

An Analysis of Some Presuppositions Underlying the Concepts of Meritocracy and Ability as Presented in Greaney and Kellaghan's Study

KATHLEEN LYNCH

University College, Dublin

Abstract: Two key concepts in Greaney and Kellaghan's book are those of *meritocracy* and *ability*. This paper sets out to present a critical evaluation of the major sociological and educational presuppositions on which these are based. By elaborating on the conceptual complexities of these two ideas we try to show how the scientific categories within which we formulate research issues are themselves value-laden.

The authors' mode of analysis in this study was highly quantitative but largely atheoretical; conceptual issues, therefore, were not treated analytically or critically. Their failure to treat key concepts problematically belies the intense academic debate as to the nature of these phenomena. More importantly perhaps it leads to an oversimplification of the problems of social and educational equality; it does so by concealing the class-specific interests which the very notion of meritocracy, and their particular interpretation of the concept of ability, are likely to serve.

I INTRODUCTION

In this study the authors set out to assess the success of an Irish government policy to equalise educational opportunities, in meritocratic terms, from the late 1960s to the late 1970s. This paper will be devoted to an analysis of two major concepts in the study, those of meritocracy and ability. It is because these two ideas are central to the formulation of the research problem, and to the interpretation of the data, that they are being examined here; a key assumption in their data analysis being that meritocracy is a legitimate educational goal, and that the meritocracy of a system should be assessed in terms of how ability and effort influence educational and occupational attainment. The notions of meritocracy and ability, however, are not neutral

scientific constructs. As interpreted and utilised in this study they are grounded in a number of highly debatable sociological and educational presuppositions. Our attention in this paper will be focused on the analysis of these.

Firstly, this work is an example of what Karabel and Halsey (1977, p. 74) have called "abstracted empiricism". The data presented are not located in the context of any theoretical framework. Consequently, the statistical evidence outlined, and the conceptual categories presupposed (including those of ability and meritocracy), appear to the reader as objective and unproblematic. This semblance of objectivity is misleading (I am not, of course, suggesting that the authors deliberately mislead the reader; the problem is not one of intentionality, but rather of methodology in a particular branch of the social sciences). Statistical evidence, contrary to what may be commonly supposed in the public mind, does not speak for itself; it must be interpreted. It is only in interpretation that statistical data, and the conceptual categories they represent, acquire social meaning.

The authors of this work, therefore, like all scientists, cannot avoid having an interpretative paradigm in their analysis and conceptualisation of evidence (Kuhn, 1962). In so far as they must do this it is impossible to be totally value-free. The conceptual categories utilised, the types of analyses undertaken and excluded, the emphases laid in interpretation, all presuppose sets of values about the desirable and undesirable in education. In other words, the factual and the valuational cannot be disassociated, especially in a social science such as education which is examining phenomena which are themselves so conspicuously value-laden. While it is "self-evident," as Mannheim observes, "that science . . . is not a propagandistic device and does not exist for the purpose of communicating evaluations, but rather for the determination of facts," what the sociology of knowledge reveals is that "after knowledge has been freed from the elements of propaganda and evaluation, it still contains an activist element which, for the most part, has not become explicit, and which cannot be eliminated, but which, at best can and should be raised into the sphere of the controllable" (Mannheim, 1936, p. 296). My concern in this paper is to try to raise the concepts of meritocracy and ability into the sphere of the "controllable" by analysing the valuational and scientific presuppositions on which they inevitably rest.

II THE CONCEPT OF MERITOCRACY: SOME ASSUMPTIONS EXAMINED

The explicit task of this book is to determine whether or not the educational system in Ireland from the late 1960s to the late 1970s was meritocratic (pp. 206, 247, 259): were the objectives of government policy for equalising educational opportunity in meritocratic terms actually realized? Although

never explicitly espousing meritocracy themselves, the authors implicitly place a value on it by failing to examine its assumptions critically; it is generally treated in the book as an unproblematic good. (The only exception to this is a footnote, No. 21, p. 34, when a brief reference is made to Young's (1961) critique of meritocracy.)

Since the idea was popularised by Young (1961), the concept of meritocracy has been generally signified by the equation, $IQ + \text{Effort} = \text{Merit}$. In this study the "effort" aspect of the equation is not *explicitly* examined. Undoubtedly one could say that their measure of satisfactory class behaviour, as judged by teachers (being keen to get on, having an enquiring mind, working intently, and striving to excel, pp. 44, 45) is a measure of effort; however, the authors themselves never make any claims to this effect. If they were to do so a serious problem would emerge. Satisfactory classroom behaviour as judged by teachers is a highly subjective mode of assessing pupil effort; in particular, it is likely to be a class-biased measure. The research findings of Becker (1952), Kaplan (1952), Goodacre (1968), Rist (1970) and Brandis and Bernstein (1974), all indicate that teachers are likely to be more favourably disposed to children exhibiting middle-class attributes and behaviours in the classroom. To claim, therefore, that merit or reward should be distributed on the basis of effort (as judged by satisfactory classroom behaviour) would be to claim that those who exhibit the type of behaviour which teachers deem desirable deserve to get on, while knowing that the type of behaviour which teachers judge as satisfactory is quite likely to be a class-biased set of attributes.

Before analysing the "ability" dimension of the meritocratic equation, it is necessary to examine the more general presuppositions of the meritocratic ideal itself. Many of these raise doubts about the desirability of pursuing such a goal in the first place, especially if one is concerned about justice and equality in society.

First of all, the concept of meritocracy presupposes the existence of a hierarchical social order. The idea that ability and effort should lead to reward implicitly suggests that those who do not have ability or who do not make the effort should be given lesser rewards. In logical terms, of course, an educational meritocracy does not infer anything about how economic and social rewards should be distributed outside of education. Such distinctions, however, are not very meaningful in our society because educational credentials are themselves the necessary means to acquiring certain economic and social privileges. To accept the meritocratic distribution of educational credentials, therefore, generally means accepting the meritocratic distribution of the economic and social rewards to which these credentials give access. In effect, the notion of meritocracy implicitly legitimates the existence of social and economic hierarchies in our society by its very proposal that access to these should be based on educational credentials acquired by ability and

effort. Undoubtedly one could argue that in a society such as Ireland selection for privileged positions must occur and that selection on a meritocratic basis is preferable to simple nepotism. However, one must also remember that that is a culturally and historically specific task for education. There is nothing intrinsic to education which implies that social selection should be one of its major social functions. Indeed the work of Clancy (1982), Rottman and Hannan *et al.* (1982) and Whelan and Whelan (1984) all raise serious questions as to the legitimacy of using educational credentials to select people for occupations, given the high probability that children from the upper socio-economic groups will get a disproportionate number of the more valuable (third level) credentials in the first place.

For those who do accept the legitimacy of the unequal distribution of economic and social rewards in society, and go on then to suggest that it is fairer to distribute educational (and thereby economic and social) rewards on the basis of ability or other achieved, rather than ascribed, criteria, a further problem arises. They assume that a clear dichotomy can be drawn between ascribed and achieved qualities, but such is not always the case. In particular, it is not true of the attribute titled "ability". Indeed, as it was a "basic concern" of this book "to establish to what extent individual students' achievements (in school and in occupation) seemed to be 'achieved' rather than 'ascribed' " (p. 29); and in particular, to establish if "ability" (an achieved quality) rather than social class, gender or geographical location (ascribed qualities) influenced those achievements (p. 247), it is clear that the authors here do subscribe to the ascribed/achieved dichotomy thesis. In particular they seem to subscribe to the view that ability is an achieved quality.

As I shall be analysing the dynamics of the relationship between the authors' notions of ability and social class later in this article, I shall not address it here. However, by taking their definition of verbal reasoning ability on its own terms (and ignoring for the moment the problem of circularity to which it gives rise) as an index of "whatever it is on the basis of which the (educational) system distributes its benefits" (p. 206), it obviously is being defined, to some degree, as an index of what Bourdieu has called "cultural capital". In this view one must have values, attitudes, tastes, beliefs and linguistic practices which are in accord with the cultural ethos of the school if one is to be successful within it. As the school itself does not teach or provide one with this vital capital, it must be acquired elsewhere. Generally this means that it is acquired within the family, though for political, economic and social reasons, in class-specific quantities. Consequently, lower socio-economic groups tend to lack the vital cultural capital they need for success in school life (Bourdieu, 1974, 1977; Bourdieu and Passeron, 1977). Cultural capital is not, therefore, something one can set out to achieve. In a sense it

is a form of social inheritance substantively, though not formally, distinguishable from inherited economic capital. It is, however, a highly relevant educational ability (or more accurately series of abilities), albeit remaining an ascribed one in many respects.

Greaney and Kellaghan, of course, never refer to the idea of cultural capital in outlining the abilities which one needs to succeed within the educational system. Their failure to do so means that a whole range of cultural (and class related) attributes which are widely recognised as being significant in determining success within the educational system are not examined. Their failure to recognize too that verbal ability, as they define it, is but a part of such cultural capital leads them to draw false dichotomies between ascribed and achieved qualities, and, therefore, to make unwarranted claims about the influence of the achieved quality (ability) as opposed to the ascribed quality (social class) on educational attainments. In so far as social class itself is ascribed at birth, so too is the class culture within which early socialisation occurs.

The notion of meritocracy is also premised on another assumption which is never analysed in this book, but which is highly contentious — the belief that there is a scarcity of talent in society. After all, there would be no need to give “merit” to those with “IQ + effort” unless one believes that people vary in the amount of IQ (talent) they possess and the effort they exert. If all were the same, scarcity would be a logical impossibility.

Propagating the notion of a limited supply of talent serves some very powerful ideological purposes in society, whether one intends it to do so or not. It suggests that, because there are few who are talented, jobs must be differentially rewarded so that the talented will be motivated to do those difficult jobs requiring their special limited gifts (Davis and Moore, 1945). Of course, as it is those who are already in power in society (in educational institutions, professional associations, etc.) who define which jobs require special talents and what these talents actually are, it is no great surprise to find that the jobs which are defined as needing the scarce talents (and by implication which must be the most highly rewarded) are those which they themselves already occupy! Furthermore, even if one does accept that there is a scarcity of talent for certain occupations, this scarcity is a function, in many ways, of the hierarchical orderings of the society itself, and the lack of opportunities it offers to particular groups to develop their talents in the first place (Tumin, 1953). Scarcity of talent can thus be seen as a by-product of social inequality rather than an intrinsic characteristic of individuals.

Another issue arising from the meritocratic understanding of education on which it is important to comment here (though it is not, of course, the specific concern of this study) is the logical impossibility of realising a meritocracy even on its own terms; that is, assuming meritocracy is a desirable

goal, and that ability and effort are pure, unalloyed categories, the given structure of our society makes its realisation unattainable. Irish society is socially a hierarchical one (cf. Rottman and Hannan *et al.*, 1982). There are therefore only a limited number of occupations which are prestigious and high paying within it. Furthermore, of those occupations or positions to which high incomes accrue, a considerable number are not attainable by the acquisition of educational credentials anyhow – for example the ownership of farmland or industrial capital. It is a logical and social fallacy, therefore, to suggest that anyone who has talent and makes the effort can attain merit (at least in the highest terms) when the meritorious occupations or positions are simply not available in proportionately large enough numbers even for those who are technically eligible to occupy them. The large number of credentialised school and college leavers who currently cannot get access to the jobs and courses for which they are qualified is clear proof of this. “There is”, as Arnowitz (1974, p. 200) points out, “no room at the top”.

Finally, the very idea of equalising educational opportunity, especially in meritocratic terms, presupposes an inequality in the character of that to which educational opportunities give access, namely, occupational incomes. If rewards in society for the various jobs or occupations were similar, then equalising opportunities to attain different ones would no longer be so important. (It would be, of course, to some degree, as people would have to have a right to choose what work they wanted.) No matter what one’s occupation one would be fairly and justly rewarded. Consequently, if we are really concerned about economic and social justice in our society, we must abandon our concern with equalising opportunities in meritocratic terms and devote our attention instead to equalising both incomes and earnings for all people.

III THE CONCEPT OF ABILITY: AN EXAMINATION OF PRESUPPOSITIONS

Having shown how the notion of meritocracy is antithetical to social equality it is now time to examine the assumptions underlying the other part of the meritocratic equation, and a key concept in this book, the idea of “ability”. Although the authors’ interpretation of ability, as a score on a verbal reasoning test, is a very narrow one, it is important to examine it on its own terms, as it is within these terms that generalisations are made.

Greaney and Kellaghan’s Definition of Ability

The only place one finds anything approaching a definition of verbal reasoning ability is on page 206. Here, the authors suggest that “. . . verbal reasoning ability may be taken as an index of a more general scholastic

ability defined as 'whatever it is on the basis of which the (education) system distributes its benefits' (Green, 1980, p. 51)". The first problem with this definition is, of course, the circularity of the reasoning on which it is based. The study was designed to determine on what basis the educational system distributes its benefits; yet, the authors start by defining ability in terms of the very phenomenon which they are trying to explain. Furthermore, such a definition tells us nothing about the authors' actual interpretation of verbal reasoning ability itself. It leaves a key concept in this book completely unexplained. However, as the Drumcondra Verbal Reasoning Test (henceforth referred to as the DVRT, or VRA for verbal reasoning ability) is defined elsewhere by one of the authors "as a measure of verbal *intelligence*" (my emphasis); and because it "contains sections on analogies, the identification of words opposite in meaning to a given stimulus, the identification of concepts as belonging to a single category, as well as problems in inductive and deductive reasoning" (Kellaghan and Macnamara, 1972, p. 50), it is qualitatively of the same order as IQ tests (cf. especially Terman and Merrill, Stanford-Binet Intelligence Scale, 1973 Norms edition pp. 67-121, and also the Wechsler Intelligence Scale for Children, by D. Wechsler, 1974 Manual pp. 65-112). Moreover, the authors themselves admit that: "Intelligence, as measured by standardized tests, is frequently regarded as an important component of this kind of ability"; ability being defined in this context also as "whatever it is on the basis of which the (educational) system distributes its benefits (Green, 1980, p. 51)" (p. 33 footnote no. 20). This admission, combined with the nature of the items included on the test and the way it is standardised and administered, means that it is, in all but name, an IQ test. Consequently, the problems that arise from the assumptions made in IQ testing in general also apply in this case.

Ability and Social Class

The first issue that must be addressed here then is the authors' claim that their measure of mental ability is relatively independent of social class:

It can be argued", they say, "that the type of measure of ability which we used was biased or otherwise inappropriate as a measure of a student's ability to profit from education. For example, it has been said that a general measure of verbal ability is simply a surrogate for socio-economic status and that it, therefore, discriminates against children from non-middle class backgrounds (Carnoy, 1974). On the basis of our findings, it would be difficult to sustain such an argument, since the correlation of our measure of verbal ability and socio-economic status was only .3 (Kellaghan and Macnamara, 1972)

(cf. p. 262 Greaney and Kellaghan). There are, however, a number of reasons

why their claims here are highly debatable. To begin with, the .3 correlation they report between socio-economic status and verbal reasoning ability is a statistically significant one (Kellaghan and Macnamara, 1972, p. 50). Secondly, it is obvious from the discussion in Kellaghan and Macnamara's paper that one of the co-authors of this book actually regards a variable (family size) which explains approximately 4.8 per cent of the variance in verbal reasoning ability as being of some scientific importance, as both he and Macnamara use this finding as the entire basis for their case when arguing that family size is "significantly related to verbal reasoning score" (Kellaghan and Macnamara, 1972, p. 49). Because socio-economic status was found in this same study to explain approximately 9 per cent of the variance in verbal reasoning scores (almost twice that explained by family size) surely scientific consistency would demand that this finding merits at least the same recognition as that accorded to family size.

Furthermore, given the extraordinary lack of precision in the authors' instrument for measuring socio-economic status (it was based on teachers' report of pupils' fathers' occupation (p. 45)) it can hardly be regarded as a reliable measure of SES. (For further discussion of problems arising from the authors' method of measuring social class¹ see footnote below.) This is

1. The authors specify their procedure for determining pupils' SES when discussing the design of the study. It was the "teachers who provided information in postal questionnaires on the home background of the students" (p. 45). This method of measuring SES is highly questionable. Firstly, we are not informed by the authors as to how teachers arrive at their classifications. Secondly, how accurate are teachers' reports likely to be, especially in large classes and schools in urban areas? Problems arising from their methods for determining students' SES are compounded by the use of only five SES categories (based on the British Census) when classifying parents' occupation (p. 37). This narrow classificatory system greatly oversimplifies the class structure of Irish society. For example, farmers with over 30 acres and less than 150 are located in the same social category, "(b)". Also included in this category are intermediate professional, administrative and managerial workers. There are, however, huge income differentials both within and between these groups. Farmers of 30-50 acres, for example, have been shown by Commins (1983, p. 18) to have a household disposable income which is only 83 per cent of the national average, while farmers of 50-100 acres have a disposable income of 104 per cent of the national average with farmers over 100 acres having a disposable income which is 133 per cent of the national average. Also as Whelan and Whelan (1984, p. 161) observe, the "skilled" category (Greaney and Kellaghan's category "(c)") includes both manual and non-manual workers thus oversimplifying class differences between these groups.

Finally, it does seem questionable that the unemployed are not classified separately, although Greaney and Kellaghan are by no means alone in failing to treat them as a unique group. Unemployment is a relatively permanent, rather than a temporary, status for many people. The unemployed occupy a unique social position in terms of both the relations of production and the relations of consumption (i.e., of goods and services). Classifying them on the basis of previous occupation (if this is what the authors did; it is not clear from the book how the unemployed came to be excluded from the analysis) therefore, hardly seems tenable. Furthermore, Fontes and Kellaghan's study (1977) provides evidence that children of the unemployed may in fact be experiencing disadvantages in the educational system which are even greater than those of relatively disadvantaged groups such as unskilled workers: by far the largest proportion of pupils with severe reading and writing difficulties in sixth class had "fathers who were unemployed, invalided or dead or whose occupations were not

especially the case given the large proportion of the sample, 46.4 per cent, living in towns and cities where teachers are most unlikely to know the details of parents' occupations. A correlation of .3, therefore, between ability and social class, may be more significant than it appears. A single measure of SES, in particular a poorly devised one, is hardly likely anyhow to establish very strong correlations between SES and VRA because, as White (1982, p. 470) has shown, ". . . measures of SES that combine two or more indicators are more highly correlated with academic achievement than any single indicator".

It is also necessary to make some comment here on White's (1982) work, as it is the only evidence used to support the authors' contention that their measure of ability is relatively independent of social class. The "seemingly low" correlation of .3, which White reports between SES and verbal ability, is a mean correlation for both unpublished and published studies. (White's work is a meta-analysis of 101 studies in which the relationship between SES and academic achievement was examined.) In fact, the majority, (60%) of the correlations on which White's estimates are based are taken from *unpublished* works. Given the fact that the mean correlation between SES and verbal ability in his study is considerably lower for unpublished than for published works (.248 for unpublished works, compared to .447 for books and .354 for journals, (White, 1982, p. 469)), and that presumably unpublished works tend to be unpublished for reasons relating to their scientific validity, then White's average correlation between SES and verbal ability is considerably lower than it would be if it were based on what one assumes is the more reliable scientific evidence of published work.

White's work, therefore, is not very strong evidence from which to claim support that SES and verbal ability are not related. Anyhow, as White points out in that same study the actual measure of SES used by the authors was one of the most crucial factors in determining the relationship between SES and academic achievement. In those studies taking the student as a unit of analysis, cultural capital type indices (such as home atmosphere – indicating family attitude to education, parents' aspirations for their children, the number of cultural activities in which the family participated, the kind of language used in the home, etc.) were found to be the ones most likely to give strong correlations, while the use of a single indicator, in particular

reported or not reported accurately by the class teachers" (1977, p. 17). Undoubtedly this category includes more than the unemployed within it. However, it does *indicate* that the unemployed should be analysed separately in research studies pertaining to equality of educational opportunity.

The grossness of Greaney and Kellaghan's SES measures, therefore, is likely to conceal very real differences in life chances and privileges between social classes. Statistical evidence presented by the authors claiming that their measure of ability is relatively independent of social class (p. 262), and that the meritocratic ideal is "being approached" in Ireland (p. 263), must be viewed with some scepticism given their failure to measure social class (SES) carefully in the first place.

parents' occupation or education, was likely to give the lowest correlations (1982, p. 470). Parents' occupation as reported by teachers was, of course, the measure of social class used by Greaney and Kellaghan in their study.

Theoretical Assumptions Pertaining to Ability Testing

Debates in IQ theory are, of course, part of the nature/nurture controversy which extends far outside education and has clearly got a political, as well as a scientific, dimension to it (Carrier, 1984, pp. 33-47). The focus of the discussion here will not be on this debate, but on the theoretical assumptions underlying the practice of IQ and ability testing as they relate to this work. To examine these is, undoubtedly, a political act too, not least because a challenge to the efficacy of mental ability testing is a challenge to a wide range of interests, both academic and economic (Kaye, 1973, pp. 9-23, Bowles and Gintis, 1976, pp. 197, 198).

Ability is defined by Greaney and Kellaghan in terms of a score on a verbal reasoning scale. It is, therefore, as we have shown at the outset of this section, very similar to other verbally loaded intelligence tests. It is important to examine this equation of ability with a score on an IQ-type test because as Brian Simon has pointed out, "In the last resort [intelligence tests are] the very keystone of the present educational system . . . the theory that children can be divided into different groups, that they have fundamentally differing mental capacities which determine their whole future development, is derived from the theory and practice of intelligence tests" (Simon, 1978 ed., p. 50).

The first question that arises from the use of an IQ-type test as a measure of ability is whether or not the authors regard it (ability) as a fixed entity. Although we are told nothing regarding the stability or instability of VR scores over time, certain features of Greaney and Kellaghan's work indicate that they regard VRA as a relatively fixed entity. First of all, the students were tested only once (at age 11 years) on a standardised verbal reasoning test and their score at this time was used throughout the analysis as a measure of their ability. There is no indication given by the authors that they regarded this as an arbitrary procedure or that they believed that a student's ability may have changed over time. Secondly, their frequent references, at all stages of the analysis, to pupils as being "more" or "less" able (pp. 151, 207, 209, 217, 219, 222, 248), and even at one time to "brighter" students (p. 165), suggest that the authors regarded some pupils as *essentially* lacking in some mental ability at all stages of their careers. Indeed their unquestioning acceptance of the "loss of talent" thesis (pp. 222, 261) is also evidence of the fact that they see ability as a fixed entity. Thirdly, their claim, for example, that their findings (re. one-third of those entering secondary schools being in the lower half of the distribution of scores on the DVRT) . . . "raise

a question about the ability of many students entering secondary school to follow a classical academic curriculum" (p. 69), certainly implies a belief in the fixed and irremediable character of VRA at the age of 11+. If they did not believe this, they would surely have proposed that some students may need extra assistance in what they call "classical academic subjects" to develop their abilities in these, instead of implying that these students are unable to follow these subjects in the first place.

Whether the authors subscribe to a primarily environmentalist or hereditarian understanding as to how one acquires this seemingly fixed entity called "verbal reasoning ability" we do not know from this work. However, this is not that important anyhow, because as Henderson (1976) and Arnowitz (1974) have pointed out, these two groups have much more in common with one another than is commonly supposed. What is clear, however, from what we have outlined above, is that they regard verbal intelligence as a "quantity" which people "possess" in varying and lesser degrees and that the "amount" which one "has" does not vary much with time. They also suppose that people can be ranked hierarchically on the basis of the amount they "possess". Such a view predisposes us to regard educational development as having definite limits with certain kinds of people. After all, if people's mental abilities are fixed at specific levels, whether it be at age 11 or not, then there are clear limits to what they can attain educationally, at least within a certain time.

The logical conclusion of the fixed ability thesis, therefore, is a highly contentious one. As it is the working class pupils (especially those whose parents are unskilled workers (cf. Kellaghan and Macnamra, 1972, p. 51) who tend to be the "kinds of people" who score lowest on the DVRT (despite the questionable way in which social class was measured), the obvious conclusion one must draw from Greaney and Kellaghan's book is that "these people" could not benefit from certain types of education anyhow (namely, academic-type education and, of course, the economic and social privileges to which it gives access!) because they lack the "ability" to do so. In effect, their work implies that, with some exceptions, the present low rates of participation by the children of parents from lower socio-economic groups in higher education (assuming one subscribes to the meritocratic view) can be legitimated on the grounds that they lack so-called "ability"! Although such a view is not overtly expressed by the authors, their concluding remark that "... the meritocratic ideal is at least being approached if not quite being attained" (p. 263) certainly indicates a belief on their part that talent is limited and that many of those who deserve to get on educationally and socially are doing so.

Verbal Ability and Educational Success: Problems of Definition and Interpretation

Because this book is of such wide interest to the general public, as well as to educationalists, it is necessary to make some comment here on the actual usage of the term "ability" in the text. Although the authors are usually careful in specifying that their findings on ability and its relationship to educational attainment refer only to verbal reasoning ability as measured by the DVRT, there are frequent departures from this practice too. The "verbal reasoning" adjective is most conspicuously absent in two key chapters in the book, chapters nine and eleven where conclusions are drawn with regard to equality (chapter 9) and to the entire study (chapter 11) (cf. pages 206, 207, 211, 212, 217, 220-222, 247, 249, 251, 260). It also happens elsewhere, however, (pp. 30, 47, 48, 69, 164) and, of course, in the usage of terms such as "high" and "low ability" to which we have referred already.

The widespread use of a generic term such as "ability" to describe a highly specific entity such as "verbal reasoning ability" as measured by a standardised test, could lead to considerable misinterpretation of the findings of this study. The interchangeability of the terms "verbal reasoning ability" and "ability" implies (though I am not suggesting that the authors intend it) that the more general entity of "ability" can be equated with a score on a verbal reasoning test. Nowhere, unfortunately, do the authors outline the conceptual and empirical limitations of their "ability" measure. Neither do they point out that, even if the DVRT does measure verbal ability, this is only one kind of human talent and certainly not the only one that needs to be fostered educationally. Their failure to engage in such qualifications and analyses means that there is a danger that the book would reinforce the false notion that verbal ability is the only ability which is relevant educationally.

Undoubtedly it is important to have high verbal ability for attaining academic success given the literary basis of so much of academic learning at present. However, as only 20 per cent of the relevant age cohort enter third-level education (Clancy, 1982, p. 31) and as only a tiny minority of these eventually engage in purely academic or scholastic type work (most third-level courses eventually credentialising people for employment in highly skilled occupations though not especially literary-based ones — 71.8 per cent of the new entrants to higher education in 1980, for example, were in technology, science, agriculture, commerce, art and design, medical sciences and hotel catering and tourism (cf. Clancy, 1982, p. 16) — one must ask what justification there can be for evaluating pupils' ability solely in verbal terms. Furthermore, while these occupations do require certain verbal skills, as indeed does participation in everyday life, they are but some of the attributes necessary for either educational or occupational success. Many of the other attributes necessary, such as, for example, the ability to be con-

sistent, pleasing in manner, competitive, co-operative, persevering, etc., may well be job-specific, and not either measurable or capable of being taught in a formal school setting.

Our second major contention with Greaney and Kellaghan here is their failure to emphasise the evidence which they do have, that non-verbal attributes are also vitally important for educational success. It is clear from their own data, for example, that being judged by teachers as having satisfactory classroom behaviour (being keen to get on, having an enquiring mind, being intent on work, and achievement oriented, pp. 44, 45) is also vital for educational success, as satisfactory classroom behaviour correlated almost as strongly as verbal reasoning ability with performance on the Leaving and Intermediate Certificate examinations (as measured by the LCEX and ICEX, cf. pp. 159, 177) and with occupational status (p. 231). Given this evidence it is surprising that the influence of non-verbal factors on school performance was not analysed in more detail.

Indeed, it is also surprising that when designing the study no attempt was made to measure the impact of other cultural capital type indices (parents' and pupils' attitudes to schools and teachers; their values and aspirations, tastes, interests and lifestyles; peer group ethos, etc.) on educational performance and participation. It is, as Bourdieu (1974), Bourdieu and Passeron (1977), Bernstein (1977), Willis (1977), McRobbie (1978), and Cohen (1981) have shown, through the study of the interaction between the cultural processes of school and those of home that much of our understanding of why class differences in educational participation and attainment actually exist may be advanced.

The Validity of the Drumcondra Verbal Reasoning Test

This issue becomes even more pertinent when one examines the validity studies of the DVRT; it is not that clear from a number of them what it is that the test actually measures. (As Gorman's work (1968) is the only source of information on the DVRT cited by the authors (p. 38), all the forthcoming discussion on the test's validity is based on Gorman's evidence.) Gorman points out that "(a) content validity studies, (b) criterion-related validity studies, and (c) construct validity studies" are the types most commonly used in establishing the validity of educational and psychological tests (1968, p. 156). We will start with the issue of content-validity. The concept of content-validity implies that one can understand the phenomenon in question, analyse it and thereby construct a test to sample various features of it. It is clear, however, from Gorman's discussion of the DVRT that no content-validity study of the test was undertaken: "While it seems certain," he says, "that developments designed to further our understanding of techniques for assessing content validity will have an important bearing not

only on test theory but also on educational progress generally, other types of validity studies seem more appropriate to the type of test (i.e., the DVRT) under discussion here" (Gorman, 1968, p. 157). He does not inform us, however, as to *why* other validity studies were deemed more appropriate.

As Greaney and Kellaghan also do not supply us with any information as to the content-validity of the DVRT, Lawler's assertion about intelligence testing in general would seem to hold true in this case, namely, that intelligence (in this instance verbal intelligence) "is defined by our manner of measuring it" (Lawler, 1978, p. 21). An *a priori* method seems to be adopted whereby one arrives at the properties of an object, in this context verbal reasoning ability, "from the concept of the object, instead of learning from the object itself" (Lawler, 1978, p. 24). Verbal intelligence, therefore, becomes a concept or an ideal which is not strictly measurable against reality. Such a procedure, as Lawler has noted, "stifles the development of the science of human thought because it takes one form of approximation to the understanding of intelligence and stops there" (1978, p. 119). All we know about the content of the DVRT is that 262 items were included in the initial tryout of the test, that 110 of these were included in the final version and that they included 6 types of questions — following directions, classifications, number series, opposites, analogies, and classes (Gorman, 1968, pp. 24, 25). We are not informed, however, as to how the 262 items were selected in the first place. If the items selected are based on those used in other similar type tests, the question of the content-validity of these other tests still remains an issue.

The DVRT was tested, however, for concurrent validity although the tests were based on small samples (Gorman, 1968, p. 179). The WISC Verbal Scale, the Californian Short-Form test of Mental Maturity, the Standard Progressive Matrices, and Morrisby's General Ability Test (Verbal Section) were all used in establishing its concurrent validity. This practice of test validation, though widely accepted, really begs the question. One is still left in ignorance as to the validity of the actual tests against which concurrent validity is established.

When one does examine the historical evidence on test construction, it is clear that the concurrent validity of tests such as the WISC and the Standard Progressive Matrices is established ultimately with reference to the original intelligence tests devised at the beginning of this century. These, as Karier (1973) and Simon (1978) have shown, were clearly designed in a way that would result in test discriminations occurring along social class lines. For example, Terman (whose work is widely used in establishing the concurrent validity of tests) originally used contrasting groups of migrating unemployed persons, businessmen, adolescent delinquents and high-school students as the reference points for selecting and grading his items; "the

concurrent validity of the Stanford-Binet consists in the agreement of the tests with judgments of intelligence made by teachers, with survival in schools versus dropping out, and success in life versus unemployment” (Lawler, 1978, pp. 60-61). It is no surprise, therefore, to find that those who tend to score lowest on such a test (or on other tests whose concurrent validity has been established with reference to it) tend to be those from lower socio-economic groups – the test being constructed to make such discriminations in the first place. It is interesting to note too as Kaye (1973, p. 13) observes that “IQ tests have consciously been standardized so as not to discriminate between boys and girls”, beginning with the 1937 revision of the Stanford-Binet Scale. This has been called making the test “sex-fair”. The question immediately arises, why are such tests not made “class-fair” or “race-fair” as well? There is no logical reason why they should not be. To do this, however, would be to challenge one of the premises on which mental ability testing has always operated, namely, the likelihood that IQ type tests will make discriminations along social class lines. What is forgotten is the arbitrary and subjective nature of the basis for making such discriminations in the first place.

The second method used for proving the concurrent validity of the DVRT was to compare scores on the test with teachers’ ratings of students’ “aptitude for scholastic achievement” (Gorman, 1968, p. 164). To prove, however, that the teachers’ assessment of pupils correlates with verbal reasoning scores tells us nothing about the actual nature or validity of the DVRT itself. After all, “satisfactory classroom behaviour” was found by Greaney and Kellaghan to correlate almost as highly as VRA with performance on the Intermediate and Leaving Certificates (pp. 159, 177) but this does not inform us as to what it is that the verbal reasoning test actually measures, or how valid it is as a measure of the unspecified phenomenon in question. Although Gorman (1968) cites considerable evidence for the construct validity of the DVRT, to a great extent this discussion is taking place in a scientific limbo owing to the lack of an empirical basis for the construct of verbal intelligence in the first place.

Another major assumption relating to the validity of the DVRT, as to that of all such testing, is that ability is normally distributed in the population. As Simon points out, however, the normal distribution of intelligence is *not* an empirical statement about the population as the concept suggests. Rather, it is an artefact of the testers, albeit one which was arbitrarily selected at the outset of test development. Being so selected, however, it became the standard measure against which the distribution of scores in new tests were assessed. In other words tests are constructed in such a way that they will tend to give a normal distribution of scores and this normal distribution is then taken as evidence that intelligence exists and is distributed in a particular way. In the

words of Vernon, "well-constructed tests always tend to yield a normal frequency distribution; hence we are entitled to regard departures from normality as indicative of bad construction or bad scoring" (Vernon, 1940, p. 27). Finding a normal distribution of intelligence in a population with a test constructed to ensure such a distribution in the first place, proves no more, however, than that the test was efficiently constructed within the arbitrary limits set. There is no reason why test scores should not be distributed in a whole variety of ways. The only basis for the normality assumption seems to be the analogy drawn with the distribution of certain physical characteristics. This is, however, a very "dangerous proceeding since the brain and the higher nervous system represent a qualitatively different organization of matter, about whose structure and functioning extremely little is as yet known" (Simon, 1978, p. 69). At the very most all we know is that mental tests measure one's relative standing in a group on a select set of items. The way the DVRT, for example, yields a numerical score makes it easy to interpret the score as an absolute which it is not. It implies that the individual *has* something which she or he does not have.

The final issue which must be addressed relating to the validity of Greaney and Kellaghan's ability measure is its predictive value. When one examines the correlations between scores on the DVRT and the LCEX (pp. 159, 177) and between DVRT scores and length of stay in secondary schools (p. 77), it would seem that the test has strong predictive validity. It is important to note immediately, however, that satisfactory classroom behaviour correlates almost as highly as VRA with the aforesaid school outcomes. Even occupational status was correlated almost as highly with satisfactory classroom behaviour as it was with VRA – a statistically significant correlation of .33 compared to one of .40 for VRA (p. 231). Unfortunately, the strong relationship – for which there is evidence throughout the book – between satisfactory classroom behaviour and both educational attainment and length of participation is not examined in any detail by the authors. Consequently, one cannot say to what extent VRA and satisfactory classroom behaviour are measures of independent phenomena. It could well be that it is satisfactory classroom behaviour which is the powerful predictor of future educational success. Because the authors do not tell us what relationship exists between VRA and satisfactory classroom behaviour, or between the latter and social class, such a hypothesis, of course, is merely a tentative one requiring further analysis.

To the extent that one does find a relationship between VRA and pupils' academic attainment, this may well be explained by factors which have little to do with verbal intelligence *per se*. Firstly, in establishing the concurrent validity of the DVRT teachers' assessments of pupils' "capacity for scholastic work" were used as a source of reference (Gorman, 1968, pp. 164-165). To

find a link between scores on the DVRT and scholastic performance could hardly be regarded as very surprising therefore, given that teachers' assessments of pupils' ability were themselves used to validate the test in the first place. Secondly, if the school principals or staff of the second-level schools in which the study was carried out were aware of pupils' scores on the DVRT when they entered, this may well have influenced ability-grouping and/or teachers' expectations of pupils, which in turn have influenced their academic performance. (We are not informed by the authors whether or not the school staff did know pupils' scores, however). Even if staff did not know pupils' test scores the argument still holds that the stability of pupils' rank ordering over time is a function of the various psychological and sociological forces at work due to streaming and/or teacher expectations and not of ability *per se*. Streaming (be it either within or between classes), as is well known, tends to lead to differential treatment in schools and to rigidify rank order (Hargreaves, 1967; Lacey, 1970; Lunn, 1970; Shavit, 1984). This happens indeed irrespective of what procedures are used to divide pupils in the first place.

IV CONCLUSION

This book is a very valuable source of data on the attainments of a cohort of students in second- and third-level education in Ireland. The analysis of the concept of "ability" undertaken here, and, to a lesser degree, of the idea of "meritocracy", is intended to provoke discussion of the work, not to discredit it. By elaborating on the conceptual complexities of these two ideas, we have tried to show how the scientific categories within which we formulate research issues are themselves based on presuppositions which are value-laden. They are not, nor indeed could they ever be, pure, disinterested scientific constructs. The dilemma which arises for us from this work, therefore, is not the use of particular conceptual categories *per se* — this is inevitable. Rather, it is the failure of the authors to treat the conceptual issues of "ability" and "meritocracy" analytically and critically. By failing to do so they oversimplify the problem of social and educational equality. Meritocracy and ability are treated as consensual notions. Such a practice belies the intense academic debate as to the nature of these phenomena; more importantly, perhaps, it conceals the class-specific interests which the very notion of meritocracy, and the authors' particular interpretations of ability, are likely to serve.

In this study, Greaney and Kellaghan "set out to assess the extent to which one particular government policy objective, the attainment of equality of educational opportunity, was realized" (pp. 28-29). While the testing of policies scientifically may, conceivably, make research more socially relevant,

and government policies more scientific, it can circumscribe research work in other respects. The government financing of research can "bend the activities of scholars away from their own priorities and towards applied, atheoretical, quantitative studies in the service of the policy pre-occupations of the ruling powers" (Karabel and Halsey, 1977, pp. 76-77). To what extent we regard government influence on research priorities as an aberration depends, of course, on how closely we think government interest represents those public interests which we deem important. The fact remains, however, that the government of a given society does serve particular interests. Indeed, as Peillon observes, it is the "project of the bourgeoisie" which is the major "state project" in Ireland (1982, pp. 53-59, 176-194). Consequently, by taking government policy objectives as the end purpose of educational research, we may be granting legitimacy to educational priorities about which there is little consensus. Undoubtedly, some will claim that there was consensus in Ireland with regard to the desirability of equalising educational opportunities throughout the late '60s and '70s. At a superficial level this is true. However, given the fact (as Greaney and Kellaghan themselves admit) that "there was very little by way of comment on the topic at the time (the 1960s) or more recently" (p. 26), it would be wrong to speak of consensus based on any real knowledge or understanding.

Adopting a government policy objective as the focus of their study, combined with the use of a highly quantitative though largely atheoretical mode of analysis, seems to have led the authors of this book, therefore, to ground their analysis on some highly debatable conceptual presuppositions. In particular it has tended to conceal the extent to which a meritocratic concept of equality serves vested interests. Likewise it has tended to conceal the class-biased nature of a concept of ability measured by a score on a verbal-reasoning test.

REFERENCES

- ARNOWITZ, S., 1974. "The Trap of Environmentalism", in A. Gartner, C. Greer and F. Riessman (eds.), *The New Assault on Equality*, New York: Harper and Row, pp. 198-205.
- BECKER, H.S., 1952. "Social Class Variations in Pupil-Teacher Relationships", *Journal of Educational Sociology*, Vol. XXV.
- BERNSTEIN, B., 1977. "Class and Pedagogies: Visible and Invisible", in J. Karabel and A.H. Halsey (eds.), *Power and Ideology in Education*, London: Oxford University Press, pp. 511-534.
- BOURDIEU, P., 1974. "The School as a Conservative Force: Scholastic and Cultural Inequalities", in J. Eggleston (ed.), *Contemporary Research in the Sociology of Education*, London: Methuen, pp. 32-46.

- BOURDIEU, P., 1977. "Cultural Reproduction and Social Reproduction", in J. Karabel and A.H. Halsey (eds.), *Power and Ideology in Education*, London: Oxford University Press, pp. 487-511.
- BOURDIEU, P., and J.C. PASSERON, 1977. *Reproduction: In Education, Society and Culture*, London: Sage.
- BOWLES, S., and H. GINTIS, 1976. *Schooling in Capitalist America*, London: Routledge and Kegan Paul.
- BRANDIS, W., and B. BERNSTEIN, 1974. *Selection and Control: Teachers' Ratings of Children in the Infant School*, London: Routledge and Kegan Paul.
- CARNOY, M., 1974. *Education as Cultural Imperialism*, New York: David McKay.
- CARRIER, J., 1984. "Cultural Themes in Educational Debates: the Nature-Culture Opposition in Accounts of Unequal Educational Performance", *British Journal of Sociology of Education*, Vol. 5, No. 1, pp. 33-47.
- CLANCY, P., 1982. *Participation in Higher Education: A National Survey*, Dublin: Higher Education Authority Report.
- COHEN, G., 1981. "Culture and Educational Achievement", *Harvard Educational Review*, Vol. 51, No. 2, May, pp. 270-285.
- COMMINS, P., 1983. "Social Change in Rural Ireland", paper read at Sociological Association of Ireland Seminar, Trinity College, Dublin, 2-3 Dec.
- DAVIS, K., and W.E. MOORE, 1945. "Some Principles of Stratification", *American Sociological Review*, Vol. X, No. 2, pp. 242-249.
- FONTES, P., and T. KELLAGHAN, 1977. "Incidence and Correlates of Illiteracy in Irish Primary Schools", *The Irish Journal of Education*, Vol. XI, No. 1, pp. 5-20.
- GOODACRE, E.I., 1968. *Teachers and Their Pupils' Home Background*, Slough: National Foundation for Educational Research.
- GORMAN, W.G., 1968. The construction and standardization of a verbal reasoning test for age range 10 years 0 months to 12 years 11 months in an Irish Population, Unpublished Ph.D thesis, Faculty of Philosophy, University College, Dublin.
- GREANEY, V., and T. KELLAGHAN, 1984. *Equality of Opportunity in Irish Schools: A Longitudinal Study of 500 Students*, Dublin: The Educational Company.
- GREEN, T.F., 1980. *Predicting the Behaviour of the Educational System*, New York: Syracuse University Press.
- HARGREAVES, D.H., 1967. *Social Relations in a Secondary School*, London: Routledge and Kegan Paul.
- HENDERSON, P., 1976. "Class Structure and the Concept of Intelligence", in R. Dale (ed.), *Schooling and Capitalism*, London: Routledge and Kegan Paul, pp. 142-151.
- KAPLAN, L., 1952. "The Annoyances of Elementary School Teachers", *Journal of Educational Research*, Vol. XV.
- KARABEL, J., and A.H. HALSEY, 1977. "Educational Research: A Review and an Interpretation", in J. Karabel and A.H. Halsey (eds.), *Power and Ideology in Education*, London: Oxford University Press, pp. 1-85.
- KARIER, C.J., 1973. *Roots of Crisis*, Chicago: Rand McNally.
- KAYE, K., 1973. "IQ: A Conceptual Deterrent to Revolution in Education", *Elementary School Journal*, Vol. 74, No. 1, October, pp. 9-23.
- KELLAGHAN, T., and J. MACNAMARA, 1972. "Family Correlates of Verbal Reasoning Ability", *Developmental Psychology*, Vol. 7, No. 1, pp. 49-53.
- KUHN, T., 1962. *The Structure of Scientific Revolutions*, New York: International Publishers.
- LACEY, C., 1970. *Hightown Grammar*, Manchester: Manchester University Press.

- LAWLER, J.M., 1978. *IQ, Heritability and Racism*, New York: International Publishers.
- LUNN, J.C. BARKER, 1970. *Streaming in the Primary School*, Slough: National Foundation for Educational Research.
- McROBBIE, A., 1978. "Working Class Girls and the Culture of Femininity", in Centre for Contemporary Cultural Studies, *Women Take Issue*, London: Hutchinson, pp. 96-108.
- MANNHEIM, K., 1936. *Ideology and Utopia*, translated by L. Wirth and E. Shiels, London: Harcourt Brace Jovanovich.
- PEILLON, M., 1982. *Contemporary Irish Society: An Introduction*, Dublin: Gill and Macmillan.
- RIST, R., 1970. "Student Social Class and Teacher Expectations: The Self-Fulfilling Prophecy and Ghetto Education", *Harvard Educational Review*, Vol. 40, No. 3, Aug., pp. 411-451.
- ROTTMAN, D.B., D.F. HANNAN, and N. HARDIMAN, M.M. WILEY, 1982. *The Distribution of Income in Ireland: A Study in Social Class and Family Life Cycle Inequalities*, Dublin: The Economic and Social Research Institute, Paper 109.
- SHAVIT, Y., 1984. "Tracking and Ethnicity in Israeli Secondary Education", *American Sociological Review*, Vol. 49, No. 2, pp. 210-220.
- SIMON, B., 1978. *Intelligence, Psychology and Education*, 2nd Edition, London: Lawrence and Wishart.
- TERMAN, L.M., and M.A. MERRILL, 1973. *Stanford-Binet: Intelligence Scale*, Manual for the third edition, Boston: Houghton Mifflin.
- TUMIN, M., 1953. "Some Principles of Stratification: A Critical Analysis", *American Sociological Review*, Vol. 18, No. 4.
- VERNON, P.E., 1940. *The Measurement of Abilities*, cited by B. Simon in *Intelligence, Psychology and Education*, 1978 edition, London: Lawrence and Wishart, p. 67.
- WECHSLER, D., 1974. *Wechsler-Intelligence Scale for Children Revised*, Manual WISC-R., New York: The Psychological Corporation.
- WHELAN, C., and B. WHELAN, 1984. *Social Mobility in the Republic of Ireland: A Comparative Perspective*, Dublin: The Economic and Social Research Institute, Paper No. 116.
- WHITE, K.R., 1982. "The Relation between Socioeconomic Status and Academic Achievement", *Psychological Bulletin*, Vol. 91, No. 3, pp. 461-481.
- WILLIS, P., 1977. *Learning to Labour: How Working Class Children get Working Class Jobs*, London: Saxon House.
- YOUNG, M., 1961. *The Rise of the Meritocracy 1870-2033*, London: Pelican Books.