	16.4***	7.4***	48.8***	.01
Other aspect of university life most important	10.5	9.8*	15.3***	6.6***	47.8***	.01
Reads Four or more books per year	10.6***	10.4***	16.1*	7.2	48.9***	.02
Reads fewer than four books per year	10.0***	8.5***	15.8*	7.0	46.7***	-.01

* p < .10, ** p < .05, *** p < .001

Table 8.18: : Multinomial Logistic Regression of attainment in final university examinations – Non-Oxford students only.

	First vs. Upper Second				Below Upper Second vs. Upper Second			
	<u>Model 1</u>		<u>Model 6</u>		<u>Model 1</u>		<u>Model 6</u>	
	B	Std. Error	B	Std. Error	B	Std. Error	B	Std. Error
Intercept	-0.93***	0.29	-1.09***	0.37	-0.51*	0.29	-1.43***	0.56
Social Background								
Not two professionals	0.46	0.34	0.48	0.35	-0.49	0.50	-0.70	0.53
Asian	-1.11	0.78	-1.38*	0.83	0.13	0.70	-0.23	0.75
Female	-0.21	0.31	-0.17	0.33	-1.61***	0.44	-1.30***	0.46
School								
Private School	0.15	0.31	0.01	0.33	-0.56	0.42	-0.13	0.45
Structural Controls								
Post-qualification Applicant			0.40	0.55			-	-
Social Sciences			0.12	0.40			1.06*	0.59
Medicine Test Takers			0.16	0.93			0.66	1.28
Maths Test takers			1.30*	0.70			1.29	0.92
Other			-0.09	0.43			0.85	0.62
Meritocratic Controls								
GCSE centred			0.64	0.45			-1.28**	0.54
GCSE centred squared			0.09	0.06			-0.18***	0.07
Chi-square	24.38**		49.65***		24.38**		49.65***	
df	8		22		8		22	
N	246		246		246		246	

~ parameter cannot be estimated; * p < .10, ** p < .05, *** p < .001

Chapter Nine

Conclusion

9.1 Chapter overview

This chapter summarises and concludes the thesis. First, it offers a review of the research aims and the main findings from the empirical analyses. Second, section 9.3 discusses the limitations of the research before section 9.4 details the contribution to knowledge this thesis makes on normative, policy and social theory levels. Suggestions for further research are made in section 9.5. Finally, a brief, overall conclusion to this thesis is offered.

9.2 Aims of the research revisited

This thesis aimed to provide a thorough account of the admissions pattern into Oxford conditional on application. Specifically, the thesis set out to answer the following research puzzles: Why do those privileged in terms of social background, ethnicity

and secondary schooling continue to dominate enrollment at a leading British university? How does this square with the expansion and ‘meritocratic revolution’ in education (Soares 1999; Arum, Gamoran et al. 2007)? And how can we as social scientists understand aggregate admissions patterns to an elite university as an outcome generated by the decisions of individual gate keepers? (Granovetter 1978, p. 1421; Coleman 1990, p. 197; Abell 2003).

The thesis originated in response to the weakness of educational research to explain how unequal transition patterns into higher education are generated conditional on the self-selection of individuals to apply to a particular higher education institution. It has been argued that unequal transition rates in education are mainly a function of differences in merit and aspirations, cultural, social and economic capital of students’ families (e.g. Boudon 1974; Willis 1977; Bourdieu and Passeron [1977] 1990). Little attention has been paid to the role of gatekeepers such as selectors for competitive higher education courses in generating unequal transition rates. The location of the project as an under researched niche of an otherwise strong research field (Blackburn and Jarman 1993; Archer, Hutchings et al. 2003; Abbott and Leslie 2004; Blanden and Machin 2004; Boliver 2005) allowed simultaneously for two advantages. On the one hand, it was possible to apply and evaluate the explanatory power of models developed for the study of educational outcomes at the earlier branching points in the educational system in the context of selective higher education. Specifically, operationalisations of prior educational attainment, independent measures of intelligence as well as cultural and social capital and motivational and aspirational measures could be included in the study. On the other hand, the special context of studying higher education transitions *conditional on applying* allowed this study to go

beyond the existing literature by showing that admissions pattern can only be fully understood by looking at the characteristics, goals and preferences of those who finally decide which applicants are successful in the competition for a place at Oxford. This dual focus allows the thesis to enhance our understanding of the generative mechanisms behind unequal transition rates.

Finally, this study also aimed to assess the validity of selection procedures in terms of university examination outcomes achieved at the end of the study participants' degree courses. Contributions were made towards understanding some of the discounting of attainment for private school and female applicants (to name two examples) in the admissions process in the light of their actual lower degree performance at Oxford.

9.3 Findings

This section reviews the main research findings from the individual thesis chapters.

First, Chapter 1 introduced the topic of transition into higher education in general and transition into Oxford in particular against the national background of educational expansion. The concepts 'education based meritocracy' and 'meritocratic selection into education' were discussed. The chapter concluded that, ultimately, merit remained an under-defined concept in national policy debates and in the guidelines for admission to the University of Oxford.

Chapter 2 described the application and acceptance patterns to higher education in general and to Oxford in particular. In line with the general literature on educational transitions, several social groups were found to be over-represented among higher education applicants in general, among high achieving applicants and among the Oxford applicants. In particular, middle class students were over-represented among all three groups. Female students and ethnic minorities also applied more frequently to higher education than their representation in the population would suggest and had greater representation among the group with the highest educational attainment levels in secondary schools. Private schools and grammar schools were the schooling types with the largest percentage of high achievers.

The pool of applicants to Oxford was generally not as wide in terms of social class composition as the pool of high achievers. In particular, professional and managerial class individuals and private school students were overrepresented among the Oxford applicants. The drop in applications to Oxford compared to the representation among the highest achievers was steepest for working class applicants and for those from the further education sector.

With the exception of the institutional data for Oxford¹⁰⁹, acceptance patterns for higher education reproduced the application profile of the applicants. For Oxford, however, there was an advantage for male applicants, those from the highest social classes, white applicants, UK domiciled applicants and those educated in private

¹⁰⁹ We need to remember that institutional level data were not used for any other UK university. It is possible, that Cambridge and perhaps other Russell Group Universities show similar discrepancies between applications and acceptances (see Boliver 2005 for further analyses on this issue).

schools. Overall, this chapter established as a research puzzle the differential admissions rates into the University of Oxford *conditional on application*.

Chapter 3 detailed the methodological design of the thesis, data collection efforts, variable constructions and ethnical considerations. The chapter contributed to the substantive body of this thesis by making the case for a more detailed social class schema than the standard variations of the Goldthorpe schema or the national statistics socio-economic classification. In particular, the chapter showed not only that the children of professional class parents displayed characteristics distinct from those of managerial class background, but also that meaningful differences existed among Oxford applicants depending on the number of professional class parents present in a household. As a consequence, all subsequent analyses in this thesis fine tuned the operationalisation of the middle class by analysing as distinct groups children with two professional class parents, children with one professional class parent and children with one or more managerial class parents.

Chapter 4 was the first statistical chapter to investigate explanations for the unequal transition rates observed in chapter 2. Specifically, this chapter tested the explanatory power of structural and meritocratic hypotheses in explaining differential transition rates into Oxford. Structural factors such as the competitiveness of a subject and meritocratic factors such as GCSE attainment were meaningfully related to the chances of gaining an offer. However, by and large, neither structural nor meritocratic mechanisms could account for the differential transition patterns into Oxford. The only observation that was significantly affected by the introduction of

meritocratic controls was the private school effect. Without controlling for attainment, private school applicants appeared to enjoy a slight advantage in the selection process. Controlling for the superior academic attainment of private school students, however, the analyses showed a net disadvantage for these applicants in the selection process. In addition, there were some smaller changes in the link between social origin and enrolment at Oxford for other social groups. Female applicants and South Asian applicants had a slight tendency to apply to more competitive subjects than their male, white peers. This small effect, however, was cancelled out by the higher academic attainment of these groups. In the cases of Mathematics and Medicine, where it was possible to include performance on subject specific tests, the test performances explained the female disadvantage and reduced the (statistically insignificant) South Asian disadvantage. The inclusion of test performance also reduced the effect of GCSE performance to insignificant. Finally, chapter 4 also found that post-qualification status was a significant predictor of gaining an offer. The size of the coefficient for post-qualification status for the other qualification applicants was about twice the size as it is for candidates with GCSEs and A-levels. Post-qualification status did not interact with any social background characteristics.

The statistical analyses in Chapter 5 tested three hypotheses to investigate whether extended merit measures, social capital and cultural capital could account for the group differences in the propensity for gaining an offer that remained after controlling for structural and meritocratic factors. These are the sort of factors that the interview might pick up. The descriptive analysis showed that the operationalisations of all three hypotheses were meaningfully related to admissions decisions. Higher offer rates were observed for students with high academic aspirations, a deep learning style,

those with a parental or school connection to Oxford or Cambridge, those coming from a two-adult headed household and those households with the keenest readers and a good knowledge of high culture.

The inclusion of the new measures in the statistical modelling of admissions decisions significantly improved the model fit but the main effects of social background on admissions decisions remained largely unchanged. The only coefficient that the new measures made slight progress in explaining was the South Asian disadvantage and even that remained large and significant. The chapter also found divisional variations regarding which of the extended merit and cultural capital factors were important for the selection into different subjects. For example, cultural capital measures only played a role in Arts subjects but not in Natural Sciences subjects.

Overall, the two chapters that focused on the statistical modelling of admissions decisions showed that subject choice, attainment, extended merit measures and cultural capital were important in the selection process to Oxford. But despite the crucial impact of these factors, there remained a net effect of social class, ethnicity, gender and type of school on an applicant's propensity to gain an offer. This suggested that considerations not captured by the statistical models enter the admissions process.

Chapter 6 was the first of two chapters to investigate whether the selectors' aims and motivations in the admissions process and actual admissions meetings could explain the differential transition patterns from the statistical analyses. Specifically, chapter 6

looked at the goals selectors pursued in the admissions process and tutors' use of pre-interview information about applicants.

Tutors generally did not raise issues of social class, ethnicity and gender without being prompted. Applicants' schooling was the only background factor that the majority of respondents consciously considered in the selection process. Nonetheless, the chapter found some clues that could explain unequal admission rates. In particular, tutors had a preference for admitting students who wanted to study a subject for the intrinsic rewards it offered and who were predictable. Selectors voiced an aversion to making risky choices. Theoretical insights suggest that, in contexts of uncertainty, selectors have a tendency to select socially similar individuals as they are perceived to be more predictable, trustworthy and easier to read than socially dissimilar individuals. This 'homo-social' reproduction means that it is possible for predominantly white, cultured middle class selectors with no intent to discriminate to nonetheless disproportionately select white applicants from the cultured middle classes. The preference of selecting students who want to study a subject for its own intrinsic rewards may also not be neutral with regards to social background. Perhaps those who are most like the selectors themselves in other respects are believed to also share the tutors' intrinsic passion for their subject. It is also a commonly held belief that ethnic minority applicants in particular tend to gravitate around vocational subjects because they are generally more instrumental in their view of higher education. This could disadvantage ethnic minorities in the selection process. The mechanism of uncertainty reduction can also be used to account for the differential transition rates by qualification status and region.

The chapter also showed that, at the margins of the selection process, discounting occurred with regard to the performance of applicants from private schools. Tutors appeared to make such adjustments partly to create socially desirable selection decisions but also because they themselves frequently felt strongly about giving opportunities to those who had perhaps faced conditions short of ideal during their education. Finally, the chapter supported the seminal role played by GCSE attainment that had emerged in the statistical analyses by showing that selectors place greater emphasis on the heterogeneous GCSE attainment than on the uniformly good predicted A-level attainment. References and personal statements were generally read with a grain of salt and only influenced the selection process if they reported something exceptionally good or bad.

The second qualitative chapter – Chapter 7 – offered a thick description of the processes and mechanisms of decision making and a detailed description of the admissions interview. The analysis showed that schooling and access considerations were important in the decision to invite an applicant for interview. Such considerations could also enter the admissions decision process for applicants who might have otherwise been sure rejects or marginal applicants. This regard for educational opportunities in selection decisions corroborates the previous observations of a lower chance of gaining an offer experienced by private school applicants with the same attainment as their state school educated peers. Among the ‘sure admits’, however, admissions decisions did not involve any outspoken considerations of schooling or social background characteristics such as ethnicity, gender and social class. This suggested that professional class and white applicants achieved their advantage in the selection process largely by scoring high on the

interview and other selection criteria rather than because of considerations in the post-interview discussions. These applicants could be objectively better qualified than their non-professional class or ethnic minority peers. The previous chapter, however, had suggested tentatively that the uncertainty involved in the interview process could lead to a preference for social similars over and above more objective measures of merit.

Finally, Chapter 7 found that the structure of the decision making process itself explained in large part the lower success rate experienced by overseas applicants who were not interviewed at Oxford. The greater uncertainty surrounding the interpretation and predictive power of foreign educational attainment profiles also appeared to contribute to the disadvantage in the selection process experienced by overseas applicants who were interviewed at Oxford.

The final statistical analyses presented in Chapter 8 concerned the examination results of the study participants who graduated in 2006. Several variants of the meritocracy hypothesis were tested to assess the link between university admissions decisions and final university degree performance. The analysis found that, contrary to the expectation that graduates from Oxford would be more likely to gain a First class degree than their peers who went to other universities, fewer First class degrees were actually awarded at Oxford (net of prior attainment). There were no college level variations in gaining a First among the Oxford students. The analysis also found evidence to reject the hypothesised flat relationship between GCSE attainment short of outstanding and degree attainment for the Oxford graduates. Instead, there was a positive linear association between GCSE attainment and final degree performance

for both Oxford and non-Oxford graduates. In other words, the students who were picked out by Oxford selectors as having high potential despite lower GCSE attainment than perhaps the majority of admitted students did generally not achieve as highly as those with high or outstanding prior GCSE scores.

The analyses largely confirmed the expectation that social background characteristics or type of school would not influence the propensity of gaining a First class degree net of prior attainment and admissions decisions. In particular, post-qualification applicants performed better than pre-qualification applicants, state-school applicants performed better than private school applicants, male applicants performed better than female applicants and, although not statistically significant, white applicants performed generally better than non-white applicants. For the Oxford intake, two observations were particularly noteworthy. Among the Oxford graduates only, there was a negative effect of being female and of having been educated in a private school on the likelihood of obtaining a First class degree. One interpretation of this finding was that the discounting of attainment from a private school and the discounting of female performance at the admissions stage was valid in terms of later degree outcome and actually did not go far enough.

Finally, measures other than academic attainment were associated with high degree performance and, in some cases, also with admissions decisions. Specifically, in the Humanities, the culture quiz was related to both admissions decisions and degree performance. In addition, reading books for pleasure and the importance of academic success were predictive of gaining a First. In the Social Sciences, the motivation score predicted attainment of a First class degree and so did the Alice Heim test in the

Natural Sciences. In general, many more of the extended meritocracy measures were associated with degree performance at Oxford than it was the case for the non-Oxford graduates. While some of this effect might be due to the lower number of non-Oxford graduates compared to Oxford graduates in this chapter, it was also suggested that perhaps at Oxford more so than at other universities, prior attainment alone was not a sufficient predictor of academic success at the end of a degree course. This observation also resonated with the analyses in Chapter 6 and 7 that tutors aim to select based on motivation as well as attainment.

To arrive at an overall summary of the findings, this thesis found that the objectives of higher education admission were ultimately under-defined at both the national and the institutional level. In the light of the institutional admissions guidelines of the University of Oxford to attract applicants irrespective of socio-economic, ethnic or national origin and to admit them based on qualification and potential, the analysis found some selection patterns that did not seem congruent with the admissions statement. In particular, controlling for measures of attainment, extended merit and potential, female applicants, South Asian applicants, overseas applicants, private school educated applicants and those without two professional class parents were less likely to gain admission than predicted by attainment. Interviews with selectors provided some insights into the generation of these findings. The mechanisms of risk reduction and homo-social reproduction under selection decisions involving uncertainty were put forward as a possible explanation. There was also evidence of a structural disadvantage for overseas applicants in the selection process and a discounting of the performance of private school applicants. Finally, the analysis of final degree attainment showed that the discounting of attainment from private

schools seemed valid in the sense that private school students were less likely to attain First class degrees at Oxford than their state educated peers. It was tentatively suggested that the study environment at Oxford was perhaps more conducive for male students to fulfil their potential than for female students. Overall, outstanding academic achievers seemed generally more likely to gain admission to Oxford regardless of other considerations. Highly academically accomplished applicants who were not admitted generally did well at the universities to which they subsequently gained admission. In the margins of the selection process there appeared to be greater scope for other, perhaps non-meritocratic factors to affect selection decisions.

9.4 Contributions to knowledge

The questions of selective higher education admission raised in this thesis have implications at three levels: normative, policy and social theory. The implications of the findings are now discussed under these three headings.

9.4.1 Normative

As discussed in Chapter 1, questions of selection into higher education are intertwined with wider questions regarding the justification of inequalities in outcomes for societies committed to the equal worth of citizens. In particular, the idea of education based meritocracy emerged as a crucial pillar of the liberal democratic enterprise. It

was argued that the special role of Oxford within the British higher education system and its association with positions of power for its graduates (Halsey 1997; Soares 1999) made the institution an important site for investigating the working of meritocracy at the university gate.

This study has shown that the idea of meritocracy in competitive selection was ultimately under-defined in national policy documents such as the Schwartz review of higher education admissions (Schwartz Commission 2004) and at the institutional level in the University of Oxford's own admissions statement (University of Oxford 2006). In particular, the documents avoided recommending that either absolute or relative merit should be used in admissions decisions and recommended using both approaches. There was also disagreement among selectors which understanding of merit to privilege in the selection process. The empirical analyses in this study found that the two different notions of meritocracy in admission were simultaneously in operation in the selection process to Oxford. On the one hand, the investigations showed that absolute merit as measured by GCSE attainment was the strongest single predictor of gaining a place at Oxford. On the other hand, with regards to type of school, the idea of merit relative to opportunities seemed to account for the lower admission rates of private school applicants (net of attainment). This study has also shown, that operationalisations of merit failed to completely account for the admissions pattern at Oxford. Controlling for measures of merit and educational context, admissions decisions advantaged applicants from the professional middle class, males and those from white ethnic backgrounds.

The contribution of this thesis to normative debates was in highlighting the need for more thinking regarding which definition(s) of merit to endorse at the national and institutional level. Currently, different notions of merit not only coexist across different higher education providers and courses (e.g. open access courses versus those with strict formal entrance requirements) but also across different social background characteristics. Schooling, for example, is singled out as an action zone where bonuses and discounts are awarded for educational contexts (relative merit). In contrast, the same contextualisation of attainment does not necessarily occur by social class or personal circumstances (absolute merit).

This research thus demonstrated the need for further normative thinking on the use of merit in higher education admission. This may also provide an opportunity to think about other possible approaches to conceptualising merit. In the introduction, for example, reference was made to the Smithian concept of merit as an action rather than a personal characteristic deserving reward (Smith [1759] 1976, p. 67). This consideration has led selectors at some US universities to consider applicants' community involvement, their athletic or musical accomplishments, or both in the selection process for higher education admissions (Harvard University 2005; Yale University Office of Undergraduate Admissions 2007). Similar concepts of merit also operate with regards to scholarships in some state and private secondary schools in the UK (for example Eton College 2007; Wymondham College 2007). It is also worth remembering that the person who coined the term meritocracy, Michael Young, intended the idea of education based meritocracy as a satirical warning of what society would emerge if human worth was only determined by educational qualifications (Young 2001).

Ultimately, a re-thinking of meritocracy at the university gate may also require further thought on the purpose of universities. It is perhaps a surprising omission to find that many British universities, including the University of Oxford, do not have a mission statement saying what they are actually aiming to accomplish. It might be easier to refashion the meaning of merit in university admission if there were more clarity about either the purpose of higher education more generally or the goals of individual higher education providers.

9.4.2 Policy

Closely related to the normative discussions of merit are policy questions raised in this thesis. The policy implications are first discussed with regards to the University of Oxford and then with regards to the national British context¹¹⁰.

For the University of Oxford, the work presented here raises issues that relate to the selection interview and to student progression. With regards to the interview, it was noteworthy that those involved in the selection process were divided in whether they actually supported admissions interviewing as a selection tool. Strong opinions were voiced in favour of the interview: ‘if I have to teach them for three years I want to select them’ (Science tutor); and, in opposition: ‘it is a waste of time’ (Arts tutor). Even among those who supported the admissions interview, several tutors argued they would be happy with subject level interview panels rather than individual college

¹¹⁰ It is outside the remit of this work to include policy recommendations.

selection processes. In addition to the mixed feelings selectors voiced towards the admissions interview, the research also found mixed results regarding the value added and increased validity of the selection process by having an interview component. By and large, selection based on secondary school attainment available from the standard UCAS paper application form emerged as the strongest predictor of subsequent degree performance. In instances where students were admitted with high potential but perhaps slightly lower GCSE attainment than the majority of their peers, they generally did not achieve as highly as those who had been admitted with outstanding GCSE attainment. It is possible that students with lower GCSE attainment than their peer group actually had high potential to achieve at Oxford but that ultimately the university examination system rewarded the same skills as GCSEs and not the additional potential that had supposedly shone through in the admissions interview. But it is also possible that the interview process created some false positives by allowing for the selection of students who did not actually have the highest potential to attain highly at university. The analyses in this thesis also suggested that the interview process opens opportunities for homo-social reproduction in particular in the margins of the selection process.

At the same time, the analysis also showed that selection interviews could enhance the valid selection of high achieving students. In particular, the current admissions process allows selection panels to exercise discretion in their decision making and this discretion was found to provide some protection against the admission of false positives, i.e. students who appeared to be outstanding based on their paper applications but who had not the highest potential to achieve highly at university. This was apparent in the selection of state school applicants over private school

applicants with the same achievements in their secondary education. This selection was valid in the light of the superior degree performance of state school students compared to their private school educated peers. This observation of differential potential to achieve highly at university also means that there is a 'business case' for taking into account the context in which secondary school attainment had been achieved (cf. Goss 1994, p. 164). This could appeal more to some policy audiences than a framing in terms of social justice.

The discretion available through the interview process may, however, not always fulfil University objectives. This can be illustrated by thinking about the interpretation of the negative female and ethnic minority effects. In one sense, the analyses suggested that the disadvantage these groups face in the selection process to Oxford may not actually go far enough as these groups in fact attained less highly in their degrees. On the other hand, the observation that these groups did not attain less highly at universities other than Oxford might suggest that this effect could be specific to the institutional context of Oxford. It is possible that something in the Oxford experience allows male and white students to exploit their potential more fully than their female and ethnic minority peers. This observation may require more thought about the Oxford experience for different groups of students.

It was also observed that the interview process created a structural disadvantage for overseas applicants. The research uncovered a discrepancy between the university policy 'to attract applicants from the most academically able individuals, irrespective of ... national origin' and to admit them based on their qualifications and potential

(University of Oxford 2006) and the actual practice in the admission of overseas applicants.

The link between cultural capital and selection into arts subjects and subsequent degree attainment also raised potential policy questions. On the one hand, the cultural capital quiz clearly picked up on degree relevant knowledge. In that sense, it was in line with the university's mission statement to select on ability and potential. On the other hand, it was also certainly the case that not all applicants had the same opportunities to develop knowledge of high culture. This suggested that an association between cultural knowledge and admissions decisions might exacerbate unequal opportunities to be selected and to achieve at university. These questions may benefit from further thought in light of previous discussions concerning relative and absolute merit.

With regards to social class, this thesis found no working class disadvantage for the small number of applicants from manual backgrounds who had advanced as far in the educational system as to put themselves forward for admission to Oxford. This could in turn be related to the previously discussed unobserved selection effects (Cameron and Heckman 1998; Mare 1981) which could mean that the working class applicants who did apply to Oxford were different to the ones who did not apply (Byrom 2006). It is worth remembering that, unlike schooling information, selectors did not have social class information in front of them when they make admissions decisions. It is possible that if the policy goal was to change social class composition, selectors might

be more likely to achieve this by being able to access social class information in the selection stage rather than through class-blind admissions practices¹¹¹.

To sum up the policy findings for the University of Oxford then, the work presented here found that the interview process enhances the selection process by allowing selectors to admit students based on wider criteria than just prior academic attainment. This increased the representation of students from state schools who were in fact more likely to achieve highly than their peers from private schools. At the same time, the interview process allows for homo-social reproduction in the margins and some applicants who would have gained an offer for a place at Oxford in a purely attainment based admissions system and who subsequently achieved highly at other universities were not successful in gaining a place at Oxford. Overseas applicants might also fare better in a system where systematic attention could be paid to their educational experiences. Overall then, the interview based admissions system has the potential to surpass paper-based selection systems in aiding the admission of students with the highest potential to achieve at university. At the same time, selection of new undergraduates based purely on their prior attainment record would have avoided some of the de-selection of false negatives in the admissions process.

Several findings from this thesis could also be of interest to national policy audiences such as UCAS, the DfES and the Sutton Trust. For example, this study showed that post-qualification applicants enjoyed a higher chance of gaining an offer than pre-

¹¹¹ It could also be worthwhile to consider alternatives to the current selection system as, for example, those put forward by Alan Ryan, Warden of New College. He suggests that around one third of undergraduate places should be allocated by considering merit and interview performance. The remaining places for marginal candidates then would be allocated through a lottery process.

qualification applicants. This means that, at least for admissions to Oxford, the certainty surrounding their attainment gave them an edge in the current pre-qualification admissions system where there is uncertainty surrounding the actual attainment of the majority of applicants. Crucially, however, post-qualification status was not found to interact with any other applicant characteristics. In other words, whether an applicant was from a manual or a professional class background, the post-qualification status premium was similar. This suggests that a movement to a post-qualification admissions system would not necessarily eradicate inequalities in transition rates into selective higher education by social background (at least not at Oxford).

A second issue for national audiences was the comparability of degree classes. The analyses showed that Oxford graduates were less likely than their peers at other universities to gain a First class degree given their higher prior attainment. If degree classes were comparable across the higher education sector, Oxford might consider awarding more First class degrees; or, alternatively, other universities might award fewer First class degrees.

Finally, the findings might feed into the discussion of the Schwartz review of admission to higher education. The review recommended that selectors should take a holistic approach to evaluating applicants and contextualise attainment records. This thesis found that schooling as well as motivational measures and cultural capital were predictive of degree attainment. This suggested that some contextualisations of prior circumstances and motivational characteristics might validly enhance selection decisions. At the same time, the analysis also suggested that the opportunities for

homophily could potentially decrease the validity of interview based selection systems. Furthermore, the association between GCSEs and degree performance suggested that students who had fewer opportunities to shine at their GCSEs were handicapped even at university level with regards to their chances to attain highly. This emphasised the need to level the playing field during secondary education rather than in higher education. At the same time, those who had attained highly in secondary schools despite less than perfect conditions did indeed appear to have higher potential to achieve at university (cf. Halsey, Heath et al. 1980).

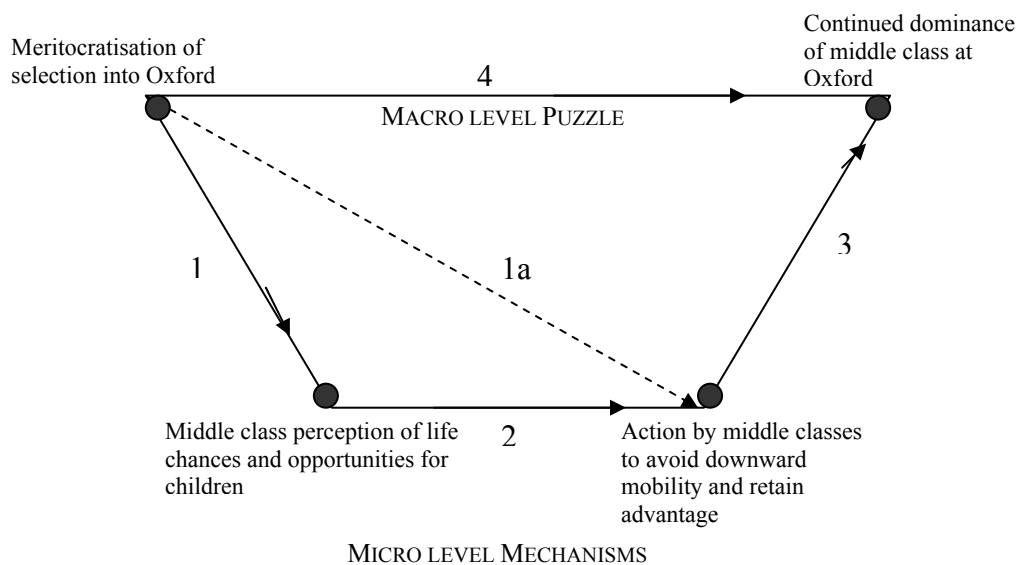
9.4.3 Social theory

Bearing in mind the methodological limitations of the research described in Chapter 3, the study presented here made several contributions to the discipline of sociology. The main contributions were the placement the selectors for higher education at centre stage, the further quantification of Bourdieu's concept of cultural capital, the development of a social class conceptualisation appropriate to the context of selective higher education and, finally, linking admissions decisions to final degree performance. These contributions are now detailed in turn.

First, the study has been methodologically innovative within higher education transition research because it simultaneously drew on the strength of quantitative and qualitative research. Specifically, the analyses advanced previous quantitative work on selection into Oxford by opening up the black box of the motivation behind selection decisions.

This focus on selectors as actors who make admissions decisions was also theoretically innovative in the sociology of education. Turning to Figure 9.1 (Coleman 1990), we can see that the traditional focus in the sociology of education has been on the characteristics of students and their families when explaining educational transitions. In this paradigm, the macro puzzle of the continued dominance of the middle classes at Oxford, for example, would be explained with reference to the students and their families and their aspirations as well as their social, cultural and economic capital.

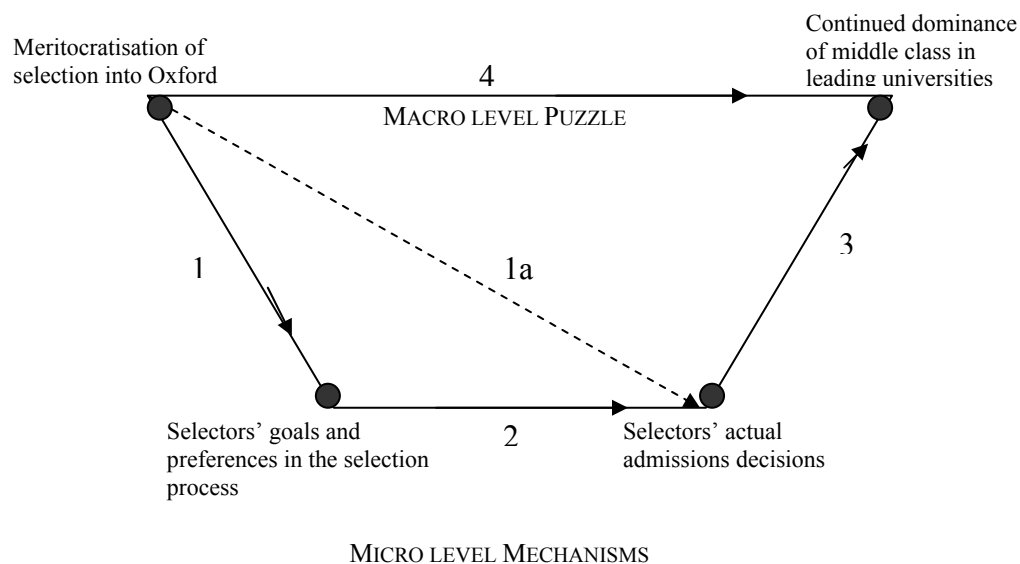
Figure 9.1: Macro and Micro-level propositions: expansion of educational opportunities and continued middle class dominance at Oxford¹¹²



¹¹² Source: adapted from Coleman, 1990 p. 8 and Abell (addition of diagonal line) <http://www.lse.ac.uk/collections/IIM/pdf/socialMechanismsConstructingSocialMechanisms.pdf> (accessed February 4 2005).

While not denying the importance of family characteristics in the decision to apply to Oxford, this thesis showed that transition patterns into Oxford *conditional on application* were influenced by the decision making of admissions tutors as actors. This association is displayed in Figure 9.2.

Figure 9.2: Macro and Micro-level propositions: expansion of educational opportunities and continued middle class dominance at Oxford¹¹³



While this case study focused on selection into Oxford, the focus on the selectors themselves has the potential to offer a useful new conceptual approach to the study of other educational transition points and other social contexts. Specifically, the mechanism of homo-social reproduction could be used more prominently in social stratification research and labour market selection studies.

¹¹³ Source: adapted from Coleman, 1990 p. 8 and Abell (addition of diagonal line) <http://www.lse.ac.uk/collections/IIM/pdf/socialMechanismsConstructingSocialMechanisms.pdf> (accessed February 4 2005).

Second, this thesis also contributed to the empirical study of Bourdieu's concept of cultural capital. Drawing on the quantification of cultural knowledge used in Sullivan's work on secondary school students (Sullivan 2001), this thesis showed that cultural knowledge was an important way in which the children from the professional class distinguish themselves in the selection process. This knowledge was particularly rewarded in Arts subjects at both the admissions and the degree examination stage. Cultural engagement per se, however, was not associated with selection decisions.¹¹⁴ These findings are helpful because while it is common knowledge that different social groups differ in their cultural habits, empirical research frequently uses only the frequencies of cultural activities (such as visiting an art gallery) rather than cultural knowledge in operationalisations of the concept. The findings from this thesis suggest that future research on cultural capital could benefit greatly from using measures of cultural knowledge such as the Sullivan culture quiz.

The third contribution of this thesis lies in the operationalisation of social class. To recapitulate, the profile of applicants to Oxford was over 86 per cent professional and managerial class. This structure of the data provided an opportunity to explore the chances of gaining an offer for different sections of the middle class. Conceptually, the construction of social class used in this thesis drew on Rethon's work that models educational attainment by combining the information on both parents' class (Rethon 2005). This thesis not only separated the middle class along the professional and managerial divide but also classified respondents according to the number of professional parents they have. The findings showed that, with regards to social origin, there was a significant bonus in the admissions process for applicants with two

¹¹⁴ Analysis not shown – frequency of visits to museums, art galleries, attendance of ballets, classical concerts and the opera were not related to admissions decisions.

professional class parents. Perhaps contrary to the expectation from the efficiently maintained inequality hypothesis advanced in Chapter 1 (Lucas 2001), it was actually the managerial class who are disadvantaged in the selection process rather than the lower social classes¹¹⁵. This, in turn, corresponded to the good will of selectors to give opportunities to those who perhaps had received less support in achieving in their secondary education for reasons external to their ability and potential. The analyses presented here indicated that it was very promising to include information on both maternal and paternal social class in the study of educational attainment and educational transitions in general and in research on elite education institutions in particular. There were also suggestions that single parent status – especially single father status – might affect transitions into Oxford. Overall, it is potentially beneficial to use similarly fine-tuned social class operationalisations in future research.

Finally, the thesis contributed to the literature on valid selection and student assessment by linking admissions decisions to final degree outcomes. The findings here showed that, by and large, examination attainment at age 16 was the strongest predictor of degree performance. But there was also some evidence that the same attainment records could hide differences in underlying levels of potential. Those educated in private schools, for example, performed less well than those with the same academic record who had attended state schools. It appeared that private schools created higher attainment than would have been justified by students' underlying natural ability levels. This finding is relevant for the study of attainment generating processes within secondary schools as well as for those concerned with higher education attainment.

¹¹⁵ This effect is not due to differences in education levels between the professional and managerial classes (analysis not shown in this thesis).

9.5 Concluding Remarks

To conclude, this thesis gives a voice to the selectors for admission to Oxford for one last time:

'So, why do you take a student? And why do you not take another student? Do you take them because they are really clever? Or do you take them on the basis of what you believe they will be three years later?' (Science tutor 2)

This thesis was focused on differential conceptualisations and operationalisations of merit in the student selection at Oxford. The work presented here showed that those who were 'really clever' as measured by prior educational attainment had the highest chance of gaining an offer to Oxford. The 'really clever' ones were also the highest achievers at the end of their degree courses. Nonetheless, admission rates also differed by social background characteristics in ways not straightforwardly compatible with the university's own admissions statement or meritocratic considerations.

Despite the meritocratisation of higher education, it appears that there is still a long way to go before social background characteristics influence neither applications to selective higher education nor acceptance patterns or degree outcome. It is hoped that this thesis may contribute to the continued engagement of social researchers with processes of self-selection into higher education application, admissions processes and student progression as well as the many conceptual challenges involved in creating equitable access to desirable social resources such as higher education.

9.6 Thesis reflections – November 2007

This research project was an attempt to cover some of the issues that arise in connection with admission to one of the nation's leading universities within the timeframe of a DPhil thesis. As such, the final product is imperfect and some issues worthy of further investigation have been excluded from the work presented here. At re-reading the thesis several months after the submission and during the discussion of the work in the DPhil viva (November 13 2007), some omissions were emphasised that deserve further reflection.

First, this thesis did not discuss the role of parental education and its impact on admission to Oxford. Empirical studies within the cultural capital literature have repeatedly demonstrated a strong effects of parental education on higher education transitions (Mare 1995; Chevalier, Harmon et al. 2005; Bauer and Riphahn 2006; Mare and Chang 2006; Grodsky 2007). In this thesis, parental education was not included among the explanatory variables as it had no effect on the chances of gaining an offer for admission to Oxford, neither on its own nor when controlling for social class or other student characteristics. It is surprising for cultural capital scholars to find an impact of social class but not of parental education at such a late point in

educational transition processes. The interpretative challenge raised by this observation is currently investigated through collaborative work with Alice Sullivan. This work will be made available to the scholarly audience as part of a forthcoming book on 'quantifying Bourdieu' edited by Karen Robson and Chris Sanders.

A second more challenging substantive comment regards the working of the proposed mechanism of homo-social reproduction in the admissions process. This process is not directly observed in the thesis and constitutes just one possible explanation of the findings that could be falsified by further research. Detailed empirical research would be needed to investigate this hypothesis further. Specifically, the preliminary analysis of final degree results suggests that the higher entry barrier to Oxford faced by female students and ethnic minority students net of prior academic attainment does not result in higher levels of final degree attainment for these groups. If these groups faced unfair higher admissions thresholds, one would expect the selected members of these groups to be exceptionally gifted and high attaining. It is, of course, possible that there are processes within the institutional context of Oxford that prevent these groups from fulfilling their full potential. In the absence of sound evidence for invalid biases working in the selection and attainment process, however, it is also possible that valid, though perhaps not always socially desirable, selection of high attaining students rather than homo-social reproduction lead to the lower success rates of private school applicants, women and ethnic minorities. The issues of degree attainment and to what extent the same groups of students achieve particularly highly within and outside Oxford are subject to further research based on an extended data set that now includes the degree results from the 2007 graduating cohort. It will be particularly illuminating to investigate whether schooling, gender and ethnicity affect degree attainment

outside Oxford. Attention will be paid also to definitions of good degrees as female students appear to be significantly less likely than their male peers to have degree attainment below an Upper Second – i.e. in the sense of selecting students unlikely to attain particularly low, female students appear to face an unfair lower chance of being admitted to Oxford than their male peers. The research will also investigate the hypothesis kindly suggested by Walter Muller that students generally do better in subjects in which they are the minority sex – e.g. female students in natural science subjects and male students in humanities disciplines.

The final reflection concerns the operationalisation of the applicants' A-level attainment. The thesis presented here used a complicated range of measures designed to reflect as accurately as possible the information available to selectors at the point of making their admissions decisions. This included information on predicted and achieved AS-level attainment as well as predicted and achieved A2-level attainment. In publications arising from this work, a simpler, yet powerful measure of A-level attainment will be used. Specifically, the new measure decreases the degrees of freedom of the A-level variables from 15 to two by operationalising A-level attainment as a categorical variable with the following categories: four or more As predicted or achieved, three As predicted or achieved and fewer than three As predicted or achieved. All calculations of grades exclude General Studies. This measure shows a significant premium in the chances of being admitted to Oxford for applicants with four or more grade As and a significant penalty for attainment below three As.

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