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# IDENTIFYING DISADVANTAGE: SOME ANTECEDENTS OF ACADEMIC PERFORMANCE AMONG FIRST-YEAR ARTS STUDENTS AT THE UNIVERSITY OF THE WITWATERSRAND IN 1982

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Gregory Mark Classen

A dissertation submitted to the Faculty of Arts, University of the Witwatersrand, Johannesburg, for the degree of Master of Arts

Johannesburg 1987

ABSTRACT

This dissertation examines the relationship of a number of antecedent variables to academic performance among first-year Arts students at the University of the Witwatersrand in 1982. The University was at that time using a rating calculated from matric symbols to screen applicants. As the number of applications to the University increased, the "cut off" point below which applicants were rejected outright or put on a waiting list was being increased from time to time.

The research had two main areas of investigation. An attempt was made to find criteria to differentiate, among students who would have been wait-listed if the cut off point increased, between those who might pass and those who might fail. The relationship of matric symbols to other variables was examined in order to establish if any groups of potentially successful students would be discriminated against if the criteria for admission became more stringent.

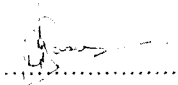
Both areas of investigation met with relative success. A number of antecedent variables were found which had a weak relationship or no relationship to matric performance, but a positive effect on university performance. Black applicants with generally depressed matric marks were identified as a

potentially successful academic group (in comparison to other race groups).

DECLARATION

I declare that this dissertation is my own, unaided work.

The dissertation is being submitted for the degree Master of Arts in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.



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23 December, 1987.

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ACKNOWLEDGEMENTS

The need for a study of some of the antecedents of academic disadvantage became evident during meetings held under the umbrella of the University's Academic Support Program during 1982.

The dissertation was completed with the aid of funds provided by the Human Sciences Research Council (though the opinions expressed and conclusions reached are not necessarily those of the HSRC). Financial assistance was also provided by the Academic Support Program, the Anglo American Cadet Scheme, the Bursaries Department of the University, and the Social Theory Program, which also provided large amounts of computer budget without too many queries.

More important than the money are the people. Professor Cheadle, then Dean of the Faculty of Arts, allowed me to do the study and to draw on his records and students. Pam Thornley, Secretary of the Faculty of Arts, was always helpful when I arrived with my pencil and clipboard to disrupt their busy routine. Jean Tyacke smoothed the many administrative problems which cropped up. Charles Potter,

Stan Kahn, Ian Schochet and Jenny Glennie were always willing to listen to off-beat ideas and share information with me. Lastly, and mostly, I would like to thank my supervisor, Mark Orkin, for what I learnt and the patience with which he taught; and my friend Karen Iloni for living through the hopelessly irregular hours and swings of mood entailed by working with computers and writing.

Greg Classen

## 1. INTRODUCTION

The selection of prospective university students is a controversial and crucially important issue. Performance in the matriculation examination is often used as the main criterion in student selection, with applicants possessing high matric marks being selected in preference to students with lower matric marks.

The pass or failure in the end-of-year university examination is one indication of whether or not a particular first-year student should have been selected. The ideal outcome of selection is for the first-year pass rate to be as high as possible, while at the same time there is no discrimination against potential students who, in spite of the low marks they obtained in matric, would actually pass at first-year level.

The use of matric rating alone as a scale for student selection may in effect discriminate against students at the lower end of the matric rating scale, as a proportion of these students may be quite able, but are performing badly in matric due to factors which are unrelated to academic ability. Unless these students are somehow irreversibly damaged by their inadequate preparation, one would expect

them to fare better at university than students whose low matric marks are an accurate reflection of their poor academic ability.

In South Africa, where Black students are likely on average to have been much more poorly prepared than Whites, because of inequalities between the respective schooling systems, the issue assumes a potentially racial dimension which makes it all the more controversial.

Even within so-called acceptable matric rating ranges there is still the problem of "wait-listings", i.e., students with matric ratings above the *minimum* for acceptance but below the level guaranteeing automatic admission. There was, at the inception of this study, a dearth of information available to the people whose task it was to select from among wait-listed students those who might succeed at university (either with or without academic support).

In 1982 a discretionary grant to study this problem, as it manifested in the Faculty of Arts at the University of the Witwatersrand, was made available by the then Deputy Vice Chancellor, Professor Peter Tyson. The study was conducted for the Committee on Admissions and Concessions, chaired by Mark Orkin. The grant was to enable an investigation of

"students at the lower end of the matric rating scale and factors affecting their pass rates".

At the same time the Anglo American Corporation was involved in its Cadet Scheme, to improve the performance of Black students in commerce and engineering courses. A committee was set up under the chairmanship of the Wits co-ordinator of the Cadet Scheme, Mr. Charles Potter. The purpose of this committee was to liaise with various groups in the Academic Support Program within the University, who also expressed an interest in the kind of information the study was going to generate.

During the course of analysis the previous system of admission for Black students, whereby each Black student had to apply individually to the government for a permit to study at a "predominantly White" university such as Wits, was abandoned. It became clear that as the number of overall applications increased the University was going to have to regulate admissions more closely, which it planned to do by simply increasing the minimum matric acceptance rating. Since Black students applying for admission generally have relatively low matric marks, a higher proportion of Black applicants would have been excluded than Whites. So the basis of the study - comparing the first-

year passes of Black and White students in relation to their matric performance and other antecedent factors - was of particular policy relevance. In conjunction with my supervisor, Mr. Mark Orkin, a paper summarising some pertinent findings was prepared, and communicated via the Arts Faculty to the Senate of the University, where it informed the debate on admissions. The policy which was finally adopted was in line with the paper, in recognising that disadvantaged students might perform better at university than their comparatively poor matric marks might lead one to expect.

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## 2. LITERATURE REVIEW

### 2.A. Introduction

Within the context of social theory the term "disadvantage" is problematical. The assumptions associated with the manifest "symptoms" of disadvantage will differ across various sociological cosmologies, or macro-theories. Two differing theoretical approaches will be superficially examined with specific reference to how they differ about the explanation of the manifestations of disadvantage, reasons for the existence of disadvantage, and the usefulness, as well as the projected outcome, of intervention. Specific factors associated with disadvantage internationally will then be examined. An attempt will be made to examine the South African situation in the light of these factors, generating a number of areas which may be investigated.

### 2.B. A Theoretical Perspective

Macro-sociological theory pertaining to education may be broadly divided into "consensus" explanation and "conflict" explanation. Parsons epitomizes the extreme statement of the former mode of explanation, and Marx that of the latter. Between the two extremes are various shades or brands of

theory which, in an attempt to explain education, borrow various concepts from one or both extremes.

The theory of functionalism characterizes the consensus explanation of education. According to Karabel and Halsey (1977) functionalism developed during the period of the "cold war" between America and Russia and rather conveniently coped with two problems: the need for technical and professional experts, and the socialist critique of inequality of education between classes, by promoting equality of opportunity at school.

Ballantine (1983) abstracts the central tenet of functionalism as being "the assumption that society and institutions within society, such as education, are made up of inter-dependent parts all working together, each contributing some necessary activity to the function of the whole society" (Ballantine, 1983:12).

A number of major criticisms have been leveled at the functionalist viewpoint. Functionalism has been charged with the reification of social processes. As Murphy (1979) points out "A reified theory ignores the fact that humans themselves have created the forces by which they are constrained" (Murphy, 1979:10). Meighan (1980) sees this

perception of society as outside oneself as having severe implications for a study of education. "One of the consequences of this reification is that in the educational sphere the effectiveness of any school structure can be measured only in terms of the needs of the system. Problems of disorganisation and conflict are thus largely attributed to poor organizational factors, the lack of "fit" between role and personality, inadequate adaptation to emerging social systems, or deviance" (Meighan, 1980:242).

The theory in general thus fails to recognize that there are conflicting interest groups and divergent ideologies within the society. The net outcome of this is that the theory generally struggles to explain social change and persistent "dysfunction". It must be kept in mind that the general criticisms leveled against functionalism will not be true of all varieties of functionalism. The earlier theory of Bourdieu is an example of a sophisticated consensus interpretation.

Murphy (1979) terms Bourdieu a "critical functionalist" (1979:27). A cursory examination of his "reproduction" thesis will show how educational disadvantage could be explained within a consensus framework. Bourdieu (1974) believes that sociological factors can explain differences

in achievement normally explain[ed] by the theory of functionalism) as a result of di[f]ferences in genetic potential. For him the two most important factors are "a certain cultural capital and a certain ethos" (Bourdieu, 1974:33).

The schooling system itself is seen as disinterested in the final outcomes of participants (guilty by omission). "The formal equality which governs pedagogical practice is in fact a justification of indifference to the real inequalities with regard to the body of knowledge taught" (Bourdieu, 1974:38). The school, for the early theory of Bourdieu, serves a latent function. The latent function is the reproduction of inequality. The reproduction of inequality takes place under the guise of formal equality and is explained or justified as differences in performance due to differences in genetic ability. However, Bourdieu (1974) explains differences in academic outcomes as the payment for having more cultural capital (or the penalty for having less).

In order to invalidate the criticism that mass media transmit the "dominant" or "to be rewarded" culture to everyone Bourdieu used communication theory to show that "even if the mass media are available to all, the

information and aesthetic content received depends on the choices, the attention paid, and the understanding of individuals which are a function of the level of cultural capital acquired in the home" (Murphy, 1979:26).

Within Bourdieu's theory, as developed up to now, individuals continue to accept the formal equality of schools. The disadvantaged (those lacking cultural capital) accept the denial of academic reward as reflecting their inadequate, genetically determined, ability. Bourdieu's intervention to aid the unfairly disadvantaged would, at this stage, take the form of some type of action which would be taken at school. The intervention would compensate for differences in cultural heritage. In other words, the latent function of the school would change. Instead of reproducing inequality, schools would compensate for differences in cultural heritage. Thus, the ideal of formal equality under which schools operate would become a reality.

Bourdieu has provided a consensus model much more sophisticated than the traditional Talcott Parsons caricature which social theorists are so fond of building and then tearing down. Indeed the model explains a potential "conflict" situation (the unequal outcome of a formally equal system) so well that a rapid reading of the

theory might leave one with the impression that Bourdieu is actually a theorist within the social conflict school of thought. The theory is so compelling because Bourdieu has added to the traditional consensus approach the notion that some form of dysfunction may occur which only affects a specific group of individuals within the system. The theory as presented above remains a consensus approach because of two assumptions. Bourdieu still views society as a system, within which the solution to any dysfunction is the "straightening out" or correction of the system, i.e., the system tends toward equilibrium.

For Murphy (1979) these two assumptions, i.e., society being a system, and the system tending toward equilibrium, are about the only things which generally characterize all consensus approaches.

The theory presented above is not beyond criticism. For example, the theory explains the reproduction of inequality by referring to cultural inadequacies within the disadvantaged group. These cultural factors are accepted as given; Bourdieu does not adequately explain how they originated.

This seems to be a general problem with the consensus approach. It adequately details what is happening without really attempting to explain why it is happening, and where it is going to.

I would like to sketch a few assumptions of the conflict approach and then return to Bourdieu. Conflict theory is an even broader umbrella than consensus theory. As Karabel and Halsey (1977) point out, "the long roots of conflict theory lie in the works of Marx and Weber but the contemporary branches are tangled" (Karabel and Halsey, 1977:28). Conflict theory became an increasingly widely used tool of explanation in America during the 1960s, probably because reference to some form of conflict paradigm was the easiest way of explaining, on a theoretical level, the increasing social turbulence which characterized the 1960s (a conflict theorist would say that the conflict was always there, but that it was not manifesting).

Karl Marx is the classic proponent of conflict theory. A good place to begin is with the view of people held by Marx. People are animals with certain basic needs, e.g., food and shelter. In order to satisfy these needs a struggle with nature ensues. The material necessary for the satisfaction of basic needs must be wrested from nature. However, the

satisfaction of basic needs merely leads to the creation of secondary needs. In the words of Coser (1971) "man is a perpetually dissatisfied animal" (Coser, 1971:43). From this assumption of people in conflict with nature, the idea of a constantly changing society, based on antagonism, develops with a certain inevitability. "In the effort to satisfy primary and secondary needs, men engage in antagonistic co-operation as soon as they leave the primitive, communal stage of development. As soon as division of labour emerges in human society, that division leads to the formation of antagonistic classes, the prime actors in the historical drama" (Coser, 1971:44). Society is regarded as a constantly developing, inter-related, conflictual totality. No single part of society may be viewed by itself. All the inter-relations are, however, in the final analysis explainable by reference to the relationship they have with the mode of economic production, the method of organization of labour necessary to produce the items which satisfy needs.

Because the various classes within society are always in conflict with each other about access to the means of production (the items necessary to create goods), the society is constantly changing.

As mentioned earlier, conflict theorists demonstrate a considerable divergence of theoretical standpoint. However, all do have in common the idea of competing groups, the "haves" versus the "have nots", and the idea that society should be viewed as a dynamic process, rather than a homeostatic system.

Within the field of education few theorists attempt to criticize the conflict paradigm. However, Ballantine (1983) states that the theory is not useful in explaining the balance or equilibrium which does exist between segments of a system (Ballantine, 1983:14). Timasheff (1967) criticizes conflict theory for simplifying and distorting "both the complex process of social change and the complex nature of the social structure and cultural patterns" (Timasheff, 1967:51).

Let us re-examine the theory of Bourdieu in the light of the assumptions associated with conflict theory. The article used to describe Bourdieu's work was published by him in 1966 (translated in 1974). The re-examination will be with the aid of a book published in 1977. Bourdieu has taken a small step and crossed a great divide. Nice, the translator of the book, sums up the change Bourdieu has made to his theoretical standpoint. "Thus the theory set out in

Reproduction has been developed in ways which have constantly augmented its explanatory power and which dispel the vestiges of functionalism or abstract objectivism which the residual one-sidedness of some of the expositions in Reproduction may have allowed to remain" (Bourdieu and Passeron, 1977:xvii). Bourdieu can now answer two questions which he would have been unable to cope with within his previous paradigm. Where does the inequality of cultural heritage come from in the first instance? In the older theory the reproduction of inequality was well explained but the starting point was the disadvantaged having less cultural capital because they belong to the lower classes. Bourdieu can now add that the lower classes have less access to, and less control over, the means of production. They are the "have nots". Bourdieu can also explain why the formal equality of education is not vehemently denied by the disadvantaged. It is, of course, because they have been ideologized to believe in the explanations provided by the "dominant" social group, i.e., differing outcomes are universally a result of differences in innate ability. The ideology is the "haves'" way of winning. Differential outcomes as a result of disadvantage are not dysfunctions in a consensus system (to be made explicit and perhaps "fixed"); they are strategies in a conflict system, a tactic not be recognized.

Consensus views provide a description of relationships, couched in explanatory terms. What explanation should do is provide an understanding of evident phenomena. At a mundane level a purely functionalist approach will do so by "undercutting" apparent events and linking them to a structure within a system. Conflict theory goes one step further: it undercuts the undercutting and links the structure to events and processes which contain mechanisms to cope with change and which have defined beginnings. Not many theorists will deny that various sections of society have functions which relate to, and affect other sections. Conflict theory can, however, explain why the "functions" are there, where they came from, and possibly guess at what will happen to them in the future. This seems to be the fundamental advantage of conflict over consensus views - conflict based theory simply explains better.

The exposition above blurred a few distinctions for the sake of brevity. I doubt if Bourdieu would be happy with his theory being reduced directly to an explanation in terms of classes and the mode of production. He tends, as Karabel and Halsey (1977) point out, to be more Weberian in his approach; though as Karabel and Halsey also point out

"Weberian stratification theory is, of course, an unsettled debate especially with regard to the relation between class and status. Marxists heavily underline Weber's view of status as ultimately dependent on class" (Karabel and Halsey, 1977:33).

In summary, a consensus approach as developed above would view differential performance due to disadvantage as an accident within the system, a dysfunction. The action would be an attempt to correct the accident. Within a conflict approach differential performance due to disadvantage would be viewed the outcome of a "struggle" between conflicting interest groups. The action would be (at the macro-level) the reconstitution of the society. At a more accessible level of intervention, counter-strategies might be employed in an attempt to "equalize" the conflict.

2.C. Prediction of Academic Success - Internationally

Before attempting to develop an international model of educational disadvantage, a number of "predictors" of university success or failure will be examined. It would be beyond the scope of this study to examine all possible antecedents of academic performance. A cursory examination of a few predictors will enable us to focus the study on a particular area of disadvantage, clarify the reasons for the

focus on this area, and provide some explanation of the methods which will be used in this study.

Shochet (1987) divides predictors of academic performance into two large groups, intellective and non-intellective. Intellective predictors include any form of test. Pertinent examples are: school performance, aptitude tests, achievement tests, reasoning tests, and language tests. Under non-intellective predictors he includes environmental/biographic factors, and personality factors, e.g., attitude, motivation, and study habits.

Let us examine school performance first. A brief survey of the literature leaves one with the conclusion that performance at school is the best predictor of performance at university. In a summary of research findings Entwistle et al. (1977) find a correlation of between 0,14 and 0,73 across various studies. In Canada Darling (1983) finds "correlations generally clustered around 0,60 and higher for females than males" (Darling, 1983:385). McDonnell (1975) writing in an Australian context concludes that school performance is the best predictor of academic success at university.

At this stage three things need to be pointed out. McDonnell (1975) displays concern at the amount of variance in university performance left unexplained by school performance. An apparently good correlation of 0,70 translates into an explanation of 49 percent of the variance, a less savoury figure (to obtain the proportion of the variance explained by the correlation the correlation is squared (Runyon and Haber, 1977:158)).

The second matter of concern is the predictive power of school performance at the "low" end of the school mark distribution. The lower the person's school marks are, the less well they predict university performance. After addressing the problem Elton (1969) concludes "it is worth picking out the A's and B's but there is little to choose between the C's, D's, and E's" (cited in Entwistle et al., 1977:16).

The third matter of concern is the nature of the data on which predictions are based. The present study is being conducted on students in the Faculty of Arts. Although year-end results (to which school marks are compared) take the form of a percentage, it is unlikely that the scale of measurement is actually continuous. We would contend that in most subjects, in the Faculty of Arts, examiners do not

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finally decide on a percentage mark for the subject. Examiners decide what class of pass candidates deserve, and within class of pass, whether candidates are "nearly in the next class", "clearly in the class", or "just in the class". The situation with passing or failing candidates is the same. Thus, there are much larger differences between 49% and 51% than the actual 2% would lead one to believe. There are also large differences between 59% and 61%, and so on. Yet, the figures usually used to determine the predictive power of school marks are normally some form of aggregate percentage, across a number of subjects, to which parametric statistical techniques have been applied. Parametric techniques will assume that the difference between 49% and 51% means exactly the same as the difference between 63% and 65%.

A cursory look at two other forms of intellective predictor shows that there is some form of bias inherent in them. In America the widely used Scholastic Aptitude Test (SAT) has been shown to predict university success less well for Blacks than Whites. (Davis and Temp, 1971 and Baggaley, 1974).

Without entering the enormous debate about the effectivity of I.Q. testing we note that disadvantaged groups score

consistently lower on them than other groups. For example, O'Reilly (1970) finds (as have many other researchers) that this mainstay of the educational system is unfairly biased against Blacks. "The results of a large number of studies indicate that there is a median overlap of about fifteen percent in the distribution of White and Negro I.Q. scores, meaning that about fifteen percent of the Negro population exceeds the average I.Q. scores for Whites" (O'Reilly, 1970:95).

Intellective factors all predict university performance with some degree of success. However, all are measured by some form of "test" in which disadvantaged groups perform (or have the potential to perform) less well. One might ask, at this stage, what these tests are actually measuring. A speculative answer would be that they measure ability to some extent, but that they also measure what we have seen Bourdieu (1977) characterize as cultural capital. If one accepts this thesis and associated theoretical grounding it is possible to explain the puzzling trend whereby the predictive power of school performance on university success decreases at the lower end of the scale. Two broad groups of people potentially fall into the lower end of the school performance continuum: those who do not have much academic potential, and those who do, but have been denied the

cultural capital which the "tests" measure as a part of academic ability. It should be possible to identify the characteristics of this group (if they exist) using school performance, university performance and a number of non-intellective variables. People who are members of this group should be defined by performing better at university than school marks would lead one to expect, and be characterized by certain biographical variables. This is the focus of the present study. The goal is to "look" for these people and if possible characterize them in terms of some biographical variables.

Let us turn to non-intellective predictors. A number of theorists (Entwistle, 1984; Margrain, 1978 and Thompson, 1976) have pointed out that non-intellective (particularly biographical) predictors of academic success are not very powerful. Entwistle (1984) concludes that non-intellective predictors of academic success produce "unconvincingly low levels of correlation" (Entwistle, 1984:12). In contrast Baird (1976) points out that biographical variables from self-report questionnaires have been shown to be valid and reliable measures when used for prediction. Leaving biographical factors for the moment we shall briefly examine two other non-intellective predictors and demonstrate that

as they are removed from their social (biographical) context they cease to have much meaning as predictors.

A number of affective factors, e.g., emotional stability, social maturity, independence/dependence conflicts, and capacity to deal with stress and anxiety have all been cited as being correlated to academic achievement (Entwistle, 1977:411 - 419). The same criticism leveled at aptitude tests may be leveled at affective measures. One is in a situation where a test is used which is measuring cultural capital as well as ability, i.e., the disadvantaged perform negatively, and although the test results may be correlated with academic success, the amount of variance left unexplained allows scope for considerable hypothesising.

A non-intellective area which has been the subject of much study, and which is not reliant on possibly biased testing, is that of study habits. Study habits have been found to be correlated with university success (Biggs, 1976 and Main, 1980). Entwistle (1977) in his review of research states there appears to be "no single set of procedures which will be right for every student. However, the successful prediction of performance by study habit inventories does imply that good students do have some characteristics in common which poor students lack" (Entwistle, 1977:425).

Marton and Saljo (1976) provide an explanation by postulating that students have two levels of processing, a deep level and a surface level. The difference between the two levels is that at the surface level study is characterized by rote learning, whereas at the deep level study is characterized by the student looking at the intention of the learning material. Bourdieu would, once again, speculate that different levels of cultural capital would explain the differences in learning patterns, with schools rewarding the latter and penalizing the former. A "measure" (an index of study habits) which is fairly easy to research may be explained in terms in terms of a biographical set of variables which are more difficult to access.

The problem seems to be that it is simply easier to do research on measures than on processes. Shochet (1987) sums up the problem with regard to biographical variables. "One of the difficulties in this area are the huge array of variables that can be generated which renders the research unintegrated and uncontained" (Shochet, 1987:153). The situation arises out of what could be termed the "scientism" of many researchers, i.e., "science is not accepted as one possible form of knowledge, but defines knowledge" (Habermas (1978:4). In following the traditionally accepted

hypothetico-deductive model of research, constraints are imposed on how far the researcher may "look into" the data. This means that the development of a model is difficult since all the elements which constitute the model have to be pre-defined (hypothesised) - information gleaned independently from the data itself should be ignored. It is also easier (and more "scientific") to research relationships between "test" scores (ratio-level or at the very least interval-level, data) and academic performance, which is usually defined as average scores (ratio-level data). All the wonderful parametric techniques such as regression and factor analysis common in the "natural" or "hard" sciences may be brought to bear. However, the actual nature of the data to which these methods are often applied frequently means that the outcome of the analysis is more arbitrary than "science" should allow. It is our contention that this form of methodology is often inappropriate for the study of sociological phenomena. We will discuss this in more detail later when the methodology and technique of the present study is explained. However, before doing this, we will discuss a number of variables associated with the focus of the study.

We will be emphasizing biographical or sociological variables within the non-intellective sphere of predictors.

The justification for this focus comes from a general acceptance of the notion that social theory should view society as a process in which it is presumed that affective phenomena may be explained by reference to an underlying level, usually economic, but definitely biographic. Within the intellective sphere we will be emphasizing two forms of test which are pertinent to our study: school performance and university performance.

Although social theorists in the area diverge with regard to the paradigms they work in, most agree on one thing: the *manifestation of the phenomena to be explained.* Murphy (1979) sums the position up. "The difference between [them] is not one of empirical findings but of interpretation" (Murphy, 1979:98). As an international model of educational disadvantage is developed this is what will be kept in mind. We are interested in the weight of the evidence, and whether South Africa exhibits the same problems.

Few theorists would disagree (in the light of the evidence) that the origins of differential outcome can be traced to membership of a class or race group, and that members of these groups possess certain characteristics which differentiate them from each other. (The debate <u>why</u> this is so could go on indefinitely). The relationship between

class or group and educational attainment will thus be our starting point. We will then examine some of the factors which differentiate between such groups. While examining these factors we will use Mortimore and Blackstone's (1982) rough division, and separate them into home-based factors and school-based factors.

When discussing the relationship between social class and educational attainment cognizance must be taken of the claimed extent of equality of opportunity. Both of the social systems we shall spend the bulk of our time examining (America and Britain) operate under what Bourdieu would term formal equality. Educational access and success is not (or should not be) determined by anything except "innate" ability. The literature which we examine below will show that this assumption is erroneous. There are differences in access and outcomes which may be traced to class origins, both in terms of their final results, and in terms of the characteristics which manifest as "independent" symptoms of disadvantage.

The effects of economic disadvantage relating to university performance are well documented in the literature relating to education in America. According to Jencks (1972), the obvious path for economically successful parents to take, in

an attempt to ensure the same level of success for their children, is to provide their children with a university education. Jencks (1972) found that "the correlation between a White child's education and his father's occupational status is almost 0.5" (Jencks 1972:138). In further support of the hypothesis of pure availability of money influencing the extent of education Jencks (1972) finds that "upper middle-class children will average four years more schooling than lower-class children" (Jencks, 1972:138).

David, Braze Morgan and Cohen (1961) found that the most important factor determining the amount of money spent on the education of children (and consequently the level of education obtained) was the level of education of the father. "The average education of [household] heads whose fathers were college graduates is three and one half points higher on our index than the education of heads whose fathers had no college education" (David, Brazer, Morgan and Cohen, 1961:15). This result remained constant even when appropriate adjustments were made to take into account differences in the ages and occupations of fathers (the authors were using a seven point scale ranging from no education to advanced university degree).

The second most important factor in determining the extent of education obtained by children was the gross disposable income of the household. Here we have a situation which may be likened to the "chicken or egg" problem. David et al. (1961) found a strong relationship between the extent of education of "household heads" and the gross disposable income of the household. The higher the level of education the larger the income. Also affected by the household head's level of education were variables such as peak earnings, perception of promotional prospects, fear of retrenchment etc. These factors in turn affect the familial and cultural environment of children and young adults (discussed below).

In the American literature a "cultural" factor leading to non-attainment of academic potential that is overwhelmingly cited is race. We would contend that differences in outcomes between Whites and Blacks in America are generally explainable as differential outcomes for members of different classes. O'Reilly (1970) presents a benchmark study in this area, integrating the results of all prior "major" studies. The most significant conclusion that O'Reilly (1970) reaches is that the policy of compulsory integration in the schools of the United States of America has not been a success in terms of Blacks achieving the same

level of education as Whites. O'Reilly (1970) also concludes that compensatory education programs are not as successful as hoped. "School practices which tend to group students on the basis of ability and prior achievement are also likely to result in the creation of academic programs along social class or ethnic lines, or both, thus resulting in essentially the same educationally debilitating situation as that created by the existence of schools isolated by race and class" (O'Reilly, 1970:120).

Actual differences in school achievement between Whites and Blacks in America are also great. Coleman et al. (1966) find "an average difference of about one standard deviation between Whites and Negroes in the Northeast at the sixth, ninth and twelfth grade levels" (cited in O'Reilly, 1970:97). Before examining the role of cultural factors in academic performance we should pause to consider where American "Negroes" are situated in the economic strata. The fairly obvious conclusion reached by Jencks (1972) is that American Negroes are predominantly members of the "lower" social classes in America. "In 1970, White men who worked full time and year round earned an average of $200 a week. Black men who worked full time and year round averaged about $130" (Jencks, 1972:216). Jencks (1972) examines the long term trend in wage differences between Blacks and Whites and

finds that although the difference in disposable incomes has sometimes decreased, the long term trend in "re_l" terms has been an increase in the absolute difference between Black and White incomes in America. A long but necessary quotation explains the position.

> The dollar gap between White males and Black males was $3575 in 1970 while table 48 in the U.S. Bureau of the Census, "Income in 1968" shows that it was $3312 in 1968. Since the purchasing power of the dollar fell by 10% in the interval, the constant dollar gap declined a few dollars. The 1970 gap between White males and Black females was $5379 whereas the 1968 gap was $5112. Allowing for 10% inflation the real gap was again smaller in 1970 than 1968. It should be kept in mind, however, that inflation probably has an uneven impact on different income groups, so that a simple adjustment for changes in the value of the dollar may be misleading. Comparing median 1970 wage and salary incomes we find a difference of $2775 between White and Black males and a difference of $4699 between White males and Black females. For 1939 using 1970 dollars, we find a difference of $2110 between White and Black males and R2960 between White males and Black females. Over the long haul then the absolute gap has increased. (Jencks 1972:238).

Jencks (1972) also finds that Blacks are more likely to be unemployed more frequently and for longer periods than Whites. In am attempt to control explicitly for social class, Jencks (1972) obtains figures from studies comparing groups of Blacks and Whites with similar educational achievement and similar occupations (in terms of status). Jencks (1972) finds that Blacks are discriminated against at all levels of employment, though he does concede that obtaining an "education" might be a possible way to break

the reconstruction of the cultural poverty chain. Certainly, though, he expected this is to be a very long term solution covering two or more generations. We find the Blacks firmly, and it appears almost irrevocably, entrenched at the "lower" end of the American class structure.

We shall now briefly examine the relationship between class and education in England. Secondary education in England was until recently characterized by selection into one of three "streams" (grammar, modern, and technical) on the basis of a test administered at eleven years of age. A number of studies (e.g., Blackburn, 1945 and Floud, Halsey and Martin, 1956) have demonstrated that grammar schools became the route to higher education and higher occupational status. These studies also found that "many talented children of working-class parents were being denied access to grammar schools or, having gained a place, left at the earliest opportunity" (Mortimore and Blackstone, 1982:6).

By the early 1960s the situation had changed. The notion that I.Q. test scores could be biased by the individual's biographical or social history was becoming increasingly accepted. Crosland (1961) summed up the situation by concluding that "every child should have the same opportunity for acquiring measured intelligence, so far as

this can be controlled for by social action" (Crosland, 1961:37). This conclusion is indicative of the optimistic period in Britain during the 1960s. This period was characterized by the belief that removal of overt class discrimination in the schooling system would lead to the attainment of equality of opportunity. By the early 1970s this aura of optimism had waned. The research in America by Jencks (1972) and Coleman et al. (1966) was demonstrating that "liberal" reforms of schooling were not having much success in the removal of inequalities. Jencks takes an even stronger position in his 1979 book. "Being born into the right family and getting college education are extremely important for occupational and economic success. Personality traits are just as important to career success as academic ability or cognitive skills" (Jencks, 1979:34).

Halsey (1975) contends that the "failure" of reform or intervention to remove inequality is due to theorists and practitioners not realizing that the characteristics of disadvantage are rooted in, and cannot be separated from, the social class position of the disadvantaged. "A theory which explains educational achievement as the outcome of a set of individual attributes has lost the meaning of those structural forces which we know as class. An adequate theory must also attend to the structural inequalities of

resource allocation which are integral to a class society" (Halsey, 1975:12).

Bearing this crucial contention in mind let us examine a number of home-based and school-based factors which are indicators of disadvantage.

The first home-based factor, poverty, is almost a proxy factor as we have already been dealing with it extensively. The disadvantaged, in terms of class hierarchies, are characterized by poverty at home. As Townsend (1979) points out, poverty is a relative concept, differing in meaning from society to society, and within groups in the same society. Townsend (1979) believes that one cannot simply divide the population into the deprived and the non-deprived. More specifically Townsend (1979) believes that "income" is only an aspect of poverty rather than the definition of poverty. For the purposes of this study we would like to speculate that an indicator of poverty which takes into account the relative nature of the phenomena would be a simple indication of whether a student was enduring, or causing others to endure, some form of financial hardship by his or her attending university. Other factors which Townsend (1979) found to be indicative of poverty and which he believed to have an effect on the

**Author** Classen Gregory Mark
**Name of thesis** Identifying Disadvantage: Some Antecedents Of Academic Performance Among First Year Arts Students At The University Of The Witwatersrand In 1982. 1987

***PUBLISHER:***
**University of the Witwatersrand, Johannesburg**
**©2013**

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