EDUCATIONAL THEORY: ITS NATURE, SCOPE AND LIMITS

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This thesis explores the validity in principle of educational theory. Part One examines current controversy over its status. Via the Hirst/O'Connor debate, central issues are identified: the relation of theory to practice; the logical status of prescriptive theory; the epistemic foundations of normative statements; the validity of behavioural science; the putative discreteness of empirical and normative questions in education. The presumed potential validity of the former and the supposed arbitrariness of the latter are claimed to reflect acceptance of a positivist paradigm both mistaken and unfruitful in this context.

Part Two disputes philosophers' disclaimers for their substantive role in prescription, which arise in reaction against illegitimate deductions from metaphysical positions, and in conformity with the tenets of analytic philosophy. Supporting claims - that conceptual analysis reveals truths both non-empirical and value-free, and that the normative regress leaves judgements unsupported - are questioned. Analysis simply clarifies conditions for conceptual revision whilst the normative regress similarly implies a coherence theory of truth only mistakenly equated with irrationality.

Part Three disputes the corollary that empirical questions in education are discrete and logically unproblematic. After establishing the logical and methodological characteristics of behavioural enquiry, the assumptions, procedures and findings of a large-scale positivist research project are examined to show that this approach to empirical work in education is as necessarily distorting and supportive of theorists' ideology as is exclusive reliance on conceptual analysis in normative theorising. Increased validity in educational theory is argued to depend on rejection of positivist norms of rationality and on adoption of a more tentative, piecemeal approach which admits an anthropomorphic model of man, the relevance of practical knowledge and the functional interdependence of factual and normative enquiry.

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Thesis submitted for the degree of Ph.D.

University of Leicester.

November 1981.

UMI Number: U327348

UMI U327348

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P R E F A C E

"Philosophy, in a word, may be said to seek general

perspective, on a rational basis... The philosopher

wants to see things in perspective and he wants to

see things sharp and clear. He strives for a maximum

of vision and a minimum of mystery.

In its quest for generality, philosophy thus bears a

certain resemblance to religion, but differs from it

in its exclusive appeal to rational argument, whereas

religion appeals also to other sources of authority,

such as revelation, sacred writings, and tradition.

In philosophy's exclusive appeal to rational evidence,

it resembles the sciences, but differs from them in

being more general, in trying not only to understand

the world through science, but also to comprehend

science itself as a mode of understanding, as one aspect

of a varied human experience." [1]

In this thesis an attempt is made to form, by the method of

philosophical enquiry, a generalised view of theorising in

education. Much philosophical debate about educational theory

confines itself to a discussion of whether or not we are entitled

to use the term "theory" for attempts to explain and justify

educational description and prescription. Many philosophers concern

themselves with the question of how far educational aims and

principles can be rationally defended, in order to supply a sound

basis for the evaluative premise in an argument whose conclusion will

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1 Scheffler I., The Language of Education, Springfield, 1960, p.5.

be a decision for action. A further group of philosophers explore
the extent to which the behavioural sciences can provide theories which
have the explanatory and predictive power of natural science theories.
Meanwhile educational psychologists, educational sociologists and edu-
cational researchers advance the theories and accumulate the data which
serve as empirical premises in our educational deliberations.

It is a philosophical task, not only to examine these four areas,
but to relate them together in order to throw some light on the
question of what the limits in principle might be of the rational
justification of educational decisions. It is often suggested that
the principal problems are a function of the nature of decisions in
practical areas, where inevitable considerations of value leave the
conclusions of logically complex arguments partially unsupported. This
state of affairs is frequently contrasted with the firm ground of
empirical studies. I shall argue that though much of this is true, it
is only partially true, and even its partial truth does not have the
implications commonly supposed. The argument will tend to show that
educational theorising is profoundly influenced by the dominant ideology
of our age: that positivistic conception of science which has long
since been challenged within science itself, but which has become
generally accepted as the norm of rationality. The internalisation of
this norm leads empirical workers in the field of education either to
strive for a chimerical objectivity which is thought to be the road
to scientific certainty, or to abandon ship into the relativistic deeps
of hermeneutics. Philosophers, on the other hand, commit themselves
to ultimate principles or go in search of the holy grail of intrinsic
value, or confine themselves to a clarificatory role, insisting that
their work has no substantive implications, but, in Wittgenstein's
immortal phrase "leaves everything as it is".[1] A similar all-or-nothing

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1 Wittgenstein L., _Philosophical Investigations_, 1963, §124.

tacit equation of science with truth leads the work of educational
theorists of both persuasions to be either generally dismissed or
generally overvalued by policy-makers, practitioners and consumers
in the area concerned.

In order to arrive at a more complex and qualified appraisal of
the descriptive, explanatory and justificatory potential of educational
theory, three main strands in this enquiry will be distinguished and
examined. The first question to be asked in a philosophical treatment
of this issue is what we mean by an educational theory. In order for
this to be more than a mere semantic discussion it is necessary to
examine the nature of practical activities, the relationship of theory
to practice, and the logical structure of systematic attempts to reach
understanding in a logically complex area. The object of this analysis
will be to establish the necessary features of theorising in education,
not to beg all questions which might subsequently arise by deciding
whether or not such features are co-extensive with those of theories
in the natural sciences. The next part of the enquiry will examine the
nature and scope of philosophy of education, and the grounds for the
standard disclaimer that such speculative theorising is devoid of
substantive implications. It will be argued that the goal of normative
theorising, consisting as it does, not in the establishment of what is
true, but in the elimination of what is untenable, is not radically
distinct from the goal of empirical theorising. Philosophy does not
leave everything as it is, since how the objects of enquiry are
conceptualised necessarily alters the nature of that enquiry.

So much will become evident in the second part of this thesis.
The third part will examine the arguments for and against the scientific
study of human behaviour, and will entail not only the standard
elucidation of what differentiates people from things, actions from
happenings, but will also involve reference to the assumptions implicit
in any purportedly scientific activity. A less sanguine acceptance of

the aseptic procedures of science serves to illuminate, rather than
to blur, the special problems of social investigation. Drawing
together these points, one particular piece of large scale empirical
research in education will be examined in the light of the issues
raised. The aim will be not to examine the validity of that particular
piece of research, but to highlight some of the logical and methodological
problems which are necessarily inherent in work of that nature. With
reference to the aims and procedures of that work, the three questions
basic to philosophy will be asked: "What do you mean?", "How do you
know?", and "How do you justify your assumptions?".

My purpose in this thesis is to form a synoptic view of theorising
in education and to establish both the extent of what we must demand,
and the limits of what we may expect in a field of study whose com-
plexity is matched only by its importance.

I N T R O D U C T I O N

Before proceeding with a philosophical examination of theorising
in education, which explores the logical status and rational validity
of attempts made within the field of educational studies to explain
and justify decisions and policies, the following preliminary points
must first be clarified:

1.   The ascription of the terms "theory" and "theorising" in this
       thesis.

2.   The concept of 'education' and the frame of reference for
       'educational studies' adopted in the analysis.

3.   The nature of educational decisions, and the implications for
       theorising of their logical complexity.

4.   Why a study such as this is necessarily a philosophical task.

1.   Much heated debate has centred around the notion of an educational
theory, its nature and function.   The tone of this debate, however,

       "presupposes that we actually have an educational theory in

       the way that we have one physical theory."[1]

O'Connor was clearly correct in asserting that "We do not have any
such theory"[2], nor is there any clear agreement about what such a
theory would consist in, were it to exist.   There are those who would
limit it to the findings of empirical research in the behavioural sciences;

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1   O'Connor D.J., _An Introduction to the Philosophy of Education_, 1957,
    p.105.

2   ibid., p.105.

educational psychology, educational sociology, educational economics
and classroom observation procedures. Such a view can only be held
by those who consider that science should serve as the inevitable norm
of all our thinking, on the assumption that "Every decision can be
rationally justified in the light of the evidence".[1] When
D.G. Christopherson urges that

> "One of the most important things that scientists in training
>
> colleges have to do is take over the education course"[2]
>
> since "The applicability of the scientific method is
>
> not in dispute."[3],

he is simply giving voice to the popular view that the improvement
of education depends upon the application of more successful techniques,
and that the factual considerations from which such techniques might
be derived are largely unproblematic. So many confusions and over-
simplifications underlie this sort of recommendation that they will
need detailed consideration when the logical features of decisions for
action are examined.

Any argument which assumes not merely that the scientific method
for the study of human behaviour is beyond dispute, but also that all
practical decisions can be derived solely from quantitative judgements,
is clearly indefensible. Equally erroneous, however, is the contrary
supposition that we can exclude the empirical from consideration and
base practical decisions solely on qualitative judgements, or normative
reasoning. Just this surprising assumption appears to be made by
Dewey when he equates philosophy - traditionally characterised as the
search for understanding in those areas which are beyond the scope of
empirical investigation - with educational theory. He claims that:

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1. Christopherson, D.G., "The Education of Britain's Scientists
   who are Teachers" in Education for Teaching, Nov., 1964, pp. 6-9.

2 ibid.,p.9.

3 ibid.,p.7.

"If we are willing to conceive education as the process

of forming fundamental dispositions, intellectual and

emotional, towards nature and fellow men, philosophy

may be defined as the general theory of education".[1]

However fundamental such dispositions may be, they are necessarily

formed by some means, and even allowing that means and ends may to

some extent be constitutive of each other, an examination of the efficacy

√ of means can at most be only partially a philosophical matter.

These polar conceptions are in no way the limit of the confusion

which surrounds the notion of educational theory. That this could neither

be limited to a consideration of the purely empirical, nor to the purely

normative and analytic area of philosophy, does not entail that the

term should be taken to refer to a motley collection of ideas grounded

in neither of these spheres. A strange hybrid is envisaged by Clive Beck:

"Educational theory in what I would call 'the modern sense'

is an extremely broad field of inquiry that includes the

more theoretical abstract aspects of all the branches of

the discipline of education. Thus it includes a large

part - the more theoretical part - of educational philosophy,

educational psychology, educational sociology, curriculum,

educational planning, educational administration and so on.

It may be contrasted with the more specific and technical

aspects of educational philosophy and the more directly

empirical aspects of the other educational disciplines."[2]

This formulation, like Dewey's, firmly divorces theory from direct

empirical grounding, and furthermore divorces the "theoretical abstract

aspects of all the branches of the discipline of education" from their

provenance in the practical world, and their application to that world.

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1 Dewey J., Democracy and Education, New York, 1916, p.383 .

2 Beck C., Educational Philosophy and Theory, New York, 1964, p.15.

Beck thus excludes from educational theory precisely those areas which might render it legitimate, since it seems impossible on the one hand to envisage what 'practical' as opposed to 'theoretical' philosophy might be, and on the other hand to imagine how the theoretical aspects of psychology and sociology could conceivably be divorced from experimentation or observation within those disciplines.

Given such variation in terms of reference for the phrase "educational theory", and the conceptual confusion which results, a brief consideration of ordinary usage is in order. It is possible to distinguish five main uses of the word "theory" in everyday speech, and three related uses of "theorising". In distinguishing these for purposes of clarity, no rank-order of certainty or truth is intended, nor is any particular usage to be taken as a paradigm against which the legitimacy of other ascriptions is to be measured. An examination of ordinary usage serves merely to clear the ground for subsequent debate rather than to influence its outcome in advance. The theories of mathematics and formal logic are <u>sui</u> <u>generis</u>, consisting of strict deductions of which the conclusions are analytically true. Theory in this sense is only tangentially related to practical concerns, serving as a tool in the development and elaboration of scientific theory. In so far as science is the search for systematic knowledge of the material world, by the procedures of observation, experiment and inference, using both deductive and inductive patterns of reasoning, scientific theory is of two distinct types. The theories of the natural sciences, of which physics is the paradigm, comprise heirarchical hypothetico-deductive systems which explain and predict events in the material world by means of causal laws of impressive reliability and precision. The theories of the behavioural sciences differ not merely in their lack of corresponding success in explanation and prediction, but also in the methods and the objects of their enquiry. Social behaviour does take place in the material world, and human beings are

indeed material objects, but in so far as behaviour is purposive, and individuals are capable of action, causal laws on the hypothetico-deductive model of natural science must necessarily be incomplete descriptions of human affairs. That the special nature of their objects of enquiry dictates for the behavioural sciences special constraints upon methods and procedures is uncontentious. A more contentious but more fundamental question is whether the differences between these two areas of study are logical or merely methodological. Whatever the outcome of that issue, basic differences of focus, method, structure and fruitfulness justify classifying natural science theory separately from behavioural science theory.

The fourth sense of the word "theory" denotes that type of systematic reasoning which seeks neither for the analytic truths of mathematics, nor for factual understanding of the world, whether material or social. These theories consist of conceptual enquiries not into what happens to be the case in the given conditions of this world, but into what must necessarily follow from any particular set of assumptions. In this classification would be included the theories of knowledge and of ethics, ideological systems which advance a particular view of man based on premises which are neither verifiable nor falsifiable in principle, and all systematic speculations about practice in any area of human activity where at least one of the premises in any argument is normative. In other words, philosophical reasoning in its most comprehensive and traditional sense.

Finally, "theory" is used to denote any explanatory belief held, however tenuous or unsystematic the reasoning behind it. In talking of an acquaintance we might thus say,"My theory is that he goes to football to get out of the gardening.". Such a denotation, implying any old idea that springs conveniently to mind, is extended in the pejorative use of the term, as in "That's all very well, but it's only a theory", which carries the implication that theories are the one thing

we need not take seriously when deliberating upon, or evaluating, actions.

To add to the conceptual confusion, there are two distinct uses of "theorise" where something more specific is implied than the general formulation or elaboration of a particular theory. Both of these specific uses relate most closely to "theory" in the fourth sense above, since they are concerned with conceptual issues. "Theorising" in the first of these uses denotes the necessary first step in any search for empirical understanding, where the conceptualisation of a problem precedes and guides its solution. Thus,

> "Research scientists and mathematicians spend a proportion
>
> of their time in an activity that can be loosely described
>
> as theorising. Einstein was theorising when he set down
>
> some tentative ideas on the nature of time and space, and
>
> it is not a strained use of language to say that Crick and
>
> Watson were theorising when they were manipulating the wire
>
> model that they hoped would represent the structure of the
>
> complex D.N.A. molecule."[1]

Far from being in opposition to empirical investigation, this type of theorising is a prerequisite for any such activity. The second specific sense of this term denotes the application of rational enquiry to strictly normative problems. Thus two philosophers of education explain that:

> "Theorising for us consists in no more than a sustained attempt
>
> to 'think things through' with particular regard for the
>
> meanings of words as the principal medium of thought. Our
>
> kind of theorising harks back to one of the senses of the
>
> Greek word from which 'theory' is derived, namely contemplation."[2]

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1 Phillips D.C., <u>Theories, Values and Education</u>, Melbourne, 1971, p.1

2 Woods R.G. and Barrow R., <u>An Introduction to the Philosophy of Education</u>, 1975, p.183.

I intend in this thesis to theorise in these two senses, in order to examine theories of types three and four, offering a conceptual study of normative and behavioural theory in so far as these are pertinent to an increased understanding of educational issues.

2. Before any examination of educational theory can begin, it is necessary not only to specify in what senses "theory" and "theorising" are to be understood, but also how 'education' is conceptualised in this enquiry. For some purposes of study, education is viewed as

> "the process by which the individual acquires the many
>
> physical and social capacities demanded of him by the group
>
> into which he is born and within which he must function."[1]

This is the sociological view of education as a process of enculturation, and is purely descriptive, concerned with the fostering in the young of those skills, capacities and states of mind deemed to be desirable by the society of which they are a part. Frankena highlights the inadequacies of this purely descriptive and currently fashionable concept of education, pointing out that;

> "Even in ordinary discourse we use the term in a much broader
>
> and less intrinsically conservative way; we speak for
>
> instance of educating society itself. Today's younger
>
> generation even thinks of itself as educating its elders;
>
> it may be mistaken in this, but it is not misusing the word
>
> 'education' as it would be if the social science definition
>
> were correct."[2]

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1 Frankena W.K., "Philosophy of Education" in Anderson R.N., Lawson R.L., Schnell R.L., Swift D.F. (eds.), Foundation Disciplines and the Study of Education, Toronto, 1968, p.11.

2 ibid., pp.12-13.

It is this purely descriptive concept of education which underlies the slogan that "Education should be a preparation for life". Like most successful slogans, this is both ambiguous, misleading and uninformative. Not only is the proffered definition of education an oversimplified and incomplete description, but so too is the notion of 'society' or 'life'. Neither term can be taken as given; since education is at the very least some process of transforming individuals, the ways in which they are transformed will in turn transform the society of which they are a part, and the options open for their lives.

To see education simply in terms of socialisation overlooks distinguishing features of human society and culture. "Socialisation" may be appropriate in describing how animals rear their young to conform to the behaviour and expectations of the group; it may even be an appropriate definition of the child-rearing techniques of a completely static human society, if such has ever existed; it can never be a complete description of intentional cultural transmissions to the younger members of an evolving society. Were there a complete congruence between the actual values, beliefs and bodies of knowledge of the elders in a particular society, and those passed on to its young, social evolution would axiomatically cease. That social evolution continues apace, at least in all societies with developed education systems, is sufficient evidence that there is rather more happening than a simple process of enculturation, or internalisation of the prevailing culture.

If that view of education were correct, society would be in the process of fossilising itself; if we were to accept that view as correct, we would be committed to aiding that fossilisation. Such a concept is clearly defective from the point of view of anyone who seeks rational justification for educational policies, since in limiting 'education' to the cultivation of skills and states of mind already contingently regarded as desirable by society, by methods which that society happens

to regard as satisfactory, it leaves no scope for questioning or

innovation. If this concept is adopted, educational studies becomes

a minor branch of social anthropology. It would be strictly limited

to studying what actually happens in the name of education, and if

anyone asked why particular decisions were taken, an answer to this

would be purely in terms of antecedent conditions, and could make no

reference to justification. No doubt one of the purposes that educational

studies serves, is to tell us what actually goes on in the area studied,

just as one of the functions of education is to socialise the young in

some sense. But to limit the study of education to an activity of pure

description is to rob even that activity of its point. Information

about what goes on is only important in so far as it provides educational

theorists and practical educators with one essential element in their

search for a justification of policies already in operation, or the

postulation of alternative policies thought to be better. In so far as

'educational studies' is concerned with improving education in some sense,

it cannot be thought of as a purely descriptive activity.

If the overriding purpose of 'educational studies' is to understand

what goes on in education, with a view to improving it, then education

itself cannot be conceptualised simply as the transmission to the young

of what we happen to believe to be worthwhile. For although some of

the things we wish to question and possibly change are to do with

pedogogic skills and methodology, this again is only part of the remit

of this area of enquiry. The concept of education widely adopted by

philosophers is the predominantly normative concept of "the transmission

of that which is worthwhile in a morally acceptable manner"[1], put

forward by R.S. Peters. Not only is this concept widely adopted by

philosophers of education,-which is unsurprising, since they are concerned

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1 Peters R.S., _Ethics and Education_, 1966, passim.

with normative theorising-, it also underlies the approach to educational problems shared by theorists, educators and laymen. What they want to ask is not "What are we teaching, how and to whom?", but, "What ought we to teach, how ought we to set about it - with regard not merely to methodology, but to moral constraints upon effectiveness -, and what sort of people should we aim to produce?". Thus the function of education is assumed to be not the fostering in the young of those skills and states of mind which a given society happens to value, but the intention to foster such skills and states of mind as are valuable.   To reduce the latter to the former is not only to assume cultural relativism to be true (though there is no place here to prove that doctrine to be false, there is no reason to believe it to be true, since if its beliefs are true they cannot be stated, and if they can be stated they cannot be true), but is also to suggest that questions about what ought to be done in education are a sign of idiocy.

Questions about what we ought to teach are questions about what is worth knowing, not requests for information about what knowledge we value at the moment. Scrutiny of the aims of education and of the moral constraints upon its methods are not simply requests for an elaboration of our own prejudices, though these are one of the things we hope to get clearer about, but an attempt to evaluate those prejudices. In asking what is valuable, we cannot simply be asking what we value, and in asking why x is thought to be valuable - the sort of question which arises constantly with regard to education - we are not merely asking why we value x. The second question could be reasonably answered by referring either to characteristics of what is valued, or to characteristics of the valuer. The first question focuses scrutiny purely on the function and characteristics of the x in question. Just as 'educational studies' is much more than a branch of social anthropology, so theorising in education - the search for explanation and justification of particular policies - is more than a branch of

social psychology, since the object of study is a fundamentally
normative enterprise.

In so far as

"All serious discussion of educational problems, no matter
how specific, soon leads to a consideration of educational
aims, and becomes a conversation about the good life, the
nature of man, the varieties of experience."[1],

normative thought is basic to educational enquiry. The aims of
education must ultimately be justified by reference to moral
principles, and the means advocated to achieve these aims, though
they will make reference to empirical considerations, must take
account of both moral and procedural principles. It is clear that
descriptive and prescriptive elements in any such reasoning are
indissolubly linked, and mutually interdependent. Means cannot be
considered independently of ends, for as Aristotle remarked, since

"Men do not all prize most highly the same virtue, so
naturally they differ about the proper training for it."[2]

Similarly, a consideration of ends without regard for whether or how
these can be achieved is a pointless exercise. If deliberation is to
issue in action, the acceptance of an aim Z will imply consideration
of alternative means A,B,C to achieve that aim. Conversely A,B and C
can only be compared in terms of their efficacy in achieving Z, on
the further assumption that Z is indeed a desirable objective.

Nor are the problems of education free from normative and con-
ceptual issues when we are concerned with means-end relationships, or
even with simple description of existing states of affairs. Even if

1 Black M., "A Note on the Philosophy of Education" in What is
   Philosophy of Education?, (ed. Lucas C.J.), New York, 1969, p.284.

2 Aristotle, The Politics VIII 2, (Trans. Sinclair T.A. 1962), p.300.

it were generally agreed that the promotion of autonomy or the
development of intelligence were acceptable aims for education, how
these aims could best be achieved would depend partly on our concepts
of 'intelligence', 'development' and 'autonomy'.[1] At the apparently
descriptive level, if we watch a group of children in a classroom,
and report on how much time is wasted or how much work is done, our
description will be dependent upon specific evaluative assumptions about
what constitutes a waste of time in educational terms, and which
activities should come under the heading of 'work'.

Thus for the purposes of this thesis, a normative concept of
education is adopted, for which Peters' minimum definition of "the
transmission of that which is worthwhile, in a morally acceptable
manner "[2], is as good as any. The field of studies of education is also
assumed to be normative in function, where attempts at descriptive
explanation are advanced with a view to providing the informational
element necessary for evaluating existing policies and practices. Such
evaluation is intended to either justify existing practices or to suggest
their modification in the light of developments in theory, whether
normative or empirical. Thus the field of studies to be examined

>"can be taken to refer to those rational enquiries which
>have as their aim, first, the explanation of the workings
>of the educational process and the system in which it
>operates, and secondly, their improvement in the light of
>our knowledge of these workings and of the ends which the
>institution purports to serve."[3]

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1 See Wilson J., _Philosophy and Educational Research_, 1973, chap.3.

2 Peters R.S., op. cit., passim.

3 O'Connor D.J., "The Nature of Educational Theory" in _Proceedings
   of the Philosophy of Education Society of Great Britain Vol. VI,
   No.1._ Jan., 1972, p.98.

3.   The first section of this introduction argued for a broad frame

of reference for the terms "theory" and "theorising" with regard to

education. The second section argued for a normative concept of

education and a logically complex remit for 'educational   studies',

as the attempt not only to explain the educational process, but to

generate rational decisions for its improvement. The generation of

such decisions, or indeed the policies which guide any practical activity,

are similarly logically complex, being based upon a combination of

empirical evidence and value judgements. Undoubtedly K.Thompson is

quite correct in challenging such a formulation as a complete

statement. Whilst agreeing that

> "both empirical evidence and value judgements may be
>
> involved in educational decisions",[1]

he suggests that

> "First the concept of being 'based upon' needs examination.
>
> Second the idea of a 'combination' of empirical evidence
>
> and value judgements requires further scrutiny, third one
>
> must ask whether or not there are not elements other than
>
> the empirical and the evaluative."[2]

It is one of the purposes of this thesis to throw light on these and

similar questions, but at this point the intention is simply to

establish that no specific educational decision can be derived either

solely from empirical data or solely from speculation.

This point, though simple, has to be made at the outset, since

educational philosophers and other "armchair theorists" have long

protested that they can neither generate nor justify educational

decisions, qua philosophers. All too frequently this has mistakenly

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1 Thompson K., Philosophy of Education and Educational Practice" in
   The Proceedings of the Philosophy of Education Society of Great
   Britain, Vol. IV, 1970, p.46.

2 ibid., p.46.

been taken to imply that somebody else can. It would seem _prima_ _facie_ unnecessary to demonstrate that a decision for action cannot issue solely from a value judgement, since educational philosophers assure us repeatedly that "it is not possible to deduce statements about the aims of education or its curriculum from any philosophical statements".[1] Since, however, this has been taken to imply that there is some other single logical sphere from which decisions can be deduced, it is necessary to show that the disclaimer reflects not merely on the nature of philosophy, but more importantly on the nature of decisions for action. Thus in order to claim that a value judgement alone could generate a decision for action, one would have to argue that the value judgement embodied an ethical principle considered to be ultimately good, and that this principle ought therefore always to be applied. However, since there is general agreement that "ought" implies "can", knowledge of empirical data would still be a prerequisite for the application of such an ethical principle. It would be vacuous to suggest that "Principle X should be applied regardless of circumstance", because the very notion of applying a principle implies a consideration of its relationship to states of affairs in the world.

Empirical theorists have typically been rather less modest in issuing disclaimers about the substantive implications of their findings, and assertions that "Every decision can be rationally justified in the light of the evidence"[2] abound in the literature. Such an assertion is problematic to say the least. Suppose that on the basis of evidence which shows that children from the lower socio-economic groups underachieve in education relative to those from higher socio-economic groups, a decision is made to improve the educational chances of the

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1 O'Connor D.J., _In Introduction to the Philosophy of Education_, 1957, p.106 (footnote).

2 Christopherson, op. cit., p.7.

former group. Of course, this decision has been made "in the light

of the evidence",in so far as no empirical data have been considered

relevant except those related to the correlation between socio-economic

grouping and educational achievement. Nonetheless, a value judgement

is also involved, since the assumption has been made that it is not

desirable that educational achievement be a function of socio-economic

status. Of course, assumptions have to be made, and shared assumptions

are easily overlooked, but suppose that further empirical research

revealed that the most effective way to equalise achievement were to

remove all children in handicapped groups from their natural parents:

no such decision could be supposed to be rationally justified in the

light of the evidence, for further justification of a moral kind would

have to be sought by re-examining both objectives and the moral

acceptability of means to those objectives.

Decisions cannot be justified by factual evidence, since full

justification implies strict deduction, and no deductive conclusion can

contain any element that was not present in the premises of that deduction.

In order to support the claim that a decision were deduced from empirical

evidence, it would be necessary to argue that because the facts were

A,B,C - N, therefore action Z must follow. In order to qualify as a

deduction, one of the facts under consideration (one of the factual

premises in a strict deduction) would have to be the statement that no

other action than Z could follow from A,B,C - N. A further factual

premise would have to deny the possibility of abstention from all

action as a possible outcome of A,B,C - N. No such deduction, which

excludes the possibility of choice of outcome, can possibly have a

conclusion which would count as a decision, since

"A decision to take a particular action implies that the

facts at the very least allow the possibility of another action."[1]

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1 Thompson, op. cit., p.48.

Thus the notion of a decision for action based on empirical evidence alone is a logical impossibility. Since it is evident that decisions can issue neither solely from the normative nor solely from the empirical spheres, and since deduction can only take place within a single logical framework, it is clear that no such unitary framework can exist for the generation of practical policies. It is for this reason that theorising in education is taken to be the attempt to explain and justify educational decisions, rather than to validate them. For these are not

> "matters which can be treated mathematically or in accord
> with the procedures of natural science. Proof in the
> sense of a mathematical demonstration, the Q.E.D. of Euclid,
> is not to be had here and in its place..... we can only
> offer reasons for thinking this rather than that." [1]

4. Any critical overview of an area of study characterised by logical complexity is necessarily a philosophical enterprise. From its beginnings, philosophy has had a threefold function. It has firstly attempted to provide men with a coherent picture of the universe, by synthesising the scientific understanding of the day with man's religious, moral and aesthetic experience, and by offering speculative hypotheses to round out a world view left incomplete by the limits of this understanding. Secondly, philosophy has sought, not only to present a coherent picture of the world in which we live, but to provide guidance as to the manner in which we should live in it; to ascertain proximate and ultimate goals for human conduct. Both of these areas of concern are substantive, and concerned with first-order

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1 Woods and Barrow, op. cit., p.188.

questions, the former offering speculative underpinnings for empirical knowledge, the latter providing normative recommendations for conduct. The third function of philosophy has always been to concern itself with matters of procedure in the discussion of such first-order questions: to evaluate critically the assumptions made by scientific theorists of the day and by philosophers in their speculative role, and the norms recommended and acted upon both by ordinary people and by philosophers in their normative role. Key terms used in scientific theorising, ordinary discourse and systematic philosophical thinking are analysed and their "logical geography" mapped, in the interests of conceptual clarity, intra-theoretic con-sistency and methodological understanding.

In any enquiry about education there will be three strands which are logically distinct, and which broadly reflect these three general divisions referred to within philosophy. There are necessarily three elements in reasoning about educational practice; the facts of the matter, as they are or as we take them to be, our evaluation of the states of affairs to which these facts refer, and the cogency with which we relate these facts to each other and present and justify our evaluations of their import. Philosophy is thus relevant to the study of education in all three areas; empirical, normative and critical. Whilst empirical investigation in the behavioural sciences may furnish the facts, the interpretation of those facts will necessarily, in an imperfect state of knowledge, reflect speculative philosophical hypotheses about the nature of man and of human society. It is clear that

> "A scientist never theorises in vacuo. The way in which his
>
> problem is stated, the concepts in terms of which it is
>
> expressed, provide him with a starting-point; there may be
>
> empirical data that throw light on the problem; there is a
>
> particular explanatory scheme or world view within which the

scientist is operating."[1]

Given the impossibility of scientific theorising <u>in vacuo</u>, the philosopher of education has as much need to concern himself with the metaphysical underpinnings of empirical research in that field as the philosopher of science has to enquire into the reality of theoretic entities in physics, or the notion of intra-systemic truth.

Whilst empirical studies throw light upon how the aims of education are best to be achieved, the logically prior question of what these aims are to be can never be furnished by empirical enquiry. The normative part of educational theory proposes aims for the educational process with respect to the individual's present and future well-being, and that of the society of which he is a part, and advocates morally acceptable means by which these aims are to be achieved. Whilst philosophers disagree among themselves on the extent to which they can provide normative prescription, there is general agreement that, whether or not there are answers to be had, the questions raised in this area are philosophical in nature;

"Philosophy is not (at any rate, it is not agreed to be as yet), in a position to provide definitive answers about moral values. But the attempt to find answers, the establishment of tentative answers, is a philosophical undertaking."[2]

Given that

"... the primary aim of the philosophy of education is to enhance our understanding of educational judgements, and of the demands made on us in the name of education",[3]

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1 Phillips, op. cit.,p.1.

2 Barrow R., "What's Wrong with the Philosophy of Education?" in <u>British Journal of Educational Studies Vol. 22.</u>, 1974, p.140.

3 Doyle J.F.,<u>Educational Judgements</u>,(ed. Doyle J.F.),1972, introduction p.2.

it is the province of the philosopher to consider whether any kind

of ethical foundations for educational recommendation can be justified.

If a philosopher of education can establish what would be relevant to

judgements in this field, and explain why it is relevant, though he

would not be in a position to pronounce on the application of principles

to concrete circumstances, he would have offered a foundation for the

principles themselves.

Not only does philosophy have a potential contribution to both

the above substantive areas of educational studies, but the third area,

that of the second-order questions concerned with the scrutiny of

empirical and normative theorising for cogency and consistency, is

without doubt the province of philosophy. Any study of 'educational

studies' is a philosophical exercise. The various disciplines which

make up the study of education - psychology, sociology, economics,

philosophy - postulate findings which need to be evaluated, reconciled

and synthesised, so that a synoptic view can be formed. It is the task

of the philosopher

> "to seek general perspectives not by gathering the fruits
>
> of knowledge, but by analysis of the roots of the basic
>
> concepts, assumptions, arguments and inferences characteristic
>
> of the different domains."[1]

This second-order activity of the philosopher does not merely add

another element to the salad of information provided by the various

disciplines within educational studies. Practical directives cannot

be formed simply by selecting relevant empirical data in the light

of an agreed or proffered aim, since it is a philosophical exercise

to differentiate between fact and value in the first place - a

distinction often blurred in educational theorising - and to examine

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1 Scheffler, op. cit.,p.6.

the formation of a synopsis from logically disparate elements.

K. Thompson points out that

> ".... the work of the philosopher is as much an element
> in the building of a theory as a basis of practice as
> any other element. And in one sense it is _primus inter pares_,
> not in that it achieves a synthesis but in that it shows
> the relationship between the parts, even when that relationship
> is one of logical distinctness."[1]

Another philosopher of education considers this critical overview of
educational enquiry to be a fundamentally philosophical task:

> "In other words, to proceed, in the light of the empirical
> data, to a conclusion that is more rather than less reasonable
> is, amongst other things, to avoid confusing fact and value,
> to take account of logical demands, and to consider the
> conclusions of reasoning about related matters, is to
> issue a well-founded directive, and is to philosophise."[2]

Whether or not philosophical reasoning can contribute any of the
logically separate elements of a well-founded directive in the area
of education will be one of the considerations of this thesis, but it
is beyond dispute that the task of identifying and examining the
elements themselves, and their interrelationship, is a philosophical
enterprise.

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1 Thompson, op. cit., p.51 .

2 Barrow, op. cit., p.141 .

P A R T   O N E

"..... the man of education will seek exactness so far

in each subject as the nature of the thing admits, it

being plainly much the same absurdity to put up with a

mathematician who tries to persuade instead of proving,

and to demand strict deductive reasoning of a public

speaker."

Aristotle, <u>Nichomachean Ethics IV</u>.

CHAPTER   ONE

THE   CONCEPT   OF   EDUCATIONAL   THEORY

The most significant contributions to the controversy which
surrounds the notion of educational theory have stemmed in recent
years from the debate between Professors O'Connor and Hirst. Their
dispute may not provide any definitive elucidation of this concept,
but it nonetheless raises most of the important issues. It also
highlights the way in which philosophers of education have typically
confined themselves to a consideration of the concept of educational
theory as such, seldom venturing into the vast areas of conceptual
confusion which are generated by those activities which go on in its
name.[1] Whilst it is clear that there is an enormous task to do
beyond the one which O'Connor sets himself, this is an essential first
step, since it generates further questions, and exposes the assumptions
implicit in choosing one set of further questions rather than another.

After a discussion on the nature of scientific theories, he sets
out, in the light of his scientific paradigm, to establish

"How far should educational theories properly be called

'theories'? And what kind of theories are they? I suppose

that it will have been obvious from what was said earlier

that theories in education do not, in general, conform to the

models that we find in a well-developed natural science .....

Nevertheless, it would be absurd to deny that education has a

theoretical basis. What we should be clear about however is

what job those educational theories do if they do not have

the status of standard scientific theories."[2]

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1   J. Wilson should be mentioned as a notable exception here. See
    Wilson J., <u>Philosophy and Educational Research</u>, 1972.
    Wilson J., <u>Educational Theory and the Preparation of Teachers</u>, 1975.

2   O'Connor, op. cit. (1957), p.104.

Firstly, it should be clear that O'Connor is not here intending merely

to enquire into semantic proprieties. He is not concerned at the

outset simply with whether or not the use of the term "theory" is

permissible in this context. Rather, following the model he had

previously sketched of the explanatory and predictive functions of

theories in pure science, he is trying to elucidate how far such a

model is applicable to educational theory, to what extent the model

cannot be applied, and the reasons for this divergence. The object of

the discussion is not to make prescriptions about the use of terms,

though in fact its upshot comes perilously close to doing just that,

but to clarify educational discussion. Such discussion tends to be

bedevilled by so much confusion that not only does he distinguish

three types of statements all claiming to be part of educational theory -

namely metaphysical statements, judgements of value and empirical

findings -but

> "Often, indeed, we find that the three kinds are mixed up
>
> together in the writings of a single man so that it is not
>
> easy to judge the value of what he is saying until we have
>
> distinguished the different logical components and
>
> evaluated them separately."[1]

Like most of the subsequent discussion, this remark exposes a fairly

gross mistake, but in doing so commits another subtler and more

insidious mistake.

To be sure, the fact/value distinction is often grossly overlooked

in theorising about educational matters. But just as dangerously

misleading is the assumption that what we need to do in order to

evaluate policies is to make a neat separation between factual and

normative considerations. Most 'factual' questions of importance in

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1 ibid., p.105.

education, say, how much disruptive behaviour there is in secondary

schools, how many children leave their primary school able to read,

whether or not children follow a broad curriculum, clearly have a

normative basis. One _can_ ask purely factual questions in this area;

what is the average age of children sitting a particular examination,

what is the teacher-pupil ratio in a given district etc., but these

are inevitably questions about the arrangements made for the educational

process, not about that process itself.

O'Connor opens his analysis of 'educational theory' by pointing

out that "education is not itself a science. It is rather a set of

activities connected by a common aim "[1], and accordingly compares

education with other practical activities such as medicine or engineering,

in order to become clearer about its theoretic basis. Three problems,

which will influence all subsequent analysis, thus arise at the outset.

Firstly, the purpose of this analogy is to prevent the question being

begged by a comparison of education with pure science, but since the

analysis is prefaced by an entire chapter on the nature of scientific

theories, all subsequent debate takes place in the shadow of that

restricted frame of reference. Secondly, the 'education' referred to

here is the activity referred to in the introduction to this thesis as

'educational studies', as well as that referred to as 'education'. Like

is therefore not being compared with like, since the 'medicine and

engineering' referred to are the furthering of aims assumed to be agreed,

such as the cure and prevention of disease, or man's technological

control over his environment. Were 'medicine' here used analogously to

'education', then medical ethics, for example, would form part of

medical theory, along with anatomy, biochemistry and physiology. This

mismatch in O'Connor's analogy between differing sorts of practical

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1 ibid., p.105.

activity leads to a third problem. Were a frame of reference for

'medicine' used which had the same breadth as that used for 'education'

in the analysis it would be clear that conceptual issues are basic

also to medical problems. It seems over-sanguine of J. Wilson to

claim that

> "because we are agreed, and have good reason to be agreed,
>
> about what counts as health, 'the healthy man' is less
>
> contestable that 'the educated man'".[1]

In general, yes, we can give rough negative specifications as to what

is to count as 'healthy', but not in particular cases: what does it

mean to be a 'healthy' octogenarian, or 'healthy' whilst pregnant?

Because discussion takes place against the backdrop of the precision

and power of theorising in natural science, and because the promotion

of health is seen as solely dependant upon the application of

advances within the empirical disciplines relevant to the study of

medicine, the conclusion that there are some practical activities to

which theory is applicable, and others where it is not, will be

inevitable.

In the course of developing this analogy, O'Connor notes that it

is imperfect since

> "Even to be efficient on a small scale, medicine and
>
> engineering must be based on natural science. But education
>
> demands this only when it has so increased in scale and
>
> complexity that the laws of human nature that are patent
>
> to intelligent observers prove an inadequate theoretical
>
> basis and need to be supplanted by the sciences of man."[2]

The analogy is indeed imperfect, and has been the cause of much confusion

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1 Wilson, op. cit. (1975), p.39.

2 O'Connor, op. cit. (1957), p.97.

in subsequent debate, but its imperfection lies not in <u>this</u>

distinction - which reveals a simplistic attitude to the "sciences

of man" which becomes more apparent later in the analysis - but in

his equally simplistic understanding of the theoretical basis of all

practical activities. He adopts a very dubious notion of the manner

in which activities like medicine or engineering, which <u>prima facie</u>

strike us as having a sound scientific basis, are in fact "based on"

pure science. The analogy develops as if "based on" in this context

were to be taken to mean "explained and justified by". He thus

states that

> "Such activities often have their theoretical justification
>
> in some scientific theory. Indeed the more reliable and
>
> efficient a system of education becomes, the more firmly will
>
> its techniques and aims be grounded in scientific findings."[1]

Two separate issues are run together here. Any "theoretical justification"

of a practical activity must take account of both "techniques" and

"aims". To suppose that empirical findings can provide grounding for

the latter, except in so far as the empirical possibility of achieving

a proximate aim is concerned, is absurd.

No doubt scientific theory guides engineering and medical practice

in a restricted sense, in that it provides data as to how aims agreed

within the activity are most effectively to be carried out. Engineering

data can provide the information for constructing a system of motorways,

but factual data alone cannot justify the implementation of any policy

to build a motorway system. Similarly the pure science contributions

to medical theory drawn from the foundation disciplines of physiology,

anatomy and chemistry can only provide the means to achieve the generally

agreed medical aim of the prolongation of life,but information from

these empirical areas cannot of itself justify prolonging a particular

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1 · ibid., p.93.

life. In the same way, whilst it is logically conceivable that

developments in learning theory and pedagogy might show us how to

facilitate the learning of the basic skills, which skills are to be

considered basic will be decided with only partial reference to

empirical matters.

Not only can no scientific theory elucidate medical aims, but the

relationship of the theories of the separate disciplines on which

medicine draws, to the practical activity of medicine is not so

unproblematic as O'Connor suggests, nor is it in contrast to the relation-

ship of the behavioural sciences - should their information be valid -

to education. He states that

> "the growing parts of medical knowledge lie largely in
>
> pure science, in physics, chemistry and physiology rather
>
> than in the day to day activities of the consulting room
>
> and the operating theatre."[1]

In a restricted sense, this also is partially true. The knowledge to

be drawn upon is accumulated within the separate disciplines, but it

only becomes medical knowledge when it is applied to medicine, and the

manner and extent of its application - and often indeed its generation -

is dictated by the needs and circumstances revealed in the consulting

room, and the constraints of normative considerations. Hence the

activity is not merely "guided" by the findings of pure science; the

exigencies of the activity in turn dictate the extent of their

application, and even the direction in which the researches of pure

science should proceed. Thus once again, the complex relationship of

empirical theory to any practical activity, however overtly scientific,

is overlooked. Developments in immunology make transplant surgery

possible, just as developments in electronics make distance learning

possible, but further developments in these fields are partially

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1 ibid., p.93.

influenced by whether or not transplant surgery and distance learning
are thought to be desirable.

A detailed consideration of this apparently unflattering analogy
is necessary, since its uncritical acceptance by several subsequent
writers has led to much confusion. Influenced both by O'Connor's
analysis of the natural science paradigm use of "theory", and by the
prima facie unfavourable comparison between medicine, which appears
to be based on and justified by respectable science, and education,
which manifestly is not, subsequent contributors to the debate have
been inclined to assume that on these grounds the notion of 'theory'
is inappropriate to the study of education. This might indeed be the
conclusion of an analysis, but it cannot be assumed on these grounds,
since the difficulties lie not in the fact that educational studies is
a specially nebulous area, but in the logical complexity of any
theorising about a practical activity.

H. Mounce thus assumes[1] - whatever such a suggestion might mean -
that we should concentrate on practice in education, since the notion
of 'educational theory ' has been shown to be unsatisfactory by O'Connor's
opening analogy reviewed in the light of his preliminary remarks which
present a very simplified sketch of the nature and function of natural
science theory.   Mounce states that whilst he would not deny that the
findings of sociology and psychology may be occasionally of use to
educators, nonetheless

> "It is misleading to describe such fragments of knowledge
>
> derived from various disciplines as constituting a body of
>
> educational theory."[2]

Seizing on only a part of the argument, Mounce asserts that

> "Educational theory, if it is to be worthy of the name,

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1 Mounce H., "Theory and Practice" in The Proceedings of the Philosophy
   of Education Society of Great Britain Vol. X, July, 1976, pp. 114-123.

2 ibid., p.115.

has surely to consist of systematic bodies of principles

having explanatory and predictive power, of the sort we

find say in engineering or medicine."[1]

Of course, we do not and cannot have an all-embracing educational

theory, any more than we can have a medical theory which provides

prescriptive guidance for that practical activity. If "theory" is

to be restricted to the paradigm use, we have only "theories" in the

plural, whether in science, medicine or engineering and, possibly,

education.

The explanations and predictions of the purely empirical matters

related to medicine are derived from physiology, anatomy, biochemistry

etc., in just such a way as psychology, sociology, pedagogy etc.

logically might furnish explanations appropriate to education. No one

would dismiss theorising about medical matters on the grounds that it

could not settle fundamental medical questions such as whether life

should be prolonged in particular cases, or indeed what constitutes

being clinically dead. We might, however, dismiss theorising about

medical matters if no satisfactory rational arguments could be produced

to advance agreement on ethical issues, and if the empirical sciences

from which the factual information is drawn, upon which medical judgements

were based, was shown to be radically misconceived. This is precisely

the problem we have with educational theory, from which O'Connor's

argument diverts attention, to the detriment of subsequent debate.

What needs to be asked is not "Is education, like medicine, derived

from scientific theory, thus giving rise to an educational theory as

reliable and comprehensive as that which we find in medicine?" but

rather "Are the areas of factual enquiry which we partially draw upon

in making educational judgements as soundly based as the corresponding

areas which are partially drawn upon in making medical judgements?"

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1 ibid., p.115.

For the intrusion of normative and moral questions into all practical
areas is simply a fact of life.

Unfortunately O'Connor does not focus his attention upon this
crucial point of the logical differences between the sorts of empirical
study appropriate to education and those appropriate to medicine or
engineering. In the former, it is individuals and social groups,
their actions and interactions, which are the objects of study: in
the latter it is inanimate objects or physiological mechanisms, and
material events which bring about changes in them, with which the
scientist is concerned. Assuming, as it will become evident that he
does, that there are no logical differences between the sciences of nature
and the sciences of man, the only interesting difference he sees between
the two areas lies in their differing levels of historical development.
Locating the difference thus, and having indicated the bankruptcy of
the notion of educational theory at present, he is clearly sceptical
about its soundness in the future, whatever may be the developments of
the behavioural sciences:

> "It might be tempting to suppose that since the sciences on
> which education rests are not in the advanced state of chemistry,
> physics and mathematics, great advances in educational theory
> and practice may be expected when the sciences of psychology
> and sociology attain maturity .... More perfect knowledge and
> more systematic application of theory to practice may perhaps
> be expected to bring about an educational revolution."[1]

His conviction that developments in the relevant disciplines would
yield little benefit to education seems strange, since it could be
argued either that educational theory will only become possible when
the behavioural sciences attain maturity, or that it can never become
possible since those sciences never could attain maturity, but to

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1 O'Connor, op. cit. (1957), p.94.

maintain that "when" they do, educational theory will still be a

chimera, is both question-begging and obscure.

This belief can only be explained by O'Connor's oversimplified view

of the nature of theorising about practical activities,and by his

further belief that education, unlike other such activities, can do

rather well without theory. Apparently theory is appropriate to

medicine, because you can't have medicine without science, whereas it

is not appropriate to education, because this is peculiarly normative,

and runs fairly well on common sense. All these assumptions are

highly debatable. Throughout the argument, the outcome is pre-empted

by failure to compare like with like. Since we actually have more

developed empirical findings in medicine than in education, it is

assumed that a more rigorous system of explanation is required by the

former than by the latter. O'Connor maintains that pre-modern, pre-

scientific engineering and medicine

> "was rarely based on any sort of experimentally verified
>
> findings and contained as a result a good deal of
>
> superstition and nonsense."[1]

He contrasts this sorry state of affairs with education, since

> "Even to be efficient on a small scale, medicine and engineering
>
> must be based on natural science. But education demands
>
> this only when it has so increased in scale and complexity
>
> that the laws of human nature that are patent to intelligent
>
> observers prove an inadequate theoretical basis and need to
>
> be supplanted by the sciences of man."[2]

It is unclear whether we are to conclude that medicine, unlike education,

works because it is based on science, or that it is based on science,

unlike education, because it works. Both possible interpretations

1 ibid., p.94

2 ibid., p.97.

of the argument are open to dispute. Not only did "pre-scientific" medicine contain much knowledge that was sound and empirically verified on a trial and error basis, but modern "scientific" medicine continues to validate much of what, in a less complete state of knowledge, was dismissed as "superstition and nonsense", on the assumption, widespread among those who champion the supremacy of practice over theory in education, that since no explanation for efficacy was actually available, there was none to be had.

The argument, however, is that whilst those practical activities which now have a sound theory base - at least for the empirical element in their justification - were simply superstition and nonsense before they acquired this basis, education proceeds reasonably effectively without benefit of systematic theory. O'Connor claims that:

> "We know roughly how we learn, how we are motivated, how our
>
> emotions work and so on. Such knowledge is very limited,
>
> inaccurate and unorganised but it is sufficient to enable
>
> us to live our lives more or less successfully in contact
>
> with other people."[1]

If this is to be the criterion, some degree of "limited, inaccurate and unorganised" knowledge enabled pre-modern man to be "more or less successful" in both engineering and medicine. He did not build boats with large holes in the bottom, nor bridges attached to only one bank of the river, nor did he try to revive a dying man by immersing him in water. He _was_ unable to duplicate success reliably and on a general scale with any degree of sophistication. Surely this is precisely the state of education today? We do not teach children to read by blindfolding them - though we do, over a large area of the United Kingdom, try to inspire a love of learning by physical assault - and many of those who go through the educational process come out

1 ibid., p.95.

"educated", much as many of the village wise-woman's clients ended
up cured. Conversely, just as many of her clients languished and
died, so vast numbers of educands derive neither benefit nor present
or future pleasure from their involvement in the educational process.[1]
Moreover, either we do not have sufficient knowledge of human emotions
to "live our lives more or less successfully in contact with other
people" or we are unable to transmit this knowledge, unless personal
violence, institutionalised deprivation and world warfare are evidence
of social understanding.

It is simply not the case that some activities require more
systematic knowledge than others to proceed effectively, since some
depend on sound empirical grounding whilst others do not. It is surely
the case, as the medicine/education analogy, more carefully examined,
reveals, that all practical activities proceed more effectively if
judgements are partially based on a thorough understanding of relevant
facts. In all such areas, aims can more reliably be achieved if
increased knowledge is available to provide explanations and predictions
which obviate the need for procedure by trial and its concomitant error.

All practical activities either involve transactions between
conscious beings and inanimate objects or bodily mechanisms, or
transactions between conscious beings and the consciousness of their
fellows. It is not that the first sort of transaction cannot take
place without systematic scientific theorising, whilst the second can,
though indeed we certainly have many systematic explanations for the
former which we still lack for the latter. So far, this is a statement
of what contingently happens to be the case, not of what necessarily
must be the case. Whether or not this must necessarily remain true
depends not on any comparison of some activities which currently have

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1 See Gow L. and McPherson A. (eds.), Tell Them From Me, 1980, passim.

scientific backing with others which currently lack it, nor on any
consideration of the relative stages of development of various
empirical disciplines. Both of these are historical points, and
necessary truths can only depend upon logical points. The difference
between the two types of transactions is that the objects of the one
are appropriate subjects for causal explanation, whereas the objects
of the other may wholly or partially fall outside that category. At
this stage in any consideration of the status of educational theory,
that issue must remain an open question.

O'Connor's analysis is coloured throughout by the fact that this
is not, for him, an open question. When he briefly surveys the
differences between the natural and the behavioural sciences, it comes
as little surprise to discover the belief that

"Perhaps the most important of the differences between the

natural and the social sciences lies in their respective

levels of development."[1]

This claim is not argued for, but is made inevitable by his formulation
of the problem. Whilst it is reasonable to speculate that

"Possibly our present-day psychology, like chemistry in

the early nineteenth century, is on the threshold of a

spectacular period of progress"[2],

it is not at all reasonable to assume that whether or not this
speculation is accurate "Only the future history of the science can
tell us."[3] To make this asuumption is to imply that psychology today
is indeed comparable to nineteenth century chemistry, on the grounds
that no logical factors, only empirical ones, can stand in the way of
its progress. This is precisely the question at issue if the two areas

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1 O'Connor, op. cit. (1957), p.103.

2 ibid., p.98.

3 ibid., p.98.

of study are compared from any other than a purely historical stand-
point.

It seems little more than a gesture on O'Connor's part "to
trace whatever differences there may be between the social and the
natural sciences"[1], when he has already asserted that

"we do not find there is any sharp discontinuity between

the sciences peculiar to man and those common to man and the

rest of nature."[2]

In maintaining that in both areas of study,

"the sciences can be regarded as having the same sort of

relation to each other as the members of a set of Chinese

boxes, the more general and abstract studies setting the

limits for the more specialised"[3],

O'Connor is subscribing to precisely that reductionism whose validity

is in question when the status of empirical theory in education is at

issue. Such a view assumes that the social sciences are continuous

with the natural sciences, since they are rooted in psychology,

psychology in physiology, and physiology in physics. On this basis

all events in the world, whether actions or happenings, would ultimately

be explicable in terms of the fundamental laws of particulate motion,

and all types of explanation would reduce to physical explanation in

a perfect state of knowledge. This view may or may not be valid, and

therefore might possibly form the conclusion to a comparison between

the natural and the social sciences, but it cannot provide the starting

point for such an enquiry. If all the methodological and philosophical

issues which differentiate the social from the natural sciences are

dismissed in a footnote as "old fallacies which are unfortunately still

believed by some."[4], it is unsurprising that fundamental questions are

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1 ibid., p.99.

2 ibid., p.99.

3 ibid., p.99

4 ibid., p.103 (footnote).

passed over and only historical considerations remain for discussion.

On the basis of three highly questionable assumptions; - that
the behavioural sciences are not logically problematic, that only the
empirical is a candidate for theorising, and that empirical and
normative considerations can be neatly separated in education - ,
O'Connor evaluates the status of theory in education. He first
discriminates the metaphysical, normative and empirical elements which
make this up, but does not set out to examine closely the first two of
these elements since

> "however important and inevitable our valuations are, we
> have seen that their justification is a very perplexing
> philosophical problem."[1]

Thus,following his natural science paradigm, he limits his enquiry
to the empirical component of educational theory. This is subdivided
into theories of two kinds, both presumed to be purely empirical.
Firstly, recommendations from supposed effective practice, such as
the "theories" of Pestalozzi, Montessori and Froebel,are dismissed as
candidates for the title on the grounds that"these abortive theories
were just glosses on fruitful innovations in educational practice."[2]
Secondly, he considers the modern "scientific" approach, where
observation and experiment within the behavioural sciences suggest
modifications or changes in practice. This second approach he considers
to have yielded "genuine theories in the scientific sense of the word"
although they "do not approach the theories of the physical sciences
in their explanatory power."[3] This is considered to be because of
the unadvanced state of the relevant disciplines, which is of course

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1 ibid., p.107.

2 ibid., p.107.

3 ibid., p.109.

the only possible explanation if reductionism is assumed to be true.

This neat dichotomy between theories which arise to explain practice, and those which have independant validity and function to guide it from outside, arises again from an oversimplified view both of empirical theorising, and of the relationship of such theorising to practical activities. Though he acknowledges that in education at least

> "the relationship between theory and practice has become a reciprocal one. Theory directs practice and practice corrects theory."[1],

this is only in so far as practice can reveal discrepancies in the findings of postulated psychological theories. In fact, in all practical activities, observations of supposed effective practice are the starting point for theorising, and indeed observations of how things appear are the starting point for all empirical theorising. Observations that milkmaids do not catch smallpox are the starting point for immunology, and observations that some hollow iron objects float in water, whereas similar solid objects do not, are themselves pieces of theorising, not something which stands outside this sphere. Without such observations and the low-level inferences they generate, higher level hypotheses could not be formed. If "theory" not only excludes the normative, but also ignores the part that speculation and conceptualisation of problems plays in the empirical sphere, it is hardly surprising that O'Connor concludes that "the word 'theory' as it is used in educational contexts is generally a courtesy title", on the grounds that

> "It is justified only where we are applying well-established findings in psychology or sociology to the practice of education".[2]

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1 ibid., p.109.

2 ibid., p.110.

Although O'Connor set out to do more than enquire into the
meaning of terms, he has merely explored the question of how far his
stipulative definition of a theory as

"a logically interconnected set of confirmed hypotheses"[1],
which is drawn from an examination of the characteristics of theories
(plural) in the pure sciences, is applicable to the complex question
of theorising in education. The conclusion - not very far at all -
is inevitable, given that no-one supposes that either the practice of
education or the activity of its study is a pure science. We have
been offered semantic prescriptions about the use of the term "theory"
which pre-empt discussion of the substantive issues involved, by a
reductionist attitude to the social sciences, and the exclusion of
normative theorising from the argument. The question at issue is not
what we are entitled to call the search for explanation and justification
of occurrences and policies in education, but whether either of these
goals is potentially capable of being attained. If we wish to become
clearer about such theorising it would seem reasonable to identify and
examine the components which make it up, rather than to issue stipulative
definitions about which components are candidates for examination in
this context.

Nonetheless, O'Connor's analysis, by the very assumptions it
reveals, points to the need for an examination of several substantive
issues which will be considered in this thesis. Among these are the
logical differences which may exist between the natural and the
behavioural sciences, the relationship of theory to practice in education,
and the nature of theorising about a practical activity. This latter
task is approached by Hirst[2] who is dissatisfied with O'Connor's

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1 ibid., p.76.

2 Hirst P.H., "Philosophy and Educational Theory" in British Journal
   of Educational Studies Vol. 12, 1963,   and
   Hirst P.H., "Educational Theory" in The Study of Education ,
   (ed. Tibble J.W.), 1966.

examination of the nature of educational theory for some reasons
similar to those put forward above, but who seeks to resolve the
problem in a manner which raises further difficulties.

Hirst is broadly in agreement with O'Connor on the background
issues. He, too, rightly rejects the notion of education as an
autonomous discipline, though he claims it is nonetheless a distinctive
field of study, all components of which are theoretical in the sense
in which this is defined in the Introduction to this thesis. Hirst
states that:

> "If then educational theory is not in the strictest sense an
> autonomous discipline, it is nevertheless a distinctive theoretical
> pursuit which
>
> (i) is distinguishable like all other disciplines by the
> particular questions which it seeks to answer, in this case
> questions about a certain group of practical activities, and
>
> (ii) is dependant on many branches of learning, including
> philosophy, the understanding thus drawn on being the
> basis of practical judgements."[1]

This formulation seeks to give flesh to the statement that education
is not a science, but a practical activity, and therefore implies
that its theoretical basis must be examined in a radically different
manner, giving due consideration to all the relevant components of the
field of study, including those which are not based on an examination
of empirical data. Whilst Hirst fully endorses O'Connor's view that
questions about educational practice can never be solely answered by
non-empirical theorising, he emphasises that any theorising about a
practical activity must make reference to both the empicial and the
normative:

> "No matter what one's views may be, to ignore in issues of

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1 Hirst, op. cit. (1963), p.57.

moral education what is known of the psychological

development of moral understanding is bound to result

in irresponsible judgements. Similarly to decide

matters of curriculum content without due regard to

social and psychological as well as philosophical

considerations is indefensible."[1]

What is unclear at this stage in the argument is in what relation

these disparate theoretical elements stand to each other. Thus

philosophical beliefs should influence educational practice

"indirectly, through the medium of educational theory

where they are considered conjointly with many other

elements before any particular principles for educational

practice are explicitly formulated."[2]

In order to make sense of this recommendation, further elucidation

of "indirectly","through the medium of" and "conjointly" would be

required.

Hirst finds the restricted concept of a theory put forward in

O'Connor's analysis inadequate to explicate the nature of theorising

about a practical activity, since he is aware that all practice

necessarily has an implicit theoretical basis, in so far as that

practice makes reference to rational deliberation between alternative

actions and policies. Therefore only a more complex formulation

can serve as a starting point:

"Educational theory is in the first place to be understood

as the essential background to rational educational

practice, not as a limited would-be scientific pursuit."[3]

He is surely correct in his assumption that the theories required by

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1 ibid., p.52.

2 ibid., p.52.

3 ibid, p.59.

practical activities are neither analogous with nor reducible to the
theories of pure science, but the reasons he gives for this raise
further complex problems.

The theories of science and the theories of practical activities
are distinct according to Hirst on the grounds that they perform
different functions. Whereas in pure science "tested theories are
the objects, the end products of scientific investigation", in
practical activities the theory

> "is not the end product of the pursuit, but rather is
>
> constructed to determine and guide the activity. The
>
> function of the theory is to determine precisely what
>
> shall and what shall not be done, say in education."[1]

Whilst the two sorts of theories can clearly be discriminated, and
do indeed perform different functions, this statement gives a frame
of reference to the notion of 'theory' in education which is as
mistakenly broad and strictly normative as O'Connors' is mistakenly
narrow and strictly empirical. It is one thing to accept Hirst's
judgement that

> "O'Connor's account of the matter is misleading ......
>
> because of his tendency to reduce the whole concept of
>
> educational theory in the larger sense to the narrower
>
> scientific concept"[2],

but quite another to jump to the opposite conclusion and agree that

> "Scientific theory and educational theory are as different
>
> logically as judgements of what is the case are from
>
> judgements of what ought to be the case"[3].

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1 ibid., pp.59-60.

2 Hirst, op. cit. (1966), p.41.

3 ibid., p.42.

Whilst no doubt it is true that theorising about an activity takes

place in an attempt to "guide" practice, it is a far stronger claim

that any theory can "determine precisely what shall and what shall

not be done."

Theories are attempts to explain, theories about practical

activities must necessarily seek to explain and justify, but to assume

that a theory can prescribe action is to pre-empt the vexed question

of whether rational justification is to be had in the normative sphere.

Hirst is clearly nearer to an understanding of the nature of theorising

about practical activities, since he is aware not only that all

practical judgements have both normative and empirical elements, but

that these interrelate at all points, whether we are seeking explanation

of methods or justification of aims:

> "Aims and methods are inextricably intertwined and neither
>
> presents us with problems that are essentially either
>
> philosophical or empirical in character."[1]

However, just as O'Connor tends to assume the empirical element to be

both distinctly separate and capable of validation, so Hirst tends to

assume conversely that the normative element is paramount and capable

of validation. When he asserts that

> "The distinction I am drawing between scientific theory
>
> and say educational theory is the traditional distinction
>
> between knowledge that is organised for the pursuit of
>
> knowledge and the understanding of our experience, and
>
> knowledge that is organised for determining some practical
>
> activity"[2] ,

this obscures the fact that an understanding of experience is a pre-

requisite for determining the direction of further experience, and

thus descriptive and explanatory empirical studies are basic to the

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1 ibid., p.32.

2 Hirst, op. cit. (1963), p.60.

formation of policies in education, though their knowledge claims

may well be more problematic than is envisaged by O'Connor.

Similarly, the knowledge claims of normative theorising may well

be more problematic than Hirst is here suggesting, when he talks of

knowledge "determining" practice. Any determination of practice by

knowledge must assume that we can arrive at knowledge in the relevant

areas of both empirical and normative theory.

Giving due weight to the complexity of educational judgements,

Hirst has stated that:

"Educational principles are, therefore, justified simply by

producing reasons for them of an empirical, philosophical,

moral or other logical kind.",

and that:

"the psychological reasons must be shown to stand according to the

strictest canons of that science. Equally the historical,

philosophical or other truths that are appealed to must be

judged according to the criteria of the relevant discipline

in each case."[1]

This is right, as far as it goes: it is a further, and vital, question

to ask whether "truths" can be arrived at in all or any of these areas.

When theorising contains both normative and empirical elements both

must be examined separately and according to different criteria in

order to show how far principles for practice can be rationally

grounded. But until such an examination has been conducted, its outcome

cannot be pre-empted by assuming with Hirst that theory in education

is concerned not merely with offering some rational grounding for

practical principles, but with the _validation_ of principles. To

state that the function of theory is to validate principles and prescribe

practice is to assume that the normative and the empirical spheres are

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1 Hirst op. cit. (1966), p.51.

both areas where there is knowledge to be had.

> Hirst is only half right when he says that
>
> "Any significant debate about educational principles
>
> must be about reasons for them and this immediately turns
>
> into the discussion of a series of questions radically
>
> different in kind, questions answerable only within the
>
> terms of highly developed distinct forms of knowledge and
>
> their subdivisions".[1]

The questions concerned are indeed radically different in kind, but

the initial issue of whether or not theory in education is possible,

necessarily turns upon whether or not they are answerable at all,

rather than on differing procedures for attempting to answer them.

Leaving aside the logically problematic character of the behavioural

sciences, one of the prime characteristics of the normative kind of

question is precisely the fact that it is generally considered highly

debatable whether such questions are "answerable" at all, and even

more debatable whether ethics - that form of enquiry which seeks

answers to such questions - can be called a form of knowledge.

Whilst it is undoubtedly

> "characteristic of educational theory that it formulates
>
> principles of a distinctly moral kind"[2],

it is a much stronger, quite different and more contentious claim to

state that

> "in doing this it, of course, relies on the logic of moral
>
> reasoning and therefore rightly falls within the domain of
>
> moral knowledge."[3]

> Hirst's notion of morals as a form of knowledge is sketched in the

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1 ibid., p.51.

2 ibid., p.52.

3 ibid., pp. 52-53.

two articles considered above on educational theory, but a more
complete exposition of his argument is put forward in <u>Knowledge and</u>
<u>the Curriculum.</u>[1] Hirst's contention is that all knowledge falls
into discrete categories which are distinctive by virtue of their
central concepts, the logical structure their propositions exemplify,
and the criteria for truth in terms of which they are expressed.
Knowledge is characterised by Hirst as "the domain of true propositions
or statements"[2], hence moral knowledge would be the domain of true
propositions or statements characterised by such concepts as 'ought',
'good' and 'wrong'. On his formulation there are therefore three
basic criteria which would have to be fulfilled before a form of
knowledge in a particular area could be said to exist.

The first criterion is not in dispute: it seems clear that the
central concepts of moral discourse are indeed distinct. Morals are
concerned with three basic questions. Firstly, what things are good -
what objects, processes, events, states of mind, goals are worthwhile.
Secondly, the logically derivative question of what acts are right,
which cannot be treated without considering the goodness of the
act's outcome. Thirdly, the central moral question of what acts ought
to be done - the theory of obligation. This is a more strongly
prescriptive question than the second in that if an act is right it
is merely not wrong to do it, whereas if it ought to be done it is
wrong <u>not</u> to do it. When Hirst talks of a moral form of knowledge it
is clear that he means "moral" in the above sense of "Concerned with
what <u>is</u> right or good or obligatory", not in the weaker descriptive
sense of "In accordance with people's <u>beliefs</u> about right and wrong,
good and bad". It is therefore not in dispute that the prescriptive
study of moral value is conceptually distinct, since although the <u>words</u>

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1 Hirst P.H., <u>Knowledge and the Curriculum</u>, 1974, chapters 3,4,6.

2 ibid., p.85.

"good", "right" and "ought" are certainly employed in non-moral discourse, the moral concepts of the intrinsic value of states of affairs or acts and of fulfilments of obligation are clearly sui generis.

However, whilst it is evident that the concepts of moral discourse - as opposed to the words with which we label them - are distinct, in order for there to be a moral form of knowledge the patterns of reasoning and tests of validity of morals would also have to be unique. For the patterns of reasoning of morals to be distinct, moral judgements would have to be irreducible in character to empirical judgements or aesthetic value judgements, which claim implies not only the rejection of all naturalistic systems of ethics, but the independence of morals from religion. In order to maintain that the truth criteria of morals were unique we would either have to agree on what their tests of validity were, and then inspect them for uniqueness, or, if agreement proved impossible, maintain that the very absence of agreement constituted uniqueness in the field of validation.

On the first point, the patterns of reasoning of morals, Hirst is again clearly correct in stating that moral discourse has a logical structure quite different from that of scientific discourse. Whereas in the latter, events are explained by the application of general laws, formal moral principles (the corresponding element in moral discourse) cannot similarly be applied to the elucidation of moral problems. If formal rules such as the obligation to strive for the greatest good, the distributive principle of justice or the universalisability principle could explain what ought to be done in concrete situations, as scientific laws explain what does happen, there would be no genuine, only apparent, moral dilemmas. If scientific laws conflict, either the evidence is wrong or incomplete, or one of the laws must be a misdescription. If moral principles conflict, we are simply faced with a dilemma. Thus it is for the very reason that moral theorising

is unlike scientific theorising, that it cannot "determine precisely what shall and what shall not be done, say in education."[1]

Hirst's claims as to the unique logical structure of moral propositions require not only that they should not function like empirical propositions, but that they should not be reducible to, derivative from, nor definable in terms of non-moral propositions. The view that ethical statements cannot be deduced from statements of empirical fact seems beyond dispute on the simple logical grounds that no conclusion containing a term (such as "right") can be derived from premises in which that term was not included. A brief example can similarly demonstrate that ethical terms are neither reducible to, nor definable in terms of, non-ethical terms. If "right" were defined as "productive of the maximum possible intrinsic good" the problem remains unchanged, since "good" is itself an ethical term. Even if for the sake of argument everyone were to agree that, say, happiness were the one and only intrinsic good, "happiness" would not be the meaning of "good", merely the only case to which it could be applied - its sole denotation. Moore points out[2] that it always makes sense to accept that something has the property P, but still question whether or not it is good. If goodness were identical with P, such a questioner would be contradicting himself by the very asking of his question. In short, if any such definition of ethical terms were acceptable, asserting the definition would be defending a tautology, denying it would be self-contradictory.

It thus seems clear that Hirst's second criterion for the existence of a moral form of knowledge, like the first, is fulfilled, but the implications of the arguments _for_ the distinctness of the logical structure of moral propositions stand _against_ the possibility of

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1 Hirst, op. cit. (1963), p.60 .

2 Moore G.E., _Principia Ethica_, 1903, Chap.1., Sect.B.

fulfilling the third, vital, criterion: namely that there should be distinctive criteria for truth in moral discourse. Having accepted that it is mistaken to take scientific discourse as the paradigm of rational thought, it is not being argued that moral knowledge should be discounted for not being amenable to the rigorous truth criteria applicable to empirical knowledge. However, an argument which shows that the logical structure of moral propositions is such that they cannot share the truth tests applicable to non-moral propositions does not show that there are distinctive truth tests for morals; it merely shows that any such truth tests would be distinct if they could be ascertained. No doubt the validity of moral judgements can be rationally defended, but such defences will be of a means-end nature, and if an infinite justificatory regress is to be avoided, they will culminate in an appeal to intrinsic goodness. This in turn can only be backed up by appeals to intuition on Hirst's own formulation of the non-definability of ethical terms in non-ethical terms, as one of the criteria for the logical distinctness of moral propositions. Such an argument rested on a rejection of naturalistic ethics - rejection of the notion that to say an act is right is either to express one's moral approval of that act or to assert that most people morally approve it. Firstly, in saying that an act is right, it is probably contingently true that the speaker approves the act, but this is not necessarily true, nor is it all that he means. Secondly, whether or not most people approve an act does not settle the issue of whether they are right to do so. Ethical naturalism must be rejected if we accept both that Hirst does not wish to reduce ethical to empirical terms, and that he is concerned with morals as a prescriptive rather than a descriptive field of enquiry. If ethical naturalism is thus rejected, then we are left with some form of ethical non-naturalism in which ultimate moral judgements are grounded in appeals to intuition, for which, by definition, there can be no truth criteria. It emerges,

therefore, that Hirst's argument for the existence of a moral form

of knowledge is self-contradictory in that in the specific case of

morals, his second criterion for the existence of a distinct form of

knowledge (the uniqueness of its logical structure) implies the non-

fulfilment of the third criterion (distinctive truth tests). This

does not entail that there are no moral truths, for there may well

be: indeed the assertion that there were no moral truths, based

presumably on the assertion that we have no certain moral knowledge,

would be internally contradictory, for the assertion itself, if

meaningful, would be intended to represent a moral truth.

Hirst, however, characterises knowledge as the domain of true

propositions or statements, so that if morals are to constitute a

form of knowledge, moral truths must not only exist, they must be

known. For X to know P, it is not sufficient for X to believe P

and for P to be true, for this would be contingently true belief:

to know P, X must know <u>that</u> P is true.[1] X cannot know <u>that</u> P is true

unless he has truth criteria for the assessment of P. There may be

moral truths, and we may know them, but we do not and cannot know

<u>that</u> we know them, for it is this very absence of validation or proof

of certainty which constitutes the uniqueness of their logical structure

and their distinctness from empirical propositions. Thus whereas moral

discourse is indeed unique by virtue of its central concepts and logical

structure, we cannot speak of morals as a form of knowledge, since

knowledge in any area, as Hirst suggests, presupposes the existence

of truth criteria. The logic of moral propositions, grounded on

judgements of ultimate value, militates against any possible truth test.

Thus, Hirst's claim that educational theory

"relies on the logic of moral reasoning and therefore

rightly falls within the domain of moral knowledge"[2]

1 See Hirst P.H., "Realms of Meaning and Forms of Knowledge" in
   <u>Knowledge and the Curriculum</u>, op. cit., p.57.

2 Hirst, op. cit. (1966), p.53.

is open to O'Connor's counter-attack that

> "... unfortunately, there is no agreed 'logic of moral
>
> reasoning'. Indeed the very use of the word 'logic'
>
> is question-begging here. For it suggests that there is
>
> an agreed and recognised procedure for reasoning about
>
> moral questions. If there was,moral philosophy would be
>
> a completed and uncontentious subject, but, on the contrary,
>
> it is a difficult and highly contentious subject, just
>
> because it is not at all clear how we justify value
>
> judgements or how we argue, if indeed we can, from facts
>
> to values."[1]

Again this counter-attack overstates the case, and again pre-empts

discussion of the issues. Hirst's claim that we possess moral

knowledge would enable us to validate moral principles, if it could

be substantiated, and would resolve debate about the normative element

in theorising about practical activities. But the counter-claim

argued for above, that we have no such moral knowledge, only entails

the conclusion that moral principles cannot be validated: it does not

entail that we cannot debate rationally about them in the search for

justification. O'Connor maintains that were there

> "an agreed and recognised procedure for reasoning about
>
> moral questions ..... moral philosophy would be a completed
>
> and uncontentious subject."[2]

On the contrary: it is only the existence of this agreed and

recognised procedure which enables moral philosophy to be a subject

for discussion at all. Pure science also has an agreed and recognised

procedure for reasoning about empirical matters, but science is neither

completed nor uncontentious since it proceeds by the progressive

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1 O'Connor, op. cit. (1972), p.107.

2 ibid., p.107.

elimination of ignorance and falsehood, just as philosophy proceeds

by the exposure of inconsistency and contradiction. Whether in the

empirical or the normative sphere, rational enquiry proceeds by

testing hypotheses - albeit in radically different ways - with a

view to rejecting or confirming them, and not, in either case, with

a view to proving them to be incontrovertibly true. A scientific

hypothesis may be shown to be false if it contradicts the facts or

more general hypotheses which are well-established: a normative

hypothesis may be shown to be false if it contradicts its own

assumptions or more general principles which are well-established.

There is no procedure for showing either sort of reasoning to be true,

beyond failure to falsify in the appropriate ways.

Thus when O'Connor recapitulates his case[1] he gives as minimal

criteria for a theory that it should be explanatory and refutable.

He characterises an explanation as a conclusion arrived at by

inference which must conform to the requirements of any valid inference.

That is to say that for the conclusion to be true we must know that

the premises are true and that the inference is valid, made in

accordance with the rules of logic. His last word is to present Hirst

with a stark choice which is neither justified nor illuminating:

"I can summarise my main point here by stating rather

starkly the alternatives open to Hirst: either the value

components of his theory are proved from the factual

components or they are not. If they are, let us see the

mark of proof (which would indeed be a philosophical

landmark). If they are not, there is no point in making

them integral to the theory. For they can do their work

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1 O'Connor D.J., "The Nature of Educational Theory" in The
   Proceedings of the Philosophy of Education Society of Great
   Britain Vol. VI. No.1, Jan., 1972, pp.97-109.

of prescription and guidance just as well outside it."[1]
These are strong words, but the argument is not compelling: O'Connor
is asking for the impossible. Why should he demand "proof" in
theorising about education when even in pure science, his paradigm
case of theorising, explanation and lack of refutation will suffice?
Not only is his scientific ideal for educational theory "thoroughly
false and artificial"[2], as Hirst suggests, but it is in turn based
on an ideal of science that is thoroughly false and artificial. It
is simply a legacy of positivism to suppose that scientific hypotheses
are "proved": they are merely repeatedly confirmed, for otherwise
they would not have the continuing possibility of refutation which
O'Connor suggests is a necessary condition for theory.

Nor is the debate about what we should "make" integral to the
theory, for this reduces the discussion to one of semantics. It
happens to be a fact that theorising about practical activities involves
both normative and empirical thought; it is a further fact that when
the activity in question is irredeemably normative, even the empirical
element is fraught with conceptual problems. No doubt we would be
saved "unmanageable logical problems"[3] if that were not the case, but
we do not get any clearer about the nature of these problems by simply
deciding not to call certain relevant enquiries "theorising". If
the other minimal criterion for theory is that it should explain,
then there is no avoiding these logical problems since practical
activities engaged in by purposive beings cannot be explained merely
by a description of the facts and their causal relation to each other.

It is clear that whereas on one level O'Connor and Hirst are
differing semantically, on another level the difference is real, for

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1 ibid., p.108.

2 Hirst, op. cit. (1966), p.43.

3 O'Connor, op. cit. (1972), p.106.

Hirst holds the view that since

> "the delineation of education as an institution requires
>
> an understanding of human purposes, which I do not consider
>
> reducible to an understanding of what is observable, we can
>
> say right away that the study of education must involve more
>
> than a study of the relevant sciences."[1]

Hirst makes this point to establish that educational theory could offer

no explanations of educational problems if it were not logically

complex, but he makes it on the further assumption - derived from his

belief in the existence of a moral form of knowledge - that normative

theory need not be thought of as especially nebulous and problematic.

He argues:

> "I see no reason to limit the use of the term 'explanation'
>
> and for that reason amongst others wish to refrain from
>
> any restriction on the use of the term 'theory'. To argue
>
> in this way is in no way to reject the claim that for a true
>
> explanation the premises must be true and the inferences valid.
>
> But I am maintaining that statements of reasons are just as
>
> capable of being true or false as statements of causes,
>
> though the grounds may be very different, and that it is
>
> unwise to be too definite about what can and what cannot be
>
> regarded as a valid inference."[2]

Clearly the term "explanation" cannot in the area of education have a

purely descriptive sense, for the reasons outlined above, but statements

of reasons could only be candidates for truth or falsity if something

like 'moral knowledge' were accepted as a basis for normative reasoning.

This has been sufficiently argued against above. However, whether or

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1 Hirst P.H., "The Nature of Educational Theory - reply to
  D.J. O'Connor" in The Proceedings of the Philosophy of Education
  Society of Great Britain Vol VI, No.1, 1972, pp. 111-112.

2 ibid., p.112.

not one can accept his claims for the logical status of normative

reasoning, Hirst is right to conclude that in insisting on a scien tific

paradigm for theory in education,

> "the fear of having a theory whose logic we cannot at
>
> present elucidate, is being allowed to override the fact
>
> that, as no judgements about educational practice escape
>
> direct or indirect value commitments, they must figure
>
> in any adequate statement of reasons for action. And
>
> that being so, any adequate theory of practice must be
>
> involved in debate about such judgements, seeking whatever
>
> rational basis for them it is possible to obtain."[1]

Whilst rejection of the concept of moral knowledge leaves it an open

question whether we can find the sort of rational basis for such

judgements as Hirst argues for, he undoubtedly offers the more

reasonable approach to a study of theorising in education. If the

object of theorising is to provide a basis for rational practice, it

is idle to debate about what types of theorising are worthy of the

name: only a consideration of more substantive issues can reveal

how firm a basis this might be.

O'Connor takes for granted the potential firmness of the empirical

basis of theorising in this area, but rules normative enquiry out of

court since it is logically problematic. Hirst on the other hand

wishes to include normative enquiry within the domain of theory in

this area since he considers it basic to the enterprise - which is not

here disputed -,and also a form of knowledge - which has been rejected

above. O'Connor's position is based on the assumption that there is

truth and knowledge to be had only in the empirical area, Hirst's on

the parallel assumption that different kinds of knowledge are to be

had in the two differing areas. At this stage in this thesis both

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1 ibid., p.113.

assumptions are in question and remain to be scrutinised. The

remark quoted earlier that education "requires an understanding

of human purposes, which I do not consider reducible to an under-

standing of what is observable"[1] entails not only that "the study

of education must involve more than a study of the relevant sciences "[2],

but also that the logical status of those sciences themselves must

come under closer scrutiny. The assumption basic to this thesis

thus differs from those of both Hirst and O'Connor.

It is not, as Hirst maintains, that normative theorising should

not be thought of as necessarily more suspect in educational thought

than empirical theorising, on the grounds that knowledge may be had

in both areas. It is rather that, (pace O'Connor), empirical theorising

must be thought equally as questionable in educational thought as is

normative theorising, unless and until it can be shown that either

area is productive of arguments and inferences which are valid in

their own terms, on the further assumption that those terms can be

explicated. Both areas must be scrutinised in order to establish

what rational guidance for practice they can validly claim to offer,

and that examination will form later sections of this thesis, bearing

in mind Aristotle's precept that we should "Seek exactness in each

subject so far as the nature of the thing admits"[3], neither judging

the validity of the behavioural sciences by the extent to which they

conform to the natural sciences, nor the validity of normative theorising

by the extent to which it resembles empirical theorising. Since, as

Bishop Butler has it, "Everything is what it is and not another thing",

there is no alternative to looking at the practical activity of

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1 Hirst, op. cit. (1972), p.111.

2 ibid., p.112.

3 Aristotle, <u>Nichomachean Ethics</u> IV, 1,3.

education, exploring which sorts of systematic thinking are basic
to describing, explaining, justifying and possibly prescribing the
activity in question, and then examining those areas by relevant
criteria. Only in the light of such an examination can we get
clearer about the actual or potential soundness of theorising about
educational matters.

C H A P T E R   T W O

PRACTICE   VERSUS   THEORY

Research in the U.S.A. which investigated the extent to which

an introduction to theory in the period of initial training sub-

sequently affected the teaching strategies of teachers[1] tended to

show that after certification teachers put behind them the psychological

and sociological theories which were intended to inform their dealings

with pupils, and model their teaching on examples of presumed

successful practice with which they are familiar. It is unfortunately

a truism that large numbers of teachers believe that educational theory

has little or nothing to offer them, and they therefore look elsewhere

for guidance.

> "... practitioners in education and other socio-practical
>
> fields have justifiably abandoned theories where the
>
> practices they prescribe are unsuccessful in particular
>
> contexts or where the prescriptions for practice do not
>
> have direct relevance to their actual problems. Instead
>
> they have worked towards the creation of new practices..."[2]

Whatever the reason for the widespread rejection of theory by

practitioners in education, and whether or not this rejection is

justified, it has resulted in a thoroughly false and misleading

dichotomy between theory and practice in this area. "Theorising" in

education, as defined in the Introduction to this thesis, far from

being an esoteric academic activity, of no concern to practical educators,

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1   Wallen and Travers, "Analysis and Investigation of Teaching Methods"
    in Gage N.L. (ed), Handbook of Research on Teaching, Chicago, 1963.

2   de Castell S., and Freeman H., "Education as a Socio-practical
    Field" in The Proceedings of the Philosophy of Education Society of
    Great Britain, Vol. 12, 1978, p.14.

is an integral part of their daily business.

It is difficult to make sense of the assertion that

"Many teachers go about their business, make the right

decisions, are not creatures of habit yet do very little

in the way of stopping to think."[1]

Since the very concept of a decision implies choice between alternative

actions, and choice in turn implies deliberation to some degree, however

minimal, no decision can be made without "stopping to think". It

might be countered that whilst no decision could be made in this way,

the quibble is merely semantic, since an action at least could be

performed without deliberation, but here again ,

"To pick out a particular event as an action logically

implies reference to the intention of the agent as that

which characterises it as a particular action."[2]

It will therefore be argued, in endorsement of R. Pring's view, that

the theory/practice dichotomy in educational thought is a logical

absurdity. Pring argues that

"To attempt to think of practice apart from theory (of

some sort) is to create an unreal dualism. The dualism

is possibly created by the examination of theory as such

and from asking how this can relate to practice, as though

practice were something standing outside a theoretical

framework and in need of being brought in; whereas to look

at practice, to see how it logically requires the possibility

of raising questions which require theoretical treatment,

1 Lloyd D., "Theory and Practice" in The Proceedings of the Philosophy of Education Society of Great Britain, Vol. X, July 1976, p.110.

2. Pring R., "Philosophy of Education and Educational Practice - Reply to K. Thompson" in The Proceedings of the Philosophy of Education Society of Great Britain, Vol. IV, Jan., 1970, p.68.

implies the logical inseparability of theory from practice."[1]

This false dichotomy is one product of the narrow frame of reference for the term "theory" which seeks to limit this to a consideration of the purely empirical. Great confusion can only result from Mortimer Adler's attempt to distinguish theoretical and practical problems in such a way that it becomes evident that on the contrary "theorising" is inseparable from the very meaning of a "practical" activity. Adler asserts that

"We speak of questions of fact or questions of value, we speak of descriptive and explanatory versus normative. The answers to the theoretical questions describe or explain the facts; the answers to practical questions set up the norms or define the values which determine what men should do, for they are the standards whereby we discriminate between a better or worse choice in any case in which we face alternatives, and every practical problem is ultimately constituted by alternatives between which we are free to choose."[2]

Such a neat division between the theoretical and the practical, equated with the division between the empirical and the normative, is simply misleading when the matter under discussion is education. Not only can no decisions for action be derived from either of these spheres alone, but it is very doubtful whether they can be separated as simply as this suggests. Moreover, just as many supposedly empirical questions in this field are hedged about by conceptual problems, so normative issues can only realistically be discussed in the context of real situations. Recent discussions of whether educational theory is

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1 ibid., p.68.

2 Adler M., "In Defense of the Philosophy of Education", in 41st Year-Book of the National Society for the Study of Education, Part I, Chicago, 1942, p.207.

theoretical or practical[1], or of whether theorising is itself a practice[2] have further served to muddy the conceptual waters. It will be assumed that the theoretical and practical domains cannot be equated with the empirical on the one hand and the normative on the other, and further that discussions of whether or not theorising is a practice throw little light on the theory/practice dichotomy. Theorising may indeed be a practice in the sense of an activity under-taken for a purpose, "but it is not _itself_ the practice being theorised about."[3]

The point is that in the minds of many educators, theory is a frill superimposed on practice, and it will be argued that this is to misunderstand both the nature of practice and the function of theory. The purpose of this chapter is to deal with one outcome of the debate about the status of educational theory reviewed above. This is the frequent recent assertion that debate about the status of educational theory is otiose, since we can get along very well without it - an assertion that echoes O'Connor's sanguine belief that we "know roughly how we learn, how we are motivated, how our emotions work and so on"[4]. Thus Lloyd claims that

"O'Connor seems to me right in his view that effectiveness

in teaching can exist independently of any theory."[5]

What could such a claim mean? If it is merely to be taken to mean that

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1 Carr W., "The Gap Between Theory and Practice" in The Journal of Further and Higher Education, Vol. IV, No.1, Spring 1980, pp. 60-69.

2 Dunlop F., "What Sort of Theory Should We Have?" in Journal of Further and Higher Education, Vol. I, No.1, Spring 1977, pp. 70-91.

3 Castell and Freeman, op. cit., p.27 (footnote).

4 O'Connor, op. cit.(1957)., p.95.

5 Lloyd, op. cit., p.101.

one can do something without being obliged to reflect upon exactly

how one has done it, then no-one would dispute this: anyone can

step off a cliff without mental recourse to the theory of gravitation,

or depress an accelerator without understanding systems of fuel

injection. If it is further to be taken to mean that one can perform

an action without being capable of explicating how one has achieved

it, this too is uncontentious. It is no doubt true that

> "A good deal of successful practice goes on where the
>
> 'rules' for such practice are not articulated, and are, perhaps,
>
> not even fully articulable."[1]

Even accepting that a good teacher relies much of the time on what

Polanyi[2] calls "tacit knowledge", this is not to assert that such tacit

knowledge could not in a more complete state of knowledge be made at

least partially explicit. If the claim is to mean that no theory could

exist to explain effectiveness, it is hard to imagine what the evidence

for such a claim would look like. Of course effective practice - to

some degree - may precede theory, and in an imperfect state of knowledge

there are many areas of life where systematic theory is not in a position

to improve practice: this does not entail either that theory is

redundant, or that theories yet to be established could not logically

arise to enable the duplication of unarticulated successful practice.

The fact that man hit upon seams of coal before there were geological

theories which facilitated this activity, does nothing to devalue

these theories. Their function is two-fold; to explain why coal is

found at X rather than at Y, and thus to make more efficient the discovery

of further locations with X characteristics.

If the claim is to mean, more radically, that effective action

needs no implicit rational basis, on the behaviouristic Rylean

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1 Castell and Freeman, op. cit., p.20 .

2 Polanyi M., <u>Personal Knowledge</u>, 1958, passim.

assumption[1] that we should eschew the notion of ghostly mental

accompaniments of overt performances, then the possibility of

explaining any action, beyond detailing its causal provenance, is

ruled out. It will simply be stated here, and argued for in detail

later, that when explaining or justifying actions, only some of the

reasons proffered will be causal. To quote Pring again:

> "To act at all commits one implicitly to a conceptual
>
> scheme with underlying rules of reference and classification
>
> and valuation; to account for one's actions commits one to
>
> the articulation of reasons within such a scheme and thus
>
> ultimately to the critical appraisal of that scheme within
>
> which the reasons put forward are intelligible."[2]

Since every action carries the logical, though not necessarily the

empirical possibility of accountability, every action makes implicit

reference to theorising. This is precisely why a substantive examination

of the actual and potential fruitfulness of theorising in education is

a matter of urgency.

In the light of the difficulties revealed by O'Connor and Hirst

in the elucidation of the concept of theorising in education, the

only alternative to the procedure I propose, if we wish to progress

beyond the bounds of semantic debate, is indeed to abandon the entire

enterprise, simply because it presents immense logical problems, and to

look for another area on which to focus our attention. This is the

policy adopted by D.I. Lloyd and H. Mounce in their articles entitled

Theory and Practice.[3] Lloyd reviews the debate so far and concludes

that Hirst and O'Connor "agree over the nature of a theory and differ

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1 Ryle G., The Concept of Mind, 1949, passim.

2 Pring, op. cit., p.71.

3 Lloyd D.I., "Theory and Practice" in The Proceedings of the Philosophy
   of Education Society of Great Britain, Vol.X, July 1976, pp. 98-113.
   and
   Mounce H., "Theory and Practice" in The Proceedings of the Philosophy
   of Education Society of Great Britain, Vol.X, July 1976, pp. 114-123.

only whether ethics can be part of it."[1]   This is something of an

oversimplification, as the preceding chapter has shown: since they

disagree over whether ethics can be part of a theory, they agree only

semantically over the nature of a theory, since they are working with

two quite different concepts of 'explanation'. Lloyd's verdict on

the debate is that

> "Hirst is wrong ..... in his search for unity in ethics, but
>
> he is right as against O'Connor that ethical judgements
>
> in education are an amalgum of fact and value."[2]

Whether or not this is an accurate understanding of the issues, Lloyd

seeks to resolve the dilemma by suggesting that we should abandon the

search for a theoretical basis for practical activities, since

> "I want to question whether such a desire to tidy up our
>
> thinking and to provide us with theoretical backing is either
>
> necessary or desirable; then to see if practice, as an
>
> alternative, is sufficient on its own; and finally to
>
> introduce the idea of reflection as against theorising which
>
> for me retains the detail of practice without being chained
>
> to it."[3]

This statement reveals a radical misconception of the reasons for

which it is necessary to examine the concept of educational theory.

It is not that we wish to provide theoretical backing for practical

activities, but that we wish to examine the logical status of that

backing which is implicit in the claim that such activities are

explicable and justifiable in principle, though not necessarily in

practice. If this point is understood, it is quite clear that 'practice'

can never be set up as an alternative to theory, since practice, as

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1 Lloyd, op. cit., p.100.

2 ibid., p.100.

3 ibid., p.101.

has been argued above, necessarily presupposes

"the possibility of giving an account of what is being

done, and thus the possibility of raising questions which

require theoretical treatment."[1]

Lloyd's first example, that children learn to speak without

studying syntax or grammar, is intended to demonstrate that effective

practice exists quite independently of theorising. He remarks that

children

"learn to speak, use nouns and verbs, prepositions and

conjunctions, to speak in different moods, to make

affirmative statements: all this without theory."[2]

No doubt they do - no-one would dispute that speech must be acquired

before it can be used to describe itself. But it is significant that

it is only by recourse to the theory of speech that Lloyd is able

to describe what the children are doing. The acquisition of the

mother tongue which takes place in infancy is not an 'activity' which

can be compared with any other, since it is not merely a question of

learning to speak, comparable, say, with learning a second language;

it is a process of acquiring concepts, and entering into the human

social order: the acquisition of language is a passport to a particular

form of life.

Had Lloyd chosen a less singular example, however, the issues

would have been the same: of course we can 'do' things without mental

recourse to theory: I can walk through a doorway without making "a

truly scientific ingress"[3] which I simultaneously describe in terms of

a series of physical properties and space/time co-ordinates. The

point is that such a description could be given if sought. Moreover,

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1 Pring, op. cit., p.68.

2 Lloyd, op. cit., p.101.

3 Eddington Sir A., _The Nature of the Physical World_, 1928, p.342.

if my walking through the doorway is more than a reflex action or

a somnambulistic wandering, it would be reasonable to seek an

exaplanation not only of how I had performed that action, but why

I had done it. I might well be unconcerned with such an explanation,

or unwilling or unable to offer it; nonetheless an explanation is

possible in principle. If educational studies is concerned with the

improvement of the educational process as a result of increased under-

standing, no-one involved in this enterprise can be unconcerned with

such explanations, though that does not of course mean that they

deliver a running theoretical commentary on all their actions.

Echoing O'Connor's point that effectiveness in teaching can exist

independently of any theory, Lloyd asserts further that to claim that

nonetheless theory is implicit in teachers' actions,

"seems nothing but a piece of harmful mythology ..... why

is it not enough to say that they were teaching effectively?

The language for describing their motives, methods and acting

is available without resorting to any theoretical description."[1]

Clearly it is not enough to say simply that they are teaching effectively,

if one of our aims in looking at their teaching is to see why it is

effective, so that it can be duplicated. If enough people tinkered

with flying machines, some would come up with machines which were

aerodynamically viable, but if we wished to duplicate their production,

some explanation of their aerodynamic viability would be required.

Moreover, judgements about whether or not a particular instance of

practice is "effective" will depend upon prior reasoning, of a series

of distinct types, conceptual and normative as well as empirical.

It is not that to theorise about practical activities is to

mythologise: it is rather that to refuse the possibility of doing so

1 Lloyd, op. cit., p.104.

leaves one only with mythology. Lloyd himself lapses into this when

he compares successful teaching with having faith in religion. He

asserts that

> "To ask a headmaster how he manages to achieve a particular
>
> tone in his school would be philistine. It would imply
>
> that he does it by some kind of method, that the method
>
> can be articulated, and worse still, be employed by another
>
> as though it were a tool."[1]

Castell and Freeman correctly note that to seek to understand what is

happening in an interpersonal exchange is not to denigrate either the

complexity or the value of what is taking place:

> "Teaching is not rendered the less an art by attempts
>
> to articulate what is going on. The articulation need
>
> not prevent anyone from working with a subsidiary rather
>
> that a focal awareness of what is going on."[2]

Even if we wish merely to describe a state of affairs, and are seeking

neither to evaluate nor reproduce it, there are many possible levels

of description. We can look at a rose and say that it is ecologically

efficient, or aesthetically pleasing, but it is not philistine to

note that it happens to have so many petals, sepals, stamens etc. If

we had only the former type of description, botany would not exist,

just as educational studies would not exist if Lloyd's assumptions

were correct. Whether or not they ought to is another matter: the

fact is they can and do. Moreover what it would mean to say either

that the rose were ecologically efficient or the teacher effective

without implicit reference to a set of more explicitly theoretical

statements is hard to understand. It is true that discussion can be

---

1 ibid., p.110.

2 Castell and Freeman, op. cit., pp.26-27.

simply closed by stating "School X is good because Mr A. has

charisma. School Y is less good because Mr B. has less charisma",

but if this answer were in response to a serious enquiry about the

educational process, it would appear peculiarly unsatisfying and

obscurantist.

If a "tone" X, or some other indicator of "effectiveness", can

be reported to have been achieved, it is axiomatically true that this

state has been brought about by means of some other states or actions.

Whether these are articulated and explicit or unconsciously employed

is irrelevant: means there are, and if they could logically be

articulated in a more complete state of knowledge, it is the business

of educational theory to elucidate them, or at least to attempt to do

so. Lloyd rejects the idea that practice implies a theoretical frame-

work which could be elicited if sought, on the grounds that teachers

do not "follow the theory implicitly"[1] since they "do very little in

the way of stopping to think"[2]. There are two mistakes here; the

first that instant decisions are in some way thought free, the second

that a person can act at all without the action (not the actor) making

reference to a principle.

Both these mistakes are explored fully by R.M. Hare in his

chapter entitled "Decisions of Principle" in The Language of Morals.[3]

On the notion of thought-free instant decisions Hare remarks:

"We must not think that, if we can decide between one

course and another without further thought (it seems

self-evident to us, which we should do), this necessarily

implies that we have some mysterious intuitive faculty

which tells us what to do. A driver does not know when to

1 Lloyd, op. cit., p.104.

2 ibid., p.110.

3 Hare R.M., The Language of Morals, 1952.

change gear by intuition; he knows it because he has

learnt and not forgotten; what he knows is a principle,

though he cannot formulate the principle in words. The

same is true of moral decisions which are sometimes called

'intuitive'. We have moral 'intuitions' because we have

learnt how to behave, and have different ones according to

how we have learnt to behave."[1]

Thus Lloyd's hypothetical teachers "make the right decisions" simply

because they have learnt from their own and others' past experience,

and their own speculative theorising about how best to deal with a

given set of circumstances.

The second mistake is the assertion that decisions can be

made without the action making reference to an implicit principle, and

Hare advances an elegant argument to expose this fallacy. In order to

make it inescapably clear that any action makes reference to prior

theorising, he postulates a hypothetical man who

"has a peculiar kind of clairvoyance such that he can know

everything about the effects of all the alternative actions

open to him. But let us suppose that he has so far formed

for himself, or been taught, no principles for conduct."[2]

Such a man would therefore know every factual detail about the alternative

courses of action open to him. If this information were sufficient

to enable him to come to a decision, then we would be forced to conclude,

ex hypothesi, that his decision made no implicit reference to principles.

Nor are we entitled to beg the question by claiming that this man is

not "seriously choosing" in Peters' sense[3] but merely thoughtlessly

"plumping" for one of his alternatives. His choice is not arbitrary,

as it would be if it were made with the toss of a coin and no

---

1 ibid., p.64.

2 ibid., p.58.

3 Peters R.S., Ethics and Education, 1966, p.121.

consideration of the effects, since it is already specified that

he knows factually exactly what he is doing down to the last detail.

If then, the choice is not arbitrary, it must be possible to give

reasons for it, and it is therefore reasonable for an enquirer to

seek an explanation of the reasons for the man's choice.

There are two types of answer which the man in question could

offer such an enquirer. Firstly, he could. say "I can't give any

reasons; I just felt like deciding that way; another time, faced

with the same choice, I might decide differently.". If he makes such

an answer, however, we must disallow his choice as a 'decision', and

assimilate it to the coin-tossing method of choosing between two

alternatives, since any action presupposes a conceptual scheme which

not only explains the reasons for it, but makes it intelligible as a

particular action at all. We might of course reasonably ask why he

"felt like it", and if this enquiry were not similarly blocked, we

would have an embryonic explanation.

The second type of answer the man might give would be explanatory;

"he might say 'It was this and this that made me decide; I

was deliberately avoiding such and such effects, and seeking

such and such'."[1]

If the man offers this sort of answer he shows (although it was

specified that he had no formed principles, only knowledge of empirical

data) that he has started to form principles for himself, for

"to choose effects because they are such and such is to

begin to act on a principle that such and such effects

are to be chosen."[2]

Thus, though it may be possible to postulate a man faced with a decision

and bereft of principles, in making and acting out his choice he must

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1 Hare, op. cit., p.58

2 ibid., p.59.

make implicit reference to a principle, if his action is to have a
conceptual framework which makes it intelligible.

Furthermore, though this hypothetical man has the alternative
of a purely arbitrary choice, such a choice, though logically possible,
is empirically impossible, since the purely factual clairvoyance he
was given for the sake of argument never in fact exists. In real life,
in so far as any man is clairvoyant, his knowledge of the future is
based upon principles of prediction which he has been taught or has
formed for himself by evaluation of states of affairs in the past and
present. As Hare remarks ;

> "Principles of prediction are one kind of principle of action;
>
> for to predict is to act in a certain way. Thus, though
>
> there is nothing logically to prevent someone doing without
>
> principles .... this never in fact occurs."[1]

It follows that the first type of answer, "I can't explain", can only
be taken to mean "I am not able to formulate and articulate an
explanation"; it cannot be taken to mean "There is no explanation to
be had".

We are not concerned in educational studies with the extent to
which educators happen to be able to proffer explanations of their
decisions and actions: we are concerned with the extent to which
such actions and their consequences are rationally justifiable and
causally explicable. We cannot accept Lloyd's invitation to set
theorising aside, for it is surely the case that

> "On no account must we commit the mistake of supposing
>
> that decisions and principles occupy two separate spheres
>
> and do not meet at any point. All decisions except those,
>
> if any, that are completely arbitrary are to some extent
>
> decisions of principle."[2]

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1 ibid., p.62.

2 ibid., p.65.

It is therefore idle to present theory as the antithesis of practice,
or as a luxury we cannot afford, since practice presupposes theory,
in so far as it is intelligible and purposive.

Concluding his arguments against educational theory, Lloyd
states:

> "My purpose so far has been no more than to encourage a little
> scepticism towards the view that we need a theory of
> education, in the way theory is used by O'Connor and Hirst."[1]

No doubt we have effective teachers, just as we had effective folk-
healers and bridge builders before we had systematic, causal
explanations for their effectiveness.[2] But it is unarguable that we
have more effective healers and builders since these causal
explanations were elucidated and disseminated. Given that we wish
to understand and duplicate successful practice, and to adapt
established successful practice to changing circumstance to obviate
the need for achieving success by trial and error, causal explanations
and predictions of the sort envisaged by O'Connor must at least be
sought. Given that educational practice is based on decisions which
make reference not only to the facts, but to intention and evaluations
of the states of affairs to be brought about, then rational justification
of the normative element, as envisaged by Hirst, is not only desirable
but inevitable unless the educational process if entirely arbitrary,
and its agents automata. In so far as this last is plainly untrue,
we need not discuss whether or not we need a theory of education - we
have theorising in education, of both the explanatory and justificatory
types, and education as a purposive activity could not exist without
it. Given this fact, it seems reasonable to seek to afford such theory

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1 Lloyd, op. cit., p.105.

2 See a comparison between eighteenth century medical theory and the
   state of educational theory today in
   Hartnett A. and Naish M., "Educational Theory: Bromide and Barmecide"
   in Journal of Further and Higher Education, Vol.1, No.3, Winter 1977,
   pp. 63-75.

as sound an explanatory and justificatory base as is possible.

It is far from the case that attention paid to theory in some way denigrates the activities of effective educators: on the contrary, Lloyd's suggested alternative, namely "reflection", seems to do precisely that. It is quite clear from the examples that this 'reflection', which Lloyd suggests forms the background to practice, is not to be confused with the non-empirical theorising of philosophers of education, which is involved with the search for rational justification, though it may include this. It is difficult, however, to discover what else he could possibly be alluding to. He suggests that

> "two teachers could have discussed their views with one
>
> another and their different conceptions of good behaviour.
>
> As a result, one may have come to adopt the other's point
>
> of view, or both may have modified their views in the light
>
> of each other's comments. Or, each may have ended up
>
> holding his view more strongly. Any of these things could
>
> have happened without either holding a theory. The activity
>
> they were engaged in is what I would call reflection."[1]

If we are to suppose these two teachers to be rational beings, whilst 'reflection' could indeed result in any of the three suggested outcomes, which outcome actually ensues will depend upon the nature of the reasons for action, both causal and justificatory, offered by those involved in the dispute, and can depend on nothing else, to the extent to which the dispute is rational. Unless we are to take 'reflection' to be some kind of supra-rational meditation, or merely an attempt to win the day by persuasive definition, it is not merely that "The reflection may involve giving reasons why one action is regarded as preferable to another"[2], there is nothing else in which such reflection

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1 Lloyd, op. cit., p.106.

2 ibid., p.106.

could possibly consist. This discussion, we are told,

> "may involve the discussion of questions of fact and of
>
> value and matters which cut across this distinction."[1]

What matters could one discuss except those of fact and of value,

since it is difficult to envisage what "matters which cut across this

distinction" might be, and how could such matters be discussed except

by offering and seeking relevant reasons? To do so is precisely to

theorise. Thus 'reflection', far from being an alternative to theory,

seems to be a nod in its direction.

Peters points out that whereas practice was an adequate guide to

practice in education when "education had relatively agreed aims;

procedures were more or less standardised"[2], in an evolving educational

system practitioners have no alternative but to theorise about what

they do, since they must necessarily accommodate into practice

changing aims for education and changing conceptions of and attitudes

to children and society which permeate public thinking at all levels.

As Peters suggests,

> "The question, therefore, is not whether a modern teacher
>
> indulges in philosophical reflection about what he is doing;
>
> it is rather whether he does it in a sloppy or in a rigorous
>
> manner."[3]

This is surely the case, and it therefore seems perverse to suggest

that unsystematic reflection should underpin practice, whereas the

search for systematised explanation should be abandoned. The suggestion

that good practice should not and cannot be explicated has been dealt

with above: the further suggestion that it is itself the best guide

to practice implies a static role for the educational process which

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1 ibid., p.106.

2 Peters R.S., Education and the Education of Teachers, 1977, p.136.

3 ibid., p.136.

was dismissed in the Introduction to this thesis as both undesirable
and incoherent.

Before the case against theory, exemplified by Lloyd's article,
is dismissed, one further point should be examined. Lloyd appears
to wish to reject theory, since theory is seen as the search for
generalisations, and he believes that "understanding is more likely
to be acquired by examining particular cases."[1] Precisely this emphasis
on 'verstehen' rather than on theoretical explanation underlies the
current trends of much educational research which seeks to concentrate
on case studies of particular instances and thus adopts a participant,
hermeneutic approach to examining the educational situation.[2] A very
brief appraisal of this approach in the research context will be
undertaken in Chapter Ten of this thesis, but it is pertinent here to
note that this contrast between the general and the particular is as
mistaken as the false antithesis between theory and practice..

In examining particular cases, for what is understanding being
sought? If only the particular cases under scrutiny require further
understanding, this must be with some end in view, or the process is
one of simple redescription. And in the light of what is this further
understanding, or redescription, to be found? Particular cases can
only be further understood with reference to some general model, or
with reference to other similar or contrasting particular cases, and
to make this reference is precisely to generalise. If other similar
or contrasting cases are conversely to be understood in the light of
the particular cases under examination, then this again is generalisation
tout court. The emphasis on the particular is justified by the desire
to "question the idea that what is general need be of much help"[3],

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1 Lloyd, op. cit., p.107.

2 See: (i) Elliot J. and Adelman C., "Reflecting where the Action Is"
         in Education for Teaching No.92, 1973, pp.8-20.
      (ii) Delamont S. and Stubbs M., Explorations in Classroom
         Observation, 1973.

3 Lloyd, op. cit., p.108.

though Lloyd goes on to concede that "the value of saying something general is that if often helps to understand different cases."[1] This appears to mean that we can illuminate the particular by the general, but not generalise from the particular. It seems reasonable to ask from where such potentially helpful generalisations could possibly have been derived in the first place. No doubt in so far as no two individuals or groups are identical in all respects, by definition, generalisations about human affairs will necessarily be partial and probabilistic, but were no kind of generalisation possible in principle, then neither explanation nor description of such affairs would be possible at any level. This would not simply rule out the possibility of theory: practice itself would be unintelligible.

The dichotomy between the particular and the general, based on the dichotomy between theory and practice, seeks to show that educational theory is both unnecessary and impossible, and that energy spent pursuing the notion is better directed into practice. Thus Mounce remarks:

"The view to which Lloyd subscribes, and I think rightly,

is that such a theory is not in fact possible, that we shall

not succeed in developing a systematic educational theory."[2]

If this is to mean that we shall never reach the El Dorado of one all-embracing theory, this of course is correct, but there is no field of human enquiry where one single theory explains and predicts every occurrence in that field. This is not a problem of education, or even of all practical activities, but simply a fact of life. Systematic theory merely seeks to explain that which falls within its frame of reference, and thus the systematic theories of practical activities will seek to give reasons of both the causal and the normative sort

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1 ibid., p.108.

2 Mounce, op. cit., p.115.

relevant to that activity. It is otiose to suggest that we should
eschew theory for practice, since "ought" implies "can", and the
two areas cannot be divorced. As Pring insists,

"In other words one is committed, in being 'practical' to

theoretical assumptions of some sort; and one is committed,

in accounting for one's practice, to some degree of theoretical

activity which, if pushed far enough by the questioner or by

the self-critical practitioner, will involve essentially

philosophical questions about the very intelligibility of

one's account and thus of one's action."[1]

Thus, far from being impossible, educational theory is inescapable
in so far as education is an activity undertaken purposively by
rational beings.

To suggest, further, that such theory is unnecessary, is to hold
a view of the educational process which is outmoded, and to subscribe
to an over-sanguine estimation of its workings. A final recourse to
the analogy with medicine will illustrate the point. Thanks to the
theories of biochemistry, physiology, pharmacology etc., within the
methodological constraints prescribed by medical ethics, medical
practitioners are in a position to prescribe what should be done under
certain medical circumstances to achieve a particular end-state,
namely the health of individuals, with a considerable measure of
success. Before the development of these theories, and still without
recourse to them over much of the world, the sick have been cured or
improved by skilled practitioners of healing for millennia, though
without the same regularity of outcome. But only recourse to theory
explains why some remedies work and not others, and enables the spread
of effective remedies and the curtailment of ineffective treatments.
Folk healers used belladonna successfully to treat ulcers without any

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1 Pring, op. cit., p.71.

knowledge of pharmacology - but they also treated warts with live toads. Recourse to theory seeks to discover why belladonna was a good remedy, and toads largely ineffective, and only the findings of such theory can justify a policy which seeks to persuade others to try belladonna in relevantly similar circumstances, but to refrain from the application of live toads. There are still a lot of live toads around in educational institutions today, being vigorously and ineffectively applied to educational warts. Theorising is the attempt to identify what counts as a wart, to specify what would count as a cure, and to investigate what would be the most practically effective and morally acceptable means of achieving that end. The only alternative for educators is to proceed by intuition, and as Popper has tartly commented: "By their intuition some people are prevented from even imagining that anybody can possibly dislike chocolate".

Even were it reasonable to assert that theory in education is unnecessary - a claim shown above to be incoherent - that would not entail the assumed consequence that theory ought therefore to be abandoned. From the reasonable argument that whatever is necessary for effective teaching is thereby justified, and the false premise that theory is not so necessary, it is invalidly concluded that theory is unnecessary. Thus necessity has been assumed as the only criterion of justification. By such a reduction of justificatory criteria, shoes would be done away with, since they are not essential to walking, and knives and forks since they are not essential to eating. As Scheffler points out:

> "Justification is not ... simply a matter of minimal
> necessity. It is rather, a matter of desirability, and a
> thing may be desirable not because it is something we
> could not do without, but because it transforms and enhances
> the quality of what we do and how we live. If a justification
> is needed for the teacher's scholarly and theoretical

sophistication regarding his work, it is not that, lacking

it he cannot manage to teach, but that having it, the

quality of his effort and role is likely to be enhanced."[1]

Given that educational theory can be shown neither to be impossible,

nor unnecessary, nor unjustifiable in principle, by any of the

arguments put forward to support those contentions, one might speculate

on why the denigration of theory in principle seems to be particularly

marked in education. This is not to fall into the trap of episteme-

logical relativism which assumes reference to the social origins of a

belief to be also a reference to its validity.[2] Nonetheless it is

interesting that hostility to theory is so strong among educationalists

at the same time as

> "There is an educational tradition which stresses the
>
> importance of learning by doing, in a way which puts a
>
> premium upon the learner's own first-hand experience at
>
> the expense of theoretical teaching."[3]

Teachers' attitudes both to the performance of their professional task

and to their own training for this performance thus both appear to

reflect the recent Anglo-Saxon philosophical rejection of the Cartesian

assumption that thought is the primary category of experience and

that efficient practice is consequent upon intelligent theorising.

Thus Macmurray was concerned to "exhibit the primacy of the practical

in human experience" and stressed

> "the need to transfer the centre of gravity in philosophy
>
> from thought to action ... . We should substitute the

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1 Scheffler I., "University Scholarship and the Education of Teachers"
  in The Record, Vol.70, 1968-9, p.4.

2 Young M. (ed), Knowledge and Control, 1971, passim.

3 Entwistle H., "Practical and Theoretical Learning" in British
  Journal of Educational Studies, Vol.17, No.2, July 1969, p.117.

'I do' for the 'I think' as our starting point and centre

of reference."[1]

Ryle's Concept of Mind is basically concerned with questioning whether

a theoretical precursor or accompaniment is at all necessary to

intelligent practice, and this preoccupation is echoed by Polanyi

who makes the same sorts of points:

"A well known scientist, who in his youth had to support

himself by giving swimming lessons, told me how puzzled

he was when he tried to discover what made him swim:

whatever he did in the water, he always kept afloat."[2]

The point of such assertions is to discredit Cartesian dualism which

has been taken to imply that an interior monologue necessarily goes

on behind physical acts. But in making this point theorising becomes

discredited,and its part is overlooked in planning, reference to

information, and reflection upon the results of actions, all of which

necessarily accompany actions as defined earlier in this chapter.

'Knowing how' is parasitic upon 'knowing that' at the level of

performance of any but reflex actions. I may swim without being able

to say how I do it, but I cannot drive a car without knowing that the

right hand pedal makes it travel quicker and the one in the middle slows

it down. We can do things effectively, as Hare remarked, simply because

we once learnt and have not forgotten. What we once learnt has

propositional content, whether we choose to formulate that content or

not.

By extension, it is clear in examining changes which take place

in educational practice that teachers' actions are heavily theory-

laden. To take but two examples, discussions about primary school

curricula, and activities which take place in many primary classrooms,

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1 MacMurray J., The Self as Agent, 1957, p.92.

2 Polanyi, op. cit., p.49.

commonly include Piagetian ideas of stages in children's cognitive
development, whether implicitly or explicitly. The ethos of the early
years of schooling has been similarly influenced by the work of
Bernstein on linguistic codes . The idea that some working-class
children are limited by the form of language used by their parents is
likely to have a considerable influence on teaching in the early years,
whether the teacher has read, understood and consciously accepted the
relevant theory, whether he has heard of and imperfectly understood its
implications, or whether he has never heard of it as a theory at all.
It is in the latter case, paradoxically,that the influence of theory
is often most pervasive. In his book Fantasy and Commonsense in Education,[1]
John Wilson explores the extent to which many current educational
practices and recommendations are based on one or both of two covertly
adopted theories, namely the psychological theory of behaviourism, and
the sociological theory of cultural relativism. Leaving aside the
question of whether or not these theories are the fantasies Wilson
claims them to be, and the further question of what other underlying
psychological, sociological or philosophical theories might influence
educational practice in an ideological fashion, it seems clear that the
assumptions embedded in these two theories have had a considerable
effect upon educators' attitudes to both the content and the method
of their practice.

This is yet another compelling reason for taking theory seriously.
When the dependence of practice on theory is denied, because such
dependence is unavoidable elements of theory tend to guide practice
unconsciously and therefore uncritically. Since, therefore, educational
theory of some sort is implicit in and presupposed by educational
practice, it is the more urgent to explore what sort of theory would be
appropriate to supplying conscious and rational support for such practice.

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1 Wilson, J., Fantasy and Commonsense in Education, 1979.

C H A P T E R   T H R E E

FACTS AND VALUES IN PRACTICAL REASONING

The first chapter of this thesis was concerned with the issues

raised by the debate between O'Connor and Hirst over the logic and

status of educational theory. O'Connor concluded that there could be

no such thing, since he had defined theory as "a logically inter-

connected set of hypotheses"[1] with an explanatory function, and felt

obliged to exclude ethics from any such theory on the grounds that

"there is no agreed 'logic of moral reasoning'."[2] . Since the educational

practices and policies which the theory would function to explain

have both normative and empirical elements, no such logically inter-

connected set of hypotheses could exist. Hirst, arguing that science

is not the sole province of reasoning, and assuming further that the

theoretical backing for practical activities must be not only explanatory

but also prescriptive, suggests that we should abandon the scientific

paradigm and work towards O'Connor's rejected alternative of

"a set or system of rules or collection of precepts which

guide or control actions of various kinds."[3]

Perhaps his most useful observation is that facts and values are by no

means so neatly separable as arguments such as O'Connor's, for value-

free theory, frequently assume.

Given the review in Chapter Two of the relationship of theorising

to practical activities, the questions asked by Hirst - though not the

answers he offers, which assume the existence of 'moral knowledge' -

appear to be the right ones. Can the work of teachers be prescribed

by laws and theories? Prescriptive theory guides action and all such

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1 O'Connor, op. cit., (1957), p.76.

2 O'Connor, op. cit., (1972), p.107.

3 Hirst, op. cit., (1972), p.110, citing O'Connor, op. cit., (1957), p.75.

theoretical arguments must necessarily contain factual and evaluative premises. Thus for educational theory to be possible it is necessary to show that rational justification could be offered both for the substantive content of such premises, and for their procedural relationship to the prescriptive conclusion which would represent a policy justification. Later parts of this thesis will examine the extent to which rational justification can be offered for the sorts of factual and evaluative premises pertinent to educational considerations, but first we must enquire as to how such premises might conjointly support a theoretical conclusion.

A few points must be made at the beginning. It is to be assumed that any attempt to get clearer about what is going on in any educational situation will involve different types of reasoning. Even to answer a relatively non-complex question, say "Should teacher A teach content X to pupil B by method Y?", we need to know something about A both as a person and specifically as a holder of expertise, something about the age, capacities and personality of B, something about the logic of X and about its desirability, and something about the effectiveness of Y in relation to methodological alternatives, as well as its general acceptability on wider, moral grounds. In order to tackle the problem we must first decide whether such questions are factual or normative, seek to answer separate questions within relevant domains of reasoning, then relate these separate answers together to generate a conclusion to the original (apparently simple) question.

On the first point of separating factual from evaluative questions, two remarks must be made. It has already been noted that many questions treated as empirical in studying education turn out to be either conceptual or normative. There is no way that one could assess whether or not the Newsom Report's recommendation, that all children should have an equal opportunity for acquiring intelligence, had been carried out, without first having some prior agreement as to what

constitutes "an equal opportunity", and what we are to understand

by "intelligence". The work of Coleman for the U.S. Government[1],

where his brief was to establish to what extent equality of educational

opportunity was being achieved in the public school system, was

largely vitiated by precisely this sort of under-conceptualisation.

This should not be taken to mean, however, that no such questions

can ever be answered, since as ends are never sufficiently specified,

considerations of whether or not these ends have been achieved are

arbitrary. In so far as this is true, it is true only contingently,

and is a problem not restricted to education, but shared with all

practical activities. To be sure, to measure, say intelligence or

creativity, is a bizarre exercise if there is no agreement about what

is being measured, but not all educational ends are so nebulous.

An awareness of this problem of conceptualisation has caused

the argument to be extended to cover all ends. Thus it has been

argued[2] that discussions of the superiority of one method of teaching

reading over another are currently vacuous, since there is no general

agreement about what precise skills and capacities "being able to read"

refers to. It is certainly true that at the moment when different

educators talk about pupils achieving literacy, they mean different

things. But this reflects the muddle-headedness of educators and is

not a function of the peculiarly normative nature of education. There

is in principle absolutely no reason why general agreement on criteria

for literacy should not be established, so that when different methods

of achieving literacy are compared, like is compared to like. In

principle this should be no different from the problem of establishing

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1   Coleman J., The Equality of Educational Opportunity, Washington D.C.,
    1966.

2   Walsh P., "Literacy - a Suitable Case for Philosophical Treatment.",
    paper presented at the Annual Conference of the Philosophy of
    Education Society, Jan., 1981.

criteria for competent car-driving. When we say "X can now be considered a competent driver", we know which driving skills he has mastered, since passing a driving test involves exhibiting skills A - J. There will of course be marginal disagreement about what skills should be included; some will say that the absence of night-driving or motorway-driving are serious lacks, but that does not detract from the usefulness of the test/criterion. If someone has a licence to drive we can assume that he has mastered skills A - J and that no further skills - in which he may or may not be competent - are prerequisites for the mastering of A - J. A test which embodies specified criteria of competence is a great deal more informative than no test, and should it be established, by increased knowledge of the logic of this particular skill, or by changed circumstances for its application, that these criteria are insufficient, they can be changed.

The same is surely true of literacy. That some people enjoy and respond more sensitively to the written word than others should no more blind us to the possibility of deciding whether or not people can read than the fact that some people drive with greater precision, economy of effort and panache blinds us to the possibility of deciding whether or not people can drive competently. That we cannot assess <u>all</u> aspects of a particular performance - in any sphere - should not prevent us from deciding to what extent we can specify and assess those elements of the skill that are assessable, and by what means we can best do this. Unless a skill or capacity is totally nebulous and ineffable we cannot talk about it unless we can identify it, and it is identified by means of criteria which can be articulated and specified. Educational theorists frequently assume that if an explanatory task cannot be performed exhaustively, it cannot be performed at all. The result is that instead of a workable but incomplete specification of criteria for, say, "being able to read", we have no criteria at all, though judgements of literacy still have to be made.

This is one extreme reaction to the realisation that normative
considerations intrude upon the factual at every turn in educational
matters, and is a preoccupation of speculative theorists. Empirical
workers tend to be as over-sanguine about the possibility of separating
facts and values as speculative theorists are pessimistic about
identifying any value-free 'facts'. Thus an Open University course
book on The Nature of Educational Research[1] is scrupulous in pointing
out that research doesn't necessarily produce solutions to educational
problems, stating that:

> "The research process stops short of educational value
>
> judgements and so cannot provide practical solutions,
>
> although it will certainly contain ideas which may imply
>
> solutions. Teachers and administrators have to make the
>
> ultimate decisions after studying whatever factual
>
> evidence research may be able to provide."[2]

This is true as far as it goes, but it does not go far enough, in that
it overlooks the fact that the focus and direction of research, and
the cognitive context in which it is placed, are determined by social
and normative considerations. One can neither select data for
examination, nor carry out such an examination, without some prior
hypothesis or theory to serve as framework. If an infinite regress
is to be avoided, such hypotheses or theories must at some point be
non-factual. Phillips remarks:

> "... an educationist theorising about a problem may use
>
> empirical data (experimental results or observational
>
> material) that are available. His use of this material
>
> will either be the result of his having decided that the
>
> material is relevant (in which case he must have some

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1 The Nature of Educational Research (prep. Entwistle N.J.). O.U.
  E341, Block 1, 1973.

2 ibid., p.12.

criteria, or theory, or hypothesis, or model, by reference to which he can determine that the material <u>is</u> relevant); or else the material will itself act as a determinant of what lines his future theorising will follow - certain concepts or relationships embodied in the empirical material will act as centres for the crystallisation of later ideas."[1] Thus models or hypotheses which are 'theory-laden', in the sense of making reference not simply to verifiable data, are necessarily implicit in the focus, extrapolation or application of empirical theorising.

Once again, this point has been taken to heart by second-order educational theorists, who have therefore assumed that the activity of education is irredeemably and peculiarly normative, and that therefore no aseptic facts can be obtained in this area which would provide the empirical evidence necessary to form part of a practical explanation. They are surely falling into the trap which they are quick to identify as a mistake in others when they point out the vacuousness of statements like "All play is creative" or "Ideology is all-pervasive". If no facts are value-neutral, then to make that observation is to leave open all those important questions of the relative validity of <u>particular</u> facts which were open before the observation was made. It is rather like the observation that "There is no such thing as a solid static object" that children make on learning about molecular structure. In a sense, it is true, but nonetheless we can still distinguish between the solidity of tables, which support elbows, ashtrays and coffee cups, and the non-solidity of clouds of steam which do not. Moreover educationalists could be more easily forgiven for abandoning empirical theory on these grounds if this characteristic of being theory-laden were limited to facts in the educational sphere, but it is not. All empirical theorising

1 Phillips, op. cit., p.57.

necessarily takes place in some kind of conceptual framework, since

some things must <u>necessarily</u> be taken for granted for systematic

thought to take place at all. As S. Pepper notes in describing the

procedures of the empirical scientist:

> "The method in principle seems to be this: A man desiring
>
> to understand the world looks about for a clue to its
>
> comprehension. He pitches upon some area of common-sense
>
> fact and tries if he cannot understand other areas in terms
>
> of this one. This original area becomes then his basic
>
> analogy or root metaphor. He describes as best he can the
>
> characteristics of this area or, if you will, discriminates
>
> its structure. A list of its structural characteristics
>
> becomes his basic concepts of explanation and description.
>
> We call them a set of categories. In terms of these categories
>
> he proceeds to study all other areas of fact."[1]

There may well be ways in which the 'facts' of education are

<u>peculiarly</u> normative and therefore elusive, and that question will form

a later part of this study, but in so far as they are normative simply

because they share the theory-laden characteristics of all empirical

theorising at the taxonomic and categorial level, educationalists are

not entitled to suggest that their area of concern is no candidate for

empirical investigation. If it is to be concluded that educational

theory is necessarily inadequate, this must be established on grounds

which differentiate it from theory in general, and not on logical

problems which it shares with all systematic thought. Thus the two

points made above, -that X cannot be examined until it has been

identified and its salient characteristics specified, and that this

examination will make reference to a pre-existing conceptual scheme ⁻ ,

cannot be taken to invalidate the systematic study of educational matters.
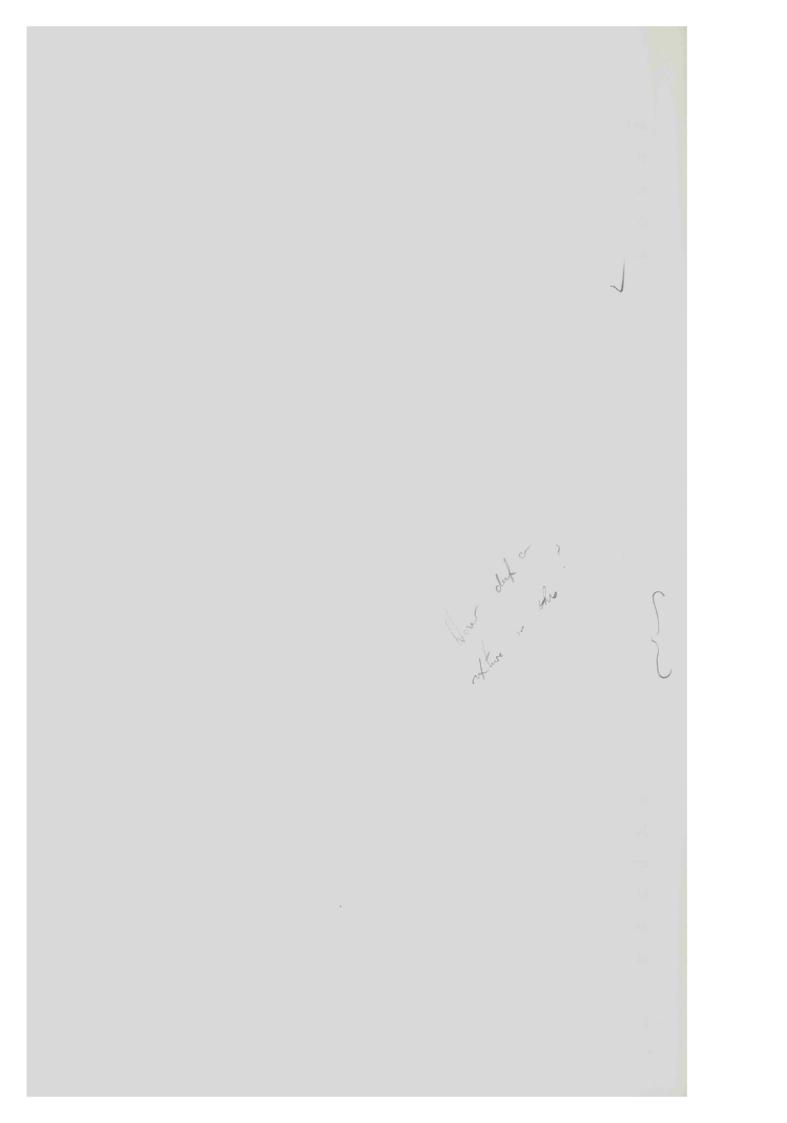
1 Pepper S.C., <u>World Hypotheses</u>, Berkely, 1957, p.91.

Nor can the equally true assertion that we cannot in principle arrive at the complete justification of an educational policy, since this caveat applies to all justification in any area. In order completely to justify any decision we would have to include a complete description of the actual world and of all possible changes we might effect in it, together with a complete evaluation of the methods of achieving those end states, and of the end states themselves. Hare notes the regress involved in complete justification of policies:

"The truth is that, if asked to justify as completely as possible any decision, we have to bring in both effects - to give content to the decision - and principles, and the effects in general of observing those principles, and so on, until we have satisfied our inquirer. Thus a complete justification would consist of a complete account of its effects, together with a complete account of the principles which it observed, and the effects of observing those principles - for, of course, it is the effects (what obeying them in fact consists in) which give content to the principles too. Thus, if pressed to justify a decision completely, we have to give a complete specification of the way of life of which it is a part."[1]

Incompleteness is therefore a necessary feature of any justification sought or offered for any decision. Nor is this feature limited to justification: incompleteness is also a necessary feature of explanation even in the field of pure science. A complete explanation of what happens when metals are heated would include not only a defence of empiricism and of the theory of induction, but also proof of the reality of the external world and of the assumption that there

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1 Hare, op. cit., pp.68-69.

are regularities in nature. The impossibility in principle of any

such complete explanation does not prevent us from using the information

that "metals expand when heated" to get the lids off jam-jars by holding

them over a steaming kettle. Similarly, the absence of the possibility

of complete justification of practical policies in any area does

not prevent us from reaching more rather than less rational conclusions

about say, the use of corporal punishment in schools.

From the above points it will be clear that when 'educational

theory' is referred to hereafter it denotes neither particular theories

of education, say Pestalozzi's, Plato's or Rousseau's, nor some

hypothetical all-embracing educational theory which theorists of various

types are assumed to be building brick by brick. It is on the grounds

that the first of these types is necessarily arbitrary, and the second

logically impossible, that the notion of theory is generally rejected.

It will hereafter be assumed that theory in education will be the

attempt neither to explain or justify everything, nor even to offer a

total explanation or justification for any particular phenomenon or

policy, but will be the attempt in this sphere <u>as elsewhere</u>, to arrive

at a more sophisticated and systematic understanding both of what

does and of what ought to go on. The former task is the most that can

be asked of any purely empirical theory, and these two tasks jointly

are the most that can be asked of the theoretical backing for any

practical activity. It is worth noting that all the above moves have

been made without adducing any features specific to education which

would render that field less conducive to theoretical understanding

than any other practical activity. With these points established it

remains to answer those questions J. Wilson considers pertinent to an

examination of the nature of such a theory:

> "What we want to know is how all this is supposed to <u>work</u>.
>
> What 'forms' (disciplines) are relevant? How do they fit
>
> together? What sort of contribution does each of them make?

In a word, what would this operation <u>look like?</u>"[1]

In the days when educational theory was expected to offer

collections of more or less coherent prescriptions as to what teachers

and schools ought to be doing, a quagmire of conflicting recommendations

was produced, based on the idiosyncratic views of the theorisers about

the nature of men and the good life. As Downey and Kelly remark,

> "This approach has led to the production of a great deal
>
> of what has rightly been castigated as 'mush' or 'beautiful
>
> thoughts' and has done more than anything else to bring
>
> educational theory into disrepute."[2]

As a reaction against this "mush" a disciplinary approach arose, with

particularly psychologists, sociologists and philosophers bringing

insights arrived at within their separate disciplines to bear on

educational problems. More often than not, this disciplinary approach

has until very recently resulted in conflicting recommendations. Though

all parties frequently acknowledge that both empirical and normative

considerations must figure in any recommendation, what tends to occur

is that a particular problem is tackled with reference to a piece of

theoretical understanding from one single discipline. J.F. Kerr notes

> "a tendency among curriculum workers to seek support for
>
> a variety of curriculum theories from the foundation
>
> disciplines of education"[3],

which gives rise not to one recommendation supported by argument from

a variety of disciplinary areas, but to a variety of recommendations,

each partially supported by argument from within one disciplinary area.

> "Thus, the view that the primary school curriculum should be

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1 Wilson J., op. cit. (1975), p.47.

2 Downey M.E. and Kelly A.V., <u>Theory and Practice of Education</u>,
   1975, p.2.

3 Kerr J.F. (ed.), <u>Changing the Curriculum</u>, 1968, p.8.

essentially child-centred and provide exploratory
experiences to promote learning relies heavily on
certain psychological theories related to individual
differences and learning; but, with equal conviction,
the placing of the disciplines of knowledge and
cognitive processes at the heart of the curriculum
can be justified by the philosophical analysts in
education."[1]

It begins to look as if some integration is called for in
educational theory: an integration <u>not</u> of the parts of the <u>theory</u>
in the sense of confounding facts and values, which is fashionably
taken to be the greatest theoretical crime, but of the understanding
and concerns of the <u>theorists</u>, so that a particular problem can be
focussed upon and examined in the light of a variety of insights, to
give a less clear-cut but more balanced understanding of all factors
involved. Even Peters, who constantly makes reference to the fact-
value gap, has remarked on the need for <u>this</u> sort of integration in
educational theory, noting that both philosophers and psychologists
are frequently more concerned with exhibiting disciplinary purity than
with bringing their joint expertise to focus on a particular problem.
Thus,

"... questions such as 'Ought we to use corporal punishment?'
remain unanswered because people working in the philosophy
of punishment became either institutionally or intellectually
separated from those who were tackling the psychological or
historical aspects of the problem."[2]

Peters' assessment of the problem is accurate, but his view of its
outcome is unfortunately only half-right.

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1 ibid., p.8.

2 Peters R.S., "Education as an Academic Discipline" in <u>Education
   and the Education of Teachers</u>, 1977, p.170.

To be sure, for the reasons he states, such questions do not get settled, but provisional answers are acted upon, since some policy is essential to ongoing practice, and these provisional answers tend to be based most often on psychological or sociological findings whose relevance to the situation at issue is at best partial and at worst remote. To mention but two examples, the work of Piaget has had an immense impact on the primary school, in a manner and to an extent only flimsily supported by his theories and research findings[1], whilst the work of Bernstein has had a similarly ideological impact on schooling. Jackson notes that Bernstein's findings tend to be "widely used now as an all purpose kit to explain differences in educability"[2], which is all the more surprising since Bernstein, in the published work on which his educational following is based, explicitly stated that his ideas were insufficiently established to support any such recommendations! He pointed out that:

> "There are few indications in the papers about changes in
> the curricula, pedogogy, or organisational structures of
> the school. This omission was deliberate. .... I felt I
> did not know enough about the problem nor did I have
> sufficient evidence to make any recommendations to teachers."[3]

Thus if educational theorists specialising in different disciplines do not of themselves come together to focus on particular problems from different angles, others will select from the theoretical elements available. This can often result in fairly random selection, like somebody choosing dishes from the untranslated menu in a Chinese

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1   See Sullivan E.V., "Piaget and the School Curriculum, a Critical
    Appraisal" in Bulletin No.2 of the Ontario Institute for Studies
    in Education, 1967.
    See also Wilson, op. cit., (1973), pp.18-19.

2   Jackson L., "Radical Conceptual Change and the Design of Honours
    Degrees" in School and Society (Ed. Cosin B.R.), 1977, 2nd ed.

3   Bernstein B., Class, Codes and Control, 1971, p.20.

restaurant. As Hartnett and Naish remark:

"Some of those who have to make decisions in education

are unlikely to possess the competence to judge or

criticise aspects of social science or philosophy at

the level required. They, among others, are even more

unlikely to be able to evaluate knowledge from more than

one field of inquiry."[1]

It is also very probable that research which appears to justify

policies which appear politically desirable will be seized upon and

lionised. L. Hudson would strongly support such a view:

"A man's reputation depends on whether his research

helps the able, influential but technically uninformed -

vice-chancellors, politicians, civil servants - to make

sense of ideas that changes in Zeitgeist and social

circumstance are bringing just within their grasp."[2]

Without going as far as to suggest that this is the sole or even the

major factor in the attention given to particular theoretical work,

it seems clear that in the absence of guidance from the theorists

themselves, policy makers will evaluate such research partially in

terms of its capacity to underpin policies thought desirable for other

reasons.

Wilson asked how educational theory would work: the above argument

suggests that there is no chance of it "working" - that is to say

functioning to justify practical policies - however sound the

epistemological status of various pieces of theorising in different

disciplines which might be drawn on, unless theorists integrate their

---

1 Hartnett A. and Naish M., "The Use Made of Theoretical Disciplines
  to Support Educational Practice and Policy" in Theory and the
  Practice of Education Vol.2. (eds. Hartnett A. and Naish M.),
  1976, p.166.

2 Hudson L., The Cult of the Fact, 1972, p.130.

interests, take the work done in fields other than their own

seriously (which involves being equipped to evaluate findings in

such fields), and attempt conjointly to offer whatever theoretical

support is available for the solution of educational problems. To

urge integration of this sort is not to suggest that work in any of

the disciplines should be less rigorous, nor that the distinction

between factual and evaluative questions should be blurred, since

the whole point of the proposed integration of concerns is that it

should reflect a differentiation in expertise.

It is frequently supposed that the call for integration in

educational theory is an invitation to logical confusion. Thus whilst

Langford states that

> "The findings of educational psychology, educational sociology,
>
> philosophy of education, economics of education and so on
>
> need to be reconciled and synthesised"[1],

Hirst argues that

> "it is not at all clear what is meant by synthesising
>
> knowledge achieved by the use of logically quite different
>
> conceptual schemes" and that "such a synthesis is in fact
>
> quite unnecessary for the formation of practical principles".[2]

K.Thompson goes one better, stating:

> "I would argue that, in this instance, the synthesis is not
>
> unnecessary, it is impossible. It is not that it is not clear
>
> what is meant by synthesising the elements, it is that the
>
> elements do not synthesise."[3]

It is suggested that no such synthesis is possible on the grounds that

the "elements" do not combine in such a way as to produce something

---

1 Langford G., _Philosophy and Education_, 1968, p.14.

2 Hirst, op. cit. (1966), p.54.

3 Thompson, op. cit., p.49.

that is different from each of them. Since Hirst believes that

educational theory can exist, and functions to guide practice, and

since Thompson is arguing that philosophers of education can make

a contribution to the formulation of policies, it is quite clear that

the "synthesis" debate is largely semantic. Perhaps the best way

to cut through the confusion is to approach the problem from the

other end and to look at practice.

If it is granted that people act, and that their actions make

implicit reference to both factual and evaluative considerations, as

was established in the Introduction, then unless all deliberation

about alternative courses of action is either arbitrary or unfounded,

factual and evaluative premises "combine", "synthesise", "join", or

whatever, to issue in decisions for action which are more or less

justified by the truth of such premises and the validity of the

arguments in which they appear. It is not being argued that the

relationship between the premises and the conclusion of such an argument

must necessarily be a strict deduction, but since Thompson states that

> "although philosophy of education cannot of itself generate
>
> practical directives it is, in this respect, no different
>
> from any other discipline"[1],

and since practical directives clearly <u>are</u> generated, such directives

necessarily issue from a combination of these two non-synthesising

elements, else they are invalid on that ground alone.

Nor is it clear why, under certain circumstances, such an argument

could not be a straight deduction. Though not all educational policy

arguments will be cast in the form of the practical syllogism, where

the major premise is evaluative and the minor premise factual[2], there

---

1 ibid., p.58.

2 See Aristotle, <u>Movement of Animals</u>, 701a 7-35, and
<u>Nichomachean Ethics</u>, 1147a.

is no reason in principle why many should not be so cast. The study

of education may be a special case of a practical activity which can

have no sound theoretical backing, on the grounds that the truth of

the premises cannot be established, but the validity of the argument

generated by them is a function of the laws of logic, not of the

epistemelogical status of educational studies. A practical syllogism

is a valid argument in which the major premise states a principle,

and the minor premises specify the existence of circumstances to which

the principle applies. Thus :-

(1) Education ought to promote pupils' rationality.

    (a) The promotion of rationality involves introduction to

        Hirsts seven forms of knowledge.

    (b) Mary is a pupil.

Therefore Mary must be introduced to the various forms of knowledge.

This is a valid argument, whether or not Hirst's theory of knowledge

is true. Nor is this an academic point, since there are certainly

educational arguments where the factual premises are fairly well

established and the evaluative principle generally agreed. For example:-

(2) A pupil's interest in what it is thought desirable for him to

    learn ought to be encouraged.

    (a) Relevant questions are a symptom of interest.

    (b) Punishment for questioning discourages questions.

    Therefore children should not be punished for asking relevant

    questions.

It could even be argued that the major premise here is a conceptual

truth, so that only the minor premises are disputable in principle.

    These examples underline the points made at the beginning of this

chapter about the difficulty of neatly separating facts and values in

education. Not only do the evaluative premises in both examples contain

conceptual problems, but the first 'factual' premise in the first

example rests upon claims about the nature of knowledge - claims about

what _is_ the case which cannot be verified empirically - whilst both

'factual' premises in the second example are fraught with conceptual

difficulties. However, the point to be established here is that,

whatever problems arise with the premises of educational arguments,

a valid, though not necessarily true, conclusion has been generated,

and this conclusion is not reducible to the parts from which it is

derived. If practice presupposes theory, and theory for practice is

logically complex, then practice would be impossible if this were

not the case. As Pring notes in reply to Thompson:

> "Mr Thompson denies ... the possibility of a synthetic
>
> view. But would he deny the possibility of a "view"?
>
> It is difficult to see how a teacher can proceed without
>
> some sort of view of the future both as affected and as
>
> not affected by his educational activity. But at the
>
> moment I am not able to see what a non-synthetic view
>
> would be like or indeed whether it would even be meaningful
>
> to talk of it." [1]

In spite of his acceptance that educational arguments can be

cast in the form of the practical syllogism, Pring is extremely worried

by the suggestions from Langford, Hirst, Peters et al. that inter-

disciplinary thinking is essential in education. He states:

> "The point is that in any interdisciplinary thinking,
>
> and particularly in the interdisciplinary thinking
>
> characteristic of educational theory, the worked out
>
> structures of understanding, represented by the disciplines
>
> and determining particular methods of inquiry, need them-
>
> selves to be integrated, and this, if not irrational or
>
> arbitrary, presupposes a right and a wrong way of integrating.
>
> But in appraising the process of integration itself, one

---

1 Pring, op. cit., p.66.

would seem to imply a logic of relating these contributions

from different forms of thought. Without such a logic it

is difficult to see how interdisciplinary decisions could

be regarded as reasonable. On the other hand it is not at

all clear what the logic of integration within, say, the

area of education could be; it is certainly not as apparent

as the logical structures that characterise the particular

disciplines used by educational theory."[1]

There seems to be a regress operating here, very similar to the regress

noted above which Hare identified as inherent in any search for

complete justification. It is quite unclear why this should be

particularly characteristic of interdisciplinary thinking about

educational matters: Pring's first remark is in fact true:- it is

characteristic of any interdisciplinary thinking, and all reflection

about any practice is necessarily interdisciplinary.

Thus the special 'logic' which relates the various contributions

together will be none other than logic tout court. The conclusion of

a piece of interdisciplinary argument in education will be true if

the normal requirements for a true conclusion are fulfilled - that

is, if the premises are true and the argument is valid, the conclusion

will be true. Much work in philosophy of education has been concerned

with the procedural relationship of parts of a logically mixed argument

to each other: less attention has been given to the epistemological

status of the disciplines from which the parts are drawn. That

examination, which is the focus of Parts Two and Three of this thesis,

may well suggest that it is the establishment of the truth of the

premises which constitutes the principal difficulty in explaining and

justifying educational policies, rather than the formation of a

logically complex argument based on such premises.

---

1 ibid., p.67.

D.C. Phillips has an interesting chapter on the justification of educational principles in <u>Theories, Values and Education</u>[1], but he typically makes greater demands on the procedural validity of a justificatory argument than on its truth. He accepts that a justification must be a valid argument with the justificans as premises and the justificandum as conclusion but remarks that

> "... the premises of a justificatory argument have to be
>
> acceptable in themselves, but it would be unreasonable
>
> to suggest that the premises in turn must be justifiable.
>
> It would be unreasonable, because it would lead to an
>
> infinite regress - it could be demanded that the justification
>
> be justified and then that the justification of the
>
> original justification be justified, and so on. Nothing
>
> would everybe satisfactory."[2]

This of course is true up to a point: assumptions must be made at some point, as has been argued above, but nonetheless it is reasonable to seek to pursue such a regress of justification of premises at least some considerable distance, to a point at which assumptions are agreed or inevitable. The greater concern with validity than with truth - with procedural principles for justification rather than with content - which is representative of much writing about the status of educational theory, is apparent when Phillips describes what would need to be established to justify a policy:-

> "Consider the following policy or principle: 'In cases of
>
> type T, act in manner P'. This is a policy involving an
>
> instrumental good if P is not a good in itself but leads to
>
> some intrinsic good G.
>
> There are at least four criteria which have to be satisfied

---

1 Phillips, op. cit., p.51.

2 ibid., p.50.

before an educational policy of this type can be said to
have been justified:

 (i) The intrinsic good G to which P leads has to be known,
     and it would have to be agreed that G was an intrinsic
     good.

 (ii) It would have to be argued that P can lead or is likely
     to lead, to the attainment of G.

(iii) It would have to be shown that no other policy (Q or R)
     could achieve the same end as efficiently as P. If
     the justificatory argument merely establishes that P
     leads to the intrinsic good G, the policy has not been
     justified; Q or R might be a more effective means of
     achieving G.

 (iv) It would have to be agreed (or else argued) that it is
     appropriate for the school to attempt to achieve G. It
     does not follow that because G is an intrinsic good, and
     because by putting P into practice G can be attained, it
     is the responsibility of an educational institution to
     put P into practice."[1]

This is a demand for complete justification, and as such necessarily
involves an infinite regress.

    The first criterion immediately introduces the notion of infinite
evaluative regress, which will be the subject of Chapter Seven of this
thesis, and implicitly contradicts Phillips' earlier acceptance that
justification cannot be pursued indefinitely. The second criterion is
reasonable in so far as it states that in order to justify something
as a means, it must be arguable that it really is a means to the end
for which it is designated. However when the end is an intrinsic
good - which raises all the problems of criterion (i)- the traditional

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1 ibid., pp.55-56.

account of a means-end relationship breaks down, since the means
becomes constitutive of the end.[1] The third criterion here is
even more revealing, as is the fourth which shares its characteristics.
These two criteria demand not only that a particular educational
policy be justifiable, on the usual grounds that it is the conclusion
in a valid argument where the premises are true, but that it also be
shown that no other argument, with different minor premises, could
lead to a different conclusion. It must be shown not only that X is
justified in education, but that nothing else could be equally or
more justified and that not only must education be shown to be an
acceptable home for such a policy, it must also be shown that there
is no other or more acceptable home.

To demand this is to demand that sort of complete specification
of all rejected alternatives characteristic of requests for complete
justification which logically amount to requests for an explanation
of the meaning and purpose of life, noted above in the words of Hare.
In other practical areas this is not demanded. In order to know
whether it is justifiable to administer drug X to patient A, it is
sufficient to agree (i) on an end state for A which is sought, (ii) on
the efficacy of X as a means to A, and (iii) on the absence of contra-
indications for the administration of X. It is <u>not</u> necessary to show
that there is no other drug which actually or potentially could achieve
the end state desired, nor is it necessary to specify alternative forms
of treatment or non-treatment, actual and hypothetical, which might
bring it about. The same purely negative entailment also holds for
the evaluative elements in the argument. As Hirst notes

"Consistency between beliefs and principles denotes nothing

more than the absence of any contradiction between the two.

This there must be, but it by no means follows that there

---

1 Hare, op. cit., chapter 4, passim.

must also be an explicit deductive chain that leads from
the one to the other."[1].

If Phillips' criteria could be fulfilled, principles would not
simply be justified in the sense of supported by reasoned argument,
they would be justified in the rather special sense of being proved
to be true. To seek not only to disprove all negative entailments but
to positively demonstrate the absence of any further negative entailments,
in both factual or evaluative spheres, is to condemn theorising in
education to impotence, since philosophers constantly remind us of
the impossibility of proving ultimate ethical principles, and scientists
generally accept the Popperian notion that for empirical statements

"the criterion of the scientific status of a theory is its
falsifiability, or refutability, or testability."[2]

Such statements do not have to be shown to be true; they have to fail
to be shown to be false, whilst being of such an epistemological form
that they could be so shown, by the standards of their own area of
enquiry.

In this thesis no more and no less than this will be demanded of
educational theory. For an educational policy to have a sound
theoretical backing it must be shown:

  (i) That both empirical and evaluative premises validly lead

       to the generation of a conclusion which constitutes that

       policy in accordance with the laws of logic.

 (ii) That the evaluative premis(es) can be supported by

       argument of a philosophical or ethical nature, and that

       where these make reference to principles, no contradiction

       can be shown between principles and beliefs.

(iii) That the factual premises are acceptable on grounds

---

1 Hirst, op. cit. (1966), p.37.

2 Popper K.R., Conjectures and Refutations, 1969, p.37.

normally demanded of such premises. They must

therefore be adequately conceptualised to be fully

intelligible, and supported by evidence which is

empirically rather than ideologically based.

If these two latter criteria can be established, then theorising in

education is possible in principle, in the sense that policies will

potentially be capable of reasoned support.

P A R T   T W O

"It is not the philosophers who whisper - or shout - into
the ears of the mighty. At court they are no-where to be
seen, not even as jesters. Rather they are notable for
their absence. On the other hand psychologists, political
scientists, sociologists, anthropologists and other social
and behavioural scientists, are engaged in making and
carrying out social policy."[1]

"... the greatest and most difficult problem to which man
can devote himself is the problem of education."[2]

1 Barnett G., _Philosophy and Educational Development_, 1967, p.xii.

2 Kant I., _Education_,(Trans. Churton A., Ann Arbor, 1960), p.11.

C H A P T E R   F O U R

NORMS,   VALUES   AND   PHILOSOPHY

It was argued in the Introduction to this thesis that an exam-
ination of the explanatory and justificatory potential of educational
theory is a philosophical task, and the first part of the thesis
should, among other things, have demonstrated this. Any such study
of the assumptions, procedures and implications of a particular field
of enquiry is necessarily a second-order activity and just these sorts
of meta-enquiries are fashionably taken to be the main or even the sole
province of the philosopher. It was also argued that it is the
normative concepts of both 'education' and 'educational studies' which
are of interest to both theorists and practitioners in the field of
education, since they are both concerned with the evaluation and
justification of policies already in operation, or with the postulation
of alternative policies, thought to be better. It was further noted
that any such policies are necessarily based upon considerations both
of fact and of value, whether the value judgements are overtly
acknowledged and argued for, or whether they are simply embedded in an
argument claiming to be purely factual.

An awareness of the logical complexity of all decisions and policies
has led philosophers of education to emphasise, rightly, that they can
neither generate nor justify policies by normative argument. But
emphasis on the fact that

"it is not possible to deduce statements about the aims of

education or its curriculum from any philosophical statements"[1]

has led to considerable misunderstanding. Not only have empirical
theorists taken such disclaimers to mean that 'the facts' are paramount,

---

1 O'Connor, op. cit. (1957), p.106, footnote.

but philosophers of education have tended to cast themselves in the
role of educational back-seat drivers, who pronounce themselves
unqualified to take the wheel, but specially qualified to comment on
the driver's mistakes. The ambiguity of this position is a function
of the reasons behind the philosopher's claim that he is not only
unqualified to drive the vehicle of educational theory, but specially
qualified to understand that no-one else is qualified to do so either.

This leaves a gaping hole, not only in educational theory, but
in the theoretical backing of all practical activities, and indeed in
the assumption that we are not deluded when we believe we are
deliberating rationally about what ought to be done in the activities
of daily life. If all such deliberation is necessarily normative,
making reference to both facts and values, and we can turn to
psychologists, sociologists, economists etc. for expertise in factual
matters, to whom do we turn for expertise in normative matters? To
the question "Should the philosopher of education abstain from value
judgements?" the rider "qua philosopher" is frequently attached. Such
a rider distorts the issue since the implication is that qua man he
need not so abstain, but may if he wishes. The difficulty lies in the
fact that the only sort of man who can abstain from value judgements is
the empirical scientist, qua empirical scientist (and even this point
is debatable), and whatever the philosopher's role, apart from his role
as a man, the one thing he is certainly not is an empirical scientist.
Thus the philosopher/man, in either of his capacities, cannot escape
the making of "specific judgements" and each of these logically makes
implicit reference to an unending series of supportive judgements, which,
if certainty were a feature of reality, would "involve reference to some
ultimate principle or principles".[1] The philosopher's impotence is a

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1 Barrow R., "Who are the Philosopher Kings?" in The Proceedings of
   the Philosophy of Education Society of Great Britain, Vol. VIII,
   July 1974, p.202.

function of the problem of the regress of validation, which possibly has no solution, and his declaration of impotence is a reflection of his acceptance of the ultimate arbitrariness of our norms, in virtue of the argument from regress. This impotence acquires a different perspective if it is emphasised that this is not simply a problem of philosophy and for philosophers, but a problem of normative reasoning which is implicit in all action, and therefore a problem for all purposive beings. Men do not have the option of abstaining from judgements about ends, or from normative thought in general, unless they also abstain from all action and all deliberation, since action is only intelligible in terms of intention, and an intention is logically only intelligible as an intention to do, or achieve, x, a subsequent state, and so on ad infinitum, or until some ultimate value is reached.

There may well be no escaping the argument from regress, since it would seem to show that if our foundations are well-founded they cannot be ultimate (since we have others beyond them to back them up), and if they are not well-founded they must be arbitrary. However, the real force of this argument is frequently overlooked. If it is true that fundamental norms are arbitrary, this depends upon the fact that they are fundamental, not that they are norms, and if it is true that all judgements are dependent for their validity upon further judgements, then no judgement can be adduced to be sound. This would be true not only of judgements about what ought to be the case, but also of judgements about what is the case.

Thus it becomes evident that the determination of philosophers in general in the anglo-saxon tradition of the last sixty years, and of philosophy of education in particular, which in its present form had its origins in the analytic movement , to refrain from value judgements on the grounds that these cannot be securely validated, is a legacy of logical positivism, which in its turn grew out of the positivistic conception of science and truth current in the nineteenth century. The

philosopher's obsession with the claim that normative argument is
vitiated by the unknowability of ultimate principles appears to be
another form of the assumption of nineteenth century physics that
progressive understanding of molecular structure would eventually
lead to the discovery of ultimate particles, the prime building blocks
of matter. The success of the hypothetico-deductive model of science,
where a pyramidal construction of laws of increasing generality
appeared to promise an approach to fundamental truths about reality,
gave to science an aura of certainty, which threw into stark relief
the lack of certainty in normative argument. Science was seen as the
province of matters open to proof, the factual area where certainty
was potentially to be had, in contrast with the normative areas of
human life and thought where no such certainty was possible.

The positivistic view of science, though popular among laymen,
has long since been abandoned both by scientists themselves and by
philosophers of science. No scientist assumes that in the pyramidal
structure of a hypothetico-deductive system, it is the upper level laws
which prove the truth of the lower level laws, but rather the lower
level laws which repeatedly confirm or fail to falsify the upper laws,
thus giving them further credence, rather than proving them to be true.
This is a matter not simply of methodology, but of logic, for if a
lower law could only be confirmed by a law of greater generality, then
the whole enterprise could neither begin in the first place, nor have
any validity however long it continued. I am arguing that much the same
is true of normative argument. Philosophers generally agree that any
such argument is regressive and therefore necessarily cannot be
validated. What is frequently overlooked is that to take the regress
seriously would involve total abstention from normative reasoning,
and thus from all purposive activity, including analysis. Since it is
pointless to urge us not to do what we cannot possibly refrain from
doing, the philosopher's caveat can only mean either that _he_ is specially

unqualified to make value judgements, or that though we are forced

to continue deliberating about actions, all such deliberation is

necessarily arbitrary.

It is difficult to imagine the former. Since conceptual and

normative argument is precisely the field of the philosopher's expertise,

it is hard to see why he is less qualified than others to take part

in an activity which no-one can avoid. E. Gellner is typically tart

about the procedures of the philosopher who eschews all prescription:

"He who has convinced himself that it is permissible,

may pose as both modest and liberal: he makes no claim,

he proudly says, to tell you about either the nature of

things or of the good life. He leaves it to you, or to

qualified authority, according to variant, and contents

himself with eliminating certain obstacles, certain logical

or other hindrances to clear vision and the good life,

which would otherwise obstruct your vision and restrict

your freedom. In addition, he has elaborated rules of

intellectual decorum which rule out any argument which

shows that covertly, by the very way he passes the buck and

the direction in which he passes it, he really prejudges

everything and is neither modest nor liberal".[1]

In this vein Langford is typical of the prevailing emphasis in philosophy

of education when he repudiates

"the belief that the philosopher is specially equipped

by superior wisdom, to tell others how to conduct

themselves",[2]

which belief,"goes naturally with what I have called the traditional

1 Gellner E., The Legitimation of Belief, 1974, pp.54-55.

2 Langford G., Philosophy and Education, 1968, p.46.

view of philosophy" which he also, naturally, repudiates. To tell

others how to conduct themselves, one would indeed need superior

wisdom, since expertise would be required not only in normative

argument, but in all relevant factual areas. We do not ask sociologists

or psychologists what to do in education: we ask them only, from

their expertise, to give a better-founded understanding of the facts

than common sense and everyday experience provides. Similarly,

philosophers are not asked to prescribe alone, merely to supply a

better-founded understanding of those norms and principles which,

together with the facts, have a bearing upon practical decisions. Only

this restricted sense of prescription is compatible with an awareness

of the logical complexity of all theory for practice and the regress

implicit in all theorising whether to justify, to explain or to

describe, if what is sought is validation, certainty or positive proof.

Such a gloss on "prescription" cannot be considered arbitrary, if it

is the only one compatible with two indisputable features of reality.

Viewed in this light, the philosopher of education either contributes

to better-founded directives, or he is redundant. If he simply

eliminates obstacles to clear vision, then either he has the special

expertise to know what counts as an obstacle, and some better idea of

what constitutes clarity of vision than those whom he is aiding, or

he does not. If he does not, then he should not be in business at

all, and if he does, then he must know by what criteria a particular

vision is clearer and less arbitrary. If he has grounds for these

criteria, this in itself constitutes normative expertise.

The philosopher's claim to take you nowhere, but to clear the

undergrowth for your passage, is similar to A.S. Neill's claim[1] that

we are not entitled to pass on our moral values to children, since

they are radically questionable, but that we need not, as left to

---

1 Neill A.S., Summerhill, 1965, passim.

themselves, they grow up good. As Barrow points out[1], if Neill can

recognise moral goodness when he sees it, then his moral values cannot

be so questionable, and if they are good enough to enable him to tell

when the children reach this destination unaided, why are they not

good enough to entitle and enable him to guide them in its direction?

The same kind of argument can be used against that school of philosophy

which confines itself to policing the arguments of others for con-

ceptual and logical confusions - a procedure which reaches its

apotheosis when philosophers of education demonstrate from a position

of complete value-neutrality, that value-neutrality is an incoherent

position, not only for teachers, but for all purposive beings. If

philosophy of education illuminates normative deliberation, then it

provides some backing for the normative element in educational theory;

though it will not prove the truth of normative premises, it will have

given good grounds for accepting some such premises (though not

conclusively) and rejecting others (some provisionally and some

conclusively).

Of course, J.S. Mill noted that in this area we must be satisfied

with something less than proof:

"It is evident that this cannot be proof in the ordinary

or popular meaning of the term. Questions of ultimate

ends are not   amenable to direct proof ... . We are not,

however, to infer that its acceptance or rejection must

depend on blind impulse, or arbitrary choice."[2],

and he is frequently quoted to make the point that the regress in

validation confers special uncertainty on moral argument. What is

overlooked when he is thus quoted is that being a man of his time,

he sought to overcome this problem by replacing a moral argument with

1 Barrow R., Common Sense and the Curriculum, 1976, p.58.

2 Mill J.S., Utilitarianism, 1861, Chap.1.

a factual argument, on the assumption that such factual argument is capable of proof. In emphasising the oversimplification inherent in this assumption, I am putting forward neither a Kuhnian conception of science, nor a relativistic notion of truth, but simply emphasising that rationality, which is the most any kind of theorising can strive for, is never dependent upon proof in the strict sense which is only applicable to the backing of the analytic truths of the axiomatic systems of mathematics or logic. Proof is available for truths men construct, but never for truths they discover. An empirical scientist is an expert in his field, not because he can prove that his conclusions are true, but because he is an expert in the procedures for arriving at tentative conclusions, and because he can produce sound reasons for the acceptability of those tentative conclusions. Similarly,a philosopher is expert in his field if he reasons logically, coherently and consistently towards tentative conclusions which are supported by sound subsidiary arguments, and do not conflict with any better established arguments at the same level of generality. They do not need to be validated by an infinite string of subsequent arguments, for ought implies can, with regard to moral argument as elsewhere.

All the above is not to suggest that normative reasoning should be assimilated to empirical reasoning, nor that their features are systematically similar. What is being argued for is the demand that each type of reasoning should be judged according to the same criterion; namely that it is as secure and well-founded as the nature of the enterprise allows. Science is not dismissed on the grounds that it cannot prove its hypotheses to be irrefutably true nor on the grounds that it has not revealed the ultimate secrets of the universe. Normative thought should not be dismissed on the grounds that principles cannot be validated and arguments are regressive in form. The findings of science are not dismissed, not because the lay public is misled about the nature of the enterprise, but because people clearly cannot

operate in the world without making hypotheses and drawing inferences
about the facts of their environment and of their situation in it.
The scientific enterprise provides such hypotheses, at a higher level
of generality and with greater accuracy than common sense, thus
giving a more sophisticated understanding of those facts. Similarly,
we cannot operate in the world without employing principles, both
substantive and procedural, as was argued in Chapter Three, or without
norms. Rational support for such norms cannot of course be obtained
by appeals to the world of material objects, as support for empirical
hypotheses is obtained, but by appeal to coherence, consistency and
compatibility within normative reasoning. Since such support is
essential, if decisions are not arbitrary in principle, and since
normative reasoning is the only possible source of such support, it
will be more or less sound according to those, appropriate, criteria
only.

It is therefore the business of those whose expertise is in the
area of normative reasoning to provide as secure ground as possible
for those procedural principles and evaluative premises without which
the findings of the empirical worker - however sound they may be -
must necessarily remain unapplied to the world by actions which issue
from deliberation that is necessarily logically complex. If philosophers
are unwilling to offer their aid for whatever it is worth, on the
grounds that it is not good enough, then decision makers will be
obliged to obtain what insight they can from those who are less cautious.
R.G. Collingwood, in his autobiography, noted that the philosopher's
refusal to prescribe resulted in prescription being less well-founded,
and his remarks could well be applied to what takes place in educational
theory:

> "At the moment I am not concerned with the sophisms under-
> lying this programme, but with its consequences. The pupils,
> whether or not they expected a philosophy that would give

them ... ideals ... and principles, did not get it, and
were told that no philosopher (except of course a bogus
philosopher) would even try to give it. The inference
which any pupil could draw for himself was that for
guidance ... since one must not seek it from thinkers or
thinking, ... one must look to people who were not thinkers
(but fools), to processes that were not thinking (but
passion)...."[1]

Thus the insistence that the philosopher of education cannot provide
prescriptions for practice has served in his hearers to over-value the
part played by evidence and facts in generating policies, and to under-
play the importance of normative thought of a systematic nature. Such
thought does not of course provide prescription, but no prescription
can be formed without it. Let us, then, turn now to an examination
of the extent to which philosophy of education can offer secure grounding
for that essential element of all decisions or policies.

The function of philosophy has been succinctly characterised by
Scheffler as the search for "general perspective on a rational basis":

"The philosopher wants to see things in perspective and he
wants to see things sharp and clear. He strives for a maximum
of vision and a minimum of mystery".[2]

Since these are characteristics which he shares with all serious
thinkers engaged on any systematic enquiry, the means by which a
general, rational perspective is sought will not be static, but will
inevitably respond to developments in other cognitive fields, most
notably science. Any particular science at any given time is restricted
in its remit in two distinct ways. Firstly, it is not concerned with
relating its findings to the findings of other particular sciences, nor

1 Collingwood, R.G., An Autobiography, 1939, pp.36-37.

2 Scheffler I., The Language of Education, Springfield, 1965, p.5.

to the practical world, and secondly it is not concerned with the analysis of those basic concepts such as 'evidence', 'cause', 'fact' etc. which it uses in common with other particular sciences.

Before the rapid development of scientific understanding which has taken place in the past three hundred years, the philosopher attempted to reach generalised perspective by amassing the fragmentary findings of the embryonic sciences and fitting them together into some overall world-view which contained explicit or implicit statements about the nature of man and of the material world, and the goals of human action in that world. This type of attempt to reach generality has been rendered suspect and has been largely abandoned due to the twin influences of the post-Kantian emphasis on the naturalistic fallacy, and the practical problem that subsequent scientific findings invariably discredited any such speculative world pictures.

Thus philosophy has ceded to science those areas in which science is clearly more successful, and strives now for generality by working in those two areas which transcend the remit of any particular science, engaging in that normative argument without which scientific findings could not be related to the world of actions or applications, and scrutinising the basic concepts, assumptions, arguments and inferences characteristic of different enquiries. At this point there is a divide, between those philosophers who employ such analysis for the projection of an integrated view, and those - currently more numerous - who confine themselves to the clarification of ideas themselves. At the turn of this century renewed interest and significant advance in logical studies heralded a further narrowing and sharpening of the focus of philosophy, as the logical evaluation of assertions developed as its basic task. Ideas were examined from the standpoint of clarity, and arguments from the standpoint of validity, since philosophers claimed to be debarred from pronouncing on truth - though not on what

constituted nonsense.[1] In the early stages of the analytic movement

which then arose, the subject matter to which this sharp but

specialised tool was applied was largely drawn from mathematics,

science and the language of ethics (not the substance of morals), and

the emphasis was on methodological considerations. With the wider

application of this tool in the past thirty years to the broader

areas of law, social issues, religion, politics and education, the

substantive implications of the procedures of philosophy have once

again become a real issue.

In emphasising that there is more to philosophical thought than

'philosophical method' it is not here being argued that the old idea

of philosophia perennis as the master architectonic science should be

revived. It seems clear that the supposition that philosophy can

supply the basic principles upon which genuine knowledge of any realm

of enquiry about the material world is based, is a blunder sufficiently

exposed by the actual history of thought. But although there is no

subject matter which is specifically and inherently philosophical,

there is a general class of questions, a proportion of which arise in

connection with every specialised subject matter, which are character-

istically philosophical in that they deal with foundational problems

generally, and the foundational problems of knowledge in particular.

E. Nagel, in an article on 'Philosophy and Educational Research" gives

useful examples of the sort of foundational problems here intended:

"For example, one is tackling a philosophical question in

this sense when one attempts to clarify such notions as

that of cause or energy in physics, growth or adaptation

in biology, instinct or purpose in psychology, and responsibility

or self-development in moral theory. Again, one is raising

a philosophical question when one asks whether the law of effect

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1   c.f. Ayer A.J., Language, Truth and Logic, 1936.

in psychology has the status of an empirical generalisation
or that of a definitional truth, what is the rationale for
punishing those guilty of criminal offences, and in what
respects the logic employed in supporting the contention
that litigants at law should receive treatment irrespective
of their race is similar to or differs from the logic used
to warrant the claim that blue-eyed human parents have blue-
eyed children. Once more, it is a philosophical problem to
determine in what way admitted facts of psychology are con-
tingent upon the findings of physics and biology, or to assess
the bearing of current knowledge in the natural and social
sciences upon some proposed ideal for human conduct."[1]

Such foundational problems about the nature and grounds of belief, the
general conditions under which discourse is meaningful,and the logic
implicit in evaluating the worth of evidence does not add to the stock
of knowledge of the primary subject matters which are the concern of
the specific sciences, but without an approach to their solution no
additional information from within those specific sciences would get
us any nearer to the general perspective of which Scheffler speaks.
Nagel notes that on the conception of the task of philosophy as a
critique of cognitive claims, certain areas of expertise will be
essential to philosophers:

"... competent philosophical inquiry requires both considerable

familiarity with the substantive content and the procedures

of specific inquiries, as well as some mastery of the

techniques of logical analysis."[2]

The above brief sketch of some recent developments in philosophy,

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1 Nagel E., "Philosophy and Educational Research", in Banghart F.W.(ed.),
   Educational Research: Phi Delta Kappa First Annual Symposium,
   Indiana, 1960, p.73.

2 Nagel E., ibid., p.74.

and the subsequent statement of its task is intended to distinguish

two senses of "second-order" as applied to the discipline of

philosophy. For the purposes of this thesis it is assumed that

philosophy has a second-order function in that it seeks to answer

meta-theoretical questions about the subject matter and procedures of

substantive areas of enquiry. It is not assumed that it is second-

order in the sense of necessarily being therefore either value-free or

devoid of substantive implications. The difference here can be high-

lighted with reference to the treatment given by O'Connor to a

perspective on educational theory, and the treatment attempted to reach

that perspective in this thesis. Professor O'Connor examined the

semantic usage of "theory" in various disparate contexts, in order to

decide whether our attempts at a more sophisticated understanding of

what does and of what ought to go on in education can properly be called

"theory". In this thesis I examine, not the usage of the term "theory",

but the procedures of the theorisers, to offer a cognitive critique

of their claims. Philosophy of education has predominantly limited

itself to second-order activity in the sense in which this is understood

by O'Connor, restricting itself to an examination of the "logical

geography" of concepts.

With the developments of the application of analytic or second-

order philosophy, problems arise. In the early days when the tool of

analysis was directed largely at the content of mathematics and science,

the claim to value-neutrality was unchallenged. With the broadening

of application to social issues, law, education and politics, this

stance becomes more problematic. Peters gives a fair definition of the

function which philosophers of education see for their activity, as

contrasted with the layman:

"'Philosophy of education', like 'philosophy', suggests rather

different things to different people. To the general public,

perhaps, it suggests high-level directives for living in general

or education in particular, derived from deep probings
into or ponderings on the meaning of life. To the
professional philosopher, on the other hand, it intimates
the disciplined demarcation of concepts and the patient
explication of the grounds of knowledge and conduct.
Philosophers nowadays ally themselves with Socrates and
Kant in asking and trying to answer the questions 'What
do you mean?' 'How do you know?' and 'What must we pre-
suppose?'. There has been a revolution in philosophy during
this last century and one of its main features has been an
increased awareness of what philosophy is and what it is
not."[1]

Typically in this manifesto modern developments in philosophy are
both heralded as revolutionary, and underplayed. The reader is reminded
that the philosopher has always had an important analytic function,
that (non bogus) philosophers from Plato onwards have always been
concerned to isolate the meaning of key terms in order to ensure genuine
communication between disputants. Those who stress the irreproachable
pedigree of philosophical analysis concentrate on the procedure
followed by practitioners, and neglect the fundamental question of the
purpose of the exercise. In this, modern philosophical analysis is a
redirection of emphasis. Whilst historically the analytic function
of philosophy was seen as a necessary preliminary to normative or
speculative reasoning on the part of philosophers themselves, the
assumptions behind the methodology of modern linguistic philosophy rule
out, rather than lead on to, this purpose. The linguistic approach is
dependent upon a theory of language which asserts that language is a
natural thing[2],

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1 Peters R.S., "The Place of Philosophy in the Training of Teachers"
   (1964) reprinted in Peters R.S., Education and the Education of
   Teachers , 1977, p.141.

2 c.f. Flew A. (ed.), Essays in Conceptual Analysis, 1956.

an activity undertaken by actual men in specific contexts; it is
in no way a mirror of reality such that from the basic constituents
of language one could, in fact or in principle, infer the basic
constituents of reality. The meaning of terms is considered simply
as their use in the public world as tools, and the use of the tool
can only be specified in terms of what is necessary to its employment.
In theory, the linguistic approach to philosophy corrects past mistakes
of inferring universals like 'the Good' from adjectives, substances
like 'time' and 'truth' from substantives, and realms of possibility
from conditional or hypothetical utterances. Thus, at least within
the anglo-saxon tradition, the philosopher's analytic role has not
merely predominated over his speculative and normative functions in
contemporary thought, but claims to invalidate and preclude them.

The problems inherent in maintaining the value-neutral stance
with regard to the philosophy of education become apparent when Peters
goes on, on the next page, to specify what work there is to be done in
that field. He notes:

"It can be roughly characterised as the application of
(i) philosophy of mind, (ii) ethics and social philosophy,
(iii) theory of knowledge, to educational issues."[1]

The first of these areas fits the second-order function characterised
by Nagel as the role of philosophy, and accepted in this argument as
one valid and important role, but the second and third areas go beyond
this. The philosophy of mind is concerned with scrutinising the
concepts used to refer to the development of individuals and the means
by which these are brought about, and the philosopher of education will
clearly be working here at a meta-theoretical level with the concepts
of educators and psychologists, as well as examining general problems
to do with the conceptual schemes employed by psychologists in

1 Peters, op. cit. (1977), p.142.

general, and educational psychologists in particular, in theorising

about human nature. But whose concepts and whose theorising should

be scrutinised in ethics and social philosophy if the philosopher's

concern with this area is to remain second-order? A three tier model

has been advocated in ethics[1], where on the first level appear the

activities of daily life, on the second level ordinary evaluations of

such activities, and on the third level philosophical analysis of the

concepts and arguments involved in such evaluations. It is hard to

see why expertise at the third level entails disqualification at the

second. Similarly with epistemology: if the procedures of philosophy

can only be critical, and not substantive, whose substance would the

philosopher scrutinise in this area?

In the past sixty years, moral philosophy, the search for under-

standing of what things are good and what acts ought to be done, has

largely given way to ethics -an analysis of the terms we use within

moral forms of discourse. Whilst this particular division of reference

for the terms "ethics" and "moral philosophy" could be disputed, what

is not disputable is that there has been a general shift of emphasis

within moral philosophy, paralleling the general withdrawal from concern

with substantive issues, away from the search for prescriptive systems

to guide conduct, and towards an attempt to clarify the meaning of

terms such as "good" and "right" which are central to such prescriptions.

Whether or not these two distinct activities are referred to in the same

way, the redirection of emphasis is nonetheless apparent. The function

of the second-order study of ethics has often been to pronounce the

first-order activity, on which it is parasitic, empty.[2] Thus Mackie

states :

"There is no sound way of laying down our initial or

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1 c.f. Mayo B., _Ethics and the Moral Life_, 1958, Chap.1.

2 c.f. Stevenson C.L., _Ethics and Language_, (New Haven), 1944.

fundamental value-judgements or prescriptions a priori or

on general philosophical grounds, and this holds for our

basic educational evaluations as for all others."[1],

which is the same point as Nagel makes in stating that

"Philosophers qua philosophers are not in a privileged

position to make warranted pronouncements about human

nature and the proper goals of human effort."[2]

The grounds for this position are often unclear. It cannot be sufficient

simply to reiterate that philosophy is second-order and thus non-

normative, since being second-order does not entail being non-normative,

nor exclude being first-order in those areas which if deserted by

philosophers become empty and therefore no subject for second-order

enquiry.

Nor is the position universally accepted, for a growing number of

philosophers believe that moral philosophy can and should be concerned

with first-order normative enquiry. C.H. Whitely suggested:

"It is time to reverse the process by which the discussion

of ethical problems is being extruded from the domain of

philosophy and replaced by a study of the grammar of ethical

words .... . Moral questions can be rationally discussed,

and moral philosophers are the right people to do it."[3],

and Gewirth argues cogently and at length for the return of the moral

philosopher

"to his traditional role of clarifying and criticising men's

moral ideals within the context of on-going moral practices

and institutions"

and for "the reinstatement of philosophical ethics as a normative

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1 Mackie J.L., "Can There be a Philosophy of Education?", in
   Forum of Education, Vol. 23, 1964, p.41.

2 Nagel, op. cit., p.80.

3 Whitley C.H., "Rationality in Morals" in Proceedings of the Aristotelian
   Society, Vol. L, 1949, p.14.

discipline."[1]

More important, however, than divisions between philosophers on
this issue, are divisions within the work of any particular philosopher
who claims to favour the second-order approach on moral questions.
Peters himself, for example, firmly states in Ethics and Education
that to expect philosophy

"to provide answers to substantive questions, is to fail

to understand what sort of inquiry philosophy is and the

part it can play as a contributory element in educational

theory.",[2]

and yet in chapter five of that book he attempts a discussion of worth-
while activities, which is presumably intended to be more than a mental
exercise. Moreover he stated at the International Seminar in the same
year (1966):

"I think it is possible to produce arguments to show both

why some pursuits are more worthwhile than others and why

some principles rather than others are justifiable in dealing

with children. In other words, I think it is possible for a

philosopher of education to produce some kind of ethical

foundation for education, the guiding lines of which are

provided by the above analysis of 'aims of education'."[3]

Nonetheless he felt it necessary to conclude these remarks with the
disclaimer that:

"The justification of principles is one thing, their

application in concrete circumstances is another. It

is one thing to give arguments for general aims; it is

---

1 Gewirth A., "Positive Ethics and Normative Science" in Philosophical
   Review, Vol.69, 1960 , p.330.

2 Peters R.S., Ethics and Education, 1966, p.7.

3 Peters R.S., "Philosophy and Education" in Proceedings of the
   International Seminar March 23-25, 1966. (Ontario Institute for
   Studies in Education, Monograph Series), No.3., 1967, p.15.

quite another to say which particular one should be

emphasised in contingent circumstances. Philosophy

has an important contribution to make to practical

wisdom, but it is no substitute for it."[1]

This disclaimer does not reconcile Peters' preceding remarks

with his categorical denial of the substantive role of philosophy quoted

from Ethics and Education, unless one makes the mistake of assuming

that all answers to substantive questions are prescriptions. As was

argued at the beginning of this chapter, answers to two sorts of

substantive questions, empirical and normative, are essential elements

of any prescription. No-one would dispute Peters' second disclaimer,

since philosophers are not assumed to be expert on "contingent

circumstances", but they might well dispute the first (flatly con-

tradicted by his remarks at the International Seminar, and indeed by

the bulk of his work) since without rational grounding for principles

and norms it is hard to imagine what would be the material on which

the philosopher would exercise his critical tools in this area. Thus

the position of those who wish to restrict their task to the second-

order study of ethics is incoherent, since the category of moral argument

is either empty or it is not. If it is not empty, it is the province

of philosophy, since it is certainly not the province of science, and

if it is empty, there is no subject matter to which meta-theorising

might apply. At this point it might be argued that the role of the

philosopher is here simply to expose mistakes, but if mistake in

normative argument is relative, then there must be criteria of soundness,

and if alternatively mistakes are co-extensive with the whole category

of morals, then exposing each specific mistaken or unfounded argument

separately could only be a tedious and pointless game.

Without goals and norms, which can be deduced neither from

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1 ibid., p.16.

empirical research nor from conceptual analysis, but without which

theorising about practice cannot take place, the methods of critical

philosophy applied to the essentially normative area of education

are empty:

> "To do conceptual analysis, unless something depends on
>
> getting clearer about the structure underlying how we
>
> speak, may be a fascinating pastime, but it's not philosophy."[1]

The following chapters of this thesis will therefore examine what does

depend on this clarification. In order to discover what philosophy of

education can contribute to the formation of practical directives in

that area, beyond its policing role in analysing concepts central to

the empirical and normative areas, and in scrutinising the arguments

of other theorists for internal consistency, four questions must be

asked. Firstly, could any agreed philosophical position have sub-

stantive implications for educational practice and must any such

position necessarily be metaphysical? Secondly, what is the scope and

purpose of philosophical analysis as applied to educational concepts,

and how does increased clarity of thought affect educational judgements?

Thirdly, can philosophers of education, who are applying systematic

thought to an activity defined by one of their number as "the trans-

mission of that which is worthwhile in a morally acceptable manner"[2]

offer substantive referents for "worthwhile" or "morally acceptable".

Finally, what are the implications of the outcome of these three

examinations for the grounding of normative argument in the area of

education? It will not be asked whether or not philosophers can prescribe,

since it has been sufficiently argued that alone they cannot. Nor

will it be asked whether philosophers personally have the right to

offer the normative element essential to all well-founded prescriptions.

What will be asked is whether they can establish such a well-founded

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1 Hirst P.H. and Peters R.S., The Logic of Education, 1970, p.10.

2 Peters R.S., op. cit. (1966), passim.

element, for if they cannot, educational theory will be vitiated,
since it will lack rational support for those normative major
premises which constitute an essential part of any reasoned decision
for action, which if fully spelt out, would take the form of a
practical syllogism.

CHAPTER FIVE

THE ATTEMPT TO DERIVE EDUCATIONAL POLICIES FROM

METAPHYSICAL POSITIONS

When O'Connor first approached the problem of educational theory some twenty-five years ago, he noted that in text-books on educational theories or the history of educational ideas, there are basically three sorts of statement which have been put forward as bases for educational practice; metaphysical statements, value judgements and empirical claims. He stressed that with the former

> "It is important that, whether or not we suppose that
> such statements are meaningful or provable, we should
> at least be able to recognise them. For it is hardly
> possible to understand them if we do not appreciate their
> logical status."[1]

He is surely right in these remarks, and before examining the status of the two latter categories of statement, it is necessary to explore briefly the status of the former. By "metaphysical statements" what is here understood is not those restricted unprovable assumptions embedded in many purportedly empirical claims, such as the nature/ nurture debate as it relates to questions of intelligence, or development - for these will be dealt with later - but those comprehensive world-views for which their supporters claim direct educational implications.

Although contemporary philosophers disagree among themselves over the extent and manner in which their philosophising relates to practice, their basic common agreement about the nature of their task is in sharp contrast to 'philosophy of education' as understood both by traditional philosophers from Plato to Dewey and by many non-specialists today.

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1 O'Connor, op. cit. (1957), p.106.

This contrast is reflected in the use of the term, which is attributed

generically by today's specialists, and specifically by others. Thus

it is common for the specialist when asked what he teaches to reply

"philosophy of education", and immediately be asked "And what is your

philosophy of education?". In the same way a substantial, though

decreasing, number of colleges still offer courses on the educational

philosophies of Plato, Locke, Rousseau, Kant, Mill and Dewey, not as

stimulating examples of developments in the history of ideas, but for

the tips for pedagogy embedded in them. Such courses offer, in the

name of philosophy of education, a package tour around philosophies of

education, explicitly or implicitly derived from great thinkers of the

past. As J. Wilson remarks:

> "At this point the reader might feel that we cannot really
>
> do business at all in this field; perhaps we are condemned
>
> to a shop-window tour of various 'ideals', 'assumptions'
>
> 'doctrines of man' or whatever."[1]

In addition to this approach which seeks 'ready-made' recommendations

for current practice in the writings of the past, there is also a

'roll-your-own' approach which seeks to derive educational recommendation

from a particular philosophical position. Using "philosophy of

education" in the specific sense noted above, H.S. Broudy suggests that

> "A common method of building a philosophy of education is
>
> to derive it from some philosophic position such as Idealism,
>
> Realism, Thomism, Pragmatism or Existentialism . This
>
> approach asks the question: What does a given position imply
>
> for education?"[2]

It is worth noting in this context that the rationale behind all

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1 Wilson J., op. cit. (1975), p.51.

2 Broudy H.S., "How Philosophical can Philosophy of Education Be?"
 in Journal of Philosophy, Vol.52, 1955, p.617.

denominational schooling, if it is not a cynical exercise in
indoctrination, must be that a particular religious or philosophical
position has direct, specific and distinct implications for
educational practice.

The current insistence of philosophers of education on their
inability to prescribe is better understood against the background
of this traditional denotation for "philosophy of education" and the
assumptions on which it is based. In Chapter Three of this thesis it
was argued that at least some statements of recommendation for practice
could be arrived at deductively, by a practical syllogism in which the
major premise was normative, and the minor premises factual, and that
such a concluding recommendation would be justifiable if the various
premises could be rationally established. This was argued in response
to the familiar claim that normative recommendation cannot be arrived
at deductively. It will now be argued that such a claim has arisen as
a valid response to the two approaches to philosophy of education out-
lined above, both of which assume that from a particular comprehensive
philosophical position, substantive implications for educational practice
can be arrived at deductively. The claim that such deductions can be
derived from a philosophical position implies the following: (1) that
the position concerned contains both evaluative and factual statements,
(2) that the evaluative assumptions are well-founded and the factual
assumptions true, (3) that no other conclusion could be deduced from
the basic factual and evaluative premises by further linking premises
equally compatible with the basic position.

Many philosophers of education, and most notably Peters[1] have
criticised the teaching in colleges of education of the educational
theories of great thinkers of the past in place of, rather than in
addition to, philosophy of education. This criticism usually stresses

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1 Peters R.S., "The Philosophy of Education" in Tibble J.W. (ed.),
   The Study of Education, 1966, Chap.3.

two factors: firstly that such courses are often ill-conceived and badly taught since

"The lecturers are usually historians by training and

neither they nor their students have the training to

discuss with much vigour the fundamental issues in ethics

or epistemology which the thinkers of the past have raised."[1],

and secondly, that the prescriptions are out of date:

"The question is whether ... the best starting point for the

discussion of such issues is in relation to works of the past

or to contemporary educational issues."[2]

Whilst these criticisms are generally sound, they do not go far enough, and it has been assumed that in rebutting them the old conception of philosophies of education derived from particular positions is re-instated. Thus R.J. Haack notes that

"the courses Peters has in mind are sometimes taught badly,

but that, by itself, is not an adequate objection to them;

any course can be badly taught."[3],

and further that

"a study of the past can give us some inkling as to what is

possible now",[4]

and goes on to argue that current conceptions of philosophy of education are radically misconceived and inferior - because less fruitful for practice - than the traditional view. Rebuttal of a particular criticism of any claim does not amount to a justification of that claim, and it is therefore necessary to examine assumptions 1 to 3 above in relation

1 ibid., p.66.

2 ibid., p.66.

3 Haack R.J., "Philosophies of Education" in Philosophy, Vol.51, No.196, 1976, p.164.

4 ibid., p.166.

(a) to the educational philosophies of the 'great thinkers' and

(b) to particular philosophical 'isms' in order to establish that

the overall metaphysical approach is a wholly mistaken basis for

educational theorising.

Today philosophy of education is a specialised area of study, and

although some philosophers working in more basic and general areas

concern themselves with concepts and issues related to education, such

as 'equality' or 'imagination', formerly philosophers in general would

not have strongly disagreed with Kant's view that

"the greatest and most difficult problem to which man can

devote himself is the problem of education."[1]

Plato, Aristotle, Comenius, Locke, Rousseau, Kant, Dewey and many others

assumed that prescription about the matter and manner of education was

a significant part of their legitimate task. Such prescriptions were

based not only on a vision of what man ought to strive to become, and

what kind of society would be the most desirable, but on particular

assumptions about man's nature and capacities for interaction with his

environment. Though these two sorts of questions are logically distinct,

it has been sufficiently argued that they are not necessarily capable

of independent examination, since normative claims will at all points

make reference to factual claims, and most factual claims will comprise

conceptually problematic elements. The good for man cannot be considered

independently of normative judgements about the ideal society, since

man is necessarily a social being, and whilst a conception of an ideal

society is normative, any proposals for its creation are partially

empirical. The educational recommendations of philosophers from Plato

to Dewey thus flow from world-views which contain both normative and

empirical assumptions, so that condition (1) is fulfilled.

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1 Kant I., _Education_, trans. Annette Churton, (Ann Arbor), 1960, p.11.

But in order to support any prescriptic conclusion it would have
to be argued both that the evaluative assumptions were well-founded,
and the empirical assumptions adequately supported according to the
criteria appropriate to factual statements. If either sort of statement
is unsupported by the logic appropriate to that form of enquiry, the
argument is vitiated at this point. It is not necessary to attempt to
show that the thinkers mentioned above were either right or wrong in
their various theories about what sorts of society would be most
beneficial to man, and what characteristics should be encouraged in
individuals to bring about the dawning of such societies: it is a truism
that such comprehensive value positions can no more be disproved than
they can be proved. It is not necessary to attempt this simply because
it can be easily shown that the factual premises which support and are
supported by such valuations are not backed up by evidence. It is not
so much that Plato's tripartite conception of the soul and the state
appear unacceptable, or that Locke's atomistic psychology of impressions
and ideas is untenable, or that Rousseau's social theory is incoherent,
or that Mill's psychological reductionism is naive. It is simply that
all such theories are entirely speculative, and speculation is acceptable
as a first step in the empirical search for understanding of the
material and social worlds, but cannot supersede that search. Before
the emergence of science, it was quite proper for philosophers to
speculate about the material world, since without such speculation both
thought and action would be empty. The rise of science has not
invalidated those speculations, but has provided criteria by which their
truth can be tested. If they are either refuted or untestable according
to such criteria, they cannot serve as part of the basis for recommendation.
It hardly needs to be stated that philosophy is not an enterprise which
provides knowledge about the material world. This is certain

"not because philosophers have so far been unsuccessful in

such inquiries, but because philosophy cannot by its very

nature make pronouncements about the nature of the world -

that is the function of the sciences or of common sense."[1]

Thus whatever the quality of support which might be put forward for the normative assumptions of these thinkers, their empirical assumptions, founded purely on speculation, ensure that the premises in a prescriptive educational argument are inadequately supported, and the second condition for a valid prescription is unfulfilled.

Even if this condition could be fulfilled, if the empirical assumptions could be isolated, testable and confirmed to an acceptable extent, it is unlikely that the third condition could be fulfilled. Since it has been shown that no particular conclusion of a prescriptive kind can be deduced from purely speculative premises, it is not strictly necessary to show further that no other particular conclusion than the one so 'deduced' could also be implied by the same basic premises by the addition of the further linking premises essential to a strict deduction. However it is worth noting that even were the basic normative and factual premises tenable, since the conclusions in a strictly logical argument cannot contain elements not present in the premises which lead to that conclusion, no conclusion with specific reference to education can be derived from a position which does not make specific reference to education. Any specific conclusion could only be implied by a philosophical position by the addition of linking premises specifically concerned with education. As such linking premises can well differ, there being a theoretically infinite choice of formulations, there is a theoretically vast possibility of logically valid conclusions. To take the most general type of linking premise, if a view of man and society is to give rise to educational recommendation, there must also be a view of the proper function of education which need not necessarily derive from the major premises about man and society. Thus in Aristotle and Locke we find theories of education serving a

1 Hardie C.D., "The Philosophy of Education in a New Key" in Educational Theory, Vol.10, 1960, p.257.

predominantly conformist function, concerned to enable individuals to

adjust or conform to a sort of society already in existence, whilst

in Kant and Dewey, for example, education has a predominantly

reforming function, concerned with shaping individuals to change

society. In Plato a more sophisticated understanding of the reciprocal

relationship between the individual and society makes the eventual

nature of the two equally dependent upon an educational process derived

from his epistemology.

At a more specific level, the problems are more obvious: it is

entirely unclear that the linking premises necessitated to back up

Plato's proscription of the works of Homer[1] are all derivable from his

basic philosophy, and the same is true for Kant's similar proscriptions,

based on the idea that "novel-reading weakens the memory."[2] It is

similarly dubious that Comenius' eminently sensible recommendations that

foreign languages should be taught descriptively rather than normatively

can be deduced from the relevant one of his nine universal principles

that states: "Nature prepares the material before she begins to give

it form."[3]

The above argument therefore supports Hirst's contention that the

traditional view which supposes that

> "thoroughly valid principles determining educational practice
>
> can be readily inferred from philosophical beliefs,is entirely
>
> mistaken."[4]

Any such determining of practice would demand a philosophical position

which had the total comprehensiveness - inclusive of normative and

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1 Plato, The Republic, Book 3, Book 10.

2 Kant, op. cit., p.73.

3 Comenius J.A., The Great Didactic, trans. Keatinge M.W., 1896, p.266.

4 Hirst, op. cit., (1963), pp.51-52.

empirical premises to cover all actual and hypothetical situations -

characteristic of the logically impossible total justification

described in Chapter Three. It was argued that a defence of <u>particular</u>

prescriptive conclusions was possible in principle. What is not

possible even in principle is the establishment of a deductive <u>system</u>

capable of generating an indefinite number of fully justified and

mutually related conclusions derived on the pattern of a family tree

from some initial fundamental axioms, since any such comprehensive

system would be inclusive of all accumulated human knowledge. Hirst

notes that since deduction depends upon the formal manipulation of

statements:

> "the process must begin with statements that cover quite
>
> explicitly all the considerations that are involved in the
>
> issues. What is more, all the concepts and terms that are
>
> used must be fully related to each other so that no gaps
>
> appear in the chains of argument. Deduction can never be
>
> used unless we can start with premises equal to the task,
>
> concerning all the necessary facts and beliefs and relating
>
> these so that the conclusions are reached in a purely formal
>
> manner."[1]

Any such deduction from first principles therefore implies, apart from

full and adequate justification of normative principles, absolute

omniscience about the world in which those principles should be applied.

It is of course not being suggested that the great philosophers

of the past who made explicit educational recommendations were committing

the basic mistake of assuming this to be possible. Recommendations

must be made if practice is to be guided, and these must be based on

the best grounds available. In the absence of any scientific grounding

for empirical assumptions, speculation provides the best - and only-

grounding for those assumptions. Thus when there was no separate field

of expertise for the study of man or of society, it was entirely

1 Hirst, ibid., p.53.

appropriate for philosophers - who have always concerned themselves
with searching for truth by non-empirical means - to engage in
educational and other social prescription, just as it was entirely
appropriate for them to speculate about the four humours before the
functions of the heart, gall-bladder etc. were understood. Nor is it
being suggested that even the empirical elements involved in educational
prescription can currently or potentially be completely resolved without
some basic speculative assumptions being made. What is argued for here
is that the principle of testing factual assumptions against the world,
by whatever means, alters the role played by speculation in a
fundamental manner. Though basic assumptions are still necessarily
speculative, as has been sufficiently stressed, such assumptions are
corrigible by the truth or falsity of the subsidiary propositions they
generate, whereas in a deductive system from first principles, those
principles are paramount and unassailable. It is in this sense that
the educational philosophies of specific philosophers from Plato to
Dewey are metaphysical, in that their recommendations are not testable
against experience. The relationship of such theories to practice is
necessarily one-way: theory directs practice, but practice cannot in
principle correct or modify theory.

Whilst such past philosophers were neither making the mistake of
confusing fact and value, nor the mistake of preferring speculation to
evidence in factual matters, either or both of these mistakes must be
committed by anyone today who tries either to seek solutions to
educational problems in their works, or to derive such solutions from
any given philosophical 'ism'. Phillips notes that this second approach
is a common method of tackling problems:

"First, an educationist may look at a problem from the

vantage point of a theory or position or 'ism' which he

has accepted in a discipline outside education. For

example, he may accept behaviourism in psychology or realism

in philosophy, and believe that this particular 'ism' has important educational implications."[1]

At the risk of repetition it must again be stressed that in an imperfect state of knowledge everyone must view the world from some "vantage point" which is not testable. What is here attacked is the attachment to a particular vantage point, whereby the vantage point is used to assess the admissibility of evidence, and the evidence is not allowed to correct or alter the vantage point. When such commitments are unconscious or unacknowledged they give rise to the mistakes and absurdities outlined by Wilson in Fantasy and Commonsense in Education,[2] where he discusses the consequences for educational prescription of what he terms "the behaviourist fantasy" and "the relativist fantasy". However, in so far as these are examples of fairly specific beliefs, where they are held to be true they are assumed to have implications only for specific, related educational matters. The situation which arises when entire educational systems are derived from specific substantive philosophical schools involves the overt commission of both mistakes outlined above in a conscious and systematic manner.

This practice is rarely overtly espoused in Britain, but is common on the continent and in the U.S.A., not to mention in the emerging countries of Islam, where much energy is being devoted to deriving a science of pedagogy, as well as a general philosophy of education, from the Koran. On similar assumptions Harper's Series on Teaching, a widely used series of text-books for the training of teachers in the United States, contains such titles as Pragmatism in Education[3], Idealism in

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1 Phillips, op. cit., p.2.

2 Wilson J., Fantasy and Commonsense in Education, 1979.

3 Bayles E.E., Pragmatism in Education, New York, 1966.

Education[1], <u>Existentialism in Education</u>[2], etc. The Editor's Foreword

to this series makes it quite clear that philosophy is seen as a

source of knowledge about the real world, that recommendation for

practice is seen as based on a deductive philosophic system, and that

paradoxically there are many such competing sources of knowledge between

which we are invited to choose as if this were a matter of personal

preference. It is said that:

> "the only genuinely practical subject-matter content a
>
> teacher can teach is basic, tested theory. And to think
>
> of philosophy as something other than broad, basic theory
>
> is probably to lose for philosophy any legitimate claim
>
> to a significant place in education."[3]

and then the question is posed:

> "Of extant philosophical systems, which furnishes the best
>
> organisational base for educational practice? This question
>
> is vital for an educational philosopher, and it seemingly
>
> should be of first importance for an educational practitioner."[4]

A brief consideration of one such volume - <u>Pragmatism in Education</u> -

confirms that what is intended is indeed a comprehensive deductive

system derived from first principles. It might be thought that a

consideration of this work is an easy attack on straw men, but though

there are a considerable number of such men, none have come to light

that are not made of straw.

> After a brief definition of pragmatism which suggests it is the

principle of espousing no principles, the author ingenuously reveals

how the system is to operate:

1 Butler, J.D., <u>Idealism in Education</u>, New York, 1967.

2 Morris V.S., <u>Existentialism in Education</u>, New York, 1966.

3 Bayles, op. cit., p.viii.

4 ibid., p.viii.

"The above sets of assumptions, though all unified aspects

of life itself, are in practicality separate and distinctive

ingredients which are to be fed into the educational brew that

is to be concocted. Each may in high degree vary, independent

of the others."[1] (sic)

Though the various assumptions referred to are either internally con-

tradictory, tautologous, non-sensical or suspect, the whole is set out

in deductive form:

"Mutual independence, however, does not characterise our next

set of assumptions, as we come to grips with the educational

program itself. They appear to be logical consequences of the

premises embodied in the first set of assumptions, those

regarding men, government and truth. Assuming such premises,

what statement of educational purpose seems to be logically

entailed? This will be the question considered in our fifth

chapter. In further logical entailment, our sixth chapter will

deal with teaching method and the seventh with criteria for

determination of subject matter."[2]

The naivety of this purportedly deductive system is almost too obvious

to state. Bayles clearly sees no more to logical entailment than

absence of contradiction, and since his assumptions are by definition

content free, no subsequent propositions are incompatible with them.

The ordering of premises in such a system is clearly entirely arbitrary,

as is shown by the dependence of teaching content on teaching method.

Considerations of fact and of value are both fed into the "brew" and

the quality of the ingredients can be judged by quotation. A brief

consideration of empirical issues starts from the cosmic end of such

questioning:

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1 ibid., p.8.

2 ibid., p.8.

"let us give a bit of attention to the matter of existence,

being, or 'reality' - philosophical ontology "[1],

and rapidly concludes that since these fundamental questions cannot

be satisfactorily answered, and since "A pragmatist refuses to spend

time and energy on futile quests"[2], there is no way of objectively

assessing any gloss on reality as superior to any other. It is

salutary to note that comic as such a procedure might be, it is strictly

analogous to the reasoning which asserts that if philosophers cannot

prove fundamental normative principles, they have nothing to contribute

to prescription.

Value questions are similarly cavalierly disposed of:

"It is presumably the business of schooling continuallly to

seek betterment or improvement of student outlooks. The

pragmatic next question is, therefore, "What constitutes

betterment?". Since this is an axiological (value-packed)

question, it is taken to be a humanly personal one; in

that sense, arbitrary."[3],

which must be the shortest and most unanswerable - because totally in-

comprehensible - solution to the problem of worthwhileness in education.

In the course of the entire argument, if such it can be called, there

is an attempt to ensure that each step in the deduction is compatible

with the one before, which is largely achieved by innumerable linking

premises which are either tautologous, definitionally true or empty.

Thus it is asserted that (a) human nature is "psychologically

configurational", (b) learning is "development of insights", (c)

truth is "humanly accumulated but environmentally tested" or (d)

1 ibid., p.53.

2 ibid., p.53.

3 ibid., p.96.

democracy is "government of and by a people".[1]   Assertions (a) and

(b) are content free, (d) is ambiguous, and (c) is false.

However, that is by the way, for a consideration of Bayles' work

is not included here simply for comic relief. Though the content of

this argument is too easy to attack, the important point is that the

form in which it is cast is the only form which a deductive, purely

philosophical system, issuing in educational recommendation, could

possibly take. Moreover this form could only be sustained from first

premises to specific conclusion by the device employed in that work of

systematic vacuousness and ambiguity, both in basic and in linking

premises. Bayles is only too right in concluding that

> "the philosophical outlook does not by itself entail the
>
> educational purpose and program that are presented herein.
>
> .... Without the assumptions of democracy as herein defined,
>
> of psychological field or configurational theory, of scientific
>
> method as herein employed, and of adequacy and harmony as
>
> desirable qualities of the life outlooks that are to be fostered,
>
> our statements of purpose and program would not have been
>
> logically entailed."[2]

Of course, he should have gone further, for _with_ them they are not

entailed either: they are simply not ruled out.

Neither are _any_ particular policies implied by or derivable from

any other substantive schools of philosophical thought. To believe

that they can be is to misunderstand what the relationship is of the

propositions of such theoretical systems to the world. It would not

necessarily follow that a philosophical idealist would be committed

to different policies in education from a philosophical realist, since

the differences between these two systems of thought are not such as

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1 ibid., p.92.

2 ibid., p.108.

to entail different practical policies. To believe this to be true
is to confuse fact and value at a meta-theoretical level, and to
assume that philosophical theories have a relationship to reality
which is analogous to the relationship which the theories of the
human sciences have to reality. Idealism and realism are not making
the sort of statements about the world which, say, behaviourism or
gestalt theory make. It is not that realists claim that pens, ashtrays
and other people actually exist, whilst idealists advance the opposing
theory that they are figments of the imagination. The two differing
theories are not making contradictory empirical statements about
reality, but advancing alternative ways of conceptualising a problem.
Since such philosophical positions are not making statements about the
world, then they necessarily cannot have application in the world
without subsidiary or linking premises which are not deducible from
them.

Sidney Hook is therefore clearly correct in dismissing this entire
approach:

"There is a great deal of nonsense talked about philosophy of
education. This is particularly true of claims that a meta-
physical or epistemological position has logical implications
for educational theory and practice. Any two philosophers who
share a common philosophical position, whether it be objective
idealism or pragmatism - or even Thomism - may still disagree
with each other about specific educational objectives and
techniques. And educators who agree about the desirability
of certain educational aims and methods may disagree profoundly
in their world outlook."[1]

Nonetheless, an examination of the misconceptions and inadequacies
inherent in the traditional approach to philosophies of education

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1 Hook S., "The Scope of Philosophy of Education" in _Harvard
Educational Review_, Vol.26, 1956, p.145.

illuminates the questions of why present day philosophers of education

stress their refusal to prescribe, precisely what they mean by this

disclaimer, the various ways in which it can be interpreted, and

the significance of the steps they take to contribute to education

without violating their disclaimer. The motives behind their insistence

are clear: only such insistence could establish the generic and

analytic approach to philosophy of education on a quite different

footing from the traditional view which was allied to the pre-scientific

conception of philosophy as a super-science. A further connected motive,

which will be examined in Chapter Eight, was the philosophical obsession

with the purported total discreteness of factual and evaluative

questions which arose as an over-reaction to the realisation that

science had stolen many of philosophy's traditional clothes. The

reasons for their insistence are as clear as the motives: as has been

argued, it is not legitimate to base empirical statements upon speculative

assumptions which are not in turn corrigible in principle by the testing

of those empirical statements, nor is it legitimate to confuse questions

of fact and questions of value by deriving the one from the other.

These two considerations, allied to the understanding that deduction is

the formal manipulation of statements, so that nothing can emerge from

a deductive argument which was not built into it, have led the disclaimer

to take the form of insisting that no practical policies can be arrived

at deductively and that conversely no such policies can be fully

justified. Thus the repudiation of the traditional approach to

philosophy of education gives rise to a weak and a strong argument with

regard to the possibility of policy justification which tend to be

rolled into one both by educational theorists in general and often by

philosophers of education themselves. As is usually the case with such

pairs of conclusions, it is frequently assumed that acceptance of the

weak argument commits one to acceptance of the stronger.

The validity of the weak argument has been demonstrated above.

For all the reasons sufficiently rehearsed no <u>comprehensive system</u>
of practical policies can be deductively derived from philosophical
first principles, since these are solely normative, and conversely
no such comprehensive system of policies can be justified by an
argument which works back solely to those first principles. The
strong argument makes further claims. It asserts the following:
(1) That no single policy can be arrived at deductively, (2) that
therefore no single policy can be justified, and (3) that therefore
the philosopher has nothing to say with substantive implications since
prescription is never adequately supported. These assertions assume
(4) that the weak argument entails these stronger claims, and (5) that
the paramount inadequacy of the traditional deductive system was its
unprovable normative foundations. Neither (4) nor (5) are correct,
and can be shown to be mistaken.

(1), (2), and (3) are related mistakes underpinned by assumption
(5) which in turn depends upon an exaggerated respect for a mistakenly
scientistic conception of science referred to in Chapter Four. If the
family-tree pattern is acceptable as a model of a deductive system, the
fact that the genealogy of the entire human race cannot be traced
without gaps in any chain from the first man and woman downwards to
each and every existing individual would be analogous to the weak
argument set out above. This of course entails that conversely, by
starting from each and every individual, and tracing their parentage
backwards, we could not arrive at a family tree of the whole past human
race back to the first couple. It does <u>not</u> entail that we could not
<u>in principle</u> trace back the genealogy of any given individual or
individuals to the first couple, still less does it imply that we
could not in practice trace back the genealogy of any given individual
or individuals as far as was practically possible, interesting or
relevant to our purposes. No-one would dream of claiming that parentage
was untraceable either because it could not be traced to the origins

of the race, or because it could not be traced universally. To suppose that (1), (2) and (3) follow from the weak argument is to follow Bayles in assuming that anything that cannot be proved by an all-embracing deductive system is therefore arbitrary. By this measure nothing is non-arbitrary, since in both normative and empirical reasoning proof of first principles is a chimera. Even in the deductive-nomological systems of the physical sciences, acceptance of statements about material objects in the world does not wait upon proof of an entire comprehensive deductive system with the fundamental laws of matter at the top. Acceptance of empirical statements depends only upon their confirmation by empirical tests, their congruence with linking statements at the same level of generality, and the capacity of that total set of statements to generate coherently a further set of statements at a higher level of generality. It is clear that it is a matter of logic, and not of scientific methodology, that the fundamental laws in a scientific deductive-nomological system could not be both ·fundamental and scientific.

The one link between scientific and philosophical thought is that they must both obey the laws of logic, and it is a function of logic, and not of the inherent weakness of normative reasoning, that fundamental normative principles cannot be both rationally supported and fundamental. As argued in Chapter Four, this is true of fundamental norms, not because they are norms but because they are fundamental. The basic flaw in the traditional approach to philosophy of education was thus the attempt to generate specific policies from first principles, not that these first principles were non-empirical, for such is definitionally true of fundamental principles. Nor can it be assumed that this logical point about fundamental principles necessarily invalidates prescription, unless it is also accepted that description and explanation are analogously invalidated by their necessary incompleteness. If justification is synonymous with proof, then it is true that justification is impossible,

since proof is impossible outside axiomatic systems. But if

justification is the giving of good reasons, it is not ruled out in

principle by the unprovability of first principles. The arguments

of this chapter therefore leave open the question of whether particular

policies can be justified, since that depends upon the capacity of

empirical workers to provide appropriate and adequate grounds for

relevant empirical statements, and the capacity of specialists in

normative reasoning to provide rational backing for normative argument.

C H A P T E R   S I X

CONCEPTUAL   ANALYSIS

From the early nineteen-fifties, philosophy of education developed
in a new direction, pioneered in the United Kingdom by R.S. Peters
and in America by I. Scheffler. With the realisation that normative
judgements could not be derived from philosophical systems which con-
stituted ideological judgements about the nature of man and the world
as well as of the good for man, and that insights from the history of
ideas were of historical interest, new procedures were adopted. The
techniques of philosophical analysis, advocated by the proponents of
analytic philosophy as the only legitimate occupation for philosophers,
were applied to the aims and procedures of education.

What was, and has remained, unclear, is what the implications of
these analyses are for practice. It sometimes seems as if conceptual
analysis is practised purely to clarify subsequent debate, whilst leaving
open all substantive questions. On the other hand, it is often
suggested that such analyses reveal 'conceptual truths' which must be
taken into account as much as or even more than empirical truths when
deciding what ought to be done. Whilst the specific purpose of each
analysis is clarity, the general function of the exercise is radically
unclear. A.J. Ayer notes that the scope of analytic philosophy is wide:

> "It allows for serious disagreement, not only over technical
>
> niceties, but on major points of doctrine, including the
>
> method and purpose of analysis itself."[1]

Though these issues cannot be examined thoroughly in a single chapter,
it needs to be asked briefly what the procedures of conceptual
analysis presuppose about theories of meaning and truth, and whether

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1 Ayer A.J.,   Logical Positivism, 1959, p.1.

conceptual analysis provides the applied philosopher with a
technique which is both non-empirical and value-free, yet capable
of legitimately influencing practice.   S. Körner remarks that few
analytical philosophers

> "have turned their analytical acumen on the concept of
> analysis itself.   In view of the vast claims made for analysis,
> especially that there is no other legitimate method in
> philosophy, some analysis of "analysis" seems desirable."[1]

It has been argued above that philosophy of education is dominated
by two assumptions, namely that the fact/value gap invalidates the
deduction of practical directives from philosophical statements or
positions, and secondly that the arbitrariness of fundamental norms
invalidates normative judgements.   Both of these assumptions lead
philosophers of education to deny a substantive role for their discipline:
they can neither issue nor justify prescriptions themselves, nor con-
tribute or justify the normative element without which prescriptions
cannot be jointly made.   It has been further argued that whilst the
first assumption is correct, the second is neither entailed by the first
nor beyond debate.   However, philosophy of education has proceeded for
three decades as if it were, with specialists in the field performing
a juggling act.   Thus R.S. Peters has been strongly criticised for
inconsistency.   Haack[2] (and many others) have suggested that it is
inconsistent on the one hand to promote conceptual analysis about
educational matters, on the grounds that this procedure does not involve
the illegitimate making of value-judgements, and on the other to ask
fundamental substantive questions about what is worthwhile.

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1 Körner S., _Fundamental Questions in Philosophy_, 1969, p.26.

2 (i) Haack, op. cit., pp.159-176.

   (ii) Soltis J.F., "Analysis and Anomalies in Philosophy of Education",
      Conference paper given at The Ontario Institute for Studies in
      Education, May, 1970.

What Haack and other critics seem unaware of - presumably because they share the assumption - is that both these procedures stem from that unquestioned but debatable assumption which will be examined in Chapter Eight of this thesis. If it is accepted that _if_ fundamental principles cannot be justified, _then_ subsidiary normative judgements are necessarily arbitrary, it makes perfectly good sense to do just those two things with which philosophers of education have lately concerned themselves. Firstly, one would continue to seek for some such fundamental justification, and secondly one would look for a method of generating truths which were neither empirical - and hence not the concern of philosophy - nor evaluative and hence presumed arbitrary. Conceptual analysis is seen as just such a method. Although recently many philosophers have claimed a purely clarificatory role for this procedure, more often its function is ambiguous. Thus when Archambault states that

> "Those analyses that emerge from the philosophical investigation
>
> of central educational issues must necessarily affect and
>
> inform educational decisions"[1],

it is entirely unclear whether the effect will be purely procedural or also directly substantive. It is further unclear how procedural changes can be devoid of substantive implications.

Analysis of the meaning of terms is basic to all philosophical discussion, and essential to ensuring that all parties to the debate understand the import of what they themselves and others are saying, and examples of this procedure can be produced from the writings of Plato onwards. Thus, in The Republic, preparatory to a substantive discussion about justice, Plato points out that the meaning of a term cannot rest upon a dictionary definition; that to debate cogently we must agree upon meaning, and that understanding the meaning of a term

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1. Archambault R.D. (ed.), Philosophical Analysis and Education, 1965, pp.8-9.

must include knowledge of the criteria for its application. Thus he
argues:

> "But as to this justice, can we quite without qualification
>
> define it as truthfulness and repayment of anything we have
>
> received, or are these very actions sometimes just and
>
> sometimes unjust? For example, if we had been given weapons
>
> by a friend when he was of sound mind,and he went mad and
>
> reclaimed them, it would surely be universally admitted that
>
> it would not be right to give them back. Anyone who did
>
> so ... would not be just."[1]

Plato's position was that this preliminary clarification about the
meaning of terms merely served to clear the ground for substantive
discussion, and in no way determined the course that such discussion
should take:

> "The knowledge of things is not to be investigated from
>
> their names. No: they must be studied and investigated
>
> in themselves."[2]

However, philosophers of the modern analytic school wish to restrict
the practice of philosophy to this preliminary clarificatory procedure,
but are ambivalent in their assessment of the consequences of so doing.
So Wittgenstein suggests on the one hand that "philosophy leaves
everything as it is"[3] and on the other asserts that "Grammar tells
us what kind of an object anything is."[4] How can philosophers of
education who wish to restrict themselves to analysis maintain that
what they do has no direct relationship with practical decisions, yet
is nonetheless important? Why should philosophers of education do

---

1 Plato, The Republic, Everyman Edition, p.5.

2. Plato, Cratylus, 439b.

3 Wittgenstein L., Philosophical Investigations, (trans. Anscombe),
  1963, § 124.

4 ibid., §373.

conceptual analysis at all, unless such analysis provides some
illumination, or opens up further relevant areas of enquiry?

Some philosophers attempt to resolve this dilemma by suggesting
that whereas 'linguistic analysis' is a mere philological exercise,
consisting in looking at a word such as "justice" or "education" for
which there are many possible concepts, and isolating which of the many
possible concepts is central to the meaning of the term, on the other hand
'conceptual analysis' - the exploration of this isolated concept for
conceptual contradictions and conceptual truths - will reveal to us
truths about that which the term denotes. These truths will be neither
empirical nor evaluative, but will nonetheless be substantive, thus
providing the philosopher with a positive role whilst enabling him to
retain the second assumption detailed above. However, the claim that
conceptual analysis is a quite different activity from linguistic analysis
cannot be sustained. Conceptual analysis is simply examination of a
particular usage of a term in order to facilitate the isolation of
concepts to which that term makes reference. It cannot mean analysis
of a single concept, since that by definition would be a contradiction
in terms. Given that analysis is the procedure of breaking something
down into its constituent parts, it is clear that a single concept could
not be 'analysed' since each one of its parts would itself be a concept.
It seems evident therefore, that whether the term "linguistic analysis"
or "conceptual analysis" is used, as long as the process of analysis can
continue, it is a single item of language, not a single concept, which
is under scrutiny.

Of course, at different points in the process of analysis, the
procedure will yield quite different results: a beginning must be made,
with a term such as "education" or "democracy", by delimiting the obvious
differences in meaning between varying current usages. Once a particular
usage has been selected for scrutiny, the result of further analysis of
the term will not be to reveal how this usage differs from others, for

that has already been established, but to reveal assumptions implicit in that particular usage. However, it must be clear what is and what is not implied by this difference. When usages are isolated from each other, varying assumptions as between users of the language about the referent of the term are brought to light, whereas when a single usage is examined, a single set of assumptions about the referent of the term is under examination:- in neither case is the referent itself being examined, or revealed in a 'true light'. As long as the process of analysis can meaningfully continue, it is a descriptive procedure about the use of terms, enabling us firstly to examine how x is variously viewed, and subsequently to examine a particular view, whether our own or that of another individual or group, of x. It does not reveal truths about x itself, nor does it reveal which of the varying concepts which different usages of the term denote, is the 'true concept' which the term ought to denote. In such an analysis, as long as 'conceptual contradictions' are to be found, a single concept has not been isolated, and more than one concept is being discussed. It is this isolation of a single concept in the interests of clarity that the procedure of linguistic analysis - latterly called conceptual analysis - can facilitate. Which concept we are to choose to isolate for the purpose of illuminating a particular discussion, is a prescriptive matter which cannot be decided by the descriptive procedure of linguistic analysis. To assume that this is not so, that there is a true concept of x, which conceptual analysis can enable us to isolate, is to commit the very error which linguistic analysis, based as it is upon a non-referential theory of meaning, was designed to eradicate.

These comments, to the effect that we cannot infer from factual statements about usage to normative statements about valid usage are commonplace in the extreme, but the commission of this fallacy is none-theless endemic in philosophical analysis. The very warnings issued by philosophers themselves against the fallacy could only be heeded by a

a commission of the mistake against which they caution. Thus
J. Woods warns:

> "In particular, one has to guard against the possibility
> that what is offered as the analysis of the concept K, <u>as</u>
> <u>ordinarily used by fluent speakers of the language</u>, is in
> fact a <u>disguised recommendation</u> to the effect that the
> concept be assigned a meaning different from the one it has.
> Linguistic analysis is designed to reveal what a word does
> mean and not what the word should be made to mean: and if a
> so-called analysis accomplishes the latter, and not the former,
> it fails."[1]

How could this warning be heeded, unless we assume that analysis enables
us to isolate "what a word does mean"? No doubt in the case of some
uncomplex terms, such as "tea-bag" or "ear-lobe", this would be true,
but such concepts are of no philosophical interest precisely because
their denotation is not in dispute, and in their case an examination of
meaning is limited to denotation. If analysis is necessary, it is so
because the meaning of the term "as ordinarily used by fluent speakers
of the language" is unclear and differentiated. Analysis reveals the
ways in which these meanings are differentiated, but cannot tell us
which of these differentiated meanings should be used to illuminate
our purpose. Our own choice of paradigm cases of usage and the consequent
designation of other uses as peripheral or logically odd will inevitably
demarcate which of these meanings is the central concept which deserves
further analytic attention. To warn against assigning a wrong meaning
to a word is to ignore this, and to assume that conceptual analysis can
reveal the 'right' meaning of a disputed term, and hence the 'true'
concept to which it refers.

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1 Woods J., "Commentary of Peters' Analysis of 'Aims of Education'"
  in The Philosophy of Education, ed. Peters R.S., 1973, p.30.

At this point it becomes clear that the philosophical analyst is impaled on the horns of a dilemma. If he infers from actual use to valid use, he commits the very fallacy he set out to avoid; if he merely examines usage, philosophy collapses into philology and the philosopher, in his analysis, is engaged on just that sort of purely descriptive or empirical study which lies outside the concern of his specialty. It might be interesting to catalogue and classify the various ways in which "fluent speakers of the language" (though that in itself is a normative judgement) use a complex term such as "education" or "creativity", but there is no reason to suppose that philosophers are particularly well qualified to do this. There is every reason to suppose that being an empirical study it cannot be achieved by speculation, and no grounds for suggesting that of itself such a philological study of how people use words should provide insights into anything beyond the use of words.

From the way that people use words it is sensible to infer how they think about themselves, the material world and our social institutions. It is not sensible to infer anything about the referents of terms by the usage of those terms unless we assume either that 'thinking makes it so' or that language and the world have a particular relationship to each other. On the first count it is partially true that at least in some instances things are as we see them. The amount of delinquency in schools is partially determined by how we define delinquency. On the other hand, whether or not this is partially defined in terms of instances of arson, it is nonetheless the case that in year X there were Y cases of arson in schools, and if we are interested in 'delinquency' it is because we are interested in that sort of thing. In other instances there is no necessary connection between the use of terms and their referents. If religion in schools is referred to, as formerly, as religious knowledge, this reveals simply what people believe about the epistemological status of religious

propositions. Such beliefs are interesting, but it is of greater interest

to determine whether or not they are true. The fact that religious

education teachers no longer talk of R.K. shows that the nature of

prevailing beliefs about religion has undergone a change: it does

not suggest that the epistemological foundations of religious claims

have altered. It would be uncharitable to assume that the commission

of such a fundamental mistake lies behind the ambiguity of function

envisaged for conceptual analysis, and it therefore seems more likely

that this ambiguity arises from particular assumptions about the

relationship of language to the world, which require brief examination.

In fact,when one conducts such an examination it becomes clear

that the assumptions of the logical positivists, with their verification

theories of meaning[1] and naive empiricism profoundly influence

ordinary language philosophy which in turn provides much of the implicit

basis for philosophical analysis.[2] Philosophers of the analytic

school base their claims about the relationship of language to the world

not on the second point above, that 'thinking makes it so', but on the

related belief that common-sense is an accurate reflection of reality.

A.J. Ayer clearly states that in examining language, we are acquiring

truths about the world. The analysis of concepts

> "throws light not only on the workings of our language but
>
> also on the character of the world which it serves to describe.
>
> There is in any case no sharp distinction between investigating
>
> the structure of our language and investigating the structure
>
> of the world, since the very notion of there being a world of
>
> such and such a character only makes sense within the frame-
>
> work of some system of concepts which language embodies."[3]

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1 c.f. Ayer A.J., <u>Language, Truth and Logic</u>, 1936.

2 As A. Edel notes in "Analytic Philosophy of Education at the Crossroads"
   in Doyle J.F. (ed), <u>Educational Judgements</u>, 1973, p.234.

3 Ayer A.J., "Philosophical Analysis" in <u>The Central Questions of
   Philosophy</u>, 1976, p.49.

Though Ayer goes on to deny solipsism by asserting that the world

exists and would continue to exist even were there no human beings

to be conscious of it, he concludes the passage by asserting that;

> "Even so, our experience is articulated in language, and
>
> the world which we envisage as existing at times when we do
>
> not is still a world which is structured by our method of
>
> describing it. ...... The idea that we could prise the world
>
> off our concepts is incoherent; for with what conception of
>
> the world should we then be left?"[1]

This last remark is quite true: language reflects our experience

of the world, but it is only by assuming further that there is no more

to the world than our experience of it, that we could believe that a

study of language revealed truths about the character of the world it

seeks to describe. An example of this distinction can best be shown   .

by noting what specific pieces of ordinary language philosophy

accomplish and what they do not. For example, J.L. Austin's paper,

"A Plea for Excuses"[2] is concerned with the grounds for claiming to

be less than fully responsible for actions for which one might be held

to blame. His general thesis is that the standard dichotomy of

voluntary and involuntary actions does not do justice to the intricacies

of fine distinctions relating to this matter which are possible within

English usage, and therefore ignores the complexity of the facts.[3]

But these 'facts' are concerned only with our subjective impressions

of freedom and responsibility: they leave untouched the philosophically /

fundamental question of whether or not, when we experience freedom of

action, this experience is illusory. The freewill problem is about

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1. ibid., p.49.

2 Austin J.L., "A Plea for Excuses" in Austin J.L., _Philosophical Papers_, 1961.

3 For an examination of the work of Austin which indicates what it accomplishes and what it ignores, see K. Graham's book _J.L. Austin: A Critique of Ordinary Language Philosophy_, 1976.

whether our actions <u>are</u> determined: it is not about whether they
<u>feel</u> determined, though this consideration may be offered in partial,
tentative support for one or other hypothesis.

Although ordinary language philosophers were more concerned with
the analysis of usage than with the solution of problems, nonetheless
since they are philosophers and not philologists, this must be on the
assumption that such an analysis of usage will have an effect on the
nature of problems, if not providing their solution. This is the approach
to analysis evident in the later works of Wittgenstein, where his
descriptions of usage are offered not as evidence to be used in the
solution of problems, but as evidence to show that the problems were
illusory. Thus analysis becomes not the means to the solution of a
problem, but the eradication of a mistake which presented itself in
the guise of a problem. In the <u>Investigations</u> he insists that

> "There must not be anything hypothetical in our considerations.
> We must do away with all <u>explanation</u> and description alone
> must take its place. And this description gets its light,
> that is to say, its purpose from the philosophical problems.
> These are, of course, not empirical problems: they are solved,
> rather, by looking into the workings of our language, and that
> in such a way as to make us recognise those workings <u>in despite</u>
> of an urge to misunderstand them. The problems are solved,
> not by giving new information, but by arranging what we have
> always known. Philosophy is a battle against the bewitchment
> of our intelligence by means of language."[1]

Wittgenstein is here not simply alluding to our propensity to infer
substances from substantives, realms of possibility from hypothetical
utterances and so on. The crucial point here is that analysis is a
means of solving problems by exposing clearly what we have always known.

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1 Wittgenstein L., <u>Philosophical Investigations</u>, (trans. Anscombe),
   1963, §109.

If this knowledge is the sole cure for non-empirical error, it becomes extremely important to ask what sort of 'knowledge' it is: in other words to examine the notion of conceptual truth.

This chapter began by suggesting that many philosophers of education wish to abjure both empirical claims and value judgements, and yet make a contribution to educational debate. Though some are content with making a purely procedural contribution, seeking conceptual clarification simply so that parties to the debate can understand each other more clearly, this content-neutrality is rare. It is rare because in point of fact it is assumed that clarity must have certain consequences. It will of course do away with contradiction and inconsistency, and this by definition, but it will also necessarily expose certain logical relations which, being logical, are true no matter what, and thus undeniable without looking any further for support. Thus there are some truths which we do not need to check against the world, but which reveal themselves to us when we analyse our concepts and the terms we use to embody them. It is conceptual truth that Wittgenstein was referring to in talking of solving problems by exposing what we have always known, since what we know, not merely what we think we know, is embedded in the language we use to describe our experience.

Thus Peters asserts that a conceptual connection is not a purely contingent or de facto connection[1], and warns that

"It is very intricate to work out what these sorts of connections are, and one needs a more sophisticated notion of 'meaning'."[2]

Peters does not himself argue for this more sophisticated notion of meaning, but it is clear from his conceptual analyses of 'education' and 'the educated man' that a conceptual truth is one whose truth

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1 Peters R.S., "Aims of Education - A Conceptual Inquiry" in
   Peters R.S. (ed.), The Philosophy of Education, 1973, p.44.

2 ibid., p.45.

depends in some way on its meaning and is not amenable to any further test. Furthermore, when he claims that it is absurd to ask what the aims of education are, or absurd to say that someone has been reformed but not changed for the better, he appears to be suggesting that the negation of a conceptual truth is meaningless. If this is a fair statement of the position adopted by Peters and followed by many other philosophers of education with regard to conceptual truth, it must be stated that it raises many problems. It is firstly hard to understand the notion that if x is a conceptual truth, then not-x is meaningless or absurd, without a much fuller sketch of meaning and its relationship to conceptual truth than is offered by the proponents of analysis. The problem is that if conceptual truths are true only partially because of their meaning, that does not establish them as a distinct category of truths, for any truth is true partly because of what it means. If on the other hand, conceptual truths are true solely because of what they mean, then they must be analytic truths, and this is a category which many philosophers regard as problematic, and some as empty.

Hospers offers two standard definitions of analytic truths, either "An analytic statement is a statement whose negation is self-contradictory"[1] or "An analytic proposition is one whose truth can be determined solely by an analysis of the meaning of the words in the sentence expressing it."[2]

Though the designation of the term "analytic" is different in these two definitions, the denotation of the term is almost identical; that is to say that with certain specific exceptions a proposition which is analytic by the first definition will be analytic by the second. For present purposes the second definition is more useful, since what concerns us is what sort of truths, if any, are expressed by such

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1 Hospers J., An Introduction to Philosophical Analysis (New York), 1953, (2nd edition 1967), p.42.

2 ibid., p.42.

propositions, though it is clear that Peters' remarks about conceptual

truths and their contraries are compatible with both designations of

"analytic". Quine notes that

> "Philosophic tradition hints of three nested categories of
>
> firm truths: the analytic, the a priori and the necessary.
>
> Whether the first exhausts the second, and the second the
>
> third, are traditional matters of disagreement......"[3]

There is no space here to give full treatment to this debate, but it is

highly relevant to the notion of conceptual truth as adopted by

philosophers of education.

The problem of whether or not analytic truths are a priori, and

if therefore they can also be synthetic, is paralleled by the problem

in philosophy of education of whether or not conceptual analysis offers

clues about what ought to be done in education, and if so, how these

can be non-empirical and value-free. Whether analytic truths are

truths about language, or truths about the world reflected in language

is the question underlying the problem of whether conceptual analysis

simply reveals our presuppositions clearly to the light of day, or

exposes which of these presuppositions should be retained and which

discarded. Does it, as Wittgenstein suggests, show us what we already

know (which does not allow for systematic, fundamental error), or

does it show us what we ought to regard as true? If it only does the

former, it is hard to see how we can possibly be advanced by it,

except procedurally.

Kant's distinction between analytic and synthetic truths was a

development of Hume's distinction between relations of ideas and

matters of fact, and Leibnitz' distinctions between truths of fact -

which are true because of the way this world is , and truths of reason -

which are true in all possible worlds, or no matter what. Though Kant

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1 Quine W. van O., _Word and Object_, Massachusetts, 1960, p.66.

defined analyticity more narrowly than in the two designations offered
by Hospers, it is clear from the use he makes of the notion that
analytic statements are to be taken to be true by virtue of meanings
and independently of fact. The concept of meaning is therefore crucial
to the concept of analyticity, and a particular notion of the former is
presupposed by the latter. Although a non-referential theory of meaning
is presupposed in analytic philosophy, where meaning resides in
connotation (intension) and not in denotation (extension), Quine notes
in his essay "Two Dogmas of Empiricism" that modern meaning theory is
still inherently essentialist in the Aristotelian sense. He remarks:

> "Things had essences, for Aristotle, but only linguistic
>
> forms have meanings. Meaning is what essence becomes when
>
> it is divorced from the object of reference and wedded to the
>
> word."[1]

Certainly such a remark seems pertinent to much conceptual analysis,
where the 'central' concept of 'education' is isolated, or the'necessary'
features of 'creativity' are sought. Quine thus argues that although
essentialism has been officially abjured, with the adoption of a non-
referential theory of meaning, nonetheless linguistic philosophy's
obsession with meaning lets essence and reference in again through the
back door:

> "Once the theory of meaning is sharply separated from the
>
> theory of reference, it is a short step to recognising as
>
> the primary business of the theory of meaning simply the
>
> synonymy of linguistic terms and the analyticity of
>
> statements; meanings themselves, as obscure intermediary
>
> entities, may well be abandoned."[2]

This insight of Quine's firmly indicates the basic problem with the

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1 Quine W. van O., "Two Dogmas of Empiricism" in From a Logical Point
  of View, New York, 1953, p.22.

2 ibid., p.22

notion of analyticity as will be shown.

The standard example of a conceptual truth, found in innumerable introductory text-books on philosophy generally, or philosophy of education in particular, is "bachelors are unmarried". This is true, no matter what, either (or both) because it is true by virtue of the meaning of the terms, or because to deny it is self-contradictory. Statements which are analytic by general philosophical agreement fall into two classes. In the first class come logical truths such as "No unmarried man is married", which is not merely true as it stands, but must remain true under any reinterpretations of "man" and "married". The hoary example, "All bachelors are unmarried" is in the second class, since it can be turned into a logical truth by the substitution of synonyms, thus "All unmarried men are unmarried". The claim, which is usually taken for granted, is that analytic statements of the second class collapse unproblematically into the first class, by the simple procedure of synonym substitution. But on reflection, this clearly will not do, for how do we decide which terms are synonymous? Perhaps by consulting a dictionary, or doing our own lexicographic study of usage? This, however, is to proceed backwards, for any such study or consultation would only reveal that we believe there to be a synonymous relation between two linguistic forms. And our beliefs about such a relation cannot be adduced as evidence of that relation. Synonymy is thus an insoluble chicken-and-egg problem, yet it is at the basis of all conceptual analysis. The verification theory of meaning claims to have solved the problem, asserting that statements are synonymous if and only if they are empirically confirmable by identical methods, where an analytic statement is that limiting case which is confirmed no matter what, and thus a further problem arises.

Implicit in the verification theory of meaning is the notion that

each synthetic statement is associated with a particular range of

sensory events, the occurrence of which would lend confirmation to

the statement, and another range, the occurrence of which would tend

to disconfirm the statement. It is thus linguistically reductionist

in the relationship presumed to obtain between statements and the

world via sense-data. Following Quine it would seem that the problems

of the verification theory of meaning and the problem of analyticity

are intimately related. He considers empiricism to be founded on the

twin beliefs (1) that truths can be divided into those which are

analytic, or grounded in meanings independently of matters of fact,

and truths which are synthetic, or grounded in fact, and (2) the belief

that each meaningful statement is equivalent to some logical consruct

upon terms which refer to immediate experience. His argument[1] which

seeks to show that these beliefs are both related and unfounded is

extremely complex, but bears both upon the case argued in this chapter

that conceptual analysis cannot both be non-empirical and value free,

and further tends to support the wider contention of this thesis that

a scientistic conception of science has bewitched both empirical

researchers in education and philosophers who work in that field.[2] The

ways in which their activities have been influenced by this bewitchment

are of course quite different, since the empiricists have taken this

mistaken view of science to indicate what their activities should

resemble, whilst the speculative theorists have taken it to indicate

what their activities should diametrically differ from, but both

attitudes are versions of the same mistake. Quine thus summarises:

> "The dogma of reductionism .... is intimately connected
>
> with the other dogma - that there is a cleavage between

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1 ibid., p.22.

2 For an interesting commentary on the influence of empiricism in
  educational thought see Harris K., _Education and Knowledge_, 1979,
  especially chap. 2.

the analytic and the synthetic..... . More directly,

the one dogma clearly supports the other in this way:

as long as it is taken to be significant in general to

speak of the confirmation and infirmation of a statement,

it seems significant to speak also of a limiting kind of

statement which is vacuously confirmed, ipso facto, come

what may; such a statement is analytic."[1]

He goes on to argue that in general the truth of statements

obviously depends upon both language and extra- linguistic fact so that

we are thus tempted to feel that the truth of a statement is analysable

into a linguistic component and a factual component. In one extreme

case where the linguistic component is all that matters, the statement

is analytic; in the other extreme case where the facts are paramount,

the statement is one of pure science. With developments in semantics

in the nineteenth and twentieth centuries which replaced the sentence

for the word as the smallest unit of meaning, the term-by-term

empiricism of Locke and Hume was discarded, and replaced by statement

empiricism, explained above. Quine's argument suggests that to speak

of linguistic and factual components in the truth of individual state-

ments, though an improvement on primitive empiricism, does not go far

enough, since the language\experience duality is applicable only to

statements about the world considered globally. He suggests:

"But what I am now urging is that even in taking the

statement as unit we have drawn our grid too finely. The

unit of empirical significance is the whole of science."[2]

Following these insights of Quine's it will now be argued that

to drop the notion of individual statements analysable into factual and

linguistic components will entail dropping the notion of the limiting

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1 Quine, op. cit., (1953), p.41.

2 ibid., p.42.

case, which will in turn entail a particular view of the implications

of conceptual analysis. To simplify and abbreviate the problem, since

an entire book could well be devoted to it, simplistic examples will

be used. It is a commonplace that no scientific statements - those

statements about the world where the factual element is paramountly

verifiable - are immune from revision. It is a further commonplace

that hypothetico-deductive systems of such statements, which collectively

represent repeatedly confirmed hypotheses about the world, are corrigible

at the lower edge. What I am here arguing is that this corrigibility

depends on language as well as upon sensory experience. With a primary

empirical statement such that "metals expand when heated" the

corrigibility of such a statement (by the revision of which higher

level statements in turn are corrigible) cannot depend entirely upon

its empirical content. If a substance, which by all other criteria

was a metal, were heated and failed to expand, there is a choice.

Either the fact that it fails to expand, although it is clearly a metal,

entails revision of the primary statement, or the fact that it fails to

expand shows that it is not after all a metal, since expansion under

heat is a defining characteristic of metals, and the primary statement

remains intact. If a statement which is on the periphery of a system

of statements pre-eminently verifiable by experience, and thus most

potentially vulnerable to revision, can be held true partially by

appeals to definition, then it becomes nonsense to look for a boundary

between synthetic statements - which hold contingently on experience,

and analytic statements - which hold true come what may. Conversely,

if such a statement which is partially true by definition can be

revised, then truth by definition does not confer immunity from revision.

So far the above argument shows only that the notion of analytic

truth is under attack, and it may be claimed that when Peters for

example is analysing the concept of 'the educated man', and teasing

out 'conceptual connections', he is not simply defining "educated man"

in synonymous terms to produce a vacuous statement, true by definition, such as "All bachelors are unmarried". The implication of my case is that either he is doing precisely that, or he is making synthetic statements about the world which are thus open to revision. Conceptual truths would thus become either vacuous or no more incontestable than any other truth claims. Certainly, when Peters asserts that it is conceptually true that "the educated man" must have "cognitive perspective"[1] the terms in each phrase are not obviously synonymous, but synonymy can be shown to be at the basis of the transposition from 'the educated man' to the listing of his necessary characteristics. Lexicographic definition, of the sort one finds by turning up a dictionary, limits itself to the reporting of pre-existing synonymies. Definitions reporting selected instances of synonymy appear as reports on usage, and these form the starting point of conceptual analysis - that part which philosophical analysts, casting off the naivetés and limitations of early ordinary language philosophy, tend to label verbal or linguistic analysis, and seek to distinguish from their own activity.

The presumed purpose of conceptual analysis is not simply to report on differing usages or to paraphrase the term under examination with straightforward synonyms, but to refine and supplement the meaning of the term: to make it both less ambiguous and more fruitful, as when Peters excludes certain connotations of "educated" as peripheral and extrapolates necessary features of those presumed central. However, though such a procedure does not merely report synonymies already in existence, it must either be dependent on other, related, pre-existing synonymies, or new synonymies are being created arbitrarily. Any concept worth analysing has some contexts which, globally, are clear and precise enough to be useful, and other contexts which are vague

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1 Peters R.S., "Education and the Educated Man" in Dearden R.F.,
   Hirst P.H. and Peters R.S. (eds.), Education and the Development
   of Reason Part I, 1972.

and ambiguous. The procedure of analysis serves to preserve the usage of favoured contexts and to refine those which are ambiguous. Taking the concept 'the educated man' as definiendum, then the necessary characteristics such as knowledge and understanding, cognitive perspective etc. are not synonymous with the definiendum, but their antecedent contexts must at some point be synonymous with favoured antecedent contexts of that definiendum. In such a case the outcomes of conceptual analysis would be truths, but definitional and hence vacuous truths.

The alternative - which corresponds more closely to actual instances of analysis, for which Peters' can well serve as paradigm, is that more than one defining characteristic or set of defining characteristics may be synonymous with favoured antecedent usages of the definiendum, but, since it is _favoured_ usages which are in question, they will not necessarily be synonymous with each other. The analyst thus _chooses_ which definiens is appropriate to his purpose, thus generating, quite arbitrarily, a new synonymy, so that analysis becomes a means to a persuasive definition, a type of definition which is described by Stevenson as one

"used, consciously or unconsciously, in an effort to

secure .... a redirection of people's attitudes."[1]

Thus what has been argued is that either analysis is descriptive and philological, issuing in truths in language and about language, or it is normative, and if it issues in truths, these are about the world and therefore corrigible in the same way as all other statements whose truth depends partially upon language and partially upon experience. That is to say that they are corrigible partially by redefinition in accordance with changed experience.

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1 Stevenson, C.L., op. cit. (1944), p.210. See also Stevenson C.L.,
  "Persuasive Definitions" in _Mind_, Vol. XLVII, 1938, pp.331-349.

Peters does not explicitly or consistently ground his analyses

in a particular theory of meaning, though he himself asserts (see

above) that meaning theory is basic to the procedure of analysis.

In many passages he claims to be analysing _the_ concept of education,

and he does not object to being said to be concerned with the _essence_

of education.[1] At other times he seems to be adopting a family

resemblance model of meaning rather than an essentialist model [2]

and his recognition that there can be different concepts of education[3]

runs counter to the essentialist model. If, as he says "It looks,

therefore, as if the concept of education is a very fluid one"[4], it is

difficult to avoid the conclusion that analysis of the concept must

ultimately consist of establishing new relations of synonmy by fiat.

Alternatively we must take his work to presume, as Haack suggests it

does, that

> "There is a super-concept of education - _the_ concept which
>
> embraces many different and possibly incompatible concepts
>
> of education."[5]

Whatever theory of meaning Peters is working with, his analysis begins,

as all such analyses must, with an examination of usage. If learning

is in need of clarification however, as it is with a problematic term

such as "education", there will be a whole spectrum of ordinary uses of

the term, and only the analyst can decide which of these are to be

favoured, or counted as paradigm cases, and which are to be discounted

as derivative, peripheral or metaphorical. No doubt philosophical

analysis illuminates subsequent discussion, but it is not that the

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1 Peters R.S., "Education as Initiation" in Archambault R.D. (ed.),
  Philosophical Analysis and Education, 1965, pp.88-89.

2 Peters op. cit. (1973), p.20.

3 Hirst and Peters, op. cit. (1970), p.25.

4 ibid., p.25.

5 Haack, op. cit. (1976), p.170.

analysis itself, by revealing true meaning and paradigm cases of
application, provides this illumination. It is rather the analyst's
choice of paradigm case which determines what form that illumination
shall take. Gellner remarks correctly that the invocation of paradigm
cases of usage can never of itself establish the essential meaning
of a term, since if this invocation is not redundant, it will be
insufficient:

> "It is not an argument which can be used with discrimination;
>
> if it is sometimes irrelevant or insufficient, then it
>
> can never be sufficient. If some additional arguments are
>
> required that in this or that particular case the paradigm
>
> use is correct, then those arguments are sufficient, and
>
> the argument from paradigm cases need not be invoked."[1]

Peters' analysis in the article "Education and the Educated Man"[2] is
solidly based on the prescriptive choice of paradigm use to establish
which of several possible concepts is the one to which we should
direct our attention.

Throughout his writings Peters emphasises everywhere in principle
that it would be illegitimate to argue from fact to norm, that "moral
decisions can never be extracted from conceptual analysis", but he
nonetheless wishes to emphasise that analysis "does at least help
to spotlight the points at which decisions have to be taken."[3]
What he obscures by his disclaimer is that the form that his analysis
takes - which is dependent upon his choice of paradigm and the
establishment of arbitrary synonymies - will decide what the points

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1 Gellner E., _Words and Things_, 1959, p.37.

2 Peters R.S., "Education and the Educated Man" in Dearden R.F.,
  Hirst P.H., Peters R.S. (eds.), _Education and the Development of
  of Reason_, Part I, 1972.

3 Peters op. cit. (1973), p.17.

are on which the spotlight will be directed, thereby determining

the nature of the decision to be taken, although not of course

deciding the manner in which it should be resolved. Thus, in his

analysis of 'education', Peters seeks to influence our thinking on

the issue by suggesting that we consider also the logically related

concept of 'an educated man', and he does this not so that we can

decide what "education" does mean, but so that we can decide what we

shall take it to imply. He suggests that if, in our consideration

of the meaning of "education", we spotlight the values associated with

his analysis of 'an educated man', such a direction of our attention

> "not only aids clarity, which is a cardinal educational
>
> virtue, but also may do something towards giving due
>
> weight to them."[1]

However, if "moral decisions can never be extracted from conceptual

analysis", then that procedure cannot possibly reveal what is the "due

weight" which ought to be given to values. If it does, we are indeed

in the realm of persuasive definition.

It is not the purpose here to attack Peters specifically; his

analysis of the concept of education simply illustrates very well the

problems inherent in conceptual analysis generally. Whilst its

practitioners insist that we cannot argue from fact to norm, that

actual use cannot prescribe valid use, philosophy is not concerned

with the actual use of terms whose meaning is undisputed - the

lexicographic synonymy referred to above - but only with those where

an evaluative judgement must be made to decide which meaning is central

to the dispute. Thus Gellner notes that

> "Virtually all philosophical problems are in this sense
>
> problems of value .... . A question becomes philosophical
>
> when it is about the valid use of a term."[2]

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1 Peters, op. cit. Dearden, Hirst, Peters (eds.), (1972), p.14

2 Gellner, op. cit. (1959), p.38.

The tendency to make this transition, which all agree to be illegitimate, is nonetheless insidious, and it is easy to see why this should be so. We cannot challenge the norms implicit in the language we speak, without standing aside from our own modes of thought, and unless we can do this, conceptual analysis will be either revisionary and prescriptive or will be limited to making philological recommendations and tightening up the normative status quo.

When Peters poses the question

"Is the saying 'Education is of the whole man' a conceptual truth in that 'education' rules out one-sided development? Or is it an expression of our moral evaluations about what is worthwhile?"[1],

he is offering an entirely unreal problem. The "conceptual truths" revealed in an analysis of 'education', in so far as they are not purely philological recommendations, and in so far as 'education' is agreed to be a normative concept, can be nothing other than reflections of "our moral valuations about what is worthwhile". Ayer was right in pointing out that we cannot prise the world off our concepts, but by the same token we cannot prise our concepts off the world, and we and our valuations are part of that world. All those who can agree upon what is the central use of an evaluative term will have reached agreement about what they in fact believe, although they will have no means of presenting arguments to fully justify those beliefs to those who dispute their choice of paradigm use. Thus analyses of complex concepts, which can only proceed by selection of favoured or paradigm uses, are not so much methods of reminding us of what we already know, but techniques for exploring what we happen to believe. They cannot reconcile dis-putants, since the cause of any dispute and the evidence for its resolution must necessarily be co-extensive. It therefore seems

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1 Peters R.S., "What is an Educational Process?" in Peters R.S. (ed.), op. cit. (1967), p.7.

extremely implausible to claim, as J. Wilson does, that conceptual
analysis

> "provides one with a specialised and appropriate method
> which one can be taught to use in answering many of the more
> important and interesting questions which can be asked."[1]

It has therefore been argued that conceptual analysis cannot and
does not escape from the problem that when we are not indulging in pure
description we are necessarily engaging to a degree in evaluation.
Conceptual analysis does not throw up truths which are both value-
free and immune from revision because they are non-empirical. If they
are immune from revision this is either because they are strict verbal
equivalent definitions, and hence vacuous, or because they are
persuasive definitions, and their immunity is open to challenge from
competing persuasive definitions. Conceptual analysts are therefore
on the horns of a dilemma: in examining normative concepts they can
either openly prescribe, or if they seek to avoid this, they necessarily
perpetuate the normative status quo.[2] Arguments grounded in ordinary
usage must be antipathetic to original thought and to change, since
actual valuations are embodied in our concepts, not value in any non-
subjective sense. Peters comes near to acknowledging this in the closing
sentences of Ethics and Education where he unsurprisingly concludes that

> "We may ..... shake off myths about our past and illusions
> about our future, and come to realise that the most worth-
> while features of political life are immanent in the
> institutions which we in fact have. Our problem is to
> convince ourselves of this as well as to convince our
> children."[3]

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1 Wilson J., Thinking with Concepts, 1963, p.vii.

2 c.f. Adelstein D., "'The Philosophy of Education' or The Wisdom and
   Wit of R.S. Peters" in Pateman T. (ed.), Countercourse, 1972.

1 Peters, op. cit.(1966), p.319.

Language necessarily reflects thought, but thought is not bound by any of the language games it employs, and a most important type of thinking consists precisely in reassessing our terms and the norms built into them. Original thought and intellectual advance would be outlawed if we refrained from violating pre-existing language games. This however, is precisely what we are counselled to do when philosophical analysis is sold as a means of producing truths untainted either by de facto, contingent relations with the world, or by our values.

If the arguments above about the procedures of conceptual analysis are sound, it would follow that conceptual connections reveal to us what is logically implicit in what we believe, and since our beliefs are not immutable, conceptual truths are open to revision. As G. Reddiford argues in his article "Conceptual Analysis and Education",[1] conceptual truths are elements in conceptual schemes and thus are open to change either by adjustments within those conceptual schemes, where the content of each element partially determines the content of other elements, or by the abandonment of a particular conceptual scheme for another. He accepts that conceptual truths are necessary, but explains clearly why this does not give them the immutability often assumed:

> "Their necessity (i.e. their being more than merely de facto)
> lies in their expressing relationships within the conceptual
> frameworks that we employ and must employ, granted what is a
> contingent matter that we see things in the way we do and
> have the purposes that we have. To the extent that I can
> choose to make some discriminations and ignore others, and
> can choose what my social purposes are to be then I can
> choose which conceptual frameworks, and hence conceptual
> truths to adopt and express."[2]

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1. Reddiford G., "Conceptual Analysis and Education" in The Proceedings of the Philosophy of Education Society of Great Britain, Vol. VI, no.2, July 1972, pp.193-215.

2. ibid., pp.202-3.

Such a view is not to slide into relativism, for it entails neither
that just any connections can hold within a framework, nor that just
any framework accords equally with reality.

It does entail, as does the argument of this chapter, that there
simply are different ways of responding to and reporting reality. If
conceptual analysis passes beyond the lexicographic cataloguing of the
varying usages of linguistic terms, it must necessarily involve some
constructive activity on the part of the analyst - or as Edel puts it

"There is some meta-analytical decision involved",[1]
as is shown by Peters' struggles with 'Spartan Education'. This is
catalogued as a secondary use because the paradigm demands a knowledge
condition for education. If, however, the knowledge condition is dropped,
'Spartan education' becomes primary and the paradigm a secondary usage.
But knowledge and its intrinsic worth are central to the conceptual
scheme within which Peters is operating and to sacrifice them would be
to sacrifice too much; the choice of paradigm thus stems from the bases
of the conceptual scheme, not from the analysis of terms specifically
related to education. But more importantly, the truths thus revealed
are truths within a conceptual scheme which we may either reject
entirely in the course of a conceptual shift, or modify by making
adjustments elsewhere within the scheme of elements whose sacrifice
is more in keeping with the retention of the scheme as a whole.

Given this less clear-cut notion of conceptual truth, as necessary
but nonetheless open to revision, the authoritarianism and elitism
implicit in the writing of many analytic philosophers of education seems
inappropriate. Thus J. Wilson writes,

"It is essential for at least some people, preferably those

in control of affairs, to have a philosophical grasp of the

essence or form of certain concepts or ideas. That is, to

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1 Edel A., op. cit., p.249.

know with as much certainty as is possible why the important

conceptual truths are true."[1]

In his recent book <u>Fantasy and Commonsense in Education</u>[2], Wilson shows

insight in exposing how educational thought is dominated by the

doctrines of behaviourism and relativism, but when he substitutes

'commonsense' for these 'fantasies', it becomes evident that he is

similarly bewitched by the positivistic/empiricist doctrines under-

lying ordinary language philosophy which are argued against in this

chapter. His basic assumption is that the world both is and necessarily

must be as we contingently happen to see it, and that this world is

accurately reflected in language. Hence he assumes that conceptual

analysis reveals indisputable and immutable truths about reality which

could not conceivably be otherwise. By studying "what can be said

in any language ... with consistency and coherence and intelligibility"[3]

he claims to be able to produce conceptual truths which conclusively

prove that any egalitarian view of education is "incoherent"; that

the idea of education without examinations is a "conceptual absurdity";

that non-competitive examinations are "conceptually impossible" etc. etc.

Since they are 'conceptually true' these conclusions are not supposed to

represent Wilson's own ideas of what education should be like, nor a

description of what it happens to be like. What is claimed is that

they reveal what education <u>of necessity</u> must be like. Anybody who

cannot see these points is simply confused, and his counter-arguments

are unintelligible.

Writers such as Wilson get away with this simply because practically

all educational philosophers are working basically within the same

conceptual scheme. Thus it is true that radical egalitarian views are

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1 Wilson J., <u>Fantasy and Commonsense in Education</u>, 1979, p.24.

2 ibid.,

3 ibid., p.17.

incompatible with the consensus view of what education ought to be
about. Similarly, given our "social purposes", the idea of education
without examinations of some kind makes little sense. However, this
is not to say that we could not conceivably educate without examining:
of course we could, though the social functions of education would
have to be modified. Clearly, the truths about the 'necessary features'
of education revealed by Wilson are not being assessed on logical
grounds, but on the grounds of their compatibility with commonsense.
As W. Carr notes, Wilson

> "endorses a philosophical outlook that declares in advance
> that reality is what commonsense says it is, and so the
> only question left for him to ask if why anybody in their
> right mind should think it to be otherwise."[1]

Clearly the upshot of such an outlook is that analysis becomes
the sole permitted tool of the philosopher who is thus committed to
exploring the implications of the beliefs generally held by consensus,
but is debarred from questioning the validity of those beliefs. The
claims of conceptual analysts to define the nature and scope of philosophy
have long been under fire by many philosophers (e.g. Gellner, Mundle,
Bird)[2], but such claims are still made for the procedure by philosophers
of education. Standard criticisms of the procedure relate to the
analytic failure to recognise that ordinary language concepts may be
defective, that the commonsense beliefs which they embody are theory-
dependent, and that theories can and should be critically reassessed.[3]

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1   Carr W., "Review Article: Philosophy, Fantasies and Common Sense"
    in Journal of Further and Higher Education, 4(2), Summer, 1980, p.94.

2   Gellner op. cit. (1959)
    Mundle, C.W.K., A Critique of Linguistic Philosophy, 1970.
    Bird G., Philosophical Tasks, 1972.

3   see Popper K.R., "Two Faces of Common Sense: An argument for
    common-sense realism and against the common-sense theory of knowledge"
    in Objective Knowledge, 1972.

This is not to say that commonsense should be ignored, but simply to insist that commonsense must be considered as the currently operative body of belief, not the criterion by which all attempts at conceptual revision are to be judged. It is this confounding of evidence with criteria for truth which leads much analytic philosophy of education to be both authoritarian and elitist: authoritarian because it claims to report what must be the case and therefore cannot sensibly be questioned, and elitist because the consensus view of education which it explores contingently happens to be an elitist conception. Its exponents would argue that their analyses, though authoritative, are not authoritarian, since they are value free and hence emanate not from how they see the world, but from how the world is. This chapter has sought to deny precisely that claim.

All the above does not imply that the procedures of conceptual analysis should be abandoned. They are indeed basic to philosophy of education, but basic in a different way from that which Wilson intends, and Peters suggests in his earlier and most influential work. Since they do reveal what is implicit in what we believe, analyses of key educational concepts are indispensible for two main reasons. Firstly, such analyses are an invaluable aid to clarity and cogency of argument in educational debate, and were this the limit of its function, the activity would need no further justification. Only a glance at educational writings is needed to note that discussion is bedevilled by the persuasive use of emotive slogans, by conceptual confusion and obscurity of terms, and by inconsistency and contradiction in argument. Analysis cannot, as is often claimed, demonstrate which of two incompatible views should be rejected, but it can clearly show what is the conceptual price which has to be paid for retaining one conflicting view in preference to another. Thus it can be shown that if a person insists that aesthetic value is entirely subjective, then aesthetic education is a non-starter. But such an insight does not settle any questions about aesthetic value, or about education.

Each of these issues can only be assessed within a context of related beliefs, some of which are too central to our conceptual schemes for us to contemplate their sacrifice until their accommodation causes more problems than it solves. This unacceptable lack of certainty must not be viewed as a specially recalcitrant philosophical problem: like the problem of the unprovability of fundamental principles, it is simply a problem which philosophers share with everyone else. As Quine remarks, once naive empiricism (which I have argued lies at the root of much philosophy of education) is abandoned, there occurs

"a blurring of the supposed boundary between speculative metaphysics and natural science."[1]

The blurring of this boundary is a precondition for enhancing our understanding of what lies on both sides.

The second reason why conceptual analysis is vital to philosophy of education is that this in turn is vital to educational theory in general and educational research in particular. Since the objects up for study in such research are the interactions of conscious beings in pursuit of normative social purposes, the conceptualisation of problems is a central part of the exercise. This issue will be examined in some detail below, but it is sufficient here to quote G.H. Bantock:

"It is disturbing to find how little modern philosophical techniques of linguistic analysis and clarification have affected our thinking about social-science research; yet as a preliminary to any such research it is important at least to decide what questions involved are really conceptual and what empirical."[2]

The assumption here that such issues are neatly separable will be questioned later in examining examples of research, but it will be argued that conceptual questions are basic to this area. For all the

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1 Quine, op. cit. (1953), p.20.

2 Bantock G.H., _Education and Values: Essays in the Theory of Education_, 1965, p. 164.

reasons above which show that no truths are independent of the
world, it will be correspondingly argued that few facts, particularly
in the area of education, can be obtained simply by observation of
the world.

C H A P T E R   S E V E N

INTRINSIC   VALUE

"Many people consider the question, 'What dispositions are

desirable, and why are they desirable?' to be the most

fundamental and far-reaching in the philosophy of education.

Perhaps it is just for this reason that they look for ways

to answer this question once and for all, so that it will

never again have to be raised. However, fundamental and

far-reaching though this question certainly is, it is not

the sort of question which leads to final answers. The

best that one can hope to do, whether he be a philosopher or

anyone else, is to consider rationally such answers as have

been proposed in the past ...... "[1]

Doyle's remarks here presuppose that the search for "what is

worthwhile" is the central question in the philosophy of education, and

that it should be so considered. One of the interesting things one can

do is to consider rationally answers that have been proposed, in order

to examine the sort of arguments used to support them, since in that

way one can become clearer about what is involved in asking such a

question. As K. Thompson remarks,

"the philosopher is concerned not with dogmatic answers to

questions of this kind but with investigating what is

involved in seeking to answer them."[2]

Two further crucial points, however, are to ask why this is presumed to

be the most fundamental question, and what would be the implications of

an inability to offer any satisfactory answer.

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1 Doyle J.F. in introduction to Doyle J.F. (ed.), Educational Judgements,
   1973, pp.3-4.

2 Thompson K., Education and Philosophy, 1980, p.20.

These two points are intimately connected, as I have suggested
above. Philosophers of education have assumed that as Moore maintains,

"To be adequate an overall educational aim must not only be
clear and unambiguous, but must rest on normative principles
recognised for what they are, deliberate decisions about what
is to count as valuable. Such decisions are always open to
challenge and <u>it may well be that ultimate positions of value</u>
<u>are not capable of rational support</u>".[1]

Moore's italics reflect the alarm occasioned by such a prospect, since
particular policies are assumed to depend upon overall aims, and
adequacy in justifying those aims is assumed to depend upon the rational
grounding of "ultimate positions of value". To even attempt to find
such grounding is considered quite illegitimate on the view of philosophy
as a purely second-order discipline, and therefore a quite illegitimate
procedure for philosophers of education. J.L. Mackie writes:

"Philosophy is popularly regarded as being concerned with
ends or goals, and so Philosophy of Education is thought of
as a subject which studies and determines, in some abstract
and <u>a priori</u> way, what is right or good or valuable in
education, which lays down aims which education should pursue
or standards by which educational policies should be judged.
But there is, and can be, no such subject. There is no way
in which philosophy, or any other genuine study, can determine
<u>a priori</u> what ends should be pursued or what achievements or
activities are to be valued more highly than others."[2]

There seems no reason to accept the claim that philosophy <u>must</u> be value
free, since debate about the nature of philosophy is one of the central

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1 Moore T.W., <u>Educational Theory, An Introduction</u>, 1974, p.53.

2 Mackie J.L., op. cit. (1964), p.40.

concerns of philosophy itself[1], and little reason to suppose that it could be, in so far as it is concerned with justification. The claim that it must be value free depends upon the assumption that it is necessarily second-order and that this necessarily entails value freedom. Thus A.R. White writes that

> "What sorts of things are valuable is a first-order question,
> while inquiries - whether psychological, sociological or
> logical - into our thinking about values are second-order."[2]

Whether this sharp distinction can be maintained has been seriously questioned in Chapters Five and Six, and the conclusions of those arguments have considerable support. Mays comments that analytical philosophers may well have been misguided in assuming that

> "formal (structural) questions and substantive questions
> (i.e. those of content) are separable"[3],

and all of Chapter Six would tend to substantiate Gellner's conclusion that

> "Conceptual investigations are seldom or never separable
> from either substantive ones or from evaluation. The
> model on which the contrary assumption was based is false ....
> In fact analyses almost always plainly do have evaluative
> implications."[4]

The legitimate procedures of philosophy cannot be proscribed by appealing to just those assumptions which are fundamental matters of philosophical dispute. The claim that philosophers must not engage in first order questions of value is backed up by two beliefs. One is

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1   See Waismann F., "How I See Philosophy" in Lewis H.D. (ed),
    Contemporary British Philosophy, 1956.
    Magee B., Modern British Philosophy, 1971.

2   White A.R., The Philosophy of Mind, (New York), 1967, p.5.

3   Mays W., "Linguistic Analysis and the Philosophy of Education" in
    Educational Theory, Vol.20, Summer, 1970, p.273.

4   Gellner, op. cit. (1959), p.294.

the belief that there is a philosophical procedure which can generate
truths which are neither empirical nor contaminated by values, and
this has been sufficiently challenged; the other is the belief that
value questions are unanswerable. Mackie bases his case on the claim
that

> "there is no sound way of laying down our initial or
>
> fundamental value-judgements or prescriptions a priori
>
> or on general philosophical grounds, and this holds for our
>
> basic educational evaluations as for all others."[1]

The fact, however, that a question may or may not be unanswerable is
no grounds for not asking it, and indeed one sensible way of discovering
whether or not it is answerable, would seem to be to ask it. Even were
it to be the case that the question is not finally answerable, this
does not entail that it cannot be rationally considered. This point is
made by C.H. Whitely with regard to morals. He writes:

> "It is time to reverse the process by which the discussion
>
> of ethical problems is being extruded from the domain of
>
> philosophy and replaced by a study of the grammar of ethical
>
> words..... . Moral questions can be rationally discussed,
>
> and moral philosophers are the right people to do it."[2]

Whether or not the 'fundamental question' of what is worthwhile can
be answered, and what hinges on being able or unable to answer it,
indeed what would count as an answer, must be examined after looking
at attempts made to answer it, for a study of these attempts will
reveal what is involved in answering such questions.

It is hard to imagine how philosophers of education could think
seriously about their area of concern without at least acknowledging that
the question is one of central importance. Peters' minimum definition

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1 Mackie, op. cit., p.41.

2 Whitely C.H., "Rationality in Morals" in Proceedings of the
  Aristotelian Society, Vol. L., 1949, p.14.

of education as "the transmission of that which is worthwhile in a morally acceptable manner"[1] escapes the criticisms levelled in Chapter Six at his criteria for being 'educated', simply because this definition is as uninformative as it is acceptable. It is not open to challenge as a persuasive definition precisely because it is content free; until the notion of worthwhileness is filled out it recommends nothing in particular, but simply anything which we feel fits the description "worthwhile".

This formula is acceptable because presumably anyone anywhere who is concerned with the lengthy and expensive business of education believes they are passing on something which is worthwhile in some sense and for some purpose. If the masters of Eton who see their task as the induction of their pupils into high culture, or A.S. Neill teaching nothing compulsorily but simply responding to children's interests, or the Mother Superior of a convent seeking to produce good Christian girls imbued with a spirit of devotion to God and service to the community, or the heads of the Education Ministry of the U.S.S.R. who aim to produce good Soviet citizens, all consider themselves to be engaged on a worthwhile enterprise, then either they are right and a vast number of varied and even contradictory things are worthwhile, or some of them are mistaken. It will not of course do at this point to suggest that differing educational goods may be worthwhile given differing social purposes, for what must then be questioned is the worthwhileness of the social purposes in question, or the values to which they make reference. There is therefore no logical escape from asking questions about intrinsic value, though this is not to say either that such questions can be answered, nor to concede that all norms must be arbitrary if they cannot.

The claim that x is desirable or valuable is clearly normative,

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1 Peters, op. cit. (1966), passim.

so that what is so claimed cannot be equated with what is deemed to be desirable by a given individual or group. Pace emotivism, in making such a claim a speaker is not merely expressing a favourable attitude to x, which he invites others to share; at least implicitly he is suggesting that his attitude is rationally justifiable in some objective sense. Where x is an educational activity, this justification may be given in terms of the skills and states of mind x is thought to promote in pupils. The subject specialist may claim that particular activities are instrumental in promoting certain mental dispositions or practical skills, and psychologists may urge that particular areas of study or methods of learning are especially conducive to the development of certain psychological dispositions. All such instrumental justifications, if soundly based, are essential to the making of educational judgements, but as means/end justifications they necessarily open up the possibility of challenging the value of the end. Reference to intrinsic goods is implicit in instrumental justifications, which generally take the form of an enthymeme, where the suppressed premises make reference to intrinsic value.

Philosophers of education concern themselves with the concept of 'intrinsic value' on the grounds that the exploration of such suppressed premises is essential to assure the basis of instrumental justification, as well as on the stronger grounds that, since instrumental value is logically dependent upon intrinsic value, we require some rational foundation for the justification of those activities or states of mind which we wish to promote for their own sake. Appeal to 'intrinsic value' functions as an ultimate justification, and the ascription of that term serves to pick out those activities or states which look to no further activities or states for their justification. Thus such pursuits as mechanical engineering or medicine are not referred to as intrinsically valuable, not because they do or do not have value in themselves, but because whether or not this is the case,

we have justification for the pursuance of these activities in terms

of their valued consequences. Conversely, the study of latin or

literature, which have no such obvious instrumental value, is frequently

justified by reference to the intrinsic value of these activities.

It is therefore clear that the ascription of "intrinsic value"

brings to an end a chain of justification. As various educational

writers have differing criteria for the ascription of the expression,

an investigation into the use of the term by a study of these criteria

should reveal where the chain of reasoning stops. The claim that x is

intrinsically valuable may be an appeal to value as an attribute which

somehow inheres in activities and may thus reveal value presuppositions

on the part of the user about x, which in fact point to further extrinsic

justification; in other cases the claim may make implicit appeal to a

moral principle for which further justification can be sought; it may

firmly rest upon acceptance of an ultimate moral principle; or it may

mask an abdiction of reasoning, being a signal of approval for which no

justification is, or can be, given. If the criteria for the ascription

of an element of language vary substantially, as they do in the case of

"intrinsic value", the meaning must be taken to lie in the function of

the expression: the meaning of the term is strictly speaking the use

to which it is put.

Different writers, in their attempts to offer justification for

particular activities or values in the educational context, ascribe

"intrinsic value" according to widely varying criteria, but in every

case the assumption is that when an activity or state is claimed to be

intrinsically worthwhile there should be no further need for justification.

If a set of criteria for the ascription of "intrinsic value" can be

found which do indeed enable the expression to fulfil its function,

namely to bring to an end in the reader further reasonable requests

for justification, then the expression will be meaningful in that

account. If no such satisfactory account is yet to be found, the

expression must be considered to function simply as a reason-
terminator and questions of its denotation will remain incapable of
resolution in principle. This will not, however, automatically entitle
us to assume that the philosopher of education is debarred, _qua_
philosopher, from offering prescriptive guidance on educational
practice, on the grounds that any account which serves to convince us
of the value of x if and only if we agree on the value of y, cannot
serve as a full rational justification. We must briefly examine several
attempts to justify particular educational activities, in order to con-
sider whether the criteria deemed necessary for the use of "intrinsic
value" by the writers concerned do indeed fulfil the function of the
expression and bring to a halt the justificatory regress which is thought
to undermine the claim that the philosopher has a legitimate prescriptive
role.

Phillips-Griffiths, in his article "A Deduction of Universities"[1],
suggests that we can understand the notion of intrinsic value by
examining the manner in which an activity is pursued. He contrasts
pursuing a subject by the standards internal to it, with pursuing it as
a means to some external end, and gives as his example the study of
psychology, suggesting that the subject has no value in itself if it is
studied with a view to producing more effective techniques of mass
persuasion, but that it has intrinsic value if it is pursued for no
other reason than love of the subject. He offers intrinsic justifications
for the pursuit of theoretical activities on the grounds of their in-
exhaustibility and universality, but such justifications are super-
numerary in his account since we would only rejoice in the universality
and inexhaustibility of something if we had already agreed that it was
valuable. Phillips-Griffiths' account is open to one of two objections.
If he is claiming that value inheres in an activity, how can such an

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1 Phillips-Griffiths, A.: "A Deduction of Universities" in
  Archambault, R.D. (ed), Philosophical Analysis and Education, 1965,
  pp. 187-208.

activity not have value simply because the manner in which it is

pursued is condemned? If this were so, Phillips-Griffiths would

apparently be ascribing value to an activity, whilst really valuing

the attitude to it of the agent, and it would then be open to a sceptic

to ask for justification for the ascription of value to this particular

manner of pursuing an activity. If the writer denied this, and wished

to maintain that value was in some way conferred on the activity by the

attitude of the agent, then the account is plainly fallacious, as it

amounts simply to asserting that activity x is valuable because those

who pursue x value it in itself.

Another writer who makes use of the notion of intrinsic value to

justify particular educational pursuits is Bantock, but on closer

inspection his use of the term is idiosyncratic, as he uses "intrinsically

valuable" as a synonym for "inherently valuable", and qualifies as such

any activities which are not pursued for the sake of further activities,

as literacy might be pursued for the sake of studying literature, but

which nevertheless may be justified with reference to further desirable

states, as literature might be pursued for the sake of its valuable

consequences. While claiming that the study of literature is

intrinsically valuable, he states that:

> "It is not difficult to show that the study of poetry involves
>
> a higher and more delicate degree of brain organisation, affects
>
> more aspects of the personality, and produces more valuable
>
> consequences than the study of pushpin."[1]

In fact, this is a misleading use of "intrinsic value", since Bantock

is arguing for the value of literature by making further justificatory

reference to the consequences of its study. In order to agree with him

that literature was inherently valuable, we would have to accept that

its study did indeed lead to the consequences he specifies; that these

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1 Bantock, G.H. _Education in an Industrial Society_, 1963, p.94.

consequences were indeed valuable; and that they followed more

necessarily from the study of literature than from other activities.

The ascription of "intrinsic value" here appears to have largely

emotive force, since we are asked to approve literature qua literature

on the grounds that it inevitably tends to foster particular attributes

which we are assumed to value, such as a "higher and more delicate

degree of brain organisation". Whilst the "valuable consequences"

remain unspecified, we are merely being fallaciously advised that this

activity ought to be valued because it happens to be complex and

difficult. When the "valuable consequences" are specified, it is open

to the reader to enquire into and dispute them in the light of his own

system of values, and similarly to the writer to further justify his

ascription of value. It would therefore seem that since literature

is here justified with reference to the "higher degree of brain activity"

it requires, it is this type of brain activity which is assumed to

need no further justification, and for which intrinsic value is there-

fore claimed, so that Bantock's ascription of intrinsic value is both

idiosyncratic and misleading.

One of the most currently read of educational theorists who makes

justificatory use of the notion of intrinsic value is J.P. White.

In his book Towards a Compulsory Curriculum[1] he rejects the notion of

intrinsic value as objective and inhering in an activity, and claims

that it is a formal, ideal and subjective notion. In other words there

are no activities which just are necessarily worthwhile or worthless;

that which is intrinsically worthwhile for x is that which he would

choose on reflection for its own sake when as nearly as possible in the

ideal situation for choice. White's argument thus leads to extraordinary

conclusions, such that combing one's hair all day becomes an intrinsically

valuable activity if it is chosen in the manner specified above. This

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1. White, J.P., Towards a Compulsory Curriculum, 1973.

would suggest that although White, who is writing prescriptively

about the curriculum, is ascribing value to activities, the value thus

ascribed lies not with the activity chosen, but with the manner of its

choice. It is open to anyone to ask why activities chosen in this way

are to be considered valuable, and from White's argument it is clear that

they are to be so considered in that they are the expression of autonomy.

Thus this account of intrinsic value is both paradoxical and circular.

White wishes to deny objective intrinsic value to educational activities,

and indeed he must, as education itself for him has only extrinsic value

as a means to autonomy. However, if he denies objective intrinsic value,

and his ultimate justification for the subjective nature of intrinsic

value is an appeal to the value of autonomy, then to be consistent the

intrinsic value of autonomy should also be subjective. But autonomy is

considered a valuable end for pupils even if, in the end of the day, they

do not in fact value it. This contradiction cannot be resolved by

suggesting that the achievement of individual autonomy is itself a further

link in the chain of extrinsic value deriving from some further end, namely

the choices pupils actually make, since autonomy may be a precondition of

some of these choices. If one makes true autonomy a precondition of

genuine choice, one has implied that only choices of this kind are

intrinsically valuable, and one is back to the assertion - for which no

further justification can be found or given - that autonomy is intrinsically

valuable for everyone. White's attempt to explicate the notion of intrinsic

value is therefore untenable: he claims that intrinsic value can only be

ascribed subjectively to activities, but on closer inspection this claim

is dependent upon the intrinsic value of autonomy which is considered to

be valuable whatever subjective assessments may say. No justification is

given for the valuing of autonomy simply because in White's argument it is

considered ultimate value. This is not to say that no justification could

be offered for the value of autonomy, but if such justification were offered,

autonomy would not be considered of ultimate value, since justification

would necessarily be cashed in terms of a further value until the chain of justification stopped.

Whilst it is not to the point at this stage to remark on the possible denotation of "intrinsic value", as distinct from what the phrase is to be taken to mean, it would appear that it is the essentially elusive nature of intrinsic value which leads White to ascribe it subjectively, and further, that this ascription is based on the mistaken assumption that since we have the concept, there must necessarily be something to which it refers. White seems to plump for a subjective account of intrinsic value because he concludes that neither he nor his fellow philosophers are able to locate objective intrinsic value to his satisfaction. This move is mistaken: to say that objective intrinsic value is an unlocatable notion, even if true, does not entail its subjective ascription. A simple model of location will illustrate the tempting but illegitimate procedure which seems to lie behind White's subjective account. Suppose we assume the reality of intrinsic value, and call it x, and suppose we further assume that we have two locations, s and o, corresponding to subjective and objective value. In an attempt to locate x, we first investigate o, where we expect x to be, but without success. We are not thereby entitled to assume that x is in s, and proceed as if we had located it, since to do so would be to make the unjustified assumptions that x exists and that s and o exhaust its possible locations, and to neglect the fact that x may exist in o in spite of our failure to locate it. If, guided by White, we investigate s, and discover that the category is quite empty, any of four possible conclusions can be drawn from this discovery: (1) that x is a chimera, (2) that x is in o but still unlocated to our satisfaction, (3) that x has been located in o, but we have failed to recognise it, (4) that s and o do not exhaust the possible locations of x. It seems apparent that attempts to ascribe intrinsic value subjectively are mistaken and will inevitably be unsatisfactory: any such ascription will either be

an assertion backed only by intuition, and open therefore to all the standard relevant objections, or it will be dependent for its justification on further reference to an ultimate value which is to be considered objective, making the value subjectively ascribed merely extrinsic.

There is a certain connection between the subjective ascription of intrinsic value and the suggestion made by utilitarian writers that certain activities just are valuable because as a matter of fact they promote pleasure and/or diminish pain in general. This ascription is open to some of the difficulties noted above, and many of the difficulties in the utilitarian criteria for ascribing intrinsic value are evidenced by arguments from R. Barrow's book Common Sense and the Curriculum.[1] It would seem that there are three problems with such an account. Firstly, it is open to the paradoxes noted in the subjective ascription of intrinsic value. Although happiness is an ultimate value, and objective in the sense that all people must necessarily value it whether they are aware of this valuation or not, specific activities are seen as contingently valuable, in so far only as they are productive of happiness, which can only be subjectively assessed. The utility principle thus seeks to justify specific activities with reference to a principle claimed to be ultimate, but which is nonetheless not truly objective. This is stressed by MacIntyre, in his article "Against Utilitarianism":

> ".... the absolute morality of principles prohibits or enjoins
> any action of some particular kind. But utilitarianism does
> not enjoin the performance or non-performance of any specific
> type of action. It enjoins the performance of any action what-
> soever whose consequences will produce the greatest human welfare."[2]

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1 Barrow R., Common Sense and the Curriculum, 1976.

2 MacIntyre A.C., "Against Utilitarianism" in Aims in Education, The Philosophic Approach, (ed. Hollins T.H.B.), 1964, p.2.

Utilitarian writers are ambivalent on the issue of whether their

principle admits objective value judgements and their accounts tend

to self contradiction. On the one hand R. Barrow maintains that

"the (utilitarian) hypothesis allows the legitimacy of

making objectively valid judgements about what is worthwhile..."

and that

"some activities just are worthwhile and will necessarily

remain so, whatever anybody happens to think about them."[1],

and on the other he seeks to justify this ascription of value in terms

of their actual tendency to promote happiness. Either or neither of

these positions may be valid, but they cannot both be valid.

If we postulate an objectively worthwhile activity x, such that

nobody at any time valued this activity or any of its necessary con-

sequences so that neither it nor its consequences gave anybody any

pleasure, would the utilitarian claim that this activity had value, and

if so, with reference to what principle would he justify this judgement?

I am not suggesting that "what anybody happens to think" about an

activity is any indication of its desirability; I am simply claiming

that the objective ascription of intrinsic value to activities is in-

consistent with utilitarianism. Barrow himself maintains elsewhere that

"No activity just is and must be worthwhile for all time,

for it is always conceivable that an activity that does

as a matter of fact promote pleasure now might in the future

cease to do so."[2],

and it is unclear how such a statement relates to the claim that value

can be objectively ascribed to particular activities by those who hold

the pleasure principle ultimate. If this is not simply an ambiguity

in the argument, then we must assume that the writer is using the term

1 Barrow R., op. cit. (1976), p.93.

2 Barrow R., op. cit. (1976), p.94.

"objective" in a rather unusual way, retaining its persuasive and

authoritative emotive force, but inserting a _ceteris_ _paribus_ clause

which would seem to negate the normal meaning of the term. We are

therefore to assume that the force of "objective" as thus used is to

be taken to mean that a particular activity x is objectively valuable

under certain contingent temporal, geographical and social conditions,

but would not be so under different circumstances. The status of an

'ultimate' judgement which of its nature contains this _ceteris_ _paribus_

clause is unclear. Just this seems to be suggested when Barrow explains

that whereas the study of literature is intrinsically worthwhile in

western society, it is not in Eskimo society. Such an explanation

serves only to underline the difficulty, since it leaves untouched the

prior value judgement of what is more worthwhile, a literate western

civilisation, or a preliterate Eskimo culture.

The resemblance here to White's account is apparent: if literature

is valuable for x, an Englishman, and not for y, an Eskimo, we have no

justification for promoting literature, since it might be more worthwhile

for us to adopt Eskimo ways. To neglect this point is to assume we have

no power over our environment and to fall prey to the cultural-

deterministic attitude which the same writer is at pains to deny.

Barrow thus maintains - on the face of it, very plausibly - that

> "it does not cut much ice to maintain that an activity
>
> unproductive of anybody's satisfaction is nonetheless
>
> worthwhile "[1]

but this apparently reasonable contention overlooks the vital fact that

wants, needs and desires are educable, that sources of satisfaction

above the biological level - and even some of those - are acquired

tastes. Even though the main point of Common Sense and the Curriculum

is indeed a programme for educating wants and needs, nonetheless the

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1 ibid., p.96.

justificatory basis of the argument is unsound. It cannot be claimed

that the pursuit of x is worthwhile solely on the grounds that it

promotes happiness, and simultaneously be argued that the promotion of

y would promote happiness, if people were educated so that the pursuit

of y became necessary to their happiness. For indeed by this latter

means anything would count as worthwhile, from drug addiction to

advanced technology. MacIntyre remarks:

> "What we desire depends entirely on what objects of desire
>
> have been and are presented to us. We learn to want things.
>
> Our desires have a history and not just a biological natural
>
> history, but a rational social history of intelligible response
>
> to what we have been offered."[1]

Without accepting MacIntyre's use of "entirely", the fact that desires

are educable at all makes the utility principle a dangerous one to adopt,

and an inadequate basis for ultimate value judgements. It is not enough

to be told that that which satisfies wants and needs is worthwhile, ·since

it must still be debated whether these wants and needs, which it is in

our power to educate and change, are themselves worthwhile.

The ambivalence in modern utilitarian writing between conflicting

suggestions that intrinsic value is both 'objective' and 'contingent'

stems from the overt rejection of Mill's notion that some pleasures are

qualitatively superior to others coupled with the covert retention of

that notion. Mill's claim makes utilitarianism redundant, since it

is an appeal to the intrinsic objective value of activities or states

of mind, but without such an implicit claim, utilitarianism is vacuous.

If activities are evaluated in the light of their consequences, and

these consequences are to be evaluated in the light of the agent's

and others' satisfactions, then there is an implicit assumption that

there is some sliding scale of satisfactions, whether quantitative or

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1 MacIntyre, op. cit. (1964), p.8.

qualitative, that is measurable. With the rejection of the claim that
some pleasures are more worthwhile than others the utilitarian thesis
is either vacuous, or open to the request for further extrinsic
justification.

The second problem with the utilitarian account of the ascription
of intrinsic value is that whilst on the face of it, it seems to be a
means/end argument in terms of the ultimate value of happiness, this
is true only so long as the argument is formal, and in so far as it is
formal, it is a tautology. It was argued above that it is not enough
to be told that that which satisfies our needs and wants is worthwhile;
we need to ask if our wants and needs are worthy. On the formal claim
we are told that that which satisfies our wants and needs is _ipso_ _facto_
valuable, and that these wants and needs are worthy if their objects
are worthwhile, their objects being worthwhile if they satisfy our
wants and needs. If what is good is that which leads to happiness, and
happiness is the ultimate value, the argument is circular: it is not
that the end of the justificatory chain has been reached, it has merely
rejoined the beginning. Activities are recommended as intrinsically
good because they lead to happiness, which, although not the meaning of
intrinsic goodness, is its sole denotation - the only case to which it
can apply. It is immaterial to this point whether the formal utilitarian
claim is correct or not - it is simply necessary to emphasise that it
adds nothing in the way of justification.

Any claim which attributes intrinsic value will necessarily be meta-
physical, in the sense of neither verifiable nor falsifiable in principle,
for if this were not so it would on closer inspection be revealed as
an ascription of extrinsic value which did not halt the justificatory
regress, since it is the culmination of this regress which is the
function of the term. This claim, however, has serious consequences,
since if rationality is not to be abandoned in favour of appeals to
intuition, some evidence must be given to validate such judgements, even

though they are not incontrovertibly provable. It is the nature of such evidence which is crucial to any examination of attempts to ascribe intrinsic value in the light of an ultimate principle. If a proposition cannot be proved, and yet assent is sought for it, this assent can only be secured by persuading the sceptic to agree, not to the truth of the proposition itself, but to the acceptability of the consequences of assuming it to be true. The argument is therefore moved one step back from the metaphysical culmination of the justificatory regress, and we are again left with extrinsic value. Hence it is the assessment of the penultimate justification - which by definition makes reference to a value which is only extrinsic - which will decide the issue, and the ultimate value in terms of which judgements are schematised becomes redundant.

The third problem with the utilitarian account arises when the argument becomes substantive. When the categorisation of which specific activities actually do or are likely to promote pleasure, and hence are intrinsically valuable, is offered, the argument is no longer a tautology, but depends entirely for its justificatory force upon shared value presuppositions on the part of the disputants. They must not only agree that happiness is the ultimate value - a purely formal claim - but more importantly they must share the same beliefs about what is con- stitutive of happiness. Barrow argues that judgements about extrinsic value are largely empirical:

> "... the problems that arise in relation to judgements of
>
> extrinsic value are largely empirical: whether A does
>
> have extrinsic value as a means to B depends at least partly
>
> upon whether it is a means to B."[1]

Since a judgement about what will lead to happiness is justified in terms of the value of happiness, this penultimate judgement is concerned with

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1 Barrow, op. cit. (1976), p.22.

extrinsic value, but it is not an empirical judgement, since whether or not we believe that A leads to B, when B is the ultimate value of happiness, depends largely upon our conception of B and, as I have suggested, this is precisely what is at issue when education is being discussed.

A hard pressed utilitarian might claim, with some truth, that this is true of any so-called empirical judgement - that whether or not we agree that hot dry weather culminates often in thunderstorms will depend upon our prior agreement of what a thunderstorn is, but nevertheless it is evident that disagreement on such an issue is less likely to be pervasive than disagreement on the elusive issue of what constitutes happiness. Our conception of what happiness is will necessarily depend upon the wants, needs and desires that we actually have, and the possibilities of which we are aware. It is this fact which has led critics of utilitarianism to make the rather extreme claim that it is a morality which serves only to perpetuate the status quo, since truth, knowledge and desires are culturally determined. Without accepting such an extreme claim, there is in it an element of truth which presents serious difficulties to any attempt to ascribe intrinsic value with reference to the promotion of pleasure.

Barrow hopes that the reader will assent to such an ascription "when he has a full understanding of what it involves and leads to and what it does not"[1], and elsewhere he assumes that "when the reader has a proper understanding of the view and of what does and does not follow from it, he will be inclined to assent to its truth, on the grounds that it is a more plausible thesis than any alternative."[2] Without dwelling on the relationship between truth and plausibility, it is evident that the reader would only be inclined to assent to the

1 ibid., p.84.

2 ibid., p.91.

plausibility of the thesis, if he shared the same conception of happiness as the writer, and his evaluation of "what it involves and leads to" will be a reflection of a combination of his personal idiosyncracies and the values of his culture. This does not entail that we are irrevocably bound by the values of our culture, for of course "we can challenge conventionally accepted preferences"[1], but nonetheless, what truths we deem desirable to foster in the interests of happiness will depend upon our own situation, interests and values. In considering these we can no more step outside our conceptual framework than in explicating them we can step outside the confines of our language. The point is that it is true to say that "utilitarianism is necessarily interpreted in the light of the dominant beliefs and attitudes of a society"[2], provided that, as Barrow suggests, "interpreted in the light of" is taken to mean not "must be dominated and dictated to by ...", but "must take some account of."[3] However, apart from the more emotive tone of the first, rejected, alternative, it is unclear what is the precise difference: before we can evaluate a theory which "must take some account" we need to know what sort of an account, and how much is "some". For two reasons "some account" here is quite a considerable account: anyone who wishes to "challenge conventionally accepted preferences" can do so only from a value base which is formed in relation - be this positive or negative - to the values of the society to which he belongs, and secondly because his recommendations would only have justificatory force with his hearers if his challenges struck a chord in their systems of value.

No doubt

"there is nothing to stop us reasoning beyond the here and now,

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1 ibid., p.25.

2 MacIntyre, op. cit. (1964), p.4.

3 Barrow, op. cit. (1976), p.91.

and arguing that certain aspects of our culture are

objectionable and that our curriculum should not reflect

them"[1],

but in any evaluation of education, utilitarian justifications will

only have practical force in so far as they reflect, not the "culture"

from which they spring, (for where can one find such a homogeneous

"culture"?) but the dominant class within it. This would seem to be

definitionally true, since given that the upbringing of the young is

the most important contributory factor in the continuance of a society

and its value system, we should not call the group which did not

dominate this process in terms of aims, objectives and values, the

dominant group of that society. At most it would be the once-dominant

group whose decline, entailed by its abdication of control over the

process which would ensure its survival, had already set in. If a

change in educational practice is to be recommended on utilitarian

grounds, this change must either harmonise with the conception of

happiness of the dominant group, so that they can be persuaded to

impose such changes and educate the desires of people in general, or

alternatively such proposals must reflect the popular conception of

happiness, so that a groundswell of opinion can be appealed to which

will bring its democratic weight to bear on the dominant group and

thereby dominate it.

A utilitarian reformer can only refute the charge that his reforms

must harmonise with actual or latent public opinion if they are to

have any justificatory force, by laying himself open to the counter-

charge that his principle does not ascribe intrinsic value to those

activities which actually lead to happiness, but only to those which

he considers ought to; that his morality takes little account of the

actual desires that people wish to satisfy, but decides for them what

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1 ibid., p.25.

desires they ought to wish to satisfy, on the basis of the actual
preferences and values of the would-be reformer. Peters holds that
this is the case, and that the utilitarian ascription of intrinsic
value is incoherent. He states that on the pleasure principle:

> "the practice is looked at without any regard to its
> intrinsic value. It is assessed from the outside purely
> in terms of its actual results, not at all in terms of how
> it is conceived by its participants. This, of course, is
> not an entirely irrelevant or immoral way of looking at a
> practice. But if it predominates a widespread and insidious
> type of corruption arises. For the point of view of
> participants in a practice becomes of decreasing importance.
> They are regarded basically as vehicles for the promotion of
> public benefit, whose queer attitudes may sometimes promote
> this, though no thought of it ever enters their heads. This
> is the manipulator's attitude to human beings, the 'hidden
> hand' in operation from the outside."[1]

In either of these cases we are concerned with what those to be educated
actually value, or with what the educator actually values, neither of
which provides any ground for the ascription of intrinsic value to
that which ought to be valued.

The above argument suggests that attempts to ascribe intrinsic
value in terms of an ultimate value will either be tautological if
the claim remains formal, or when the formal claim is applied to a
specification of activities will either be circular, or an appeal to
extrinsic value which leaves open the possibility of further requests
for justification. We are either asked to assent to the value of x, on
the grounds that we do value x and therefore its attainment or pursuit

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1 Peters R.S., "The Justification of Education" in The Philosophy of
   Education, (ed. Peters R.S.), 1973, p.246.

satisfies us, or to assent to the value of x, given that we value y,
whose value is explained in terms of its being constitutive of x -
a judgement for which we are offered no evidence.

R.S. Peters finds unacceptable all extant attempts to ascribe
intrinsic value to activities, whether this value is seen as an
attribute of the activity, or is ascribed subjectively, or is justified
with reference to an ultimate value. He is aware that the function of
the expression is to bring to an end a chain of justification, and that
for this function to be satisfactorily fulfilled, the end of the chain
must be a point of unarguable agreement. On the grounds that intrinsic
value cannot be satisfactorily argued for, he seeks to ascribe it by
examining what cannot possibly be argued against, by means of a trans-
cendental deduction. Such an argument would seem a more promising
approach to the ascription of intrinsic value, but it can be demonstrated
that Peters' deduction presents difficulties, and does not fully
establish his case.

The traditional function of a transcendental argument is to
establish an a priori justification for moral principles. Given that,
for Peters, education consists in the transmission of that which is
worthwhile in a morally acceptable manner (the normative concept of
education which is the most pertinent for both philosophers of
education and practical educators), education is for him, by definition,
a moral issue and any recommendations for aims, method or content
must be morally justified. Rejecting ethical theories such as utili-
tarianism, emotivism or intuitionism as unsatisfactory, he seeks to
justify not only moral principles, such as equality and justice, but
also the content of education, transcendentally. A transcendental
deduction is an a priori justification which seeks to demonstrate that
what the sceptic cannot deny is possible only if he accepts the
possibility of knowing what he thinks he can deny. Peters' claim is
that a transcendental argument is the only one which can refute moral

scepticism. His arguments are directed both against the practical

sceptic who opts out of moral discourse altogether (although Peters

realises his claims will have no force with such a person unless the

practical sceptic were to admit he had opted out of moral discourse

after weighing the reasons for doing so), but more particularly against

the theoretical sceptic who, having rejected as insufficient all

classical theories of moral justification (as Peters himself does),

either becomes involved in an infinite justificatory regress, or must

conclude that first principles in moral discourse are selected

arbitrarily. Peters directs his argument largely to the theoretical

sceptic, as he concludes that for the man who opts out of moral discourse

for any reason

"no adducing of reasons for the guidance of conduct would

be permissible thereafter".[1]

This is the first and most basic flaw in Peters' argument, for it

is a gross exaggeration to suggest that opting out of moral discourse

"would entail a resolute refusal to think or talk about

what ought to be done, which would constitute an abdication

from a form of thought into which all our society are

initiated in varying degrees."[2]

By no means all "what ought I do do?" questions are moral in character.

Non-moral, action-guiding principles can well be adopted, as indeed

they often are, in the field of business, politics, and day to day life.

No doubt ultimately a means/end justification will be grounded in a

value judgement, but nonetheless the sceptic who accepts in advance

that he will reach no certain conclusions at the ultimate end of such

a chain is not thereby prevented from exercising rationality in the

attainment of proximate ends. The choice is not, as Peters suggests,

1 Peters,op. cit.. (1966), p.116.

2 ibid., pp.115-116.

between moral principles and irrationality in action, but between

the acceptance of moral or non-moral principles for conduct. No a

priori transcendental argument based on moral discourse can help to

make this fundamental choice which is logically prior.

Leaving aside this caveat, Peters' argument proceeds apparently

simply. In order to establish a rational basis for his recommendations,

which, on his definition of education, take place within the realms

of moral discourse, he seeks to probe behind questions of procedure to

see what the questions themselves implicitly presuppose. He looks for

what any individual must implicitly presuppose in so far as he

seriously asks himself or others what he ought to do. Peters concerns

himself only with the individual who asks such questions seriously;

who is committed to genuinely choosing, rather than thoughtlessly

"plumping". He assumes that the notion of 'ought' is equivalent to the

notion of there being reasons, so that "What ought I to do?" is a search

for relevant reasons to guide action, which suggests that the very

asking of this question seriously reveals that the questioner has a

prior commitment to rational appraisal. This is a broadening of the

transcendental argument from its original purpose as moral justification -

Peters is exposing the presuppositions inherent in all practical dis-

course, whether moral or non-moral. It is a position difficult to

challenge, since the more broadly based the form of discourse on which

the transcendental argument is grounded, the less assailable it is.

Although we should reject, as argued above, the claim that the sceptic

who opts out of moral discourse is condemned to irrationality in action,

we must accept Peters' more modest claim that irrationality would be

implied in opting out of all practical discourse. Indeed, so much is

true by definition; in so far as practical discourse involves the

giving and seeking of reasons for actions, rationality is of course a

precondition of it.

It is necessary here to recall the purpose of Peters' trans-

cendental deduction. He is concerned with the establishment of

"judgements about the activities or states of affairs

which are intrinsically good"[1],

for he is aware that the need for

"such judgements about ends is obvious enough. Otherwise

giving reasons for actions would be an endless paper chase".[2]

He shows himself to be aware, in his discussion of classical ethical

theories, that agreement about such ends can never be secured, as the

infinite regress of justification can only be halted by appeals to

conflicting intuitions. If agreement cannot be secured (and it was

noted earlier that even de facto agreement on worth would not settle

the issue of what is worthwhile), the only alternative to the arbitrary

selection of principles for justification is a transcendental deduction

which will demonstrate that de facto agreement exists although we are

not commonly aware of it. Quite apart from the question of the validity

of such a method of justification, the empirical claim that such

agreement does exist needs closer examination.

Peters broadens his deduction from the realms of moral discourse,

where the practical sceptic is an exception to this de facto agreement,

to the realm of practical discourse in general, since in order to

demonstrate that we need not argue for worthwhileness on the grounds

that there is de facto universal agreement on this issue, he must show

that rational appraisal is something in which all people necessarily

engage. Peters claims here to be making a logical, not an empirical,

point, but although it might be empirically very difficult to avoid all

deliberation of the "what ought I to do?" type, there is no logical

oddity, contradiction or impossibility in opting out of this form of

discourse. Peters might well be able to counter that in order to opt

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1 ibid., p.154.

2 ibid., p.154.

out of deliberation an individual would have had to have made a prior

decision to do so which itself involved and was the product of

rational appraisal, but what of the logically conceivable individual

who had never entered into this form of discourse?

Even if Peters could establish that all people necessarily value

rational appraisal, in that they all necessarily engage in practical

discourse (which he could do definitionally by making at least minimal

engagement in practical discourse part of what it means to be a

person), he would still not have shown that they ought to do so, so

that his deduction, while having point, would have no moral force.

Peters' approach here is open to the same objections as Mill's

"substitute for proof" of the principle of utility, in which he sought

to prove, not that we ought to value happiness, but that argument about

what we ought or ought not to desire is redundant, since it can be

shown that happiness is what we necessarily do desire. Just as

universal intuited agreement on the value of x would not prove that x

ought to be valued, neither would a demonstration of our inevitable

commitment to x prove this normative point. If the question "What

ought I to do?" therefore is taken not as the search for moral justi-

fication of moral principles, but is simply taken as meaning "What

actions are there reasons for doing?", Peters' claim, although

reasonable, appears very modest compared with the lead-up to it in

Ethics and Education. It is something of an anti-climax to be shown

the insufficiency of ethical theories of justification, with the

suggestion that these are to be replaced by a transcendental argument,

when this only has force in so far as it abandons its role as moral

justification and relies upon the empirical difficulty of opting out of

all practical discourse, whether moral or non-moral. If the empirical

assumptions here were correct, the argument could only be reassumed to

have moral force by a gross commission of the naturalistic fallacy.

Peters, however, wishes to hang a great deal on the implications

behind the asking of "What ought I to do?". He suggests that the

question presupposes not only the relevance and value of rationality,

but the relevance of general principles which distinguish between

good and bad reasons for doing something. These principles are general

in so far as what constitutes a good reason for choosing a particular

course of action in circumstances x would constitute a good reason for

taking similar action in circumstances y, where the circumstances were

the same in relevant respects. Whilst this contention is most plausible,

it is not as logically unassailable as Peters assumes. Kleinig[1]

postulates a man who after due deliberation came to the conclusion that

the scrutiny of relevant reasons was an inferior method of making

choices to acting on what he was spontaneously drawn to do. It is not

logically impossible that a man could have "seriously" chosen this

method of making life's choices. Although Peters feels he has covered

himself against this type of objection by the inclusion of "seriously"

in his formulation, he has surely succeeded only to the extent to which

his argument is circular. If we dismiss an objection like Kleinig's,

on the grounds that such a man is not in fact serious, that in Peters'

words he is "plumping" rather than choosing, then we have indeed proved

that rational appraisal is presupposed by serious choice, but only

because we will only accept as genuine choices those actions which are

preceded or characterised by rational appraisal. If all forms of

practical discourse are indeed requests for justification, Peters'

point is made, but it is definitional and hence of little significance.

Thus Peters' deduction fails to establish a transcendental

justification for educational aims, methods and content, for he

establishes neither that people logically must engage in that sort of

discourse which reveals a commitment to rational appraisal, nor that

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1 Kleinig J., "R.S. Peters' use of Transcendental Arguments." in
  Proceedings of the Philosophy of Education Society of Great Britain,
  Vol.VII, No.2, July, 1973.

they ought to do so if they did not. Hence he fails to establish
the intrinsic value of rationality and by extension the intrinsic
value of those theoretical pursuits where rationality is at a premium.
What the argument does show is that most of us happen to share an
implicit commitment to rationality. This commitment is, on Peters'
own admission[1], useless for picking out as particularly worthwhile any
specific activities within the general category of theoretical pursuits
and exposes as redundant the asking of questions designed to make a
choice between the respective worth of theoretical and non-theoretical
activities. Therefore when Peters' deduction becomes substantive and
ascribes intrinsic value to particular educational activities, it is
open to major objections. Firstly, such an argument could at most
only prove that theoretical pursuits were valued, and although this
would for practical purposes cut short the debate on intrinsic value,
it would not show that such activities deserved to be valued; secondly,
even if accepted it has no specific practical application, and its
general application restricts "serious" questioners to those who are
definitionally bound to select the category of theoretical pursuits in
preference to those with less cognitive content: the familiar problem
that the ascription of intrinsic value is either impotent or
redundant.

From the above examination of diverse approaches by philosophers
of education, it would appear that inconsistency or circularity are
necessary characteristics of attempts to justify particular activities
in preference to others with reference to their greater intrinsic value,
since describing activities in this way suggests precisely that they are
not to be justified in terms of their necessary or contingent results
or characteristics which can be specified and therefore questioned.
If we ask why x is intrinsically valuable, and receive an explanation,

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1 Peters, op. cit. (1966), p.144.

then the assertion that x posessed this special sort of value was

redundant. If no explanation is forthcoming, then the assertion will

be accepted or rejected with reference to our intuition, and appeals

to intuition will have little force with the questioner who was seeking

rational justification. Thus, "x is intrinsically valuable" is

equivalent to:

> "Apart from any extrinsic reasons I may have offered, and
>
> which you may or may not have accepted, and unless we
>
> share a theory of value, I can offer no further justification
>
> for the pursuit of x, but nonetheless seek to recommend it."[1]

Gregory and Woods note that "intrinsic value" serves as "a reason

terminator"[2] but as such it has considerable emotive force and is far

more effective than less sophisticated reason terminators such as

"Because I believe it" or "I don't know why". Gregory and Woods note

the "signpost function"[3] of the expression and argue that for it to be

meaningful as a signpost it would have to function positively as well

as negatively, which it fails to do.

Although the expression clearly has no justificatory force, it is

obvious that the giving of reasons must terminate at some point. This

may be either because reasons are exhausted, or simply because the

reasoner wishes to abstain from further reasoning. The ascription of

intrinsic value obscures this distinction, suggesting not simply that

for all sorts of contingent reasons, reasoning has ceased, but that it

necessarily should cease at this point. It is an attempt to sidestep

the paradox that we may legitimately seek to gain assent for every

step in an evaluative argument except the final step, which by definition

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1. Abelson R., "Because I Want To" in _Mind_, Vol.74, No. 296, Oct., 1965.

2 Gregory I.M.M. and Woods R.G., "Valuable in Itself" in _Educational_
   Philosophy and Theory, Vol.3, 1971, p.59.

3 ibid., p.59.

can neither be argued for nor justified. Claims about intrinsic

value obscure the analytic truth that no further reasons can be given

for the judgement we make at the point where reasons are exhausted.

This truth has been taken to entail firstly that our ultimate judgements

about the value of specific educational activities, and about the states

of affairs in the world or dispositions of mind in pupils which these

activities are presumed to promote, can never rationally be fully

justified, and that secondly, therefore the philosopher has no right,

as a philosopher, to issue prescriptive pronouncements about what ought

to go on in education. Both these supposed implications must be

questioned.

Hare states clearly why the unprovability of ultimate principles

does not entail that individual decisions are arbitrary:

"To describe such ultimate decisions as arbitrary, because

ex hypothesi everything which could be used to justify them

has already been included in the decision, would be like

saying that a complete description of the universe was utterly

unfounded, because no further fact could be called upon in

corroboration of it. This is not how we use the words

'arbitrary' and 'unfounded'. Far from being arbitrary such

a decision would be the most well-founded of decisions, because

it would be based upon a consideration of everything on which

it possibly could be founded."[1]

As Hare implies, certainly no further reasons can be given at the point

where reasons are exhausted, but this must not be confused with the

notion that such a final judgement is unreasonable: it is supported

by all the reasons already adduced. The simple truth that ultimate

judgements cannot be justified, far from proving that nothing can be

justified actually delineates the limits of justification, without

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1 Hare, op. cit. (1952), p.69.

which delineation 'justification' would itself be a vacuous notion.
It is the business of philosophers to pursue justification to its
limits, though these limits will be necessarily incapable of _further_
support. In The Legitimation of Belief, Gellner clearly notes that
in spite of the regress inherent in justification, it is a procedure
which is neither arbitrary nor optional:

> "... whilst the exercise cannot be performed both rigorously
>
> and without circularity, it can be carried out with at least
>
> a diminution of the circularity and question-beggingness, and
>
> without abandoning rigour altogether. In any case, we cannot
>
> but try. There seem to be certain final anchorages, which
>
> can terminate the regress, which provide justification for
>
> this or that vantage point, and which possess some inherent
>
> claim to our cognitive loyalty. Philosophy, for what it is
>
> worth, is the formulation and examination of these anchor
>
> points, these ultimate base-lines."[1]

It has already been argued in this thesis that the fact that
normative justification is not a procedure out of which purposive beings
can opt, makes the suggestion that philosophers should so abstain, on
the grounds that ultimate principles are arbitrary, quite misleading.
It is not that the philosopher's area of presumed expertise is shakily
founded: it is simply that this area of thought, which remains his
particular concern, is incapable of proof - a characteristic which is
shared with more other areas of rational endeavour than is commonly
supposed. In the light of the arguments presented in this chapter and
the preceeding chapter, that on the one hand the critical philosopher
can remain value-neutral only if he limits himself to philological
questions, and on the other hand that it is not the philosopher's
place to terminate normative discussion by the ascription of intrinsic

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1 Gellner, op. cit. (1974), p.46.

value, but rather that it is his function to enable such reasoning to proceed as soundly as possible, it must next be considered why this position is tenable, and to what extent the philosopher of education can legitimately contribute to substantive normative discussion.

C H A P T E R   E I G H T

NORMATIVE   REASONING

"No layman would think of requesting that a scientist

should produce a perpetual motion machine or an elixir

of life merely on the grounds that it would be desirable

to have such a thing and that scientists in the past have

made ill-founded claims to have discovered these marvels.

And it would be a particularly odd request if the layman

persisted in making it in the face of the scientists'

assurances that there were good technical reasons for

supposing that these feats were impossible. Yet the

demand of the layman to have 'the purpose of life'

demonstrated to him is precisely analogous to this."[1]

O'Connor is here referring to the demand that philosophers of

education should be able to provide the aims and goals of education,

leaving only empirical questions of how these ends should be achieved—

questions which could be answered, it is supposed, by sociologists,

psychologists, economists etc. This provision of fully justified aims

and goals he clearly sees as a chimera, a view which is shared by most

other philosophers of education. The consequence of this view, for

O'Connor as for many who share it, is that educational theory is seen

as fundamentally unsupported in the vital normative area. It will be

argued briefly in this chapter that whereas the claim that normative

reasoning is not capable ultimately of validation is correct, this does

not have the consequence for the status of normative reasoning generally,

nor for educational theory in particular, which O'Connor and many

philosophers of education suggest.

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1 O'Connor, op. cit. (1957), p.47.

Preceding chapters in Part Two of this thesis have shown how the success of science and the related rise of positivism in philosophy led to emphasis on the arbitrary nature of normative reasoning, an emphasis which placed philosophers of education on the horns of a dilemma. Given that the area of enquiry of education is essentially practical - that is designed to issue in action, all educational theorising must contain empirical and evaluative elements. Since it is clearly no part of the philosopher's role to act as an empirical scientist, if normative reasoning is perceived as essentially arbitrary, what role has he? It is sometimes argued that his role is essentially negative: he should concern himself with the evaluative element in educational argument, but solely in order to expose this element and distinguish it from empirical argument. Thus K. Thompson remarks that non-philosophical educational theorists

> "plunge into the debate, frequently putting in their own
> value judgements at the beginning of an argument as assumptions
> and producing them again at the end as empirical conclusions.
> At the very least philosophers have a negative role in preventing
> this kind of sleight of mind."[1]

It is also generally agreed that he has a part to play in promoting coherence and consistency in debate, although he remains debarred from making any substantive contribution to such debate. It has been sufficiently stressed that such a position is scarcely coherent. If substantive contributions are debarred on the grounds that principles are arbitrary, it is hard to understand why procedural principles are exempt from such arbitrariness. I am arguing that one of his major functions is to promote clarity and coherence, but this position is tenable precisely because I do not see that as the limit of his defensible role.

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1 Thompson, op. cit. (1970), pp.51-52.

Before attempting to explore this dilemma,the three preceding

chapters of this thesis noted how philosophers of education have most

commonly approached its resolution. Chapter Five examined the attempt

to derive or deduce statements about education from a given philosophical

position. This approach was seen as inevitably doomed to failure,

since empirical assumptions must either necessarily be unsupported at

the beginning of the argument, or be produced later as linking premises

external to the argument. It was noted that speculation is not considered

a sufficient criterion for the evaluation of evidence, and if any other

criterion is offered, the evidence is not deducible solely from the

philosophical system. This approach to the generation of educational

theory has therefore been generally repudiated by western philosophers

of education. Chapter Six examined the procedures of conceptual analysis,

many of whose exponents see this as a means of making a contribution to

educational debate which is both non-empirical and value-free. It was

argued that philosophers are not interested in the actual use of un-

disputed terms, such as "vacuum-cleaner" or "toothpaste", but in

establishing the valid use of disputed terms, and that this itself is

a normative enterprise. Furthermore, when philosophers of education

engage in conceptual analysis, most of the terms to be analysed are

themselves normative, so that

>"One's analysis of the concept will therefore involve certain
>
>value assumptions. To defend one's analysis would therefore
>
>necessitate entering into the whole problem of the nature of
>
>evaluative propositions."[1]

Even when concepts are not overtly normative, analysis must proceed

by the value-laden invocation of paradigm cases, or the exercise

remains a philological one.

Aside from the fact that the philosopher of education cannot

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1 Barrow R., "What's wrong with the Philosophy of Education" in
   B.J.E.S., Vol.22 (1974), p.135.

plausibly abstain from making value judgements, it is worth stressing

that there is something contradictory in his very claim that he ought

so to abstain. How can he maintain that he ought not to engage in

a particular type of theorising - namely normative discussion - when

his reasons for adopting this position are based on the belief that

it is not part of his task to examine what ought to be done? Indeed,

deciding that x ought not to be done is not materially different from

maintaining that not-x ought to be done. Furthermore, supposing that

the critical philosopher refrains from substantive contribution to

discussion himself - or attempts to do so - but undertakes not only to

analyse concepts, but to examine the arguments of others for consistency

and validity, he must be presumed to have some intention. Either he is

exercising his wits for pure personal enjoyment, or he is attempting to

throw some light on the claim that certain things should be done: he

is engaged on a joint enterprise which seeks an answer to a problem.

Implicit in the intelligibility of co-operating in such an enterprise

is the assumption, or at least the hope, that the answer arrived at

will be more or less correct. If this is so, there must be some way in

which correct and incorrect answers can be distinguished from each other.

This presupposes that there are criteria of validity which are not

taken for granted, but which it is the philosopher's task to make

explicit and to assess. It cannot plausibly be maintained that the

assessment of criteria of validity is a strictly non-normative task.

Clearly, there is no way that a philosopher can apply himself to

the normative, practical area of education, and confine himself solely

to second-order questions. Even if he restricts himself to a negative,

critical function of exposing illegitimate argument, his role must

either be substantive, at least in implication, or he has no role at

all. His insistence on a non-substantive role is paradoxical and

bleak in the extreme, both for educational theory and for his own place

within this field of enquiry. The factual evidence which is material

to educational theorising is to be gleaned from psychology, sociology and economics, and the experts in these fields lay claim to scientific status – a claim which will be discussed shortly. Whatever a philosopher of education may claim his role to exclude, he certainly does not claim that it includes the accumulation and presentation of factual, empirical evidence. His relationship to this evidence can therefore only be to demarcate the limits of the empirical; to draw a boundary around the factual area, within which he claims to have no competence, and beyond which he considers it illegitimate to venture. If the avowedly value-neutral philosopher of education limits his activities to the policing of the boundary he has drawn, there could be no point to his exertions, since he seeks to contribute to theorising which is intended to issue in practical decisions and solutions, and he himself has asserted that no such decisions and solutions can be arrived at without violating the boundary he has drawn.

It may well be countered that the critical philosopher merely refrains from entering the area of normative speculation himself: he does not maintain that no-one has the right to enter it. In this context it is asserted that in a democratic society, educational aims would ideally be reached by general agreement or majority decision. That educational debate and theorising is a live issue at all suggests that the former of these is not the case, and complex moral, political and sociological considerations could be presented to reveal as highly problematic the notion of a 'majority' decision in this area. No doubt, in particular disputes, the element of evaluation may not be in question but may be generally agreed: if this is the case, however, and is agreed to be the case, then we would be left only with empirical issues of whether or not particular procedures were the most effective means of securing an agreed end. If agreement on ends, both proximate and ultimate, is complete, then ex hypothesi further debate lies solely with those educational theorists who unambiguously lay claim

to scientific status. Thus the problem of evaluation is not solved

for the philosopher by noting as Thompson does[1] that the evaluative

element is not necessarily disputed, since the scrutiny of evaluations

is his concern whether these are disputed or not.

In Chapter Seven I examined attempts by various educational

writers, who hold the opposing thesis that it is a part of their task

to contribute to substantive normative discussion, to fully justify

their recommendations for specific goals and activities within education

by the ascription of intrinsic value to particular end-states or values.

It was argued not only that each of the accounts examined was un-

satisfactory, but that logically no attempt to ascribe intrinsic value

could be rationally defended. It would appear that unless some form of

ethical naturalism is adopted, whereby an appeal to the self-evident

truth of intuition could bring to a halt an infinite justificatory

regress, and unless it is allowed that 'ought' can be derived from 'is' -

a claim which I have no space to refute, but would deny, - there is no

way in which a particular normative argument can be fully justified.

Justification logically makes reference to something beyond that for

which justification is sought, therefore any judgement for which

justification can rationally be offered, must logically open up the

possibility of a further reasonable request for justification. The

dilemma of the educational philosopher is thus highlighted: he cannot

plausibly abstain from all contribution to normative debate, but he is

aware that all such debate is ultimately bound to halt at a point where

the conclusion cannot be justified, or must proceed endlessly. If it

is true that normative propositions are of the type which cannot in-

controvertibly be known to be true or false, it is certainly true that

it is illegitimate for a philosopher to offer cut and dried directives

about what ought to be done.

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1 Thompson K., op. cit.,pp.52-53.

It seems reasonable to assert that the two opposing schools of
thought in philosophy of education, namely those who refuse to embark
on a chain of justification which can never be completed, and those
who seek to bring the chain to a halt by reference to the ultimate
worthwhileness of a particular goal, share common assumptions about the
implications for moral or normative reasoning of our inability - by
definition - to justify any final judgement. These assumptions are
related to the claim that if justification cannot be completed, there
is no justification at all. This apparently logical statement can be
shown to be mistaken for two reasons. Firstly, if 'justification'
could be completed, it would not be 'justification' at all - since this
refers beyond itself - but steps towards a proof, and secondly because
the option is not open to us to refrain from justification, on these
or any other grounds. This argument is not, of course, a solution to
a problem, but an elucidation of an inescapable predicament, the two
alternative solutions of which have been shown to be unsatisfactory.
Whilst certainly the notion that the philosopher should enter into
normative speculation which he will not ultimately be able to justify
is unsatisfying, the only two ways off the horns of the dilemma are
impossible: he can achieve complete value-neutrality only at the expense
of ceasing to philosophise about any practical activity, and he cannot
ultimately justify any substantive normative recommendations he may
make.

Since assumptions basic to this dilemma are pervasive, it is
pertinent to look at their foundations. Given that there is general
philosophic agreement that moral propositions are of the type which
cannot incontrovertibly be known to be true or false, what are the
implications for moral discourse of such a statement? Does the fact
that the final element must logically be missing from a chain of moral
reasoning, render all moral reasoning arbitrary, so that we must indeed
attempt either to complete such a chain, or attempt to remain value

neutral? Since 'ought' implies 'can' both of these solutions are mistaken. The assumption behind both of the proffered solutions to the problem seems to be the contention advanced by Barrow that one cannot

"maintain on the one hand that ultimate values are unknowable, and yet on the other hand that specific value judgements need not therefore be arbitrary."[1]

The simplicity of such an either/or alternative is intellectually attractive, but it is this very simplicity which is mistaken. In the same article the writer expands his point more fully:

"One simply cannot maintain both that commitment to ultimate values, though it may be explicable, is not objectively justifiable as the right commitment, and that specific value judgements are not essentially arbitrary. There are no two ways about this: any specific judgement must involve reference to some ultimate principle or principles, and if those principles cannot be shown to be the principles that should be adopted, then judgement based on them must in the last resort be a matter of objectively unjustifiable taste."[2]

This is a compelling statement of the problem: certain elements in it are important and true, but others are important and false. On the face of it, if such a formulation of moral reasoning is accepted, it looks like a knock-down argument in favour of either the knowability of ultimate principles, or of abstention from moral discourse by rational men. It is this very either/or formulation which is quite mistaken: there are indeed not "two ways about it" where the fact/value gulf is concerned: there is only one, highly unsatisfactory, course open to rational beings. Such a choice between an acceptance of the

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1. Barrow R., op. cit. (1974), p.202.

2 ibid., pp. 203-204.

knowability of ultimate principles, and the collapse of moral reasoning, carries implications as alarming as they are unreal: certainty, or nothing. Barrow claims that

> "If there is no knowing the moral truth in any sense,
> there is little point in trying to know it ..... Nor
> is there any good reason to advocate rational or con-
> sistent behaviour. If a man sincerely believes in the
> unknowability in any sense of ultimate values, then surely
> he would be quite irrational to devote his life to
> attempting to rationally justify his actions on the basis
> of arbitrary values, except in so far as he wanted to."[1]

Whilst both of these statements are seductive at first glance, they are both mistaken. To the first suggestion that "if there is no knowing the moral truth in any sense, there is little point in trying to know it", one must ask what is meant by the second half of the assertion. If it is to be taken to mean that there is little point in searching to establish the truth of ultimate moral judgements, then of course I would agree, for I have made clear that I consider establishing the 'truth' of ultimate 'judgements' to be a contradiction in terms. If, however, it is to be taken to mean that there is little point in searching for what we believe we cannot find, it could equally be argued that it is pointless to declare the search pointless if it cannot be avoided, since the moral sphere is one out of which we cannot, as beings who act and deliberate, plausibly opt. From the same writer's claim that every specific judgement ultimately makes at least implicit reference to some principle, and adding the further claim that any action also does so, it follows that whilst we may claim no moral knowledge, explicit or implicit moral **belief**, whether formulated and rationally defended, or

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1 ibid., p.205.

overtly denied by the agent, is logically implicit in any judgement,
choice, deliberation or action by human beings. It may here be
objected that I have ignored the writer's qualification of "in any
sense" when he refers to moral truth, and indeed it would be a con-
tradiction to assert that there was "no knowing the moral truth in any
sense", since to assert that moral principles cannot be proved, is to
assert simultaneously that moral principles cannot be disproved, so that
in asserting the unknowability of ultimate moral principles, we are
asserting the fact that any that we happen to make reference to - whether
explicitly or implicitly - may well be true. The categorical assertion
that there were no moral truths would be self-contradictory, since that
assertion, if meaningful, would be a moral truth.

The flaw in the choice presented between certainty and arbitrariness
in morals is caused by the running together of two separate issues.
The argument proceeds as if whoever asserts that moral truths cannot
be known is also asserting that there can be no moral truths; there
is talk of moral truth being "known" as if to "know" in this context
were unambiguous. The ambiguity in the meaning of "to know" in this
context is related to the distinction between the two separate
assertions that (a) ultimate moral truths cannot be known, and (b)
there can be no moral truths, the first of which is true by definition,
the second not. If A asserts P, and can demonstrate that P is indeed
the case, then he is in a position to assert that he knows P. If A
asserts P, and cannot demonstrate that P is the case, but B could
demonstrate this, B would be in a position to assert that A knows P.
It could be argued in this second instance that A's knowing P is a
relation between A and P, and cannot be a function of the existence of
B, so that whether or not A knows P depends on whether or not P happens
to be true irrespective of validation by an observer: this is knowledge
in the sense of 'true belief'. I argued in Chapter Two that moral
knowledge in the first, Hirstian, sense, of knowledge for which we can

have truth criteria, so that we may not only 'know' P, but know

that we know P, is impossible, since it is this very lack of truth

criteria which renders moral discourse distinct from empirical

discourse. However, it is impossible to deny the existence of 'moral

knowledge' in this sense, without simultaneously asserting at least

the possibility of 'moral knowledge' in the weaker sense of contingently

true belief. Far from it being the case that whoever asserts that

moral truths cannot be known is also asserting that there are no moral

truths, these two assertions would be mutually incompatible. Given

that moral neutrality is incompatible with being human, as argued above,

if we claim that ultimate principles are unknowable it follows logically

that those propositions to which our actions ultimately implicitly

make reference may be either true or false, indeed they must be either

true or false. Thus any argument against certain moral knowledge is

an argument for the possibility of contingently true moral belief. If

it is accepted that "any specific judgement must involve reference to

some ultimate principle or principles", then any specific judgement

contains an element of conscious or unconscious moral belief. This

belief which, however shadowy, is inescapable, must be either true or

false, though neither its truth nor falsity are even hypothetically

demonstrable. If this belief happens to be true, then the agent in

whose judgement it is implicit may be said to be in possession of

'moral knowledge' in the sense of contingently true belief.

Therefore in answer to the admonition that there is no point

searching for something we do not believe we shall find, it follows that

(a) though we may decide not to search actively, we are unable as

rational beings to refrain from behaving as if we were searching, so

that, dispositionally, we are searching, and (b) in maintaining that

moral truths cannot be known, in the sense of certified as such by

means of truth criteria, we cannot rule out the possibility that anything

we may come across in our inevitable search may not, in spite of the

fact that we cannot demonstrate this, be a moral truth. I cannot say that I am unable to recognise an x, and yet assert that any given x is not an x.

It is, moreover, inadmissible to claim that without firm proof of ultimate principles, moral principles dependent upon these are a matter of taste, and moral justification is arbitrary. It is quite legitimate to maintain that although the end of a line of moral reasoning can never be reached, each step in that line (i.e. each moral judgement which is subordinate to an ultimate principle), either does or does not justifiably lead to a further step and so on, either infinitely, or to an ultimate unreachable point - though these alternative formulations are identical for human purposes. The fact that a series of numbers can be extended indefinitely does not invalidate the fact that the interval between 108 and 119 is 11, and not any other number. It is perfectly consistent to claim that of any pair of moral alternatives, the one will be morally better, and the other morally worse, by reference to supporting statements at the same or a lower level of generality. What can of course be denied is that these alternatives are 'moral', and this is presumably the implication of the misleading statement that moral alternatives are a matter of taste: any alternatives that are solely a matter of taste are aesthetic alternatives. That moral judgements are indeed moral judgements cannot be proved: indeed it is their very unamenability to proof which differentiates them from empirical, though not from aesthetic, judgements. The only evidence we have that moral discourse cannot be assimilated to aesthetic discourse is the common human conviction that this is so.

Moreover, it cannot be asserted that simply because we feel this, we have no reason to suppose that we ought to, without entering into the sort of normative discourse which is being called into question. The common conviction that morals and aesthetics are distinct, whilst it is no proof that such is the case, must be allowed to stand in the

absence of any contrary proof or evidence. That something cannot be
proved is not of itself any evidence of its falsity. The absence of
proof in moral discourse cannot call into question the validity of
all judgements in an area from which we cannot abstain. Since the term
"judgement" is only applicable to those areas where deductive reasoning
towards a demonstrable conclusion is not open to us, we may doubt the
validity of judgements distributively; we may not do so collectively.
Any such judgements can only be made with reference to the furthest
attainable point in the line of reasoning: the end of a line is not a
point on that line. To refrain from offering justification for those
sorts of judgements which we cannot refrain from making is like refusing
to measure distance on the grounds that the universe, of whose extent
any distance is a fraction, can neither be shown to end nor not end.

Furthermore, the assertion should be rejected that if we cannot
justify moral principles, we cannot justify rationality and coherence
in moral speculation. It was suggested that "if there is no knowing
moral truth ..... Nor is there any good reason to advocate rational or
consistent behaviour .... ". This is simply false. If it is accepted
that moral beliefs are implicit in all judgements and practical action,
it is surely desirable that these implicit beliefs be examined by those
who hold them. It is surely also desirable that any belief so held
should be held rationally and consistently, since the hope, presumably,
is that it may well contingently be a true belief, whether or not it
is also believed that such a belief might be rationally defensible.
Given that there can be neither action nor discussion of practical
problems without implicit judgements, then even if these logically make
reference to principles which we hold to be unknowably true or false,
it is clearly wrong to suggest that there is no value in rationality
and consistency in the justification of subordinate judgements, for
examination of beliefs might at the very least reveal that certain com-
binations of judgements were conjointly untenable. If we reject the

claim that moral choices are a matter of taste, on the grounds that

they would not in that case be _moral_ choices, and also the claim that

they are a matter of knowledge, we are forced to conclude that such

choices must unsatisfactorily be a matter of faith. Since we cannot

avoid such choices, however, it would be ridiculous not to attempt to

ensure that any judgements we make should be, as far as we can see,

coherent, consistent, and rational, for the following reasons. If it

cannot be demonstrated that a particular line of reasoning is ultimately

right or wrong, the most a rational being can do is to proceed along a

given line until he discovers contradictions and inconsistencies which

suggest he is mistaken and should explore other possibilities in the

same consistent manner, for the same end. Moral reasoning can be

likened to a maze of infinite dimensions. Since this maze is part of

our conception of the world, we have no choice but to explore it:

though we can never reach the centre of the maze, we can methodically

explore each avenue until it becomes clearly a dead end, and proceed by

a process of elimination to attempt to arrive fractionally nearer the

centre.

A neglected but important point must be introduced here. Discussions

of the legitimacy of moral reasoning frequently proceed as if

deliberation in this area was 'fact-free', as if normative judgements

not only made implicit reference to ultimate value judgements (which

has been accepted in principle above), but as if they made reference

to nothing else. This is not only mistaken, but leads to further over-

emphasis on the disastrous consequence of the unprovability of ultimate

principles. It was argued in Chapter Four that all human reasoning is

inconclusive, that the arbitrariness of fundamental norms was simply

due to their being fundamental, and not to their normative nature. It

was also argued that whilst sets of empirical generalisations are

partially assessed by their fruitfulness in giving rise to higher level

generalisations, they are also partially assessed by their compatibility

with statements about the world at the same or a lesser level of
generality. Without assimilating normative to empirical reasoning,
it will now be argued, following Stuart Hampshire's position stated
in "Fallacies in Moral Philosophy"[1], that normative reasoning is
also supported by appeal to statements about the world, as well as by
appeal to further normative principles, and that therefore rationality
in morals is not dependent upon the establishment of fundamental
normative principles.

Hampshire states that:

"The fact that moral judgements, in spite of the peculiarity
of their form as practical judgements, are established by
familiar patterns of argument, has been under-emphasised by
post-Kantian moral philosophers as a consequence of three
connected logical doctrines: (a) the doctrine that so-called
value judgements cannot be derived from factual judgements;
(b) the doctrine that, although we deliberate and argue about
the facts of moral situations (e.g. about the probable con-
sequences of various possible actions), no further argument
is possible when once the facts of the situation have been
determined; we are thus left in every case of practical
deliberation with (c) an ultimate moral judgement, which
cannot be replaced by any statement of fact, or by an empirical
statement of any kind, and which cannot itself be defended
by further argument. From no consideration of facts or
accumulation of factual knowledge, can we ever deduce a moral
judgement of the form 'this ought to be done' or 'this is the
right action in these circumstances'. Therefore all appeal
to procedures of deliberation is irrelevant to the real
problem, which is the analysis or characterisation of these

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1. Hampshire A., "Fallacies in Moral Philosophy" in _Mind_, Vol.LVIII,
   1949, pp.466-82.

<u>ultimate</u> moral judgements."[1]

This appears to be an accurate reflection of the assumptions which
have dominated the philosophical thinking which has led to the dilemma
for philosophy of education as it is perceived today. Hampshire goes
on to show that these assumptions are conjointly fallacious. He
accepts that statements of value cannot be derived or deduced from
statements of facts, but points out that this does not entail that
statements of value cannot be supported by statements of fact. He makes
the point that moral reasoning is not in this sense a special case,
since

> "in general, one kind of statement may be established and
> defended exclusively by reference to another kind, without
> the first kind being deducible, or logically derivable,
> from the second."[2]

For example statements about physical things are supported by statements
about sensations, or statements about people's character are defended
by statements about their actions. Thus ,

> "we may properly elucidate moral or practical judgements by
> saying they are established and supported by arguments con-
> sisting of factual judgements of a particular range, while
> admitting that they are never strictly deducible, or in this
> sense logically derivable, from any set of factual judgements."[3]

Since practical judgements are not so deducible, the arguments used to
support them cannot be logically conclusive, but this is not to suggest
that they must therefore be ultimate, mysterious or removed from the
sphere of rational discussion. It was argued in Chapter Four that
outside the axiomatic systems of mathematics or logic, argument is

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1 ibid., pp.471-2.

2 ibid., p.472.

3 ibid., p.472.

seldom deduction, and reasons advanced in support of statements are very seldom logically conclusive reasons.

Suppose that there were two disputants arguing about the desirability of selection in secondary education; that they both agreed about the consequences of selection and non-selection, but though agreeing on these factual matters, (to the extent to which they could be presumed to be factual), A believed selection to be morally right, and B believed it to be morally wrong. Although we have assumed that they both agree about the facts of the situation, if either is to persuade the other to change his position, he will appeal in his argument to other facts or beliefs about the world which are not strictly or immediately describable as facts about the situation. Different psychological, sociological etc. arguments, such for example that people are more satisfied with a lower absolute level of material well-being provided they have a higher relative level, will be adduced to support non-selection as against selection. As Hampshire emphasises;

> "The point is that it does not follow from the fact that
> two people are in agreement about the facts of a particular
> situation, but disagree in their moral judgement, that
> their disagreement is ultimate and admits of no further
> rational argument."[1]

If we are deliberating about what is right or wrong in a particular situation, then our political, psychological, historical, religious, sociological etc. etc. beliefs are always relevant to the argument in hand, and all of these in turn are open to examination and rational enquiry. Since each of these sorts of beliefs have empirical dimensions, they are corrigible in principle, and so also is any specific moral judgement in which they play a part.

Indeed the philosophically uncontaminated ordinary person has

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1 ibid., p.474.

always assumed that one of the uses to which knowledge is put is the

making of better formed moral judgements. If either A or B in the

above dispute is led to change his position, this will be either because

he has been made to recognise a fault in the logic of his argument,

or because he has been persuaded to consider as less important such

matters of fact as he had previously thought central, or because his

attention has been directed to further matters of fact which he accepts

as relevant to the question at issue. Thus what are 'the facts of the

situation' cannot be simply taken as a given, since description can no

more be logically conclusive than can justification. The situation

itself may be given, but to state 'the facts of the situation' is not

simply to define that situation, but to analyse and interpret it. This

will be seen in the next part of this thesis to be a severe problem

for empirical research in education. Here it is sufficient to note

that it is, once again, a problem which moral reasoning shares with

reasoning in general beyond the axiomatic. Since moral reasoning is

partially about what is to <u>count</u> as the facts of the situation, our

practical judgements are corrigible and do not stand or fall by the

establishment of provable ultimate judgements.

It is not being suggested that conflicting solutions to practical

problems <u>never</u> arise from ultimate disagreements: of course there

logically must be such fundamental disagreement, although life being

short and the knowledge and patience of disputants limited, they will

necessarily be rare. It is possible that A and B above might agree

about which facts were relevant to the situation in hand, and about the

precise nature of those facts, but still A might favour selection and B

not. They would then share some of the characteristics of a pair of

disputants who had an ultimate disagreement about a theoretical judgement.

Thus if I claim that the table at which I write is solid, and a

physicist says it is not, and yet we each agree with all the supporting

statements that the other makes about tables, we can only conclude

that we are using the term "solid" differently. However, disagreement

in _practical_ judgement cannot be simply terminological, since practical

judgements always have imperative force as part of their meaning. Thus

if A says selection is wrong and B says it is right they are genuinely

contradicting each other in one sense; namely that they can only argue

further about which of their judgements is right if they agree on

common criteria of rightness. A may give reasons to show that his

criterion is preferable to B's, but in advocating his own use of moral

terms he will be employing these terms in his own way and therefore has

no additional means to persuade B to accept his criteria. Hampshire

sums up the problem thus:

> "Between two consistently applied terminologies, whether
>
> in theoretical science or in moral decision, ultimately
>
> we must simply choose; we can give reasons for our choice,
>
> but not reasons for reasons for ..... ad infinitum."[1]

This sums up the two major points made in this part of the thesis:

that ultimate disagreement - where it exists - is definitionally

irresoluble, but that this is a problem for all human reasoning and does

not constitute a weakness peculiar to normative argument.

Lack of certainty in moral reasoning may well be psychologically

unsatisfactory, but it is inescapable. Similarly, moral reasoning

itself is inescapable in theorising about a practical activity, unless

the contribution of the theoriser is limited to the collection and

organisation of factual data. This is certainly not the role of the

philosopher of education, and I contend that whilst analysis of con-

cepts and scrutiny of argument will facilitate interpretation of such

data, the central role of the philosopher of education is normative.

That is not to say that he should solve the problems of what should be

aimed at in education, or of how these aims should most acceptably be

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1 ibid., p.479.

achieved, but that he should not abstain from attempting to further

a task simply because he cannot ever certify it as completed. My

conclusion, therefore, is that there is no case for philosophers of

education to refrain from consideration of moral issues in education,

nor from the attempt to provide justification for normative judgements.

I use the term "justification" advisedly here, since this term, as

distinct from "proof" or "validation" presupposes that no final con-

clusions can be reached, and that rational argument on normative issues

can only be tentative and persuasive, not conclusive and directive. In

contributing to substantive discussion about moral aims and methods in

education, the philosopher will simply be offering the most clear,

cogent and rational contribution he can make to issues which can never

be definitively known to be resolved. Not only is this all he can do

'qua philosopher', but it is all he can do 'qua man'. Paradoxically,

what makes the philosopher of education primus inter pares in normative

discussion is his very awareness of the inevitable limitations on his

possible achievement in that field. The special contribution that he

has to make to practical discourse is a function of his awareness of

the lack of certainty to be had in that area.

The philosopher's understanding of the inconclusiveness of

practical reasoning does not simply make him well qualified to engage

in argument intended to supply or support the evaluative premises in

practical reasoning. It is a gross oversimplification to suppose that

there is on the one hand moral argument uncontaminated by facts, and

on the other factual evidence, uncontaminated by norms. Just as moral

reasoning is partially corrigible by a better or revised understanding

of 'the facts of the situation', so empirical reasoning in a normative

area such as education, where purposive beings interact in the attempt

to reach some goal, can seldom be value free. The philosopher's

understanding that the situation may be given, but that 'the facts

of the situation' when presented are a gloss on that situation, also

gives him a vital role in the conceptualisation and evaluation of
empirical research in education.

The obverse of the underestimation of the fruits of philosophical
reasoning is the overestimation of the fruits of empirical research.
It is supposed on the one hand that philosophy is either "all about
words" (and therefore trivial) or "all about values" (and therefore
arbitrary) whereas research is about facts (and therefore certain
and reliable). All three suppositions are quite misleading. The question
of the arbitrariness of values has been sufficiently dealt with in this
chapter and in Chapter Four, and the alternative attack, that philosophy
is "all about words" overlooks the fact that without clarity of con-
ceptualisation, nothing can be critically examined, whether by moral
argument or by the procedures of empirical research. Nor is this
clarity in conceptualisation simply a necessary first step: in
normative argument it is essential at all stages, and in empirical
research designed to serve as an element in policy formation, the
presentation of findings is as important as the means used to establish
them. Again, just as the disputants' wider world view is always
relevant to their argument in moral matters, so empirical research in
the behavioural sciences is dependent on the assumptions of researchers
and their beliefs about what is and what is not relevant to the matter
in hand. I am not suggesting that such research is necessarily
therefore vitiated: rather that an awareness of its theory dependence
can only improve its sophistication.

On the above argument, cross-fertilisation between philosophers
of education and psychologists, sociologists and other workers in the
field can only enhance the work of both groups. Although they have
separate functions, neither group can carry out its task successfully
without recourse to the expertise of the other group. Of course it is
the task of philosophers to analyse concepts in order to promote
clarity and consistency. But if there is controversy surrounding the

concept of education today, it is because like many of our traditional

concepts, it is undergoing a process of revision. As A. Adel remarks:

> "If philosophical analysis is to be helpful to education
>
> today, it must be of the sort that is responsive to the
>
> problems of education in this rapidly changing world, that
>
> will realise the constructive task of fashioning intellectual
>
> instruments for dealing with these problems."[1]

Thus a purely descriptive analytic role, necessarily wedded to the

status quo, would exclude philosophical analysis from just those areas

of questioning and change where clarity and consistency are most needed.

The problem of consistency has always been considered a philosophical

specialty. All educational policies embody both objectives and

procedures, and in a complex, changing society some of these objectives

and procedures will be incompatible with each other or with external

objectives. Democratic objectives may well conflict with bureaucratic

procedures, co-operative objectives with competitive procedures and so

on. If the philosopher is concerned to promote not simply terminological

consistency, but consistency of purpose, then he will need not only

the skills of logic and analysis, but the support of psychologists and

sociologists in tracing the unintended consequences of policies and

and procedures. Since moral argument, as argued above, is partially

corrigible by increased knowledge of the ramifications of the situation,

the findings of psychologists and sociologists will also be relevant

to deliberation about the desirability of objectives.

Conversely the philosopher has a vital part to play in the

expanding field of empirical research in education, where he is again

concerned with the explication of concepts, as well as with the

evaluation of evidence, the rationale of inference, and the role of

1 Adel A., "Analytic Philosophy of Education at the Crossroads" in
   Doyle J.F. (ed.), Educational Judgements, 1972, p.253.

models and analogies in establishing systematic bodies of knowledge
from discrete propositions. In so far as educational research claims
to be a branch of science, a philosophical critique can contribute to
its development in the same way as such a critique contributes to the
development of other positive enquiries. The need for such a
philosophical critique is the stronger as the foundations and findings
of the area of enquiry are the less well-established. Such a critique
will be tentatively opened in the following and final part of this
thesis, but some of the areas of proper philosophical concern may be
mentioned here. It has already been suggested in this thesis that
empirical research in education is dominated by a simplistic Baconian
conception of science, to which researchers strive to approximate.
The assiduous collection of data, unguided by explicit controlling
hypotheses, is often taken as the hallmark of objectivity. The result
of this is not of course assumption-free theorising, but theorising in
which assumptions in both collection and interpretation of data tend to
go unacknowledged. As Nagel remarks,

> "The rather prominent fluctuations of fads and fashions in
> educational practice, though presumably each is based on
> the findings of alledgedly 'scientific' research, provide
> some evidence that many of those findings are not the con-
> clusions of a critically conducted inquiry."[1]

A bringing to bear of the most basic considerations of the philosophy
of science on empirical work in education can only improve the level
of sophistication of such enquiries.

Research in this area is not simply based on an imperfect and
outmoded paradigm of science, it is more explicitly based on allegedly
warranted conclusions from particular branches of enquiry in the human
sciences. It is infrequently acknowledged that the general status of

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1 E. Nagel, "Philosophy and Educational Research" loc.cit., p.6.

such enquiries and the particular findings of various schools within

them are far from firmly established. There frequently thus enters

a certain circularity into educational research, of which the researchers

seem largely unaware. So long as there are differing schools in say,

psychology (such as no longer exist in physics) it is reasonable to

suppose that if competently trained students differ in their inter-

pretation of psychological data, these schools are partially elaborations

of antecedently adopted general beliefs (or 'philosophies') about the

nature of man. Depending upon whether a basically psycho-analytic or

basically behaviourist stance is adopted, the collection and inter-

pretation of data will be radically altered. Thus a conception of

human nature comes to be supported on the grounds that that conception

conforms to the facts of psychology, those facts having been gathered

from empirical data controlled by antecedent assumptions about the

nature of man. Thus empirical backing may well be produced to support

a particular conception which is as fundamentally a priorist as any of

the mechanisms for generating educational directives which were

examined and rejected in Chapter Five.

These broad and general problems are compounded by more specific

but equally fundamental problems. Though research techniques are often

employed with much mechanical expertise, the questions of what type of

data can legitimately and fruitfully be quantified is often overlooked,

as is the basic canon of experimental reasoning that the agreement of

data with a given hypothesis does not constitute evidence to support

it if the data are equally compatible with competing hypotheses. Some

of the questions examined by such research are those to which empirical

investigation is appropriate, whilst others are subjects for conceptual

enquiry and can thus give rise only to tautologous 'findings'. In

view of these difficulties, both general and specific, given that an

understanding of 'the facts' is vital to all areas of educational

theorising, it is urgent that philosophers of education should seek to

inform and develop empirical studies in this field. Therefore,
having argued in Part Two that the philosopher has a substantive
part to play in advancing normative reasoning, I shall seek to
demonstrate in Part Three that his potential contribution to
educational theory goes beyond this.

PART THREE

"Philosophy ..... has no business to be anti-scientific:

if it tries to be so it will succeed only in making itself

look ridiculous. Such attacks are as distasteful and

undignified as they are useless and unphilosophical. But

equally, and for the same reasons, philosophy must be on

its guard against the extra-scientific pretensions of

science. Since science is one of the chief shibboleths

of the present age this is bound to make the philosopher

unpopular: he is likely to meet a similar reaction to

that met by someone who criticises the monarchy."[1]

"A view of knowledge that acknowledges that the sphere

of knowledge is wider than the sphere of 'science' seems

to me to be a cultural necessity if we are to arrive at

a sane and human view of ourselves or of science."[2]

1 Winch P., The Idea of a Social Science, 1958, p.2.

2 Putnam H., Meaning and the Moral Sciences, 1978, p.5.

C H A P T E R   N I N E

THE METHODOLOGY OF THE HUMAN SCIENCES

"In so far as certain sorts of research in education employ

procedures characteristic of research in the social

sciences .... many of the criticisms directed against

what goes on in the psychosocial sciences have their

relevance in the educational field also. The nature of

these criticisms, therefore, must be carefully examined."[1]

Since Bantock noted the need for such an examination in 1965,

works on the methodology and philosophical assumptions of the human

sciences have multiplied, and there have been some contributions from

philosophers of education who have turned their attention to the

practice of empirical research in that field.[2] There has not, however,

been any sustained attempt to gather together the fruits of the debate

surrounding the status of the human sciences, and to relate these

insights to a specific piece of large-scale empirical research in

education. In this part of the thesis an attempt will be made to do so.

This chapter will review and evaluate from a particular perspective the

ongoing debate which surrounds the status and appropriate methodology

of the human sciences. The following three chapters will examine in

the light of this evaluation the research design and collection of data

of a particular substantial programme of empirical research, and its

generation and reportage of findings. A final chapter will sum up

the arguments of the thesis as a whole in order to throw light on the

explanatory and justificatory potential of educational theory.

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1 Bantock G.H., _Education and Values: Essays in the Theory of Education_,
     1965, p.153.

2 See, for example,
     (i) Hartnell and Naish (eds.), op. cit. (1976).
    (ii) Wilson, op. cit. (1973, 1975).
   (iii) Phillips, op. cit. (1971).

In Bantock's useful paper from which the above quotation is

taken, he notes the sanguine approach to empirical research taken by

educational theorists who work in this area. This approach is typified

by the Director of the National Foundation for Educational Research,who

went on record as stating that

> "Over the last 60 years or so, we have come to see that
>
> there are ...... educational <u>sciences</u> which, within their
>
> scope, are as susceptible to scientific rigour as are the
>
> so-called exact and natural sciences."[1]

Bantock notes that any doubts entertained by research workers about

their enterprise centre upon methodology - problems of replication,

impossibility of thoroughly controlled experimentation,etc. - and over-

look the sort of logical differences between the social and the natural

sciences as are emphasised by P. Winch in <u>The Idea of a Social Science</u>.[2]

Bantock then goes on to point out particular pieces of research which

have been fundamentally flawed by the researchers' failure to distinguish

conceptual from empirical problems. All of this is interesting and

apposite as it stands, but underlying Bantock's remarks is a problem

which remains untouched by them. Of course conceptual and empirical

questions must be separated, and no doubt many conceptual issues are

misguidedly studied by wholly inappropriate empirical procedures. However,

if the Winch thesis is accepted without qualification, this is not

something which can simply be borne in mind whilst empirical research

proceeds in a more critical and sophisticated manner, for on some inter-

pretations of the Winchean thesis only the most trivial questions - such

as how many children in school A take school lunch, or were absent on

a given date - fail to collapse into conceptual questions. The main

thrust of this chapter will be to suggest that both extreme positions

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1 Wall W.D., "Educational Research and the Needs of the Schools." in
   <u>Bulletin of the National Association of Inspectors of Schools and
   Educational Organisers</u>, 1959, p.3.

2 Winch P., <u>The Idea of a Social Science</u>, 1958.

are unfruitful for advance in educational theory in which, necessarily, some questions are empirical in nature and require empirical treatment. Whether or not the empirical must necessarily be equated with the quantifiable must at this stage remain a further question.

Ever since the possibility of a science of society was proposed, there has existed a parallel school of thought which found any such idea objectionable, untenable, or both. This chapter will not concern itself with the thesis that such a science would be objectionable- a position based on two quite differing assumptions. There is on the one hand the quasi-theological claim that man is free, hence un-predictable and therefore unsuited to descriptions couched in nomo-logical deterministic form. On the other hand, the critical theorists of the Frankfurt school (Max Horkheimer, Herbert Marcuse, Jurgen Habermas), who have been strongly influential among some British sociologists, find the notion of a social science objectionable on the grounds that deterministic laws will be all too true, affording unparalleled opportunities for manipulation to those in power. The only concern of this chapter is whether or not social interaction can be reliably described, explained and predicted, and what sorts of procedures are suited to the task.

That the status of knowledge claims made in the social sciences is problematic hardly needs to be stated. Dahrendorf makes the general point when he states:

"Critics of an empirical science of sociology often describe
it as a gigantic body of applicable social knowledge that is
available to any interested party. It is more rarely asked
whether this empirical science of sociology even exists."[1]

Hudson makes similar points about psychology when he asserts:

"It is a subject or series of subjects, in which one research

1 Dahrendorf R., _The Impact of Sociology_, 1973, pp.163-4.

fashion succeeds another, leaving surprisingly little

behind it as a residue of reusable knowledge."[1]

Gauld and Shotter call attention to the competing ideologically based

schools of thought in psychology when they remark that:

"The writers of ten substantial psychology textbooks

could cut ten different swathes through the available

material and never intersect, the more so since the

number of agreed generalisations to emerge from this

material is almost vanishingly small."[2]

Bernstein makes similar comments about sociology of education, which he

sees as dominated by ideological fashion:

"Every new approach becomes a social movement or sect

which immediately defines the nature of the subject by

redefining what is to be admitted, and what is beyond

the pale, so that with every new approach the subject

almost starts from scratch."[3]

Allport's remarks about the noticeable dearth of solid findings to

emerge from psychology are particularly relevant to what goes on in

educational research. He states:

"In the areas of psychology I happen to be acquainted

with, I cannot point to one laboratory phenomenon whose

interpretation is secure enough for one to build confidently

upon it. Of course, in fields one knows at second or third

hand it is different ..... Well, it may be so."[4]

That research in education proceeds with a confidence which has long

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1 Hudson L., op. cit. (1972), p.55.

2 Gauld A. and Shotter J., Human Action and its Psychological
   Investigation, 1977, p.92.

3 Bernstein B., Unit 17, Open University Course E282, p.105.

4 Allport D.A., "The State of Cognitive Psychology: A Critical
   Notice of W.G. Chase (ed.), Visual Information Processing (New York:
   Academic Press)" Quarterly Journal of Experimental Psychology, 27,
   1975, p.142.

since evaporated from its theoretical bases in psychology and sociology
may well be a function of the second-hand nature of researchers'
understanding of psychological and sociological findings and theories.
It was noted earlier that the work of Bernstein rapidly acquired in
educational circles an aura of certainty and validity which he expressly
denied for that work, and this blithe adoption of hypothesis as
established theory is not untypical of that field of study.

Criticisms like those quoted above are by no means confined to
those who find the whole notion of a 'science' of society untenable.
Nagel, who argues at length for the unity of the natural and social
sciences, sums up the current state of this latter area of enquiry when
he states that:

> "The social sciences today possess no wide-ranging systems
> of explanations judged as adequate by the majority of pro-
> fessionally competent students, and they are characterised
> by serious disagreement on methodological as well as sub-
> stantive questions."[1]

That such serious basic disagreements are fundamental to the social
sciences, that there is a glaring paucity of agreed findings, and that
such findings as exist amount at best to descriptive studies of
particular social or psychological instances and have failed to produce
any universal laws about such phenomena, cannot however be taken to
entail that such areas of study are necessarily 'unscientific' or
disreputable. If the current sorry state of the human sciences is
advanced as a knock-down argument for the impossibility of achieving
systematic explanation of social phenomena, such a charge can be
countered in one of three ways. It could simply be stated that this
is a historical point; that the human sciences are in their infancy
and will eventually evolve to a point where they can offer the sort of

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1 Nagel E., _The Structure of Science_, 1961, p.448.

universal generalisations we expect from a science. Alternatively

one could argue with Nagel[1] that the sort of descriptive generalisations

that they afford do not differ radically from generalisations currently

advanced in emergent but respectable sub-divisions of natural science,

such as embryology or turbulence phenomena. Finally one could argue

with Ryan[2] that the obstacle to establishing universal laws in this

area depends upon no logical obstacles but simply upon contingent con-

siderations arising from the difficulty in offering full statements of

initial conditions. Each of these defences invites a differing response

from those who claim that the obstacles to the establishment of any

science of behaviour are neither historical nor methodological, but

logical. This complex debate must be explored and evaluated in

connection with empirical research in education, where a desire to

approximate to the procedures and techniques of quantification which

have proved so fruitful in the physical sciences, coupled with an

extremely simplified notion of scientific method, has largely deter-

mined both the choice of problems to be investigated, and the methods of

investigating them, as well as the view of what is to be taken as

securely established knowledge.

The debate surrounding the epistemological status of the social

sciences is complex and confusing since disputants do not even agree

about the nature of their basic disagreement. When disagreement arises

about whether human action and interaction can be studied according to

the procedures of science, and about the status of the findings of

these studies, such disagreement may be grounded either in dispute about

the nature of human action and interaction, or in dispute about the

nature of science, or both. Since all disputes over the possibility of

the scientific explanation of behaviour are grounded in these two

1 ibid., p.449.

2 Ryan A., _The Philosophy of the Social Sciences_, 1970, p.201.

controversies it is a necessary preliminary to chart them.

The founders of sociology were heirs to a particular scientific tradition situated in a specific philosophical and historical context. The Baconian notion of science represented the Aristotelian legacy of empiricism as the source of human knowledge, arguing for experiment, induction and observation as means to the reliable basis for scientific ideas as opposed to the a priori speculation of medieval scholasticism. Locke, Hume, Berkeley and other empiricist philosophers gave epistemological priority to sensory experience, an emphasis which accorded with the principles of observation and logically systematic theory on which the development of science both during and after this period depended. Auguste Comte, who coined the term "sociology" (and indeed "social physics") was strongly influenced by Hume's attacks on metaphysics as well as by the ideas of social and technological progress backed by the advance of natural science and emergent social change current in Europe at the time. He saw the study of social phenomena as a candidate for precisely that positivist-empirical approach which was at that time responsible for spectacular advances in the understanding of natural phenomena. Though Comte's work is now only regarded as of historical interest, many of his assumptions (continued in the works of J.S. Mill, Herbert Spencer and Emile Durkheim) permeate the social sciences today. Comte's assumption that society could be studied using the same logic of enquiry as the natural sciences, since both were subject to invariant laws, implied a deterministic view of man and society which was given further impetus by the publication of The Origin of Species which seemed to firmly establish man as continuous with the rest of the natural order. Indeed Herbert Spencer and other founding sociologists explicitly referred to Darwin's work to vindicate their approach.

Although the nature of science changed radically in the early twentieth century, the philosophical approach of positivism grew and flourished and served as the philosophical orthodoxy underpinning the

development of the social sciences. Hughes is correct in pointing

out that

> "although most of the social sciences took the natural
>
> sciences as their yardstick, they did so with respect to
>
> particular interpretations of natural sciences of which
>
> positivism was the major one."[1]

The origins of the social sciences in positivism determined the nature

of the debates about their status which subsequently arose and still

continue; for example whether functional explanation is either con-

sistent with, equivalent to or subsumable under causal explanation, or

whether probabilistic generalisations are truly nomological. Similarly,

the paradigm methods of the research process are rooted in these same

beginnings. Positivism assumes that the basis of science lies in a

theoretically neutral observation language and that statements made

in this language can be verified as true or false by looking directly

at the world. Such a view implies a correspondence theory of truth

which, allied to the verification theory of meaning, became with the

impetus of the logical positivists of the Vienna school (Mach, Schlick

and Carnap), the predominant philosophical view of the early decades

of this century. Thus the basic assumptions of the social sciences can

be seen to rest on views of science hotly disputed by present day

scientists and philosophers of science, and to be underpinned by a

philosophical outlook which has been increasingly subject to criticism

from philosophers. The flow of intellectual advance from one discipline

to other areas of study which derive their assumptions from it is by

no means instantaneous, and whereas specialists in the foundation

disciplines of the social sciences are belatedly questioning their

procedures in the light of changed assumptions both in science and in

philosophy, educational theorists continue to apply with breezy

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1 Hughes J., _The Philosophy of Social Research_, 1980, p.35.

confidence the very techniques and theories which are matters of

heated controversy within the foundation disciplines.

The methodology of most large scale educational research projects,

including the O.R.A.C.L.E. project[1] to be examined in the three following

chapters, is clearly grounded in the assumptions and techniques of

positivism or naive empiricism. In The Scientific Study of Behaviour

Argyle advocates an approach firmly grounded in the methodology of

nineteenth century science, and to which quantitative research in

education clearly aspires. He states that:

> "The pre-scientific way of dealing with social behaviour was
>
> often to observe particular events or social groups and to
>
> interpret what happened by reference to the conscious processes
>
> of the participants. The scientific approach consists in the
>
> first place in establishing empirical generalisations about
>
> the relations between a number of variables: this entails the
>
> use of exact methods of measurement, the study of a number
>
> of cases from the comparison of which the generalisation can be
>
> deduced, and the use of statistical tests to show that the
>
> results could not have occurred by chance."[2]

He accepts that because of the nature of the object of investigation,

controlled laboratory-type experiment will not always be possible, but

non-experimental studies must be designed to approximate as closely as

possible to the experimental model. Thus,

> "In valid non-experimental studies the events under investigation
>
> take place without interference by the investigator. The
>
> design may be the same as that of an experiment, the
>
> experimental variable being introduced in other ways, or it
>
> may take the form of finding a correlation between pairs of

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1 Observational Research and Classroom Learning Evaluation, University
  of Leicester, 1975-80.

2 Argyle M., The Scientific Study of Behaviour, 1957, p.6.

measurements in a series of events, individuals or groups."[1].
Argyle explicitly defends his notions of causal relationship and of
explanation by reference to Mill's Method of Difference[2] and Method of
Concomitant Variations[3], stating of the latter that "the correlational
type of non-experimental design is an application of this method."[4]
Such an ideal for social investigation makes a series of assumptions,
all of which are questionable. Assumptions which concern the nature
of the <u>object</u> of investigation will be examined a little later in this
argument; assumptions concerning the <u>method</u> of investigation as the
only properly 'scientific' are equally questionable.

Argyle appears to imagine experimentation as theory-free, un-
contaminated by the experimenter and dependent for success upon the
isolation of single variables. The notion of theory-freedom is
increasingly challenged in the social sciences on the grounds that
"facts are constituted as such only by a theory that picks them out"[5],
and such assertions are made to advance the case that a scientific
approach to the study of behaviour is inappropriate. However, both
Argyle and the critics of his approach share a simplistic view of the
procedures of science which is challenged by even an empiricist such as
Nagel. Argyle and those quantitative empirical researchers in the
social field who aspire to the methodology he advocates clearly share
with their opponents such as Harris the view that:

> "The theory and practice of empiricism - inductivism
>
> requires that an observer, investigator or researcher
>
> goes out into the world, there to observe, collect and

1. Argyle, op. cit., pp.38-39.

2. Mill J.S., <u>A System of Logic</u> Bk.7, 184 4, (2nd edn. 1851), p.397.

3 ibid., p.409.

4 Argyle, op. cit., p.39.

5 Harris K., <u>Education and Knowledge</u>, 1979, p.33.

record data or 'facts' objectively, that is non-selectively,

and with no a priori ideas about their relative importance

to him."[1]

Nagel challenges all these assumptions about scientific method,

remarking that the variation of one factor at a time as a precondition

for controlled investigation is

"a notion that is commonly held but is nonetheless an over-

simplified view of the conditions for competent empirical

analysis."[2]

Nagel also draws attention to the fact that even in pure science,

"assumptions concerning the changes to be singled out as relevant are

implicit in every inquiry", and that moreover "special assumptions may

be involved in judging a factor to be a 'single' one."[3]   Popper

similarly draws attention to the mistake contained in the view that the

natural scientist can be totally objective, noting that

"if we had to depend on his detachment, science, even natural

science, would be quite impossible. What the sociology of

knowledge overlooks is just the sociology of knowledge - the

social or public character of science."[4]

There is no space in this thesis to discuss the widely varying views

on the nature and proper methodology of science which range from the

empiricism of Nagel and Popper to the relativism of Kuhn. It is

sufficient to remark that no philosopher of science of note, and no

creative scientist, shares the Baconian view of science to which those

who claim to study behaviour 'scientifically' seek to aspire. Hanson

notes that the laws of classical physics, often held as paradigm by

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1 Harris, op. cit., p.7.

2 Nagel, op. cit. (1961), p.454.

3 ibid., p.454.

4 Popper K., The Poverty of Historicism, 1957, p.32.

this school of thought,

> ".... were not derived by Bacon's 'Inductio per enumerationem
>
> simplicem, ubi non reperitur instantia contradictoria, but
>
> some philosophers have thought that they were."[1] Rather,
>
> "The physicist often seeks not a general description of what
>
> he observes, but a general pattern of phenomena within which
>
> what he observes will appear intelligible."[2]

Harré and Secord follow up this point, noting that "this paradigm

was not derived by abstraction from real scientific work, but was an

invention of philosophers."[3] They remark that:

> "There is a measure of irony in the strict adherence by
>
> social scientists to a methodology which they hoped would
>
> give them scientific respectability, when that methodology
>
> derives from such an ancestry."[4]

In the Explanation of Social Behaviour, Harré and Secord advocate

rejection of this paradigm, not in favour of the relativism feared by

its supporters, but in favour of theoretical models and procedures

"actually employed in the advanced sciences."[5]

From the argument that quantitative social research apes a mistaken

conception of science, it cannot simply be inferred that once this mis-

conception is clarified a more fruitful approach to the systematic

explanation of behaviour will be within reach. In his essay on "The

Unity of Method in The Natural and Social Sciences"[6], Popper's case

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1 Hanson N.R., Patterns of Discovery, 1972, p.70.

2 ibid., p.109.

3 Harré P. and Secord P.F., The Explanation of Social Behaviour, 1972, p.20.

4 ibid., p.21.

5 ibid., p.21.

6 Popper K., "The Unity of Method in the Natural and Social Sciences"
   in Braybrooke D. (ed.), Philosophical Problems of the Social
   Sciences, 1965, pp.32-41.

amounts to saying that the social sciences are indeed problematic,

but that similarly the natural sciences are more problematic than

social scientists believe. This is no doubt true, and to support the

case for unity Popper cites instances where they are problematic in

similar ways, such as their inability to predict concrete particulars.

We are nonetheless left with the question that they may also be problem-

atic in logically different ways. In The Poverty of Historicism[1] Popper

thus dismisses the problem of value-judgements as specific to the social

sciences, remarking that judgements of relevance and critical preference

are basic to all the sciences. In so doing he overlooks the point

clearly made by Weber[2] that the difference in subject matter between the

two sorts of science entails that although the methodological relation

between social science and social facts is the same as that between

physical science and judgements about physical nature, the psychological

relation is different. We make value judgements across the board, but

in the sphere of social facts we also make moral judgements. Lessnoff

remarks in this context that:

> "Methodological value-judgements - evaluations of procedures
>
> and inferences, rules for the assessment of evidence, etc. -
>
> are part of the technique of science. But value statements
>
> are no part of its product."[3]

In order to accept the idea of a social science as unproblematic we

would have not only to accept a more sophisticated view of natural

science along the lines proposed by Popper et al., but we would also

either have to accept (as he presumably would not) Charles Taylor's

thesis[4] that it is simply a historical accident that the natural sciences

have made progress on mechanistic assumptions, since the failure of

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1 Popper, op. cit. (1957).

2 Weber M., The Methodology of the Social Sciences, Chicago, 1949, p.60.

3 Lessnoff M., The Structure of Social Science, 1974, p.133.

4 Taylor C., The Explanation of Behaviour, 1964, p.25.

Aristotelian explanations in terms of powers, capacities and

tendencies is a contingent matter, or alternatively we would have to

assert that the objects of social investigation are in principle not

logically different from the objects of investigation in the natural

sciences.

This leads to the second foundation dispute in the debate

surrounding the status of the social sciences: whether man is a

suitable subject for science depends partially on one's view of

science but also partially on one's view of man. The issues raised

by actions/happenings, reasons/causes etc. will be approached later in

the argument: it is sufficient to note here that debate ranges from

the naive mechanism of the behaviourists to the relativist belief that

meaning (and therefore purposive behaviour) is hermetic. Thus for

Skinner all the problems of the social sciences are methodological.

He states:

> "Behaviour is a difficult subject matter, not because it is
>
> inaccessible, but because it is extremely complex ..... But
>
> there is nothing essentially insoluble about the problems
>
> that arise from this fact."[1]

The behaviourist view of man raises countless problems which have been

sufficiently explored elsewhere (psychological reductionism, the denial

of mentalistic concepts, the quantitative/qualitative distinction etc.),

but it can in any case be dismissed as internally inconsistent. Gellner

aptly remarks that "Behaviourists are sheep in wolf's clothing"[2], and

indeed they shun the use of consciousness, either to furnish evidence

or to generate explanation, whilst their explanatory theory is dependent

upon the mentalistic concept of 'association'. As Gellner remarks,

their vision of man, if valid, "could not be counted as an unqualified

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1 Skinner B.F., Science and Human Behaviour, 1953, p.14.

2 Gellner E., The Legitimation of Belief, 1974, p.100.

victory for 'scientism'."[1]   The paradox evident in behaviourism -

which seems to be the ultimate expression of the mechanistic view of

man - is mirrored by a second, related paradox. The mechanistic

view of man is built by analogy with the natural science paradigm, but

that paradigm for explanation is only possible on the very assumption

that man is not simply continuous with the natural world which he

explores.

Scientific knowledge - however, precisely, we characterise the

methodology appropriate to attaining this - has grown to be the ideal

of all knowledge, and we are now tempted to include within it the mind

which searches for such knowledge. Broadbent notes that:

> "Whilst most modern thought has continued to divide human
>
> beings sharply from the natural phenomena around them, an
>
> attack upon this division has been quietly growing in
>
> strength."[2]

Thus when we seek to analyse and explain human action in terms of

observable inputs and responses, the Cartesian dichotomy between the

knower and the known is obliterated. If, however, the scientist himself

is part of the deterministic nexus of causal relationships, how could

he step outside of such a nexus to discover the causal laws of which

his actions, including his scientific investigations and conclusions,

would be but further instances? The scientist must be assumed to be

capable of freely manipulating the natural world in order to reveal its

regularities. For if his manipulations are _themselves_ causally

determined, they cannot be assumed to secure the purpose of destroying

chance regularities in order to expose causal regularities, for any

changes that take place may be simply _correlated_ with his manipulation,

both the intervention and the succeeding event being causally related

1. ibid., p.100.

2 Broadbent D.E., _Behaviour_, 1968, p.11.

to an antecedent state of affairs. If the scientist is equally a subject for scientific study on the causal model, then the interventions of the investigator are necessarily continuous with the investigation and a regress is generated which makes science itself impossible.

If this argument is valid, it lends weighty support to Lucas' view that

"Man can only have a true view of the universe and the

laws of nature by excepting himself from their sway, and

considering himself over against the universe, not as part

of it, and not as subject to its laws."[1]

Though there is no space to explore the issue here, the above argument could serve as a contribution to the debate which Alfred Schutz would like to see initiated. Remarking that there is no reason to suppose that the methods of physics must necessarily be the model for all developments in science, he states that:

"So far as I know, no serious attempt has ever been made

by the proponents of the 'unity of science' movement to

answer or even to ask the question whether the methodological

problem of the natural sciences in their present state is not

merely a special case of the more general, still unexplored,

problem how scientific knowledge is possible at all and what

its logical and methodological presuppositions are."[2]

Indeed in the years that have passed since Schutz made these remarks, attempts have been made, notably by Harré and Secord[3] and latterly by Bhaskar[4], to develop a sketch of the main features of a realist,

1. Lucas J.R., _The Freedom of the Will_, 1970, p.63.

2. Schutz A., "Concept and Theory Formation in the Social Sciences" in Emmet D. and MacIntyre A. (eds.), _Sociological Theory and Philosophical Analysis_, 1970, p.18.

3. Harré and Secord, op. cit. (1972).

4. Bhaskar R., _A Realist Theory of Science_, 1979.

non-positivist conception of science which allows for a systematic study of men conceived of as conscious social actors. This view would accept the Winchean thesis of man as a rule-following agent[1], but would reject the standard corollary that this makes him no candidate for scientific investigation.

The model of man as efficient cause of his own actions, suggested by Kant and sufficiently elaborated recently by such writers as R.S. Peters[2], A.I. Melden[3], R. Taylor[4], C. Taylor[5], A.R. Louch[6], G.E.M. Anscombe[7], S. Hampshire[8] and J. Hornsby[9], has traditionally been seen as antipathetic to the suggestion that human behaviour might be studied systematically. Though man is subject to mechanistic explanations with regard to what happens to him - he may fall off cliffs or get struck by lightning, his body will be subject to physiological events -, he is also an active agent in much of his social life. He has conscious control of his performances, and of the way in which he presents himself to others. His actions therefore have significance and meaning, and such meaning belongs to a social rather than a physiological context. To attempt to study his actions in terms of their observable features, and to study them as if they were movements, is to commit a category mistake. P. Winch's thesis is an extension of

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1 Winch op. cit. (1958).

2 Peters R.S., The Concept of Motivation, 1958.

3 Melden A.I., Free Action, 1961.

4 Taylor R., Action and Purpose, New Jersey, 1966.

5 Taylor C., op. cit. (1964).

6 Louch A.R., Explanation and Human Action, (Berkeley), 1966.

7 Anscombe G.E.M., Intention , Ithaca, 1966.

8 Hampshire S., Thought and Action ,1965.

9 Hornsby J., Actions, 1980.

this argument. Given that systematic investigation is based upon the
discovery of regularities, the investigator must be in a position to
judge 'same again', and there must be criteria, or rules, for making
this judgement. Winch objects:

> "But here we run against a difficulty; for whereas in the
> case of the natural scientist we have to deal with only one
> set of rules, namely those governing the scientist's
> investigation itself, here what the sociologist is studying,
> as well as his study of it, is a human activity, and is
> therefore carried on according to rules."[1]

It is the rules which govern the subject matter of the investigation,
rather than those which govern its procedure, which are vital in
making or withholding the base judgement of 'same again'. Winch
illustrates the point by noting that in the parable of the Pharisee
and the Publican , where both are ostensibly 'praying', in order to
establish whether the two actions belong to the same kind of activity
the answer must be "given according to criteria which are not taken
from sociology, but from religion itself."[3] In order to be in possession
of such criteria, the investigator therefore cannot investigate the
phenomenon from the outside, since he can only make the necessary
judgements to the extent that his understanding of the activity
approximates to that of the participants. Winch's emphasis on rules,
roles and the understanding of meaning shares both the insights and
the logical and methodological problems of the hermeneutic approach to
social investigation which underlies the emergent trend towards
qualitative empirical research in education.

The term "hermeneutics" is derived from the Greek "hermenuo"

1 Winch, op. cit. (1958), p.87.

2 Luke, 18, 9.

3 Winch, op. cit. (1958), p.87.

(I interpret, explain, clarify) and was originally used to refer to academic textual interpretation. It has recently been broadened to denote the interpretative study of any human individual or group activity characterised by meaningfulness. Basic to this approach is Winch's point that understanding what is going on in the social world is not a matter of producing statistics or causal laws, but simply of "grasping the point or meaning of what is being done or said."[1] The question which thus arises is whether the hermeneutic approach (a) is an alternative way of explaining social action and interaction which can be used alongside causal, quantitative explanation to enrich and supplement it; (b) is an alternative explanatory approach which cannot co-exist with the causal model but which is more fruitful; (c) can be incorporated into a new 'scientific model' along the lines proposed by Harré and Secord, or alternatively; (d) entails the view that human behaviour is essentially incapable of systematic explanation.

There is a growing tendency for empirical research in education to make assumption (a), thus attempting to accommodate new insights from social and psychological theory (not to mention common sense) within the mechanistic quantitative paradigm. The project to be discussed in the coming chapters is a typical example of this. Any such attempt is both logically and methodologically misconceived, since mechanistic and hermeneutic systems of explanation are mutually antagonistic and incompatible. For an adequate treatment of the untranslatability of hermeneutic into mechanistic concepts, see Gauld and Shotter, Chapter Five,[2] and for an examination of the consequent methodological impropriety see this thesis, Chapter Eleven.

Assumption (b) raised different problems, in that it seems intuitively clear that hermeneutic explanations alone would risk the obverse incompleteness which is offered by purely causal explanations.

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1 ibid., p.115.
2 Gauld and Shotter, op. cit., chapter 5.

Although when there is a discrepancy between observer accounts and agent accounts of behaviour we generally, <u>ceteris paribus</u>, accept agent accounts, this is true only to the extent that the behaviour in question is not fundamentally puzzling. If a maniacal killer explains that he kills in response to God's orders, we do not feel that this is a full explanation of his behaviour, though it might well be <u>his</u> sole <u>reason</u> for that behaviour. Though a person who makes a decision is not engaged in a causal enquiry into his own motives, it is quite possible for an observer to make such an enquiry. This distinction is well-explored by Ryan:

> "Indeed, it is obviously the case that a man who asked only causal questions about his own behaviour would never make any move at all, since he would never <u>decide</u> on anything, only learn about the antecedents of possible decisions. It is certainly true that an observer may inquire into the causal antecedents of my decisions, though even here it is an impossibility that dealings between him and me should entirely consist of this, for if he always regards my decisions as events to be causally explained, it must either be the case that he regards them all as pathological symptoms to be treated causally, or else that for some other reason he has decided that he and I should not enter into normal human relationships."[1]

The relationship of the systematic investigator of behaviour to his subject matter is precisely <u>not</u> a "normal human relationship" and therefore any account couched <u>solely</u> in terms of reasons will be as defective as any account couched solely in terms of causes. Schutz, in "The Problem of Rationality in the Social World", draws timely attention to the fact that naive hermeneutics overlooks the fact that

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1 Ryan, op. cit. (1970), p.118.

we seek explanation on several levels. He points out that:

> "We should certainly be surprised if we found a cartographer
>
> in mapping a town restricting himself to collecting
>
> information from the natives. Nevertheless, social
>
> scientists frequently choose this strange method. They
>
> forget that their scientific work is done on a level of
>
> interpretation and understanding different from the naive
>
> attitudes of orientation and interpretation peculiar to
>
> people in daily life."[1]

Nor is the difference between the two levels one of degree in con-
creteness or generality; it represents a difference of purpose. Ryan
notes that the economist and the trader operate with distinct con-
ceptual schemes, because their standpoints of activity are different,
although the former seeks to explain and predict the behaviour of
the latter. He points out that:

> "Since such a process is quite essential to such a science
>
> as economics, it would obviously be a defect of Winch's
>
> arguments if they led to the conclusion that this process
>
> was impossible or illogical."[2]

That conclusion (which Ryan does not share) has been explored by
MacIntyre[3] who argues that it leads to view (d). He claims that
espousing the hermeneutic approach would entail the view that human
behaviour is essentially incapable of systematic explanation, since on
Winch's account it would be impossible to understand social phenomena
from a differing culture. This conclusion does not necessarily follow,

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1 Schutz A., "The Problem of Rationality in the Social World"
   reprinted in Emmet D. and MacIntyre A. (eds.), op. cit. (1970), p.92.

2 Ryan, op. cit. (1970), p.152.

3 MacIntyre A., "The Idea of a Social Science" in Supplement to the
   Proceedings of the Aristotelian Society, 1967 , pp.112-113.

however, since the key point in identifying activity as of a
particular kind relies on noting its significant features, and these
will necessarily be significant in terms of the investigator's own
culture. Were there no cross-cultural commonalty it is not that we
would be unable to understand other cultures, but rather that we
should not even be able to recognise them as such. It is therefore
unnecessarily alarmist to regard the admission of the hermeneutic
approach to understanding as necessarily representing the thin end of
the relativist wedge.

It has thus been argued that the acceptance of reason-explanations
does not make systematic explanation of behaviour impossible, does not
provide a complete explanatory framework which makes causal explanation
redundant, and is not simply an extra or preliminary explanatory account
to be used to enrich the traditional mechanistic approach. It is a
consequence of the acceptance of human behaviour as purposive in terms
of a social context that such behaviour is significant in terms of the
agents' own context and not of the investigator's. Ryan correctly
points out that therefore:

> "The mode of understanding employed by the investigator must
>
> be that employed by the people he is studying; and this means
>
> that the usual account of such concepts as Verstehen, namely
>
> that imaginative understanding of the agent's point of view
>
> is a useful heuristic device is quite inadequate...... .
>
> Merely to employ Verstehen as a psychologically useful
>
> first step to a scientific understanding of events is to
>
> totally miss the point. For the point is that the
>
> identification of the events to be understood necessarily
>
> depends on understanding the roles which make them count as
>
> events of whatever kind it may be."[1]

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1 Ryan, op. cit. (1970), p.143.
   Nagel makes the same point, op. cit. (1961), p.484.

Given the above arguments, which include highlighting basic logical differences between the objects of study of the natural and social sciences, which in turn dictate differing procedures for the two activities, must it be concluded that man is no subject for science? It will be argued that this conclusion does not necessarily follow.

What does follow is that there could never be one unified science of the natural order of which humanity is seen as a complex part, which is rather a different matter. It has been argued in this chapter that claims for a unified science of nature and society were as much polemics for a particular view of science as expressions of commitment to a particular view of man, and that the views of both man and of science involved in this claim are defective. Man is (a) clearly no subject for science if a simple view of science is coupled with a complex under- standing of behaviour. He is (b) clearly a subject for science if a simplistic notion of behaviour is coupled with this same simple view of science. It remains to be explored (c) whether he is a subject for science when a complex understanding of scientific explanation is applied to behaviour viewed in its logical complexity. Since (a) and (b) are contentions both of which rest upon misconceptions, only (c) is relevant to a consideration of the epistemological status of the social sciences. An examination of this status must proceed by looking more closely at the nature of scientific explanation, its formal requirements and canons of validity. Though the above argument has ruled out the simple possibility, advanced by Nagel[1], Goldman[2] and Locke[3] that hermeneutical explanation is simply a subspecies of mechanistic natural science explanation, we have as yet no reason to suppose that all scientific

1 Nagel, op. cit. (1961).

2 Goldman A.I., A Theory of Human Action, New York, 1970.

3 Locke D., "Action, Movement and Neurophysiology" in Inquiry, 17, 1974, pp.23-42.

explanation is necessarily mechanistic and quantitative.

Putnam notes[1] that controversies over the status of the social

sciences depend upon two fundamental ideas subscribed to by empiricist

philosophers of science from Mill to Nagel. These are (1) that the

methods of physics <u>are</u> the methods of all the sciences and (2) that

knowledge is dependent upon science which is dependent upon 'scientific

method'. The claim is simply that anything that can be known <u>at all</u>

can be known by these methods. Observation, linked to the hypothetico-

deductive method and the methods of induction are the only routes

available to the acquisition of non-demonstrative knowledge. (1) is

embodied in Mill's statement that

> "The backward state of the Moral Sciences can only be remedied
>
> by applying to them the methods of Physical Science, duly
>
> extended and generalised."[2],

and it has been argued in this chapter that even with the more extended

notion of the physical sciences employed by Nagel et al., such a

recommendation is mistaken. The recommendation is made in order to

rule out obscurantism and metaphysics in the social sciences, but to

deny that it either could or should be implemented is only fatal to

knowledge in the social field on the assumption that the related

idea (2) is correct. Putnam argues convincingly, using knowledge of a

simple translation item as his example, that there are large areas of

knowledge of which we are as certain as can be which logically could

never be checked according to scientific method as conceived by

empiricists. He demonstrates that testing the hypothesis "x means y"

> "..... involves testing the <u>conjunction</u> of an analytical
>
> hypothesis <u>I can't state</u> properly (as the failure of
>
> mechanical translation shows) and psychological premises

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1. Putnam H., Lecture VI: Meaning and Knowledge" in Putnam H.,
   <u>Meaning and the Moral Sciences</u>, 1978, pp.66-80.

2 Mill J.S., <u>A System of Logic</u> Book VI, 1844, p.1.

I obviously can't list in advance!"[1]

It is difficult to dispute the conclusion to his argument:

"It seems to me that a certain version of scientism in

the social sciences collapses right here. The idea that

what we _know_ is co-extensive with what we can check

'publicly' following well-understood paradigms of scientific

testing does not even fit some of the _simplest_ facts we

know, such as the meaning of words in a foreign language."[2]

When Putnam examines the source of the fact that we have knowledge that

cannot be verified in a manner which publicly conforms to the criteria

of scientific methodology, and turns his attention from skills to ordinary

psychological explanations, his case is closely similar to that put

forward in Chapter Eight of this thesis, when practical reasoning was

examined.

One could imagine a circumstance in which everyone in a given

situation imputed motives X and Y to A, on the basis of his behaviour

and utterances M and N. Nothing like a scientific proof of such motives

could ever be advanced since any law-like statement to the effect that

where we observe M and N we may infer X and Y would have to contain a

ceteris paribus clause.   One could therefore not verify or falsify

the hypothesis "A is X and Y" in isolation,but would have to verify an

all-encompassing psychological theory, which contained a full statement

of every possible special circumstance. The nearest we have to any

such theory is our implicit knowledge and experience of people, reflected

in our ability to _use_ psychological descriptions. An explicit statement

of such a theory, which would have to contain the means to explain its

own expressibility,is thus logically impossible. It would appear that

this is what Putnam means when he notes that science is made possible by

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1 Putnam, op. cit., p.70.

2 ibid., p.70.

the use of measuring instruments which we understand. In all
knowledge

> "Our theory applies to our measuring instruments, and to
> their interactions with what they are used to measure, not
> just to the objects we measure. It is a feature of _practical_
> knowledge that we often have to use ourselves (or other
> people) as the measuring instruments, and we do _not_ have an
> explicit theory of these interactions."[1]

Nor should it be assumed that practical knowledge is thus specially
vitiated by uncertainties from which science is exempt, for science
itself cannot proceed without the assumptions of practical knowledge.
Within even physics laws are relevant to the description of idealised
closed systems but can only be applied in the real world because open
systems can be identified which approximate closely enough to the
idealised closed system to enable explanation and prediction to proceed
with accuracy. Which systems are approximations to the idealised
system is a matter for judgements based on practical knowledge, which,
as argued both here in Chapter Eight and by Putnam, are logically not
completely stateable. Putnam concludes:

> "The moral is that the so-called 'scientific method' ('S M')
> is only a formalisation of _some aspects_ of scientific methodology.
> Physics _itself_ could not proceed using _only_ the 'S M'."[2]
> (original italics)

It therefore remains to ask not "Do the explanations proffered
by the social sciences conform to the procedures of scientific method
appropriate to the closed systems of pure physics?", but rather "In
what sense and by what means can human action and interaction reliably
be explained and possibly predicted, and what procedures are best

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1 ibid., p.72.

2 ibid., p.72.

suited to this task?". In best philosophical tradition, this thesis will not offer an answer to that question, but will simply have sought to approach an answer by indicating how the question ought to be asked and what sorts of considerations might be involved in answering it. Decades of work remain to be done to approach a substantive answer.

It must first be stated unequivocally that we can and do describe, explain and predict behaviour. Were we unable to do so with a reasonable degree of accuracy, culture and society, indeed all inter-personal relations, would be impossible. We only expressly seek an explanation when, at the individual level, behaviour is particularly puzzling, or, at a group level, it is either puzzling or too complex to be readily understood. In either case we seek a more formal explanation if easily accessible intuitive understandings of the situation conflict. It is in the last of these situations that a more reliable (scientific, factual, empirical) explanation is sought to arbitrate between con-flicting intuitions, as in education. Hempel and Oppenheim laid down many years ago the formal requirements for this type of explanation.[1] It should (1) have a conclusion logically entailed by the statements of laws and initial conditions, (2) have premises which are true (or at least well-confirmed) and (3) have an empirically testable explanans - i.e. the explanation generated should be open to refutation should it predict what is not the case. These are the standard requirements of deductive, nomological explanation which entails the possibility of prediction. Thus when our understanding, based on implicit, practical knowledge fails to satisfy or obtain consensus, we seek not for an examination or elaboration of that understanding, but for an explanation of a different logical order. It is important to note what would be involved in maintaining that explanations of behaviour could conform to these formal criteria.

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1 Hempel C.G. and Oppenheim P., "Studies in the Logic of Explanation" in _Philosophy of Science_, No. 15, 1948.

For the first requirement, there being no possibility of a 'closed system' of such behaviour (except the _entire_ system of all extant and potential human interaction), the statement of initial conditions would be infinite in content and necessarily regressive in form, as argued above with reference to practical knowledge.[1] These initial conditions would have to be generalised with reference to laws. Inability to state initial conditions exhaustively rules out reference to universal laws, but leaves open the possibility of reference to laws of a statistical/probabilistic nature, such as are employed in medicine or genetics. It is often asserted that we should not be dismayed that only probabilistic laws are possible in the social sciences, since such laws are a feature of many of the newer natural sciences such as genetics. However, to conclude that the two enterprises therefore do not fundamentally differ is over hasty. Social explanations are _necessarily_ probabilistic - we never logically could explain particular cases unless we are willing to sacrifice the concept of parameters associated with individual characteristics of particular persons. Genetic etc. explanations are only _contingently_ probabilistic; since closed systems can be identified, there is no logical reason why advancing knowledge should not replace statistical with universal generalisations of more limited application. It is only in quantum mechanics that the laws of any natural science enquiry appear to be necessarily probabilistic, and for precisely those reasons - of continuity between investigator and investigation - which characterise social enquiry. Such studies have called into question the determinism which is basic to the study of science and which is also implicit in the application of these formal criteria to social explanation.

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1 The same point has been made by Karl-Otto Apel with reference to the impossibility of nomological explanations in history. See Apel K-O., "Types of Social Science" in Brown S.C. (ed.), _Philosophical Disputes in the Social Sciences_, 1980, p.26.

A deterministic account is necessarily causal, and any attempt

to secure an explanation in terms of causal laws, whether universal

or probabilistic, implies either an acceptance of psychological

reductionism or a drastic revision of the notion of causality. Just

this sort of revision has been attempted, to offer a framework for

social explanation which would not entail the naive reductionism and

denial of consciousness involved in framing explanations of behaviour

which are dependent upon the Humean notion of causality.[1] Almost half

a century has passed since Reichenbach[2] suggested that though statistical

relevance is not causal relevance, it enables us to infer that there

is a causal mechanism operating to produce the factors which are

staistically relevant, and this argument has been developed[3] to suggest

that causality is compatible with indeterminism. An alternative

revision is proposed by the growing number of writers who seek to

demonstrate that ideological reasoning neither differs as greatly from

nor is more suspect than Humean causal reasoning as has generally been

supposed.[4] There is no space here to debate the logical features of

teleological explanation, nor the related issue of strict reduction

versus empirical reduction which it raises, nor the operation of

necessity and contingency in the relation of causes to effects. Suffice

it to say that enough work has now been done to make Skinner's scathing

remarks about the operation of final causes[5], which were formerly

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1 Hume D., A Treatise of Human Nature Book 1, Section XIV.

2 Reichenbach H., Experience and Prediction, Chicago, 1938, § 14.
   N.B. This misunderstood text was intended as a refutation of
   positivism.

3 Salmon W.C., "Theoretical Explanation" in Körner S. (ed.),
   Explanation, 1975.

4 Geach P., "Teleological Explanation" in Körner, op. cit., 1975.
   Taylor C., op. cit. (1964).
   Gauld and Shotter, op. cit. (1977).
   Boden M., Purposive Explanation in Psychology, 1978.

5 Skinner B.F., Science and Human Behaviour, New York, 1953, pp. 87,
   89-90.

characteristic of the debate surrounding functional explanations, seem grossly simplistic.[1]

Both these attempted modifications of the Humean notion of causality are attempts to reconcile systematic explanation which is dependent upon the discovery of regularities, with the notion of behaviour as purposive. None of these attempts has so far been successful in bridging the gulf between reason-explanations and causal explanations, since concepts such as that of 'agent-causality'[2] are dependent upon the separation of intention from action, and it has already been argued in this thesis that the former is only intelligible in terms of the latter. The impossibility of assimilating reasons even to a modified causal model has led many social scientists and some philosophers of social science to throw out the baby with the bath-water. Thus R. Brown states:

> "Explanations in terms of reasons are a good deal like
> explanations in terms of intentions. Both play a large
> part in everyday life, but not in social science."[3]

It must therefore be simply stated again that any explanation of behaviour which neglects either reasons or causes will be necessarily incomplete. In the explanation of those happenings which are the actions of people (and maybe sometimes animals) reasons will be logically related to what they explain, and causes will be similarly related through some physical mechanism. Agent accounts (unless they are self-conscious commentaries on one's own action) will be proffered in terms of reasons; observer accounts will be proffered in terms of both reasons and causes. As argued earlier, an observer account couched

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1 For an adequate refutation of this see Taylor C., op. cit. (1964), p.17.

2 See Malcolm N., "The Conceivability of Mechanism".in Philosophical Review 76, 1977, pp.45-72.

3 Brown R., Explanation in Social Science, 1963, p.99.

solely in terms of causes would in important respects fail to treat
the happening as the action of a person, and would thus be incomplete,
whereas an agent account which was unselfconscious would similarly
be considered incomplete. Taylor is thus mistaken to argue that
teleological redescription can serve as an explanation[1] on the grounds
that stating the goal for which an action was undertaken "means that
it is to be explained by the goal which defines actions of that type"[2],
for such a redescription offers no explanation either of the action's
provenance or of its actual, as opposed to its intended, function.

It has thus been argued that reason-explanations cannot be
assumed to serve as complete explanations, any more than can causal
explanations, and the standard treatment of reasons and causes has
indeed been to treat them as logically distinct. Melden notes that

> "Absolutely nothing about any matter of human conduct
> follows logically from any account of the physiological
> conditions of bodily movement."[3],

and Ayer makes a similar point by analogy in stating that

> "The fact that to talk about wave-lengths is not to
> describe colours is not an objection to the science of
> optics."[4]

Ayer's analogy seeks to suggest that reason-accounts and causal
accounts are simply logically different, non-competing, equally valid
alternative ways of describing behaviour. This is unsatisfactory,
since both accounts are defective on their own. Melden shares with
Ayer the notion of logical distinctness but advocates the primacy of

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1 Taylor C., op. cit. (1964), p.37.

2. ibid., p.37.

3 Melden, op. cit. (1961), p.201.

4 Ayer A.J., Man as a Subject for Science, 1964, p.24.

of reason accounts, since he sees causal accounts as deterministic.

I do not wish to dispute the logical distinctness of reason-explanations from causal explanations, but an acceptance of that logical distinction does not entail the conclusion that reasons operate in a realm to which notions of causality are inappropriate. A man may certainly be able to offer his reasons for his actions, but unless those reasons make some reference to publicly agreed principles of conduct appropriate to the activity in question, we might well wish to go on to ask what has caused him to have those reasons. As T. Green notes;

> "An explanation of a teacher's behaviour may have nothing to
> do with the principles of good teaching or the canons of
> inquiry. But one's reasons for teaching in a certain way
> must include some reference to such principles."[1]

If they manifestly do not, the way is open to an explanation which does not give primacy to reasons, but to the causal antecedents of those reasons. We accept reason explanations when we share the ideas that underlie those reasons, but those ideas do not spring from nowhere, whether we share them or not. A further and more important point which is overlooked in stressing the logical distinction between reasons and causes is that reasons do not merely have causal antecedents, but are also themselves causally effective.

Mackie's examination of ideological explanation[2] is interesting in this connection. His view of the part played by rules, roles, meanings and intention in the explanation of actions is subtler than Winch's, and he explores the Winch thesis a stage further. Mackie argues that the ideas behind the reasons which lead us not to seek

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1 Green T.F., "Teaching, Acting and Behaving" in Komisar B.P. and
   MacMillan C.B.J. (eds.), Psychological Concepts in Education,
   Chicago, 1967, p.194.

2 Mackie J.L., "Ideological Explanation" in Körner S. (ed.),
   op. cit. (1975), pp.185-197.

further for the causes of the action explained by those reasons, can
themselves serve as partial causes in a causal explanation of the
action which is prompted by those reasons. An understanding of the
complex relations of reason and cause in the generation of action
precludes a simple choice between the reason-mode and the causal-mode
in explaining such action, as intimated by Ayer, or indeed the primacy
of one mode over the other, as argued by Winch, Melden et al. The
standard dilemma in the reason/cause debate, of which the agent/observer
account debate is a version, is that explanations from within a
particular viewpoint which accept reasons as sufficient accounts, are
necessarily biased and distorted in favour of the particular viewpoint
in question, whereas explanations from outside neglect essential
(meaning) features of the phenomenon. Mackie's location of meaning
within a particular psycho-social context which is both partially
causally explicable and partially causally effective offers a more
complex and promising understanding of the problem. This position
remains to be fully explored but offers a new and more profitable
direction for resolving a dilemma which has for some time attracted
simplistic solutions. The arguments put forward in this chapter would
tend to confirm Mackie's statement that:

"An adequate description of a social phenomenon must indeed
include an account of what the agents take themselves to
be doing. In one sense they cannot be wrong about this.
But it is also possible that their behaviour has some
partial causes of which they are unaware, that it will have
effects that are not included in their purposes, and indeed
that it may have an unknown function in the sense that these
unknown partial causes include the fact that such actions
tend to produce these effects which were no part of the
agents' purposes. Thus there is a sense in which the agents
can be wrong about what they are doing. But a full description

of what is going on must and can take account of both

aspects, both of how their actions appear to the agents

and of what is not apparent to them: it can recognise

distortions as part of what is there without itself

becoming distorted."[1]

Mackie's conclusion that

"Accounts of a social phenomenon from inside and from

outside the relevant ideology, far from being both in-

admissible for different reasons, are both admissible

and both contribute to understanding, though in different

ways."[2],

should not be misunderstood. This is not a simple plea for tolerance

for both reasons and causes, such as is implied by (a) above, since

(a) offered no mechanism for resolving the competition between such

accounts which is bound to increase in proportion as the phenomenon to

be explained is puzzling. This account of Mackie's, which the arguments

of this thesis bear out, suggests not simply that single mode

explanations of behaviour are necessarily incomplete (Ryan's position[3])

but offers an avenue through which the complementarity of the two

modes can be developed and explored.

Thus there is no way in which the first formal requirement of

Hempel and Oppenheim's three formal criteria for the existence of an

explanation can be fulfilled in the realm of human action and inter-

action. There can be (i) no complete statement of initial conditions,

therefore (ii) no universal laws and hence (iii) no logical entailment

of the conclusion. If the case is to be saved by reference to

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1 ibid., p.194.

2 ibid., p.194.

3 Ryan, op. cit. (1970).

probabilistic laws analogous to the procedures of some of the newer

natural sciences, it must be objected that (iv) in areas where

regularities are necessarily rather than contingently probabilistic,

indeterminism is implied. Explanatory laws, whether universal or

probabilistic, function to expose causal regularities. Since (v) no

account has been offered which can reconcile an indeterminist view of

action with causality, even on revised accounts of that concept, and

(vi) a purely causal explanation of action is not merely incomplete,

but is unintelligible, the exposure of regularities in action can never

mean the establishment of purely causal laws of whatever type.

As the first of Hempel and Oppenheim's formal criteria cannot be

fulfilled in the social field, it would be otiose to devote too much

space here to indicating whether the two other criteria are capable of

fulfilment. The second demand - that the premises of the deduction

must be true - raises all the problems of the value-laden nature of

psycho-social 'facts'. It is argued by Nagel, Popper et al, that

'Verstehen' or the understanding of meaning is relevant to the formation

of hypotheses in the social sciences, but not to their validation, and

that the problem of bias will largely be solved by acknowledging it:

> "Accordingly, the undeniable difficulties that stand in the
>
> way of obtaining reliable knowledge of human affairs because
>
> of the fact that social scientists differ in their value
>
> orientations are practical difficulties. The difficulties
>
> are not necessarily insuperable, for since by hypothesis it
>
> is not impossible to distinguish between fact and value,
>
> steps can be taken to identify a value bias where it occurs,
>
> and to minimise if not to eliminate completely its perturbing
>
> effects."[1]

This oversanguine view results from misunderstanding the problem. It is

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1 Nagel, op. cit. (1961), p.489.

not simply that the social scientist cannot operate without pre-
suppositions which affect how he conceptualises his enquiry and what
data he picks as significant, for these are problems shared at least
on the methodological level with all investigators, as Nagel rightly
points out. It is more importantly that the object of study for the
social scientist is not merely imbued with meaning, as has been noted
earlier, but may well be itself an evaluative concept. An examination
in Chapter Eleven of how the ORACLE project set out to investigate how
much time pupils spend 'working' and 'wasting time' will illustrate
this point.

Hempel and Oppenheim's third demand - that the explanation must be
falsifiable by the inaccuracy of the predictions it generates, can be
swiftly dealt with. Explanation only entails prediction if the
explanation concerned is of a deductive nature, i.e. based upon universal
laws, not on probabilities. Explanations based on probabilistic causal
laws predict tendencies, but not concrete particulars. It is therefore
clear that particular predictions could never follow from explanations
of behaviour. Whether or not probabilistic explanations should be
considered disconfirmed by failure of prediction in this area is a
further question. Once again, Nagel sees this as purely a practical
problem, whereby the publication of predictions about behaviour itself
influences the behaviour in question.[1] Were he right, this would be a
pseudo-problem, since the prediction could itself be taken into
account in predicting, just as the temperature of the thermometer can
be taken into account in measuring the temperature of a liquid by means
of that thermometer. Once again, the real problems are not practical,
they are logical. Prediction is based on the notion of 'same again'
as are the regularities from which the explanation springs. But
individually and socially the notion of 'same again' has no application

1 ibid., p.468.

here. Once an event becomes predictable - because it has occurred

before - the agents act on their knowledge of the former occurrence,

which ensures that the next occurrence will have different additional

ingredients. Even if we could specify all the causal antecedents

of the Wall Street crash, none of those antecedents was the Crash itself,

knowledge of which would accompany a recurrence of an otherwise identical

set of circumstances. Popper seeks to save the day here by pointing

out that unlike a true law, a probabilistic statement makes reference

to a specific set of initial conditions[1], but unless the argument

elaborated earlier (to the effect that reasons cannot be subsumed under

a causal account) is rejected, this will not do. Winch points out

that:

> "Even given a specific set of initial conditions, one will
>
> still not be able to predict any determinate outcome to a
>
> historical trend because the continuation or breaking off
>
> of that trend involves human decisions which are not
>
> determined by their antecedent conditions in the context
>
> of which the sense of calling them 'decisions' lies."[2]

Winch is not here denying that decisions can be predicted - common-

sense would tell us this is so. He is merely suggesting that the

intentions and decisions which characterise rather than cause action

can logically not form part of a causal account of the antecedents of

an action, and therefore cannot have any place in a prediction of the

action which is only meaningful on their inclusion. When we talk of

"predicting" action we use the word in an attenuated sense. If our

predictions turn out wrong we do not necessarily have to assume that

we were mistaken in our understanding of the causal antecedents of the

---

1 Popper, op. cit. (1957), pp.15-16.

2 Winch, op. cit. (1958), p.93.

action predicted, for not all its antecedents are causally related
to it.

It is therefore clear that none of Hempel and Oppenheim's formal
criteria for scientific explanation can be satisfied in the field of
behaviour, and in the case of all three criteria the reasons for the
mismatch are logical, not methodological. We are not, however, con-
stantly baffled by what we and others do, nor are we always in the dark
as to what, socially, is likely to happen next. It begins to look as
if it would be more profitable, when puzzlement arises through un-
familiarity, pathology, innovation or complexity, to seek to understand
behaviour by extending and elaborating the practical knowledge which
serves us in less problematic circumstances, rather than by abandoning
procedures which at least have some success in favour to those of a
different logical order which have met with great success in a logically
different sphere. For it is not simply that an attempt to conform to
these criteria is doomed to failure, but rather than such an attempt
promotes misunderstanding of the enterprise. Attempts to approximate
to the first criterion involve doing violence to the notions of con-
sciousness, free choice and those related characteristics which con-
jointly define the object of study in question. Attempts to approximate
to the second criterion and eliminate bias lead to dangerous pre-
judgements, most notably that the social sciences can be value free,
and also that they ought to be so free, the first of which presumes
the second without debate. Attempts to approximate to the third
criterion overlook the fundamental problem, unique to human affairs,
that predictions in this area are themselves causally effective. The
establishment of a scientifically predictable social theory is incom-
patible with the notion of such theory being social, on all the arguments
advanced in this chapter. Even should it be the case, per impossibile,
that all arguments establishing the logical differences between actions
and happenings, people and things, should be falsified by the construction

of a scientific explanatory and predictive psycho-social theory,
such a theory would be instantly invalid on publication. For the
establishment of such a theory - were it possible - would itself
change the nature of what it sought to explain.

Since the promotion of a programme for the social sciences which
approximates to the deductive - nomological procedures of a particular
type of scientific method entails such evident logical absurdities, it
would seem foolish to conclude that, failing such an approximation,
the social sciences should aspire to the probabilistic procedures of
other branches of <u>natural</u> science. The social sciences must indeed
evolve their own methodological procedures, and their own criteria of
validity, which must not only take account of a broader view of knowledge
than is advocated by the empiricist/positivist tradition, but which
above all follows the radical proposal that we should

> "For scientific purposes treat people as if they were
> human beings."[1]

The origins of a science of behaviour must lie in a general theory of
social action, and the methodology of such a science cannot therefore
be based upon theoretical assumptions which deny the concept of action.
The following three chapters of this thesis will examine a large scale
project in educational research conducted on the empiricist paradigm.
The problems thrown up by that approach will reflect a substantial
proportion of the mistaken assumptions discussed in this chapter, and
an examination of those problems will help to indicate more promising
directions for the study of human action and interaction.

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1 Harré R. and Secord P.F., <u>The Explanation of Social Behaviour</u>,
  1972, p.85.

C H A P T E R   T E N

THE O.R.A.C.L.E. PROJECT

I: EDUCATIONAL RESEARCH AND CLASSROOM OBSERVATION

"'What I should really like to know are the facts'.

Frequently one hears some comment of this kind in a

discussion about education. It sounds appealing.

There is a suggestion that the mists of prejudice and

the storm clouds of controversy might be swept away if

only the facts were known. How much more reliable than

mere opinion. We all know what we think, or perhaps what

we feel, but what can we know? Facts; hard gritty

facts, unarguable, indisputable, carefully verified facts -

throw these into the arena and all will be well."[1]

In educational discussion policy makers, practising teachers and parents

look increasingly to educational research to furnish these facts.

Entwistle remarks:

"Research appears to be making an increasing impact on our

everyday lives. In public discussions today evidence is

considered to be important. We are unlikely to accept

authoritative statements without some explanation, statistical

or otherwise."[2]

This thesis has repeatedly emphasised that decisions for practice in

any area must issue from a combination of facts and values, and we

have become increasingly accustomed to look to the findings of science

to furnish facts more reliably than tradition or common sense. It was

argued in Part One that education is a practical activity, like medicine

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1 Thompson K., Education and Philosophy, 1972, p.9.

2 Entwistle N., op. cit., p.1.

or engineering, and it is frequently assumed that we can apply the findings of empirical research to the activity of education in a similar way to that in which advances in biochemistry or metallurgy are applied to medical or engineering problems. The application of science to practical activities appears straightforward, provided only that one understands the nature of practical activities and the nature of science and boundaries of its scope. Practical activities result from the making of decisions and their subsequent implementation. Science describes and explains; it tells us which of our decisions are feasible, and advises us on the factual consequences of implementing them in a variety of ways. Potential parents would consult a genetic expert to discover what the consequences, in genetic terms, of their bearing a child might be. A community would consult a civil engineer to discover what exactly would be involved, from the engineering view point, in constructing a bridge over a river or building a tunnel beneath it. Whether or not the couple wished to have a child, or the community a particular type of river-crossing, would depend upon many factors, on only a limited range of which the empirical theorists are qualified to pronounce. The empirical experts provide certain factual data, and those who consult them go away and make decisions in the light of this data and other relevant considerations. It is often suggested that the problematic status of educational theory will be obviated if educational decisions are taken in exactly this way. Let philosophers of education, politicians, practising teachers or the general public decide on their aims, then go to psychologists, sociologists or educational researchers for the facts, in the light of which they can come to informed decisions.

It is at this point that the analogy between education and medicine or engineering breaks down, and the second difficulty appears. The 'facts' of psychology, sociology or other educational research findings are simply not like the 'facts' of biochemistry or metallurgy. The

objects up for empirical investigation are not cell-structures,

whether animate or inanimate, but individual people and interacting

groups and individuals. The research enterprise, therefore, is not

simply much more complex, but is quite different in kind: there is no

procedure by which a qualitative difference can be assimilated to a

series of quantitative differences, and to suppose otherwise is to fall

into reductionism. Critics of empirical research in education have

thus been quick to point out that research into human behaviour in any

sphere, whether for purposes of explanation, or for the more limited

function of simple description, will necessarily be fraught with

implicit assumptions, uncontrollable variables and problems of

replicability not associated with the aseptic procedures of pure science.

Their conclusion is that such a methodologically suspect procedure

should be abandoned as fundamentally flawed. Many empirical workers in

the field typically share the assumption of their critics that approxi-

mation to the procedures of the natural sciences is a standard measure

of rational respectability. Thus the case for the defence generally

takes the form of protestations of objectivity, assurances that

sophisticated statistical analyses will eliminate uncontrolled variables,

and suggestions that large samples will mitigate the problems of

replicability.

Both parties to the debate need again to be reminded of Aristotle's

warning that "the man of education will seek exactness so far in each

subject as the nature of the thing admits"[1]. Just as it is foolish

to maintain that educational theory is worthless unless it is strictly

analogous to scientific theory, so it is mistaken to suppose that

empirical research in the behavioural sciences must either conform to

natural science research, or be abandoned. That scientific certainty

would be desirable in all fields of enquiry is debatable: that it is

1 Aristotle, Nichomachean Ethics. I (iii), 4.

not to be had cannot be disputed, nor is this fact a function of the

stage of development of the fields of study in question. Some of

the problems that beset the behavioural sciences are methodological.

Researchers are restrained by limitations on experimentation and

problems of duplicating investigations to test the predictive power

of explanations. It is just conceivable that, as these studies

develop, sophisticated techniques of one kind or another will overcome

such problems. However, it can only lead to confusion if it is assumed

that progress in techniques of observation or analysis can overcome

all the difficulties that differentiate the behavioural from the natural

sciences. It is not that we do not yet have frameworks for description

and explanation in the behavioural field which reach the heights of

precision we expect of the natural sciences; it is rather that these

could never possibly be had. The crucial differences between the two

areas of enquiry are not methodological, they are logical, as the

prece·ding chapter argued in detail and at length.

Looking at what happens in classrooms is therefore not analogous

to looking at what happens in test tubes, and to suggest that we should

proceed as if it were, since science is the norm of all our thinking,

is radically to misunderstand science. Science is the study of matter,

and matter is all that test tubes contain. Classrooms also contain

minds. When molecules collide, they do not do so either unintentionally

or deliberately, they simply collide. When people interact, they do

not simply interact; there is meaning in their interaction. If we ask

why molecules collide, we are asking for reasons, all of which will be

causal. If we ask why a particular human interaction took place, some

but not all of the reasons asked for, will be causal. There are reasons,

which we can search for and find, why molecules collide: but the

molecules themselves do not collide for a reason. There are reasons,

similarly, why people interact in given ways, but they themselves have

reasons for their actions which are not co-extensive with causal

explanations. If we observe a child's arm rise in a classroom, a scientific explanation for this can be offered in terms of electrical impulses in the brain, neural messages to the muscles in the arm and biochemical changes in these contracting muscles. This is an explanation of how and why <u>his arm rises</u>. To understand why <u>he raises his arm</u> we can only speculate about shared social conventions and their application to this particular incident. The answer to "Why did his arm rise?" can be fully given in physiological terms. The answer to "Why did he raise his arm?" is quite other: he is requesting permission to visit the lavatory - but he might just be fooling. Any description or explanation of an action which fails to take account of its purposiveness is an incomplete description: to suppose otherwise is to overlook the fundamental difference between actions and happenings, between people and things.

Any idea that empirical research in education will gradually evolve towards the heights of precision reached by pure scientific research, provided its methodology is improved, is therefore a gross over-simplification. Science is the province of causal explanations: statements of the reasons for actions will only sometimes be identical with statements of the causes of actions. That the reasons we need to elucidate in an educational situation will be more logically complex than in the study of nature should not lead us, however, to abandon the search for reasons altogether. When crossing the Channel in a biplane it would be foolish to bale out on discovering that we are not travelling by jet. Though decisions cannot be based solely on evidence, we do not decry evidence, since without it no decision can be taken. Though the evidence thrown up by empirical research in the behavioural sciences will never have the explanatory or predictive powers of evidence in the natural sciences, it is the only evidence relevant to our enquiry. The most we can ask of evidence, is that it be as sound as possible in the circumstances. The best sort of evidence on which to base

educational decisions will therefore simply be the soundest that the nature of empirical research in education allows. The best possible empirical research in education would not be work which rested on no prior assumptions, controlled every variable, and had a fully articulated explanatory and predictive framework. In the nature of the enterprise, this is not an ideal, but an impossibility - a contradiction in terms. Any work which claimed to exhibit these characteristics would be radically misconceived. The most exemplary empirical research in the field of education would simply be work in which prior assumptions were made explicit, uncontrolled variables were allowed for in alternative explanations, and the predictive limitations of the findings were clearly indicated.

In order to counter the charge that educational theory in general, and empirical research in the field in particular, should be abandoned as inevitably disreputable, since they are not truly scientific, the following points have been argued above; (1) That to expect empirical theorising to generate, of itself, the rationale for policies is radically to misunderstand the nature of practical activities. (2) That the findings of empirical enquiry provide a necessary, though not a sufficient, condition for decision making. (3) That the explanatory power of the empirical contribution to decision making in education cannot mirror that of the natural sciences. (4) That this is not a methodological problem but follows from the nature of the study: education is an activity followed purposively by human beings. (5) That an acceptance of these points leads to the conclusion that research in education is incurably complex. (6) That the search for scientific validity is misdirected if 'science' is restricted to the positivist paradigm. Of course confusion is avoided if questions of fact and questions of value are separated wherever possible. But where assumption and inference inevitably colour the 'facts' at every turn, these turns should not be glossed over or avoided, for they cannot be;

they must simply be clearly signposted. For we cannot refrain from action, and actions imply decisions. Rational decisions imply good reasons for our actions, and empirical research in education is simply the search for reasons. The best reasons we can get in any situation are simply the best that are to be had. If these do not have the hard status of science, that is simply a further fact which we must take into consideration.

With all the above in mind, I should like to look at some aspects of the ORACLE research project undertaken at the Leicester University School of Education 1975-80, under the direction of Professor B. Simon and Mr. M. Galton. I shall make detailed references to the research design and findings of this project, not to assess the validity of that particular piece of research, but to highlight some of the logical and methodological problems I take to be inherent in work of that nature. I chose this particular piece of work for two reasons; I was involved in it myself at the 'fact-gathering' level as a classroom observer from 1976-78, and, more importantly, this project serves as a paradigm example of quantitative educational research which aspires to objective knowledge of social affairs on the positivist natural science model. Accordingly, the ORACLE project was a sophisticated and sustained attempt to overcome what is perceived as the primary problem of empirical research in education, namely subjectivity in initial judgements and in sub-sequent inferences. No doubt some of ORACLE's shortcomings will be its own, and hence avoidable, but most of the crucial problems can be shown to be inevitable accompaniments of this genre of research.

The ORACLE researchers saw themselves as collecting factual data which would demythologise the debate surrounding the changes in primary schooling which had taken place in England and Wales in the sixties and seventies. In the conclusion to <u>Inside the Primary Classroom</u>[1],

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[1] Galton M., Simon B. and Croll, P., <u>Inside the Primary Classroom</u>, 1980.

the first volume generated by the research, they note the emotive

and ideological tone of this debate, and suggest that cool appraisal

of the situation is dependent upon a more accurate understanding of

the facts, which research will provide. They aim to

"... clear the air for a serious discussion about the nature

of primary school teaching, free from the mythologies that

have bedevilled this issue and soured the atmosphere in

which primary teachers have worked over the last few years.

While mythologies of this kind held sway and were given

credence not only in the mass media but even in the educational

press, serious analysis and discussion of the real issues

at stake was impossible or at least greatly handicapped. The

ORACLE evidence presented in this volume, supported by

related studies and surveys, provides a mass of data on the

basis of which such analysis and interpretation becomes

possible."[1]

This chapter and the following two chapters will examine the research

design, procedures and findings of the ORACLE project, making reference

to the first two volumes generated by the project, namely <u>Inside the

Primary Classroom</u>[2] and <u>Progress and Performance in the Primary Classroom</u>[3]

(to be referred to as ORACLE(1) and ORACLE(2), respectively). Since

the aim of the research was to find out "what is really happening",

and since its procedures were avowedly 'scientific', 'objective',

'quantitative' etc., basic to the research design is a process of

encoding and subsequently decoding activity. The encoding process will

come under closest scrutiny since, as Kant noted, the size of the fish

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1 ibid., p.156.

2 ibid.

3 Galton M., Simon B. (eds.), <u>Progress and Performance in the Primary
   Classroom</u>, 1980.

we find in our net is a function both of the size of the fish in the
sea and, perhaps more importantly, of the size of the mesh of our net.
Subsequently the decoding process will also be examined in order to
see (1) whether to make sense of the 'raw data' we need to import the
sort of subjective, practical knowledge that its collection was
designed to supersede; (2) how far the findings of the research could
be deduced from practical knowledge of the teaching situation and of
children's everyday behaviour combined with an understanding of the
research design; and (3) to what extent such research can stand outside
current "mythologies" and provide the data against which to evaluate
them. Particular attention will be paid to the consequences of taking
an explicitly 'objective' approach in order to determine what this
approach reveals which could not otherwise be discovered, what it forces
us to ignore, and to what extent the findings are artefacts of the
chosen methodology.

The aim of the project "Observational Research and Classroom
Learning Evaluation" was to carry out a process-product study of
children in fifty-eight primary school classrooms to ascertain what
connections there might be between particular learning situations and
particular learning outcomes. The first step towards this aim was
seen to be to find out what is actually going on in classrooms. One
way to do this might simply be to ask teachers to report on their
teaching aims and methods and their pupils' response to them, checking
the former against the opinion of an outside observer (LEA adviser or
educational researcher), and the latter against standardized tests.
This approach was followed by the Lancaster Study[1] and is open to the
objection that teachers' perceptions of their own performances are
highly subjective, that people may not always be doing what they claim

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1 Bennet N., _Teaching Styles and Pupil Progress_, 1976.

to be doing, or even what they believe they are doing, and that

outside assessment of the flavour of a classroom by an adviser or

researcher is equally idiosyncratic and lacking in a basis for com-

parison with other subjective reports. Systematic observational

procedures involving time-sampling, such as those employed by ORACLE,

are an attempt to overcome this subjectivity in initial judgements

and let the facts speak for themselves. As the researchers state,

against a background in the mid-seventies of popular and media

denigration of educational progressivism,

> "It was felt that systematic observation of teacher and
>
> pupil behaviour would be of help to teachers facing these
>
> criticisms, by providing descriptions of current classroom
>
> practice against which they could evaluate aspects of their
>
> own teaching. By collecting information about pupils'
>
> performance, while at the same time engaging in these
>
> observations, it was also intended to present evidence
>
> about many of the issues which have dominated the debate
>
> between supporters of 'progressive' and 'traditional'
>
> methods."[1]

The obvious way to discover what really went on in classrooms would

seem to be to simply go and observe the various happenings at first

hand. It was further felt that a rigorous approach to observation

would avoid the subjectivity and the value-bias which characterised

previous accounts of progressive primary teaching:

> "Utilizing the procedure of systematic observation, its
>
> aim is to discover what is happening in these classrooms,
>
> without reference to the rhetoric either of 'progressive'
>
> of 'traditional' prescriptions as to what should happen;
>
> and certainly avoiding the impressionistic and highly

1 ORACLE(2), p.7.

subjective accounts of 'advanced' practice produced, and

widely publicised, by educationalists and journalists from

the U.S.A."[1]

Since ORACLE was a process/product study its intention was to

find out, not simply what happened in classrooms, so that the descriptive

record could thus be set straight, but further to relate this to

learning outcomes. Thus some pupils were observed over a three year

period, making ORACLE the first large-scale longitudinal study to use

systematic observation techniques in Britain. These pupils were tested

for attainment gains using modified standardised tests yearly, and

periodically were tested for the development of specific study-skills

using new forms of teacher-based assessment developed for the project.

They were also assessed by questionnaire for levels of anxiety and

motivation at intervals during the period of observation, which for

some pupils included transfer to the next stage of education, whether

at 9+, 11+ or 12+, depending on the differing organisational arrangements

of the three LEAS whose schools took part in the project. Thus having

satisfied themselves that they had established a clearer picture than

was hitherto available of what does in fact go on in classrooms,

researchers were able, as reported in the second volume, to relate differing

organisational approaches and teaching styles and strategies to differing

learning outcomes and personality types.

It is clear that whatever the validity of procedures designed to

deduce, infer or extract explanatory hypotheses or conclusions from

the initial descriptive data, no explanation can be sounder (though

it can always of course be less sound) than the descriptive foundation

on which it rests. The nature of this initial data is thus basic to the

validity of the entire five-year research programme. Since the initial

data will necessarily be constituted partially by what there is to

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1 ORACLE(1), p..57.

observe and partially by how it is observed, all techniques,

procedures and assumptions pertaining to the latter must come under

scrutiny, so that bias resulting from the use of a particular

measuring instrument can be allowed for in the assessment of what is

measured.

Description, of whatever sort, is necessarily partial, and

deliberate observation, like any other operation of perception, must

necessarily be selective. As it is not possible to keep track of

everything that is going on in classrooms, from the particular sum a

child is doing at a given moment, to the rate at which the teacher's

toenails are growing, some data must be selected for observation. Under

normal circumstances an observer in any situation picks out those actions

or events which he finds particularly striking, interesting or relevant.

Perceptions are thus inevitably coloured by expectation, presuppositions,

prejudices, and past personal experience. Low-inference observation

using time-sampling techniques is an attempt to overcome the inevitable

colouration of normal perception and observation by pre-selecting what

the observer shall focus his attention on at any given time, to the

exclusion of all else. In the 1970's, with the demand for 'facts' upon

which to base education decisions more reliably, there was a rapid

growth in the use of systematic observation in research in Britain.

The technique itself originated in the U.S.A. in the twenties with

the Committee on Child Development, set up by the American National

Research Council. Galton and Simon note that as the Committee's brief

was to research teaching methods at nursery and kindergarten level,

and since the children concerned were too young to respond to interviews

and questionnaires, "the researchers had to observe these infants and

record their behaviour 'as it happened' "[1]. It should also be noted,

however, that it was no accident that this method of observation arose

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1 ORACLE(1), p.5.

and grew popular as a by-product of the behaviourist core
assumptions of American psychology and has found a home most
notably in educational research, where the longing for respectability
encourages an empiricism more blatant than is normally found nowadays
in other areas of social research. It is significant that Galton
and Simon refer above to behaviour as something that "happens", rather
than as the observable concomitant of what people do, of which their
purposes are an indissoluble part. Indeed behaviourism, in its wider
sense as the study only of the observable features of action, is simply
the translation of empiricism into third-person language. As Quine
notes:

> "Empiricism of the modern sort, or behaviourism broadly so
> called, comes of the old empiricism by a drastic externalisation.
> The old empiricist looked inward upon his ideas: the new
> empiricist looks outward .... . When empiricism is externalised
> ..... the idea itself passes under a cloud; talk of ideas
> comes to count as unsatisfactory except in so far as it can
> be paraphrased into terms of dispositions to observable
> behaviour."[1]

Precisely this translation is basic to the systematic observation
of behaviour

Whatever the reasons for its emergence and popularity, systems of
low-inference interaction analysis have proliferated, producing a
variety of schedules for reducing the stream of classroom 'happenings'
to discrete units for tabulation and computation, thus making what
children and teachers do amenable to computer processing, with all the
aura of validity and value freedom that accrues to computer print-outs.

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1 Quine W.van O., "Linguistics and Philosophy"
in Hook S. (ed.), Language and Philosophy, New York, 1969, pp.97-98.

<u>Mirrors for Behaviour</u>[1], dubbed by Hamilton and Delamont "the inter-
action analyst's pharmacopoeia",[2] details seventy-nine different
systems. The most widely used observation schedule is the Flanders
Interaction Analysis Category System (FIAC), which has ten categories
and uses a three second time-sampling unit. FIAC has been widely
criticised for its limited applicability[3] in Britain. Galton and Simon
note that it was

"designed for relatively static classrooms where teachers
stood in front of pupils who were arranged before them in
rows while working on the same or similar tasks."[4]

They add;

"Few British observation schedules, unlike American ones,
resemble FIAC, although in this country there has been a
rapid growth in the use of systematic observation in
research."[5]

There is now a British pharmacopoeia for this type of research which
lists over forty published schedules.[6]

Galton and Simon, in the opening pages of <u>Inside the Primary</u>
<u>Classroom</u> note the criticism to which FIAC has been subjected, and
FIAC's inability to pick up relevant information in non-traditional
classrooms. They stress the divergence of British systems in general,
and the ORACLE system in particular, from the criticised American
system. There is an underlying incoherence here. If the objections

1 Simon A. and Boyer G.E. (eds.), <u>Mirrors for Behaviour</u>, Philadelphia,
1968.

2 Delamont S. and Hamilton D., "Classroom Research: a Critique and a
New Approach" in Stubbs M. and Delamont S. (eds.), <u>Explorations in
Classroom Observation</u>, 1976, p.6.

3 ibid. and Silberman C.E.,<u>Crisis in the Classroom</u>, New York, 1970.

4 ORACLE(1), p.6.

5 ibid., p.6.

6 Galton M.J., <u>British Mirrors, A Collection of Classroom Observation
Systems</u>, 1978.

to any particular system of low-inference time-sampling observation
are on logical grounds, and make reference to those defining
characteristics which it shares with all other systems (e.g. excluding
the mental concomitants of action, fragmentation and aggregation of
events, quantitative measurement of qualitative states of affairs
etc. - all to be discussed below), then any admission of the inadequacy
of a particular system will entail admission of the inadequacy of all
such systems. If, on the other hand, it is claimed that a particular
system is inadequate on the methodological grounds that since it
focuses on particular sorts of behaviour in particular expected con-
texts, it misses the essentials of contexts for which it was not
designed, and that therefore a differing system with different focus
would be more adequate in capturing relevant information, then this
is a very peculiar statement. Since the whole point of such schedules
is to eliminate initial bias and to refrain from preselection of what
is to count as relevant, they can hardly be used, agnostically, for
the prime ORACLE purpose of simply "finding out what goes on" in
classrooms without recourse to preconception or "mythology", if such
preconceptions are essential to design the observation instrument in the
first place.

Nor is this as nit-picking as it may appear: it is not simply an
objection to the obvious and inescapable point that we have to observe
from some standpoint, that no enquiry is theory-free. As will become
evident below, the ORACLE project, in seeking to discover to what
extent the prescripts of the Plowden report were being implemented,
designed observation instruments intended to pick up the sort of
happenings which would occur in classrooms if this implementation had
taken place. They therefore could only record, at most, whether such
occurrences took place or not, in all the classrooms studied, whether
these classrooms were "Plowden type" or not. In classrooms which were
emphatically not of this type, fundamental features of interaction

would be as necessarily overlooked as would features of the types of

classrooms expected by the project if these had been observed by a

FIAC-type schedule. One cannot <u>both</u> look to see what is happening

in classrooms, without presuppositions, and at the same time tailor

one's observation instrument to reflect a particular type of overall

situation.

In fact, many of Hamilton and Delamont's criticisms of FIAC and

other interaction analysis schedules are directed against those

characteristics which they necessarily have in common with all

observation instruments of the same type. Thus:

"Interaction analysis systems are usually concerned only

with overt observable behaviour. They do not directly

take into account the differing intentions that may lie

behind such behaviour. Where intention is relevant to

the observational category .... the observer has himself

to impute the intentions, making no attempt to perceive

the actor's actual or self-perceived intention."[1]

Frequently these two writers criticise methodological and logical problems

in the same breath, thus making it easy for others to assume that

greater methodological sophistication will of itself solve the problems

indicated. Noting that such systems are expressly concerned with

"what can be categorised or measured"[2], Hamilton and Delamont warn that

"they may, however, obscure, distort or ignore the qualitative

features which they claim to investigate, by using crude

measurement techniques or having ill-defined boundaries

between the categories."[3]

It is rather important to decide whether these are consequences which

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1 Hamilton and Delamont, op. cit., p.8.

2 Simon and Boyer, op. cit., p.1.

3 Hamilton and Delamont, op. cit., p.8.

such systems must have, or simply shortcomings which they may have
if they are not constructed with sufficient care. These critics list
six different "limitations inherent in interaction analysis systems",
some of which are necessary accompaniments of any such system, but
some of which are not.

Their first objection is that most such systems ignore the physical,
social and historical context, so that data collected in this way
excludes information relevant to its interpretation. Clearly, this is
a purely contingent methodological defect, since such information could
be, and in the ORACLE project indeed was, collected. This objection
need not therefore detain us. The second objection (cited above) that
they ignore intention and subjective meaning, refers to the logical
distinction between actions and happenings. In any such system
intention must either be ignored or, what is more likely, be simply
guessed at by someone other than the agent. To suggest that intention
and meaning is·totally ignored is implausible and naive, for ·if this
were the case all that could be recorded would be a series of meaningless
movements, incapable of retranslation into anything that could be under-
stood as human behaviour in the findings of the research. Rather such
systems, though they appear to ignore agent intention, must <u>impute</u>
intention to the agents. Thus the apparent observation of agents as
objects is dependant upon the implicit assumption that they are
conscious subjects. This point is a reflection of the paradox at the
heart of behaviourism, noted in Chapter Nine. Just as prior practical
knowledge of teaching and learning is a prerequisite for the con-
struction of category systems, so prior beliefs about what intentions
typically accompany which pieces of observable behaviour are essential
to allocate observations of actions to categories. To decode the
actions thus encoded, intention must again be imputed. At this point
the crucial factor is that the decoder should make the same imputation
of intention as the encoder, not simply that this latter should have

correctly guessed the agent's intention in the first place. Since the

encoder and the decoder must always agree about the linkage between

intention and observable behaviour, it must be assumed that all

relevantly similar instances of the latter must represent relevantly

similar instances of the former. Behaviour must be assumed to be

stereotypical. This point will be relevant when the differentiation

of both pupils and teachers into types is discussed in Chapter Twelve.

Hamilton and Delamont's third objection is that such systems

distort or ignore qualitative features, as cited above. It is not

made clear whether this must be the case, nor is it clear what would

be the implications for this type of procedure if it were the case.

Obviously, we can only measure what is measurable, and equally obviously,

not everything we would like to know is measurable. Nonetheless if

such procedures can measure certain aspects of the educational process,

and if these aspects are important to our deliberations, then those

procedures will be important sources of information even though there

will be questions they cannot answer.

The fourth objection listed by Hamilton and Delamont concerns

the fact that such systems focus on "small bits of action or behaviour

rather than global concepts "[1]. They therefore generate an enormous

quantity of data which for the purposes of analysis must be made

intelligible by a set of descriptive concepts; either the original

categories, or a set of global concepts built up from these categories.

But:

> "Since the categories may have been devised in the first
>
> place to reduce the global concepts to small bits of action
>
> or behaviour, the exercise may well be circular."[2]

This objection slightly misses the point. The process of interaction

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1 Simon and Boyer, op. cit., p.1.

2 Hamilton and Delamont, op. cit., p.9.

"analysis" is in fact misnamed, since it is simply a recording device,

and the processes of encoding and decoding should ideally each be

the obverse of the other. It is slightly incorrect to call the process

"circular" since as a descriptive recording device it is not, of

itself, leading anywhere. Once it is used to generate explanations,

it does of course, if no further information or insight is imported,

become tautological, and this is the substance of their fifth,

unnecessarily tentative, objection.

They state that

"The systems use pre-specified categories. If the category

systems are intended to assist explanation, then the pre-

specification may render the explanations tautological.

That is, category systems may assume the truth of what they

claim to be explaining."[1]

Once again, this objection indicates a problem area, but is itself

confused. The category system must assume the truth of what it

describes to the extent that it describes it, since it can only record

the occurrence or non-occurrence of what it expects to find. As it

stands no such recording procedure can explain anything. Any

explanation is generated either by practical knowledge external to

the interaction analysis which is imported by the researchers at the

decoding or 'findings' end of the process, or by additional information

external to the schedule recorded at the same time as the data by some

other means by the observers, or by assumptions about causal and

correlational factors introduced at the stage of statistical manipulation

of the 'bits' of data. The 'process' findings of the ORACLE study,

on which this critique primarily focuses, result from the first two

of these factors serving as a key to decode the observational data:

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1 ibid., p.9.

the 'product' findings utilise all three additional sources of
information.

    Hamilton and Delamont's final objection is that

    "by placing arbitrary (and little understood) boundaries

    on continuous phenomena, category systems may create an

    initial bias from which it is extremely difficult to

    escape."[1]

This statement is true as it stands, but hardly constitutes an objection
to such observation systems, since some boundaries must necessarily
be placed on phenomena, all of which are in some sense "continuous".
As stated at the beginning of this chapter, all description must be
incomplete and to that extent biased. This particular procedure is
invoked precisely to specify boundaries which are less arbitrary and
idiosyncratic than those thought to result from non-systematic
observation.

    In the rest of their paper, Hamilton and Delamont make reference
to further shortcomings they see in systematic observation, some of
which are dependent on those already examined. Throughout the critique
methodological difficulties which could be overcome are not clearly
distinguished from logical difficulties which can not. When logical
limitations are pointed out, these systems are criticised for failing
to deliver certain goods. It is not made clear whether any other
method of observation could deliver those particular goods, nor whether
this renders the goods that systematic observation <u>can</u> deliver,
worthless. For example, noting that interaction analysis can reveal
that differing teachers have differing profiles (i.e. different overall
characteristic ways of teaching), these critics assert that

    "such an observation technique can never show <u>why</u> teachers

    differ on such measures. Such questions are, by definition,

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1 ibid., p.10.

beyond the scope of the method."[1]
This objection gains its force from the ambiguous meaning of "why",
and reflects an ambiguity in the concept of 'explanation' which runs
through the critique. Interaction analysis systems, as argued above,
are descriptions. A series of descriptive statements can, conjointly,
have a rudimentary explanatory function of the correlational variety,
on which we are accustomed to rely in the absence of causal explanations.
Thus to be told that where there is a lot of X, there is also a lot of
Y, if Y is by concensus undesirable, we have a prima facie case for
trying to reduce the amount of X. True, it is strictly invalid to
assume that X causes Y, for both X and Y may be caused by an unidentified
Z, or simply be necessary accompaniments of an unidentified W which
is caused by Z. However, one of the ways of finding W or Z is to
describe X and Y and their correlation, and manipulate X. We do not
know that smoking causes cancer, still less do we know why it does, if
it does, though we might one day discover how. Nonetheless, given the
correlational factors, if these were established by purely descriptive
demographic surveys, we have a good prima facie reason for smoking less
if we want to avoid cancer. Thus the information, though partial, is
useful. There is no reason to suppose that information produced by
descriptive procedures in educational research cannot provide equally
useful partial answers. Thus the fact that interaction analysis
procedures are necessarily descriptive is not an argument for abandoning
them, nor is the further claim that they are incomplete. What needs
to be asked is whether other methods of observation offer more complete
descriptions, are less liable to distortion, and are more fruitful in
generating correlational hypotheses. It is a further question whether
alternative methods of observation should therefore supercede or
complement systematic systems.

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1 Stubbs and Delamont, op. cit., p.101.

The standard alternative method for finding out "what happens in classrooms" (and that favoured by these two critics) is participant observation, where the observer functions in the classroom as an anthropologist. There is no space in this thesis to give a detailed critique of the strengths and weaknesses of this method, but some of its shortcomings are obvious. One example of the anthropological approach is offered in an article by Delamont in the same collection[1] which refers to a study undertaken in a fee-paying girls' school in Edinburgh, reported more fully by the same writer in an earlier book[2]. This is an account of the teaching styles of four teachers, two of latin and two of science, who were observed in that school using the FIAC schedule, and then observed 'anthropologically' to illuminate the schedule. From the schedule it is evident that these teachers teach differently. It is hypothesised that differences in teaching style will depend upon two variables; who is teaching, and what is taught, since the third variable (those who are being taught) is constant. The reader is then told what the teachers are like in terms of personality, experience and teaching strategies (with information and insights collected non-systematically by qualitative participant procedures), in order to illuminate 'teaching style'. It is difficult to see how this procedure improves on that systematic observation which Delamont charges with being subject to descriptive tautologies. To be sure, with as full as possible a description of teachers A, B, C, D and how they operate, we get a fairly full picture of how those particular teachers operate. What this procedure does not offer as it stands is any possibility for generalisation. It may well be that anthropological studies such as this one are useful in broadening our practical knowledge

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1 Delamont S.,"Beyond Flander's Fields: The Relationship of Subject Matter and Individuality to Classroom Style" in Stubbs and Delamont (eds.), op. cit.

2 Delamont S., Interaction in The Classroom, 1976.

of people in general and of people in schools in particular, and this

in itself is useful since it will be argued below that systematic

'objective' studies are inoperable without such knowledge.

Such 'in depth' studies are only useful in their own right in so

far as it is legitimate to generalise from them, and it is unclear how

such studies alone, however many of them were conducted, would give us

any idea of whether or not we were entitled in any particular case to

make such a generalisation. Moreover the assumptions behind preferring

such individual studies to large scale, survey-type studies often imply

the denial of any possibility of generalisation. Thus in the same

volume, the article by Walker and Adelman[1] lays much stress on the

subcultural meanings of classroom talk. In order to gain understanding

of such meanings, without which it is claimed that we cannot understand

what is going on sufficiently to describe it, we must have access to

the past experience, in-jokes and prejudices of all the participants.

Ideally, this is no doubt true: if we could be both inside and outside

all the participants' heads, we would have a God-like understanding of

their actions. However, it is obviously impossible, and would only be

essential to the extent that each classroom (and each individual) is

unique and hermetic to others. Just as systematic observation assumes

behaviour to relate sterotypically to meaning and intention, so the

ethnographic approach acknowledges no regularity of relation. Solipsism

and relativism, with the consequent logical impossibility of generalisation,

are the inevitable termini of this approach.

Oddly enough, though one of the main objections of qualitative

researchers to the quantitative approach is that this latter, in being

behaviouristic, ignores meaning, the qualitative approach, with its

insistence on not imputing stereotypical meanings to bits of behaviour

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1 Walker R. and Adelman C., "Strawberries" in Stubbs and Delamont (eds.),
   op. cit.

or utterances, can lead to a resolute refusal to exploit practical

knowledge or common sense about shared meanings. The qualitative

researcher tries to go into a classroom, like an anthropologist into

the Amazon, in a state of cultural agnosticism. For educational

researchers this is surely disingenuous or plain stupid. All of us

have been pupils; many of us have been teachers: much time is wasted

refusing to bring to bear on the situation under observation our

experience of relevantly similar situations. Thus Roy Nash reports

his discovery that teachers communicate symbolically with children. We

are told that one teacher "would stand behind her desk with her head

held up and everyone would quieten as soon as they noticed her."[1] He

also reports that "it took six weeks observation to discover"[2] that

another teacher, when she called out children's names, was actually

calling them to order. Far from making the intended point that in depth

observation is needed to reveal 'true' meaning, this seems to suggest

that cultural agnosticism is a time-consuming and expensive way of re-

discovering what is readily accessible to common-sense. We are saddled

with our preconceptions and expectations, and refusal to exploit the

knowledge we have is as misguided as refusal to recognise that it is

provisional and may need to be modified. In the editorial introduction

to the Walker and Adelman article, Stubbs remarks that

> "We simply do not know what range of ways teachers use for
>
> keeping pupils in line: orders, threats, warnings, pleas,
>
> reasonings, explanations - or jokes."[3]

As a general statement, this is clearly nonsense, since Stubbs lists

the contents of the "range" in the same sentence in which he asserts

we do not know it. Certainly we do not know which teachers rely most

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1 Nash R., Classrooms Observed, 1973, p.42.

2 ibid., p.42.

3 Stubbs and Delamont (eds.), op. cit., p.133.

heavily on which strategies, nor what strategies are the most
effective. There is no reason to suppose that answering the first
of these questions would be particularly informative in its own
right. There is even less reason to suppose that the latter is a
sensible question if strategies for control are divorced from teacher
personality, which of course is one of the major factors in determining
which strategy was chosen in the first place.

The qualitative approach is based on the fundamental tenet that
we must not prejudge what we will find in the situation to be observed.
Category systems are rejected because they are the codification of
expectations. Such codification is presumed objectionable because it
involves pre-selection of phenomena. In reading qualitative accounts,
however, one is frequently struck by a selection procedure which is
random, idiosyncratic and therefore not open to inspection by those who
wish to evaluate the description generated. Stubbs, elsewhere in the
same volume[1], advises prospective researchers that a field notebook may
well be preferable to a tape-recorder for collecting teacher-talk,
since the latter is "undiscriminating". No doubt the researcher
discriminates in choosing what to note in his field book, but no-one
else has access to the basis on which he makes his discriminations.

From this very brief indication of some of the problems inherent
in non-systematic observation it is clear that that too is an approach
which is beset by limitations and contradictions, many of which it
shares with systematic approaches, such as the impossibility of being
theory-free, a tendency to circularity, and dependence for intelligibility
on implicit explanatory schemes which are overtly denied. Some of the
difficulties of the qualitative approach are all its own; incapacity
to provide a basis for generalisation, solipsism, inaccessibility of

1 Stubbs M., "Keeping in Touch: Some Functions of Teacher Talk",
   in Stubbs and Delamont (eds.), op. cit.

theoretical framework to other researchers or consumers of research findings. Thus qualitative research does not appear to be a substitute for other approaches, and it is therefore necessary to examine the systematic approach on its own terms.

Before examining in detail the strengths and weaknesses of systematic observation as exemplified by the ORACLE project, two further points must be made. It has already been argued that this approach avoids (at a cost to be examined) some of the problems inherent in the alternative approach to observation, namely the ethnographic. It must also be mentioned that it has obvious advantages over research programmes where observation is minimal or eschewed completely. The ORACLE research leaders correctly point out the fundamental weakness of 'black-box' studies, based upon teachers' self-reports of their practice, when they draw attention to the circularity of such methods.[1] They point out that:

> "Few teachers have the opportunity to see others teach
>
> or are themselves seen teaching by their fellow teachers.
>
> When asked to rate their own performance in comparison to
>
> other teachers they are forced to fall back on what they
>
> were told while training about the theory and practice of
>
> child-centred education, or to base their opinions on what
>
> they read or hear in the media about the alleged 'goings on'
>
> in progressive classrooms. Hence there is a strong
>
> possibility of circularity in statements about current
>
> teaching methods based on teachers' self-reports. The
>
> teachers make their judgements on the basis of what they
>
> read about current practice, and those who write about or
>
> criticise current teaching methods may do so as a result
>
> of these self-same reports."[1]

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1 ORACLE(2), p.13.

It has been argued above that all description necessarily reflects

preconceptions to some degree. Methodological discussion therefore

should not be about whether or not particular approaches exhibit this

'failing', but about the extent to which they can minimise the tendency

by explicitly acknowledging it. 'Black-box' studies are unsatisfactory

for the purposes of establishing "what goes on in classrooms" for they

necessarily describe the situation only in terms of stereotypical

preconceptions.

However, having asserted that observation - of whatever sort - is

essential to exploratory research, some further points must be made

about observation as such in so far as it effects those observed. The

systematic observer aims to be 'a fly on the wall', the participant

observer, as the name implies, does not seek to be invisible. Part

of the rationale behind participant observation is the claim that

one cannot in fact be 'a fly on the wall', making no impact on the

scene observed, therefore it is better to come out into the open. As

so often with qualitative approaches, the situation is more complex

than this disingenuousness would suggest, for the participant observer

must assume that those with whom he participates interact with him as

if he were just like any other participant. However, he is the only

one of the participants who is also observing. For his theoretical

rationale to make sense, he must therefore assume that his observational

role can be discounted in any assessment he makes of his participation.

He is therefore, after all, in a relevantly similar situation to the

systematic observer who has to assume that his presence only affects

the scene under view in prespecified ways for which he has allowed.

The ORACLE schedule for systematic observation is one of the very few

which allows for recording the relative frequency with which pupils

are distracted by the observer. Presumably, if this had occurred with

high frequency, the conclusion would be that an atypical situation -

an artefact of the observer's presence - was being recorded. In the

absence of such occurrence it must therefore be supposed that the
scene is unperturbed by the observer's presence. It is worth con-
sidering this point in more detail, since the type of reasoning
involved is characteristic of that generated by pre-specified category
systems.

One of the first commonsense questions which will undoubtedly
spring to mind in the reader of the ORACLE research reports, is to
what extent the observer is viewing events in the classroom as they
would take place if there were no observer present. Such a reader
will surely be reassured to learn that the schedule allows for recording
when pupils are distracted by the observer, and that scrutiny of the
collected coding schedules reveals that this almost never occurs. The
unsophisticated reader will then assume that the observer is truly
'a fly on the wall' who is not having a perturbing effect on happenings
in the classroom. A more sophisticated reader will look up the
definition of the category "distracted by observer" and note that a
pupil will only be recorded as such if he is "non-involved and totally
distracted from all work by the observer "[1]. Directions for coding
this category in the observers' handbook are that the pupil glances or
stares at the observer, or discusses the observer whilst refraining
from all work. This reader may then reflect that total distraction
must be measured by its presumed outward features; in this case eye-
contact with or overt discussion of the observer, together with
abstention from the presumed outward accompaniments of work (wielding
a brush or pencil, looking at a book). The incidence of distraction
thus defined will be inversely proportional to the complexity of the
task in hand. Where the pupil does not look directly at or explicitly
discuss the observer, we must assume him to be undistracted by her.
If the reader accepts these particular outward signs as probable

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1 Handbook to the Pupil Record, p.31.

accompaniments of the elusive state of being distracted, he will be
satisfied that pupils are rarely influenced by the presence of the
observer.

Alternatively, he may reflect further and put a quite different
gloss on the findings, based on his practical knowledge of people in
general and of children in particular. It is unpleasant to be watched.
It is particularly unpleasant to be watched by someone who is pretending
not to watch you. If you discern that this is happening, the response
you are least likely to make is to challenge the watcher with a stare,
or begin to discuss him in his hearing, particularly if you are a child
in a classroom, and the observer is an adult. The sensible and usual
course of action would be for the pupil to keep his head down, and
pretend nothing untoward was happening - though he might refrain from
punching the boy in the next desk even if provoked. I am not here
suggesting that observers necessarily alter the behaviour of pupils
they are observing; behavioural clues picked up unsystematically by
the observers over periods of one or two years give good reason to
suppose that most of the time most individual pupils are surprisingly
indifferent to the observer's presence. What I am suggesting is that
this conclusion cannot be inferred from the systematically recorded
data, since distraction by being watched is likely to be accompanied
by a dogged attempt to give no behavioural clues to one's awareness.
As the definition of the "distracted by observer" category bears little
relation to the behaviour we associate with children knowing that they
are under observation, the incidence of this category being coded tells
us correspondingly little about the frequency with which pupils were
aware that they were being observed. Moreover, from the assertion
that the individual child under scrutiny is unperturbed by the observer,
we are not entitled to infer that the behaviour of the class as a whole
is similarly unaffected.

Any research programme which quantifies behaviour in order to avoid

being impressionistic and subjective must break down the whole

situation into its constituent parts, and then infer statements about

the whole from an aggregation of statements about the parts. ORACLE

thus assumed that since each pupil whilst being observed shows little

overt reaction (as defined in the appropriate category) to the observer,

that presence therefore had correspondingly minimal, and hence dis-

countable, effect on the class as a whole. In making this inference

two separate and important factors are overlooked. If it is the case

that particular pupils do not overtly behave differently whilst being

observed, this may be because they do not care that they are the

object of the observer's attention. However, it is very much more

likely (given the precautions and skill of experienced observers, and

the limited understanding of research methodology by nine-year-olds)

that each pupil is simply unaware that he is the individual focus of

attention. What the child does know, as a member of the class is that

"the lady from the university" is sitting in the room with a tape

recorder, watching the class. The machine is used in systematic

observation for transmitting signals to the observer, and not for

recording, but that disclosure is greeted with sophisticated scepticism

by children who are no strangers to that type of machine. To what

extent the presence of an observer modified the behaviour of pupils as

members of the class can only be guessed at. Common sense and practical

knowledge of the teaching situation would suggest that the presence of

two adults rather than one has at least a deterrent effect on behaviour

which the pupils perceive as unwelcome to adults.

It is also clear that the extent to which the observer's presence

affects the class, and the manner of this effect, will be dependent on

the teaching style and relationship of the teacher to the pupils. If

the pupils are busy, interested, absorbed in their tasks and well-

controlled, the presence of the observer will have a minimal effect.

If they are bored, restless and on the verge of revolt, they are likely

to be more than averagely aware of the observer, though the presence of an outsider will probably contain the revolt. In practice, observers tend to note that if they are frequent visitors to the class over long periods (1, 2, 3 years) the impact of their presence diminishes, not only on the pupils, but also on the teachers.

This is the second point to be mentioned, and one which the research design overlooks. Given that the behaviour of the pupils is partially dependent upon the behaviour of the teacher, it is pertinent to ask if this is affected by the presence of an observer. There is no corresponding opportunity in the schedule of the teacher's behaviour to indicate if the teacher is distracted by the observer. Indeed, there could not be. It is hard to imagine a research designer supposing that a teacher, distracted by an observer's presence, would stop all work and either stare him in the eye or begin to talk about him in his hearing (though this is precisely what is assumed for pupils). Presumably, the researchers supposed that it would not be necessary to control for teacher perturbation on the grounds that (1) all teachers were volunteers and (2) teachers were not aware that they were being observed. Observers could tell them about the Teacher Record, if asked directly, but at no stage was this information offered to the teachers. Observers often got to know teachers quite well. For example, I observed six classes in the same school and therefore spent six weeks per term for two years in the same staffroom as the teachers of those classes. Under these circumstances observers obtained, quite incidentally, that inside information about the subjects' perceptions of the situation which is the main advantage of participant observation. Experience of schools, teachers and teaching would be sufficient to provide the practical knowledge gained in this way, but 'inside-information' gave opportunities to verify it. Such knowledge has serious implications for the presumption that teacher behaviour is unaffected by observation on the grounds (1) that they are volunteers,

and (2) that they do not know they are being observed.

On the second point, teachers could be divided into those who asked directly if they were being watched (the minority) and those who did not. Little can be inferred about the effect on behaviour of explicit confirmation that they were under scrutiny, since those who asked fell into two distinct groups. One group consisted of those who were clearly unsure of themselves and uneasy about the observation, and consequently wished to protect themselves from scrutiny. The other group consisted of extremely assured teachers, quite unperturbed by taking part in the project, who were genuinely interested in the research methodology. They saw themselves as participants in, rather than as victims of, the research programme. The larger group - of teachers who did not enquire - tended to fall between these two extremes of insecurity and assurance. Inside information revealed that some did not ask because they assumed they were also research subjects but preferred not to know precisely in what way, either to ensure their own peace of mind or to preserve the validity of the research. Others concluded that the question was strictly irrelevant. Since their classes were being studied, they were also being measured, whether directly or indirectly via the behaviour and performance of their pupils.

On the first point, what can we reasonably infer from the fact that all the teachers who took part were 'volunteers'? Certainly not that they had heard of the project and autonomously evinced a desire to take part. They were volunteers in the rather uninformative sense that they were taking part in the project because they had not refused to do so. When 'volunteers' are those who come forward, though their positive motivations may have differing backgrounds, we may infer general willingness or enthusiasm for whatever reason. We must also conclude that the volunteers are self-selected and to that extent atypical. When 'volunteers' are simply those who do not refuse when asked, the situation is rather different. The sample is likely to be

less atypical than in the case of true volunteers, but nonetheless
it will be distorted from the overall population in specific ways.
As an experienced teacher I could have guessed at the nature of this
distortion: with the insight gained from talk in the relevant staff
rooms, it can be confirmed. In the case of young and inexperienced
teachers, the sample tends to be relatively undistorted. A young and
inexperienced teacher, when asked by her headteacher to take part in
such a programme, is likely to be unwilling to expose her insecurity
by expressing a strong disinclination to take part, and in no position
to manipulate the timetable in order to teach for that year a class not
required for the observation. In the case of older teachers, well-
established in the school, the situation is very different. Not only
are they able to object to participating, since their objection is
easily interpreted as an objection to interference and 'new-fangled
nonsense' rather than as an expression of insecurity, but also head-
teachers know which of their older teachers are particularly ineffective,
and are most unlikely to expose them to researchers. The result of this
covert selection is that the younger teachers observed represent a cross
section of the enthusiastic, the indifferent and the extremely reluctant,
whereas the older teachers included are much nearer to being
'volunteers' in the true sense. Should the research reveal that teacher
age and experience were positively correlated with pupil performance,
we would not know to what extent such a result was an artefact of the
research design.

These remarks are therefore not merely incidental anecdotal
information, but have serious bearing on the research findings. It
is reasonable to assume that the presence of an observer in the class-
room affects the behaviour of teachers. It is further reasonable to
suppose that some teachers will find this presence more disturbing
than others and will modify their behaviour more strongly in accordance
with it. It would seem that the more confident the teacher, the less

he will feel constrained by the presence of an observer to modify his

usual practice. Finally it is plausible to suggest that the more

confident teachers are those who are taking part willingly in the

programme. The above blend of common sense and inside information

about the selection and self-selection of teacher-subjects has a

bearing on two of the research findings in particular. With these

remarks about the teacher-sample in mind, it cannot be inferred from

the finding that older, male teachers engaged in more critical control

during the observation, that this is necessarily the case generally.

It might equally well be that more confident (self-selected) teachers

had fewer inhibitions about exhibiting in front of observers one type

of disagreeable but necessary interaction with pupils. On the same

topic, researchers note with surprise that teachers' interactions for

critical control are invariably brief: they express surprise that

classes are never "given a good talking to", that teachers never "have

it out" with the class. It seems strange to infer from the fact that

this type of control is not observed, that it therefore does not take

place. Any parent is familiar with the uncharacteristically brief

control exchanges which are dictated by the presence of outsiders. Any

"good talking to" takes place when the guests have left, as indeed do

occasions for praise and appreciation which are more than perfunctory.

At a more global level these same remarks about teacher-sampling

and observation distortion are particularly important. The research

must assume that teaching styles exhibited by teachers whilst they are

being observed are representative of their usual style. Again this

assumption is unlikely to be uniformly true for all teachers, if it

is accepted that some groups of teachers will be more disturbed by

the observation than others. One of the most puzzling findings of the

ORACLE programme is that though the group of teachers dubbed "class

enquirers" (mostly male and over forty) and the group of teachers called

"individual monitors" (mostly female and under thirty) have diametrically

opposed styles, their results are in some areas surprisingly similar.[1]

The individual monitors are characteristically seated at their

desks marking children's work in the child's presence, whilst the

other children work individually in their places. The class

enquirers characteristically engage in series of whole class inter-

actions (lessons). It is suggested (since these groups are dis-

tinguished by both style and age) that they adopted these differing

styles due to the influences of fashions in teacher training.

There is an alternative explanation which would explain how

diametrically opposed styles sometimes have similar outcomes. This

explanation cannot be inferred from the observational data alone,

but becomes a possible alternative when the data is viewed in the

light of practical knowledge about teaching and inside information

about the teacher sample. A class-teacher cannot engage in whole-class

instruction all the time. Not only would he or she collapse with

exhaustion and/or laryngitis, but the pupils would have no opportunity

to exercise the skills into which the teacher initiated them during

class teaching sessions, Conversely, an "individual monitor" cannot

monitor and mark <u>all</u> the time, for unless she engages in teaching,

there will be nothing to mark or monitor. Classes of children do not

learn to do long-division by completing work-cards on simple division,

nor do they line up with letters to Grandma for the teacher to mark

unless they have been taught letter-writing conventions and sufficient

spelling and punctuation to make the letter intelligible. Scrutiny of

the work which individual monitors have spent the day marking and

monitoring often reveals that it is based on previous class teaching.

It <u>may</u> therefore be the case that these two styles, instead of being

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1 ORACLE (2), p.35.

diametrically opposed, are instances of the same (fairly traditional) style practised by insecure and inexperienced teachers (individual monitors) and confident and experienced teachers (class enquirers). The former happen to spend those days when the observer is present in marking and consolidating work by letting children exercise their skills individually, and consequently ensuring a low-profile for themselves. The latter choose to give 'demonstration lessons' to provide the observer with what they perceive as a more interesting situation. Thus differences in outcome may be due, not to outward differences in style, but simply to qualitative differences in the relative confidence and expertise with which the style is practised.

What I have argued above is that in inferring from what we observe, whether this observation is systematic or participant, we should not discount common sense, or everyday understanding of relevant situations. We may gather understanding of the subjects' behaviour (essential in building up an explanatory picture) either simply by the psychological knowledge we have from being a person and dealing with others, or from our knowledge as educators of that particular social situation, or from inside information gleaned by whatever means from the subjects themselves. I am not suggesting that all this together is a substitute for systematic enquiry: I am suggesting that such enquiry will be incomplete and distorted without it. In any inferences from observation it should always be borne in mind that

> "When the observers are present and physically approachable
>
> the concept of the observer as non-participant though
>
> sociologically correct is psychologically misleading."[1]

This lengthy but essential examination has drawn attention to the fact that what is taking place when a situation is observed may not be truly representative of what takes place under similar conditions, but

1. Gussow Z., "The observer-observed Relationship as Information about Structures in Small Group Research" in Psychiatry 27, 1964, p.240.

when the observer is absent. An understanding of that fact is
essential to the conduct of a process/product study, since the
product may well be the result of a process only part of which has
been captured by the observation.

Thus, if we wish to avoid "mythology" in assessing social
situations such as the behaviour of pupils and teachers in classrooms,
we must obviously go and observe what really does happen. If, however,
we assume that this is analogous to investigating what happens to
molecules in a test-tube, any findings will be vitiated by our failure
to take full account of the fact that when rational beings are the
objects of observation, their behaviour and purposes will necessarily
be coloured to some degree by awareness of that fact.

CHAPTER   ELEVEN

THE   O.R.A.C.L.E. PROJECT

II: TIME-SAMPLING   AND   TAXONOMIES

Having argued that observation as such cannot be considered

unproblematic, and that differing approaches to observation

(participant or systematic) are fraught with problems of both a

logical and a methodological kind, it remains to examine the con-

sequences of such problems for empirical research in education.

The best way of doing so is to look closely at a particular

observation procedure; the ORACLE observation procedures and

taxonomies represent a sophisticated attempt to observe behaviour

'scientifically' by time-sampling activity which is then encoded

according to a pre-specified taxonomy. The examination of a particular

taxonomy serves to highlight the problems inherent in such an exercise.

Thus the two observation instruments employed by ORACLE must be

introduced, before examining their use.

The researchers report that:

"To obtain detailed information about teacher and pupil

behaviour two separate observation instruments are required.

Those used in this study were both developed during earlier

funded projects on primary education at Leicester (Boydell,

1974b, 1975). The main categories of the two observation

schedules are set out in Tables 1.1 and 1.2. respectively.

The Pupil Record, initially modelled on PROSE (Personal

Record of School Experience: Medley et al., 1973) though

since modified, was used to examine the nature and frequency

of children's classroom activities when working alone and

interacting with adults and with other pupils. One pupil at

a time is the focus of observation and to distinguish him

from the rest of the class he is described as the 'target

pupil'. The activity and location of the teacher during

the period of observation is also noted. In addition,

details of curricular area, the size and sex composition

of the target's base group, together with the time of

day at which the observation took place is also recorded."[1]

Since the categories of the two observation schedules are basic to the

data collected and to any findings generated from that data, the

abbreviated definitions of coding items which are reproduced in the

ORACLE research volume <u>Inside the Primary Classroom</u> in tables 1.1 and

1.2.[2] are presented on the pages which follow. When individual

categories are discussed below, this abbreviated table of definitions

will be supplemented where necessary by reference to the full

definitions and instructions for their application which are to be

found in the two Observers' Manuals to the Pupil and Teacher Records

respectively.

1 ORACLE(1), p.11.

2 ibid., pp. 12,13,17.

Table 1.1   The observation categories of the Pupil Record

Coding the pupil-adult categories

Category	Item	Brief definition of item
1 Target's role	INIT	Target attempts to become focus of attention (not focus at previous signal)
	STAR	Target is focus of attention
	PART	Target in audience (no child is focus)
	LSWT	Target in audience (another child is focus)
2. Interacting adult	TCHR	Target interacts with teacher
	OBSR	Target interacts with observer
	OTHER	Target interacts with any other adult such as the head or secretary
3 Adult's interaction	TK WK	Adult interacts about task work (task content or supervision)
	ROUTINE	Adult interacts about routine matter (classroom management and control)
	POS	Adult reacts positively to task work (praises)
	NEG	Adult reacts negatively to behaviour, etc. (criticizes)
	IGN	Adult ignores attempted initiation
4 Adult's communication setting	IND ATT	Adult gives private individual attention to target pupil
	GROUP	Adult gives private attention to target's group
	CLASS	Adult interacts with whole class
	OTHER	Adult gives private attention to another child or group or does not interact

Coding the pupil-pupil categories

Category	Item	Brief definition of item
5 Target's role	BGNS	Target successfully begins a new contract
	COOP	Target co-operates by responding to an initiation
	TRIES	Target unsuccessfully tries to initiate
	IGN	Target ignores attempted initiation
	SUST	Target sustains interaction
6 Mode of interaction	MTL	Non-verbal, mediated solely by materials
	CNTC	Non-verbal, mediated by physical contact or gesture (with or without materials)
	VRB	Verbal (with or without materials, physical contact or gesture)
7a Task of other pupil(s)	STK	Same as target's task
	DTK	Different to target's task

Category	Item	Brief definition of item
7b <u>Sex and number</u> <u>of other pupil(s)</u>	SS	Target interacts privately with one pupil of same sex
	OS	Target interacts privately with one pupil of opposite sex
	SEV SS	Target interacts publicly with two or more pupils having same sex as target
	SEV OS	Target interacts publicly with two or more pupils, of whom one at least is of the opposite sex to the target
7c <u>Base of</u> <u>other pupil(s)</u>	OWN BS	From target's own base
	OTH BS	From another base

<u>Coding the activity and location categories</u>

8 <u>Target's</u> <u>activity</u>	COOP TK	Fully involved and co-operating on approved task work (e.g. reading)
	COOP R	Fully involved and co-operating on approved routine work (e.g. sharpening a pencil)
	DSTR	Non-involved and totally distracted from all work
	DSTR OBSR	Non-involved and totally distracted from all work by the observer
	DSRP	Non-involved and aggressively disrupting work of other pupil(s)
	HPLY	Non-involved and engaging in horseplay with other pupil(s)
	WAIT TCHR	Waiting to interact with the teacher
	CODS	Partially co-operating and partially distracted from approved work
	INT TCHR	Interested in teacher's activity or private interaction with other pupil(s)
	INT PUP	Interested in the work of other pupil(s)
	WOA	Working on an alternative activity which is not approved work
	RIS	Not coded because the target is responding to internal stimuli
	NOT OBS	Not coded because the target is not observed for some reason
	NOT LIST	Not coded because the target's activity is not listed
9 <u>Target's</u> <u>location</u>	P IN	Target in base
	P OUT	Target out of base but not mobile
	P MOB	Target out of base and mobile
	P OUT RM	Target out of room
10 <u>Teacher activity</u> <u>and location</u>	T PRES	Teacher present with target through interaction or physical proximity
	T ELSE	Teacher privately interacting elsewhere with other pupil(s) or visitor
	T MNTR	Teacher not interacting but monitoring classroom activities
	T HSKP	Teacher not interacting but housekeeping
	T OUT RM	Teacher out of room

Table 1.1   The Observation Categories of the Teacher Record

Conversation

Questions

Task
Q1   recalling facts
Q2   offering ideas, solutions (closed)
Q3   offering ideas, solutions (open)
Task Supervision
Q4   referring to task supervision
Routine
Q5   referring to routine matter

Statements

Task
S1   of facts
S2   of ideas, problems
Task Supervision
S3   telling child what to do
S4   praising work or effort
S5   feedback on work or effort
Routine
S6   providing information, directions
S7   providing feedback
S8   of critical control
S9   of small talk

Silence

Silent Interaction

Gesturing
Showing
Marking
Waiting
Story
Reading
Not observed
Not coded

No Interaction

Adult interaction
Visiting pupil
Not interacting
Out of room

Audience

Composition

Activity

The ORACLE observers thus monitored in each classroom the activities
of eight randomly preselected pupils and of the teacher, focusing on the

teacher for approximately twenty minutes and each pupil for

approximately five minutes per hour, by coding on the specially

prepared individual record sheet precisely what the pupil or teacher

under observation was doing at the exact time of a pre-recorded time

signal which was fed into the observer's ear every twenty-five

seconds from a portable cassette tape recorder. The length of time

the observer should focus on an individual was thus determined in

advance, which individual should be the focus at any given time was a

function of a predetermined arbitrary order, and what should be

recorded at each time signal was a function therefore, not of the

observer's personal idiosyncracies, but of the mutually discrete

categories on the prepared coding sheet. The first pertinent question

is whether such a procedure overcomes the problem of observer-

subjectivity, and if so at what cost?

In one sense, the 'facts' or data that the observer collects in

this way are free of subjective bias, but it is a further question

whether they are therefore uncoloured by assumptions and presuppositions.

To the extent to which a time-sampling observer is properly trained

in the use of a coding instrument, and following the rules for its use

in good faith, his personal idiosyncracies will not be reflected in the

raw data of the research. Provided that the instructions for coding

happenings and observable behaviour on the coding instrument are under-

stood and followed, observer agreement on situations which are similar

in relevant respects is axiomatic. The definition of what these

relevant respects are to be, however, is co-extensive with the discrete

categories which represent the only code in which the observer can

report what he sees. Since these categories are dependent upon the

priorities, assumptions and interests of the research designers,

the facts collected by systematic observation are as much personal

constructs as any other 'facts' that people 'observe'. Though this

method of observation overcomes many of the problems associated with

subjective accounts, it does not provide us with data uncoloured

by assumptions. Since what we observe is a function of what we look

for and at, in such a situation observations are not coloured by the

differing observers' personalities, for the observers are not really

observing at all. They are simply acting as the eyes and ears of the

research designers, and therefore the assumptions implicit in the data

collected will be those of the research designers, as reflected in the

construction of the coding instruments and instructions for their use.

The first and major advantage of data collected in this way is

that an event recorded at place A and time X by observer M is strictly

comparable with an event recorded at place B and time Y by observer N,

since all such events will be judged according to criteria laid down

by research designer R at a time and place unrelated to any specific

event. We therefore have comparability in data reportage uninfluenced

by differing personalities or by the changes in criteria and mood

which would inevitably colour the reportage of a single individual over

a period of time. Thus random time-sampling techniques ensure standard

criteria in observation, the lack of which standard criteria is the

primary methodological weakness of subjective accounts. But the more

fundamental problem of subjectivity, namely that we can only see in

any given situation a combination of the possibilities of which we are

aware, is as much a central feature of this type of procedure as it

is of more obviously idiosyncratic reportage.

Describing a situation, whether in words or in the code of a

series of ticks in category boxes, is a matter of deciding what are

relevant respects for judging that situation. Just as a description

in words will depend on the possibilities of which the writer is

aware, so a coded description in ticks will be a function of what

categories exist, and of what the rules are for picking out certain

ones to the exclusion of others. Thus some coding instruments will have

more explanatory power than others, just as some languages are more

capable than others of reflecting fine conceptual discriminations.

In time-sampling the observer's task is not to make his own dis-

criminations, but to reflect faithfully on the coding schedule the

discriminations previously made by the research designers. But by

definition, a pre-arranged coding schedule can pick up in the class-

room only those activities which it is expecting to find, and can

record them as exhibiting only those characteristics which are built

in to their definition. No refinement in the recording instrument

can overcome this fundamental problem, since all one could say about

an event not catered for in the definition of categories, is that it is

anomalous - its characteristics, though not its occurrence, go un-

recorded.

It might be countered that if a significant number of events fell

into this 'unrecorded anomaly' category, researchers would know that

something was going wrong, and amend the research design. Aside from

the methodological problem that if the design were changed in the

course of research, comparability with previously collected data would

be lost, there is a more fundamental reason why this state of affairs

cannot in fact occur. An observer would only ascribe large numbers of

events to the "unrecorded" category if he ceased to abide by the rules

of the game, since a set of discrete categories which aims to cover

all significant eventualities must define those categories in terms of

each other. Thus if the coding schedule allows fourteen possible

ways, A - N, of describing the pupils' activity, category B will be

partially defined as neither A nor (C - N) ing, category L as neither

(M - N) nor (A - K) ing, and so on.

Thus the establishment of standard criteria for judging and

reporting events, which characterizes low-inference observational pro-

cedures involving time-sampling, ensures strict comparability over a

large sample of observations and to that extent overcomes one of the

primary problems of subjectivity in reportage. Though researchers in

the field are aware that comparability is thus achieved only through

shared agreements between research designers and classroom observers,

not all researchers seem aware that these agreements reflect the

subjectivity of the research designers, and are not necessarily an

objective reflection of the world. Thus P. Croll, one of the ORACLE

team, is fully aware of the cost at which shared agreements are bought,

and of the advantages thus conferred:

> "High inter-observer reliability does not mean that a schedule
>
> gives a fully objective description of the pupils or class-
>
> rooms being studied since, like any description, it inevitably
>
> involves selection from the infinity of observations which
>
> could be made. However in establishing high levels of
>
> reliability the investigator ensures that his own criteria
>
> for selection and categorization are shared by the other
>
> observers and this removes one aspect of the subjectivity
>
> inherent in an individual's perception of events. Unlike
>
> descriptions which are not based on reliable schedules the
>
> basis for the response is fully explicit. Consequently
>
> anyone reading the description knows exactly how it was
>
> arrived at."[1]

Another of the team, in reporting on observer training, seems con-

siderably less clear on this issue. Remarking that easy examples are

needed to introduce observers to the use of the instrument, she asserts

that:

> "If this does not happen then uncertainty is created about
>
> the validity and reliability of the observation schedules
>
> in use. First, an observer may justify failure by refusing
>
> to accept that the observation system focuses on relevant

---

1 Croll P., "Data Presentation Analysis and Statistical Methods"
   in ORACLE(1), p.172.

aspects of classroom events. Second, an observer, on

finding that this view is not shared by successful observers,

may lose all confidence in her ability to operate the

schedule successfully.

Once confidence has been gained, the underlying

assumptions of the observation system may be examined more

closely. The observers, being confident of the reliability

of their coding, now discuss problems of validity more

openly."[1]

It seems here to be assumed that questions of reliability and validity

are correlated, whereas in any taxonomic system they are likely to be

inversely proportional, since the fewer the categories, the lower the

validity in encoding complex phenomena, but the greater the chance

that observers will agree on codings. Moreover, any discussion of

validity by observers is quite beside the point, once they have agreed

to operate the shared conventions, unless of course the research

designers utilize the practical knowledge of the observers to amend the

research design and produce modified conventions to which all will

then be asked to submit. What is essential to the evaluation of this

procedure is that at all points the layman must be reminded that data

collected in this way can be meaningful only in terms of these

articulated agreements. It must not be assumed that when individual

subjective impressions are not allowed to colour the data, 'the facts

speak for themselves' somehow, for what is to <u>count</u> as a relevant fact

is predetermined. One cannot express in a language any concepts for

whose utterance that language does not allow: a pre-arranged coding

schedule is a very precise language, whose precision is bought at the

expense of its vocabulary. A minute vocabulary, precisely defined,

---

1   Jasman A., "Training Observers in the Use of Systematic Observation
    Techniques" in ORACLE(1), p.167.

allows maximum mutual understanding, but only within the close limits of articulated shared agreements.

In a technical sense of course, these are problems inherent in any taxonomic exercise; that we call dolphins mammals and not fish is a function of a taxonomy which uses methods of reproduction, not habitat, as its defining characteristic. 'Looking at the facts' does not reveal that dolphins have a similarity to cats which obviously over-rides their differing similarities to tunny fish. We simply agree in this case on the convention by which we choose to group living creatures. Debate over the taxonomy would only be debate over its descriptive convenience, since it is established only for purposes of description. The same is not true of a taxonomy developed for the purposes of educational research. In setting up categories to identify the activities of children in classrooms we are concerned with observable behaviours some of which are assumed to be representative also of mental activity, and this apparently descriptive exercise has strong normative implications. For purposes of simple description we could define "working", "wasting time", "disrupting" etc. in a particular way, and simply refer enquirers to the original definition to ensure that they did not draw false inferences from the data. But educational research is not produced to enlighten educational researchers in the way that biological taxonomies are established for the convenience of biologists. It is undertaken to provide evidential backing for the formation and implementation of practical policies by teachers, administrators and politicians. Unless the shared subjectivity of researchers, which defines and ascribes behaviour to the category "working" exactly mirrors the general consensus of what counts in a pupil as 'working', misunderstanding can only result from reportage culled from the agreed taxonomy about how much pupils 'work' in particular types of situation. As Fisher notes in discussing research into intelligence,

"There is a crucial difference between taking over from
everyday thought a concept like force or mass for use in
physical theory, and taking over a concept like intelligence.
For the everyday concept of intelligence has quite direct
moral, political, even ideological implications and, if a
more exact but rather distantly related concept is substituted
for it, which lacks these or has quite different implications,
grave practical errors are likely through failure to notice
or appreciate the differences."[1]

The relationship of operational definitions of normative terms to
ordinary usage is taken up and discussed by Wilson in _Philosophy and
Educational Research._[2] As completely shared agreement on what counts
as 'working' is not to be had in everyday terms, and since the
operational definition of "working" on the coding schedule is therefore
not a reflection of understandings shared outside the research team,
extreme caution and precision is called for in the presentation of
research findings. Comments on 'how much' children'work' must be
accompanied by reminders of what activities are being referred to as
'work' in that particular context. Exactitude can be bought only at
the price of a certain amount of pedantry; there is a point beyond
which accessibility of findings leads to distortion and misunderstanding.
If we want scientific precision in educational research, we cannot
expect it to be presented without those qualifying clauses which
characterise accurate reportage.

There is no space in this thesis to examine all the taxonomic
categories on the coding schedules in detail, and scrutiny will there-
fore be confined to those categories on each schedule which turn out

---

1 Fisher M., "Intelligence" in _Proceedings of the Philosophy of
Education Society of Great Britain_, Vol. 1, 19 66, p.49.

2 Wilson, op. cit. (1972), p.33.

to be central to the findings of the research programme. Perhaps the

most important section on the Pupil Record is Section 8, coded first

on each time signal by the observer, and indicating the target pupil's

activity at the time of the signal. It seems particularly relevant

to examine this section closely, since the research team are clearly

very pleased with the profile of pupil activity obtained, which they

see as ammunition for the defence against anti-progressivist accusations

by Black Paperites and the media:

> "Generally, then, the conclusion is that a 75 per cent level
>
> of work activity or 'involvement' is maintained by the
>
> 'typical' pupil in the study. Even adult workers seldom
>
> concentrate on their tasks for 100 per cent of the time
>
> since some time is needed for rest or recuperation. A 75
>
> per cent level on average is, therefore, generally high.
>
> This evidence, objectively obtained by systematic observation,
>
> runs directly counter to much of the current folklore about
>
> the implications of modern methods in the primary school."[1]

In view of the fact that the team are delighted to draw repeated

attention to their claim that:

> "One of the most striking findings of the observational study,
>
> particularly in view of the folklore about time wasting and
>
> libertarian procedures in primary schools, was the high level
>
> of pupil 'involvement' in their tasks during lesson sessions."[2],

it is highly pertinent to examine what sort of "involvement" this is.

Following this enthusiastic opening, the reporters break down the

75 per cent level of "work activity" into its taxonomic components,

e.g. 12 per cent on routine activity (sharpening pencils etc.), 4.3 per

cent waiting for the teacher etc. The central statistic here is that

---

1 ORACLE(2), p.26.

2 ibid., p.26.

"it was found that, for well over half the time (58 per cent),

the 'typical' pupil was 'fully involved and co-operating on

the task'; that is, <u>concentrating on the work in hand</u>."[1]

(my italics).

<u>Is the category COOP TK equivalent to "concentrating on the work in</u>

<u>hand"?</u> Since concentration is a mentalistic concept, it is hard to

see how this can be observed. It must therefore be inferred from what

the research designers take to be the sterotypical observable con-

comitants of the private state of concentration which is not itself

directly accessible. In this instance it is worth reproducing the full

definition with instructions for coding this category as presented in

the observers' manual to the Pupil Record.

"   <u>Target is fully involved</u>

> COOP TK   The target pupil is <u>cooperating on his task work</u>. The
> task work may be in any area(s) of the curriculum and
> may be theoretical or practical, or presentation of work.
>
> > (1) Alone: The target is reading, writing, drawing, painting,
> > modelling, solving problems and so on.
> > e.g. The target is engrossed in a practical measuring
> > problem.
> >
> > (2) P-P: The target initiates or participates in any
> > conversation (or silent interaction) about his task
> > in a playful, neutral or aggressive way. Alter-
> > natively he ignores an initiation and remains task-
> > oriented.
> > e.g. The target and his partner argue about the
> >   best way to assemble apparatus for their joint
> >   experiment.
> >
> > (3) P-A: The target initiates, contributes or fully
> > attends to any conversation (or silent interaction)
> > about his task. (TK WK or POS coded in 3).
> > e.g. The target listens as the teacher shows his
> >   group how to start the next experiment."[2]

Thus, in situation (1) the pupil is assumed to be "concentrating on the

work in hand" if he is simply doing his painting, writing etc., with

<u>whatever</u> degree of involvement (since the observer has no access to this).

---

1 ibid., p.26.

2 <u>Observers' Manual</u> for Pupil Record, p.30.

In situation (2) the pupil is assumed to be concentrating if he talks

or attempts to talk to another pupil about the task, whatever the

nature of his utterance. Provided he does not cease to write, paint,

etc., he must be coded as COOP TK whether he is saying "How do you

spell 'eponymous'?" or "What a fatuous waste of time this exercise is."

In situation (3) he is deemed to be concentrating if he "fully attends"

to teacher-talk about his task. This is somewhat circular, since the

observer can no more decide whether he is"fully attending" than he can

deduce whether he is "concentrating". Full attention is simply inferred

from the absence of any other categorisable activity and from failure

to stare blankly into space (RIS). Clearly a vast range of differing

behaviours would be coded as "co-operating on task". Some of these

are behaviours which would generally be regarded (rightly or wrongly)

as likely external accompaniments of concentration, others would be

thought to offer no evidence either way, and some would normally be

regarded as evidence of distraction. Nagel notes the danger of

operationalising everyday terms in empirical social study with the

result that:

> "the terms employed in empirical social research frequently
>
> possess an indeterminate connotation; they codify less
>
> refined or detailed distinctions than do the terms occurring
>
> in the laws of the natural sciences; and the items subsumed
>
> under them are in consequence usually far less homogeneous
>
> in pertinent respects than are these latter terms."[1],

and many critics, both philosophers and proponents of qualitative

research, have noted that just enough of the everyday meaning is retained

in the operational definition to mislead in reportage of research

findings, particularly if researchers themselves forget (or overlook)

the restricted bases of their own shared agreements.

---

1 Nagel, op. cit. (1961), p.506.

Presentation of findings is a methodological problem, and as such is capable of solution, but it points the way to a further logical problem which cannot be resolved by refinements within the methodology. What counts as 'working' or 'wasting time' is a qualitative judgement about an activity which takes place purposively over a period of time: time-sampling is a quantitative procedure which categorises what is actually happening at an instant in time. Any strictly monitored version of my activity as I write this thesis would necessarily distort events if only my observable actions were taken into account. At any given moment I may be making coffee, lighting a cigarette or gazing out of the window - nonetheless I have been working all day, for there is more to writing this thesis than wielding a pen. In the same way, a child who is doodling whilst the teacher is talking may well be attending to her words more closely than another child who is gazing in her direction, hands folded. There is no way, by observation, that the child's degree of attention can be assessed or recorded, since an observer who allowed inferences about the child's supposed mental activity to override prior definitions of its observable features, would be departing from the agreed criteria, and negating the methodological advantages of the code.

This is a serious problem at the fundamental stage of data collection; further logical problems become apparent when we manipulate the data to generate research findings. Activities take place over time; time-sampling records what is taking place at a given instant. At a theoretical level this procedure assumes that the whole is merely the sum of its parts, irrespective of how these parts are arranged to make up the whole. In practice the assumption is that inherently qualitative behaviour can be accurately reflected by the aggregation of a series of discrete quantitative measurements. Given the difficulty already alluded to that 'behaviour' is necessarily characterised by intention in so far as it is an action not a happening, it must be

inferred to have many components, some of which are not observable

and therefore not even candidates for quantification. Thus a

characterisation of the whole of behaviour in terms of its observable

parts is incomplete in principle. Incompleteness in descriptions of

observed behaviour is an inescapable feature of any method of

observation, and limits the validity of inferences drawn from such

descriptions. However, observation by random time-sampling also

further distorts this already incomplete description, in two specific

ways.

One of the findings of the ORACLE project which may surprise

teachers until they are familiarised with the research design, is the

very small proportion of time which children spend "partially working

and partially distracted". This finding is a function of the time-

sampling procedure. Though the coding schedule allows for such behaviour,

having a category defined precisely thus, observers must judge at the

instant of any given time-signal whether a child is working, distracted

from work, or "partially working and partially distracted". Unless

the child is doing two observable things simultaneously at that instant,

say working out a sum on paper and talking about a football result, he

will not be classified as partially engaged on his work. If, at the

instant of the time-signal, he is writing a figure and not speaking,

he is seen to be working; if he is saying "Arsenal two ... " and not

writing, he is seen to be distracted. It will be argued that when the

whole interaction is coded over a period of five minutes, this problem

resolves itself, since the child who is alternately working and

alternately distracted from work can be interpreted as working

desultorily over the whole period. In an aggregated conclusion, however,

there is no way in which five minutes of desultory engagement can be

contra-distinguished from 2.5 minutes of conversation, and 2.5 minutes

of uninterrupted work.

Fragmentation and subsequent aggregation of observable behaviour

simply does not offer the overall description of actions which

appears to emerge, and a thorough understanding of the implications

of time-sampling is essential to interpret correctly the finding that

for three-fifths of all observation time the "typical" pupil is task-

oriented, just as an understanding of averaging procedure is essential

to interpret the statement that in the year X the average life

expectancy was forty years. With no understanding of averaging, the

layman might well assume that in the year X most people died around

the age of forty; with no understanding of how aggregation distorts

events located over a period of time, the layman might assume that

pupils typically worked for three-fifths of their time in the classroom,

and were otherwise engaged for two-fifths. The facts in both cases are

much more complex than the conclusions indicate. If a pupil is observed

every twenty-five seconds, and is alternately looking at his work

without speaking, or fighting over a ruler with his neighbour, he will

appear on aggregate to be working for half the time, though he is

probably not 'getting on with his work', in terms that a layman under-

stands, at all. Moreover, the amount of time perceived to be task-

oriented will rise in inverse proportion to the complexity of the task.

A child discussing the football results whilst putting a colour-wash on

a wall poster, if he continues to wield the brush, is task-oriented;

a child discussing the football results whilst working out a sum is

distracted from his task. Thus a statement about how much of a child's

time is task-oriented may reflect either on the child's own activity,

or on the nature of the task itself. In the raw data, where the nature

of the task is recorded, this is allowed for: in genralisations to

children's activity as a whole, the distinction is lost.

Whilst aggregation is necessarily distorting when we are concerned

with the private activity of individuals (the "co-operating on task"

category), where behaviour likely to affect the whole class is concerned,

it is informative to aggregate the behaviour of individuals. The prime

candidate for this would appear to be the "horseplay" category, coded
when the pupil is engaged in playful rough and tumble activity with
another pupil. This is the sort of behaviour the layman might con-
sider significant and relevant to the atmosphere of the whole class.
The research team do not aggregate this category however, and conclude,
with pleased surprise, that its incidence is extremely rare, since only
0.3 per cent of interactions code horseplay. However, that figure
could be manipulated to convey a quite different impression. If
0.3 per cent of interactions code "horseplay", that is equivalent to
one in three hundred minutes of class time per pupil. On a four hour
teaching day that is equivalent to 0.8 incidents per day per pupil. If
there are thirty pupils in the class this yeilds twenty-four incidents
of rough and tumble per day, or six per lesson period. There are
indeed 'lies, damned lies and statistics'. I am of course not suggesting
that the figures are deliberately manipulated to yield favourable results,
but I do maintain that fragmentation for the purposes of encoding,
and aggregation for the purpose of making the mass of data thus
generated intelligible, is by no means analogous to the simple procedure
of removing the water from potatoes to produce instant mash, and later
rehydrating to reconstitute the original.

The problems of fragmentation become acute when conversation is
the focus of enquiry, since conversation involves more than active
speech and obvious listening. The findings of this project show
children to spend one-fifth of their classroom time talking, and the
surprising smallness of this finding partially depends upon the time-
sampling observation procedure, and partially upon the statistical use
made of the raw data. Monitored over a five minute period, a child
in a group of four children may only be actually speaking, or
listening with all other activity suspended, for two out of the possible
ten time signals. But a desultory conversation between the four
children, during which work is repeatedly glanced back to, may well be

taking place throughout the period. The other time signals will probably be coded as routine or task-oriented since categories, as previously stated, are necessarily defined in terms of each other.

When a series of many such interactions are aggregated to give a picture of the typical child, the opportunities for misunderstanding are multiplied. An everyday example may serve to illuminate this. Suppose that after time sampling the conversational habits of my family, it is suggested that the typical family member is engaged in conversation for two-fifths of his time. This tells me very little about the conversational habits of the family unless many other variables are at my disposal. I need first to know how many of us there 'typically' are. If there are two of us, it is relatively simple: each of us spends all of his time actively or passively in conversation. If there are five of us, the situation is more complex: do we all converse two-fifths of the time, or does the 'typical' member engage one or several of us simultaneously for this period, or two of us separately for one-fifth of each of our time, or even four of us individually for one-tenth? Aside from this variable, which can be specified and accounted for in the initial data, but which is lost in generalisation, how is the conversation distributed, not between individuals, but through time? Is there a qualitative difference between a five hour period characterised by pauses when no-one is obviously speaking or listening to speech, and the same period made up of three hours of silence and two hours or heated debate? Distinctions of this type are blurred in generalisations from the original data, but this blurring is also an inherent feature in the principle of time- sampling even at the initial stage of data collection. The findings of time-sampling generalise from a series of individual events: the procedures of time-sampling also entail that the 'events' themselves are generalisations - statistical constructs produced by aggregation from a series of discontinuous observations.

These points, about the reflection in research findings of the aseptic procedure of systematic observation by random time-sampling, should serve to throw some light on the debate surrounding the validity of such research. To evaluate the first criticism of educational research - that it cannot have the objectivity of science - demands reference to what scientific objectivity consists in. If a particular gas is oxygen, that is a fact, not because 'the facts speak for themselves' in science, but because all interested parties have agreed upon the defining characteristics that are relevant to picking out one gas from others and labelling it. The label 'oxygen' is simply a convenient shorthand for that particular set of defining characteristics. In the same way, a description of the observable behaviour of children in classrooms can be expressed in terms of a given set of specified criteria which allocate actions to categories and thus label them, provided that all interested parties have agreed upon the defining characteristics that are relevant to each category. In both science and educational research, objectivity is little more than the outcome of shared subjective agreement and to this degree the procedures of both may be objective. Beyond the confines of the research itself, the analogy breaks down, since the notion of 'interested parties' is different in each case.

The findings of science are destined for scientists - parties to the shared agreement of the activity in question by definition. The findings of educational research are destined for teachers, politicians and administrators who do not necessarily share the taxonomic agreements of researchers. However valid or otherwise inferences from research data may be, they will be quite irrelevant or actively misleading when the findings are reviewed by laymen whose conception of 'working', 'wasting time' or 'talking' differs significantly from the agreed definitions of researchers. Thus research methodology cannot be merely a means to research findings, but must appear as an

integral part of those findings. No doubt educationalists would like
to read the findings of research in everyday language, free from
tedious references to methodology. Such a method of presentation
must misrepresent and distort their import. Scientific findings cease
to be valid when they cease to be science; the findings of educational
research cease to be valid when they are removed from the context of
the research design which gives them meaning. The above examination
of researchers' interpretations of information gained via section 8
of the Pupil Record demonstrates that it is only too easy for <u>researchers</u>
<u>themselves</u> to overlook the operationalised context of their category
descriptions. Science escapes confusion in description or explanation
by using its own vocabulary, understood by fellow initiates. When
educational research describes or explains, it employs concepts like
'working', 'talking' or 'wasting time' which have their own meanings
in ordinary language. In so far as these are used in a special and
restricted sense in the research, its findings are more or less clear.
Confusion follows from extrapolating from the special to the everyday
meaning of such concepts. Everyday meanings are more complex, fluid
and varied than the researcher's taxonomy of measurable behaviour
implies, since in everyday terms 'working' in the cognitive sense is
characterised by many non-observable processes, and this mismatch in
conceptualisation will encourage invalid inference unless its dangers
are stressed in the findings. Pointing out the mismatch is the most
researchers can do, (and remaining aware of it is the least that they
can do) since they logically cannot remove it. One can only measure
what is measurable, and in no field of enquiry is this co-extensive
with what the lay person perceives as relevant.

Similarly, a researcher observing behaviour, if he refrains from
guessing about its intention, can only observe its outward character-
istics. If the activity in question, say 'getting on with one's work'
has qualitative implications, which are not outwardly manifested,

these will simply be overlooked. If enquirers (or researchers)
interpret statements about "how much time a pupil spends engaged
upon his task" as if they were equivalent to statements about "how
much the pupil is working", quite false inferences will be drawn from
the data. If readers of findings obtained from quantitative measure-
ments are reminded of how they have been obtained, their validity
within their own terms of reference will be protected. It will also
be clear which items of information in the findings most accurately
reflect everyday reality. Since some types of activity are more open
to measurement than others, quantitative information will more nearly
tell the whole story about such activities. Thus we can measure how
much time children spend waiting for the teacher, since we can usually
see when they are waiting, and we can add up each incidence of waiting
to get a meaningful proportion of their total time. It is therefore
possible to paint a picture of how different styles of classroom
management affect the proportion of the average child's total time
spent waiting for the teacher.

It is simply not possible to paint an equally accurate picture
about 'working-time', since 'working' is a qualitative concept, many
of whose characteristics are not observable, and an aggregate of
separate incidences of working leaves unanaswered just those questions
about the pattern and quality of work activity which are probably of
greatest interest to educators. To avoid mistaken extrapolation from
research findings, it must be stressed that if the original data are
quantitative, they can only be looked to for answers to quantitative
questions. There may be educational situations in which it is most
pertinent to know how much of the typical pupil's total time is spent
not visibly engaged on anything other than his allotted task. If
proportions of time thus spent can be shown to correlate with measurable
learning outcomes, inferences of a causal nature could be drawn between
these two factors, in the unlikely event that all other variables -

personality, inate ability, environmental factors etc. - could be kept

either constant or measurable. We do not of course cease to search

for reasons where measurement breaks down - we may have good reasons

to suppose that something is the case. But it is the hallmark of good

reasoning to point out where inferences are based on measurable correlations

or causes, and where they are based, as they must frequently be in

an imperfect state of knowledge, on good grounds for supposition.

To ask that empirical research in education should answer all the

questions, even those of a strictly factual nature, posed by educational

problems, is to seek the impossible. Hunches, intuition, inside

information, and reports of personal experience give us only clues as

to how differing children acquire particular abilities and dispositions

in a variety of circumstances. The alternative approach is to dissect

and measure the learning situation. Such a procedure gives us real

information about what is measurable, and further clues about the

measurable accompaniments of abilities and dispositions which we can

only judge qualitatively in a quite different way. To reject this

information on the grounds that it is only part of the story would be

as misguided as to assume conversely that it constituted the whole story.

But it would be equally mistaken to suppose that the dissection of the

learning situation, however apparently aseptic its procedures, can

either be designed or interpreted without the use of that practical

knowledge of relevantly similar situations which we acquire by non-

systematic means. The quantitative and qualitative approaches to

social investigation have more in common than the proponents of either

admit. Just as qualitative researchers neither can nor should eliminate

preselection of relevance and conventional meaning from their enquiry,

so quantitative research is inoperable and unintelligible if it

refuses to exploit our commonsense understanding of the real world, but

claims (in imitation of the procedures of natural science) to stand

outside such understanding.

CHAPTER   TWELVE

THE O.R.A.C.L.E.   PROJECT

III: RESEARCH DESIGN AND RESEARCH FINDINGS

Before turning to an examination of the findings of the ORACLE

research project, it is necessary to note briefly the theoretical

context in which it evolved, since this context is relevant to the

research design, which in turn will be shown to be relevant to the

findings. In the first volume of findings to result from this research,

reportage of these is prefaced by a chapter on "Primary School Teaching:

Theory and Practice"[1] which, following a review of the history of primary

education in the preceding chapter, details the theoretical stance of

the report of the Plowden Committee Children and their Primary Schools,

published in 1967.[2] The authors consider it important to "make

explicit the Plowden prescriptions" since they assert that the report

has formed "the backdrop against which schools and teachers have operated

now for more than a decade."[3]

They report accordingly Plowden's insistence on the uniqueness of

the individual child, and the background Plowden assumptions that

children have an inherent drive "towards activity in the exploration of

the environment"[4] and that development (equated with learning) is

environmentally determined. They conclude that the main prescriptive

thrust of the report is therefore

"that individualization of the educational process is the

essential principle on which all educational strategy and

1 ORACLE(1), chapter 3.

2 Plowden Report, Children and their Primary Schools, 1967.

3 ORACLE(1), p.43.

4 Plowden, op. cit., §45.

tactics <u>must be based</u>."[1] (original italics).

Although the writers acknowledge that the Plowden report has been

subjected to strong criticism, most notably in <u>Perspectives on Plowden</u>

edited by R.S. Peters[2], and although they do not overtly espouse the

prescriptions of the Report (since this would be outside their remit

as empirical researchers), it is nonetheless clear that the research

team largely share and are strongly influenced by many of the muddled

theoretical assumptions on which that report is based.

They note that the theoretical assumptions about children's

intellectual and emotional development "have formed the staple of

advanced thinking by educational psychologists for a long time."[3]

They appear to share the report's under-conceptualised notion that

real learning is "enquiry based"; that "telling" children things

necessarily has an intellectually stultifying effect on them, whereas

"open-ended questioning" is necessarily stimulating. The analysis of

the Teacher Record will be seen to be based on this rather questionable

position. Thus the team's assumptions about the nature of the child

and of his intellectual development, and hence about the nature of good

teaching (that which promotes 'real' learning) reflect the developmental/

child-centred/progressive paradigm, with the teacher as facilitator,

"leading from behind". If the advice of the Plowden report were

heeded, and supposing its assumptions to be sound, a particular sort

of primary classroom would result, such as the researchers describe:

> "If we attempt, then, a general sketch of the ideal
>
> Plowden-type teacher and her class, we get something like
>
> this. The children are active, engaged in exploration or
>
> discovery, interacting both with the teacher and with each

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1   ORACLE(1), p.44.

2   Peters R.S. (ed.), <u>Perspectives on Plowden</u>, 1969.

3   ORACLE(1), p.44.

other. Each child operates as an individual, though

groups are formed and re-formed related to those activities

which are not normally subject differentiated. The teacher

moves around the classroom consulting, guiding, stimulating

individual children or occasionally, for convenience, the

groups of children which are brought together for some

specific activity, or are 'at the same stage'."[1]

Ostensibly, the research project was designed to perform two functions:

(1) to see if classrooms really did resemble this ideal picture (the

process part of the study) and (2) to see whether the teaching

strategies employed in classrooms actually produced the desired learning

outcomes (the product part of the study). These questions are not,

however, independent, and the manner of asking the first affects the

kind of answers that can be sought to the second.

It was argued in Chapter Ten that observation schedules must be

designed to observe particular situations, and that ORACLE could not

therefore at one and the same time look to see what classrooms are

like (without presuppositions) and look to see to what extent they

reflect the prescriptions of the Plowden report. Just as FIAC was

rejected by the researchers on the grounds that it was suited to the

observation of static, 'traditional' or didactic teaching situations,

so the Teacher and Pupil Records of the ORACLE project were especially

tailored to the sort of classroom described as the ideal Plowden-type

style. Considerable attention, both in the research design and con-

sequently in its analysis, is given to the grouping policies of

teachers, and to the precise manner in which they formulate questions,

as well as to the proportion of their speech devoted to "telling"

and "asking" respectively. In the case of pupils, as much or more

detail is collected about their interactions with fellow pupils as about

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1 ibid., p.49.

their interactions with the teacher. When they do interact with the
teacher, the most important information gathered is connected, not
with the quality of the interaction, but with whether they were inter-
acting with her alone, or as part of a group or as part of a class.
The varying emphasis given to differing questions about classroom
interaction reflects the research designers' assumptions about what
are relevant or important features of the learning situation, and these
in turn are based on implicit assumptions about the nature of the child
and on evaluations about his proper cognitive, emotional and social
development.

In the analysis of the findings, these assumptions can theoretically
be corrected. Thus it may transpire, in the product study, that
features thought to be central to learning outcomes are in fact of
minimal influence. This correction of initial assumptions does not,
however, mean that the findings are unbiased by them. If we ask what
is the most important factor, or group of factors, affecting learning
outcomes, we will necessarily be offered that factor which scores
highest from the original list considered. It may well be, of course,
that none of these is of any significant importance, and that there are
considerably more important factors at work which either could only
have been picked up if the research were based on a differing set of
assumptions, or which are of that qualitative sort which could never be
identified by quantitative research. A further problem, which will be
considered later in this chapter, is that if a factor hypothesised to
be central, - say 'individualised learning' or 'co-operation with peers'
is not sufficiently conceptually clarified at the beginning of the
research programme, then any findings relating to that factor, whether
they appear to be significant for learning outcomes or not, will be
either uninformative or misleading. It will be argued below that
without a sophistication in the basic conceptual analysis required to
set up a taxonomy and to formulate hypotheses, which matches the

methodological sophistication with which the collected data are manipulated to generate correlational and causal factors, any research programme in this area runs either this risk of being uninformative or misleading, or alternatively will expend enormous effort to uncover by empirical means conclusions which were readily accessible to reflection. It will be further emphasised that any illegitimate trans-mutation of findings from the conceptualisation embodied in the data (necessarily quantitative) to the ordinary language equivalent in educational prescription (almost invariably qualitative) should be accompanied by cautions about the precise nature of the mis-match. As was argued in Chapter Ten, the more the findings of empirical research can be presented in language intelligible to the layman, the more circumspectly they must be treated, and the closer constant reference is required to the research design. This is true of all social research. In education the problem is further compounded since many of the questions we want answered concern the quality of teaching and learning or of social interaction, and many of the concepts employed in the design will themselves be evaluative. If therefore the reader of findings wishes to cull from the research, information on which to base his own practice, he must assure himself that he knows what the reporter of those findings means by what he reports. This entails an understanding, firstly of the research design in all its detail, and particularly of <u>the original conceptualisation of the situation</u> for which the descriptive taxonomy is devised. It also entails an under-standing of the (frequently evaluative and often metaphysical) assumptions on which this conceptualisation is based.

The reports of ORACLE findings present us first of all with an overview of the contemporary primary classroom, and a profile of the "typical pupil" and the "typical teacher".[1] Since this, as it is the

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1 ORACLE(1), Chapters 3,4.
   ORACLE(2), Chapter 2.

easiest part of the findings to understand at first glance, was the

part most widely reported in the press[1], and hence that which is likely

to percolate through to the general consciousness, comment is called

for. Firstly, all the qualifications put forward in Chapter Ten, to

the effect that this is what classrooms are like <u>when an outsider is</u>

<u>present</u>, should be borne in mind. Secondly, the procedure of aggregating

the fragmented observable interactions of 58 teachers and 464 children

to get a picture of the "typical child" should be examined. After

presenting these "typical" profiles, the researchers remind the reader

that "So far only averages have been presented; but these averages

conceal variations."[2] This cautionary note is so gross an under-

statement as to be seriously misleading. Lengthy profiles of "typical

teachers" and "typical pupils" give the impression that this is a

reflection of some normal curve of distribution, rather like saying

that the average Englishman is 5'9" in height. Unless the reader fails

to understand the term "average", he does not assume that all or even

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1. Widely reported in a diversity of publications, c.f.

   <u>Education Forum</u>, Auriol Stevens, "Tradition equals progress".
   <u>Leicester Mercury</u>, 12.11.80. Roy Blackburn, "Progress report on the
   <u>primaries</u>".
   T.E.S. 7.11.80. "It's the style that counts".
   <u>Education 3-13</u> Vol.8.(2) 1980, "<u>Inside the Primary Classroom</u>" Book
   Review, Dan Wicksteed.
   <u>Education</u>, 7.11.80. Document of the week, "Making a good teacher"
   <u>Progress and Performance in the Primary Classroom</u>.
   <u>Education</u>, 4.7.80. "Primary truths", R.G. & Joyce Cave, <u>Inside the</u>
   <u>Primary Classroom</u>
   T.E.S. 25.4.80. "Too early to accept the words of ORACLE".
   T.E.S. 18.4.80. "Clockwork Analysis", M. Armstrong.
   T.E.S. 4.4.80. "Where the wild men aren't".
   T.E.S. 4.4.80. Comment: "New ORACLE for primaries".
   <u>The Teacher</u>, 18.1.80. "Exposing falsities of the Black Paperites".
   <u>Sunday Times</u>, Education: Spectrum, "Children get only 40 minutes of
   teacher's time a day" Peter Wilby. 2.12.79.
   <u>Junior Education</u> Sept. 1980, "The Myth of Co-operative Learning".
   <u>The Teacher</u> 25.5.80, "Exposing the Primary Myths".

2 ORACLE(2), p.35.

most Englishmen are 5'9" tall. He <u>does</u> assume that a majority of

them fall close to either side of this statistic, with a minority

considerably shorter or taller. However, there would be no reason

to suppose that the same picture is true for "typical pupils" and

"typical teachers" unless we prejudge from the outset "what is

happening in classrooms" and assume that what happens in one classroom

is much the same as what happens in another, and that the significant

features of all of them are equally capable of measurement by the

measuring instrument to hand. The ORACLE research volumes note

repeatedly that they are concerned to set the record straight, and

answer charges of "wildmen in the classroom". One of the relevant

sections of the report is headed "Progressivism, the Rhetoric and the

Reality". Aggregating and averaging all pupils and all teachers observed

does not simply "conceal variations"; it <u>entails</u> that the results are

<u>moderate</u> in all areas. This appears to show that there are no "wild

men" in progressive classrooms, as the "rhetoric" has suggested.

However, it shows nothing of the kind, for it has not been established,

and indeed is subsequently contra-indicated, that the classrooms thus

aggregated were indeed all "progressive". If we add up observations of

pupil movement in ten classrooms, in five of which the pupils rush

about constantly, and in five of which the pupils are nailed to the

floor, we will get a tolerable average of sedentary work and activity.

But this will not just be a picture which is not accurate for <u>all</u>

classrooms, it will be one which is not accurate for <u>any</u> classroom.

Averages are totally misleading unless the population they describe is

roughly homogeneous in relevant respects, and the homogeneity or other-

wise of classrooms was one of the two fundamental questions this

research set out to answer: it cannot therefore constitute one of the

assumptions on which analysis of the observational data is based.

The first finding to be presented in the classroom overview is

the nature of teacher-pupil interaction[1]. Study of the data collected

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1 ORACLE(1), pp.60-62.

by the Pupil and Teacher Records, and cross-referencing of the
relevant categories, reveals

> "that though the teacher spends most of her time interacting
>
> with individual pupils, each specific individual child only
>
> receives individual attention from the teacher for a very
>
> small proportion of lesson time".[1]

This is much emphasised. It is even described as "the first striking
finding of our study".[2] There are two points to be mentioned here.
The first is that the asymmetry of the teacher-pupil interaction relation,
which is given much weight in both research publications, is not some-
thing which anyone needs to discover empirically. Given that by
definition no-one can direct their individual attention to more than one
person at a time, it is axiomatic that the amount of individual attention
members of a group can receive from a single person external to that
group, will be inversely proportionate to the size of the group. Secondly,
it becomes clear that the researchers mean something rather unusual
by "individual attention", and include in this category attention
directed at one child during a whole-class teaching situation. Thus
in a twenty minute period of teacher observation where the teacher is
asking questions round the class, she will be classified as interacting
with individuals the whole of this time. We cannot therefore infer
(as well we might), when the axiomatic asymmetry of the teacher-pupil
interaction relation is 'discovered', that the larger the class, the
more time pupils spend 'not being taught', since there is no reason to
suppose (unless one accepts the Plowden paradigm) that children learn
less from hearing questions and answers from others than from actively
uttering answers themselves.

The second part of the "typical pupil" profile relates to how pupils
typically spend their time. If the strictures above about all the

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1 ibid., p.30.

2 ORACLE(1), p.62.

difficulties surrounding the notion of a "typical pupil" are added

to the qualifications detailed in Chapter Ten relating to the

definition and coding of the category "co-operating on task" and are

combined with this rather specialised redefinition of "individual

attention", it is clear that the reader must consider with a certain

circumspection the sanguine conclusion that

> "For most of the time the pupil is on his own; and for
>
> most of this time he is fully engaged on his task."[1]

Having offered a picture of how the "typical pupil" spends his

time, and having noted that each individual receives, individually, only

a fraction of the teacher's attention, the research then asks if this

fraction is equally experienced by diverse groups of pupils. Do

teachers give more or less attention to high as opposed to low

achievers, to boys as opposed to girls, or to the younger as opposed

to the older members of the class? Scrutiny of the observational data

shows that

> "In all three areas of analysis, then, we find that, on
>
> average, teachers distribute their attention across the
>
> class roughly equally. This is an important finding."[2]

If we recall how it was arrived at, this is _in no sense_ "an important

finding". If most of the "individual attention" pupils receive is

(as stated in the findings) as part of a whole-class audience it is

unsurprising that all children get roughly equivalent attention.

However, this need not be the case, since we are talking about "typical

teachers" as well as "typical pupils". Unless _all_ teachers consistently

give more attention to a _particular_ group (which strikes one as

singularly implausible), if all their interactions are aggregated, the

preferences of each will be cancelled out to yield precisely the equal

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1 ibid., p.63.

2 ibid., p.66.

result obtained.

The next section of this profile of classroom life concerns grouping and group work. This is considered to be significant since one of Plowden's chief recommendations concerned the promotion of teaching and learning in groups. It is pertinent to note the incoherence of Plowden reasoning on this issue. According to the Plowden assumption of uniqueness of the individual, the most appropriate teaching unit would be a group of one. On this basis the whole-class teaching situation is seen as rarely (though occasionally, to introduce a topic) desirable. That groups of one are the ultimate in 'streaming' - which Plowden regards as perhaps the greatest educational anathema - is overlooked. It is recognised, however, that groups of one are im-practical, and that therefore groups of four or five should be formed. These should be transient or they begin to smack of 'streaming'. Though they are first recommended by Plowden on grounds of expedience[1] they also have intrinsic justification provided by the Plowden Report's Rousseauesque vision of the child. In a group the child will learn as much from his peers, through hypothesising, discussion and imitation, as he does from his teacher. It is clear that this picture of the child is to a considerable extent shared by the ORACLE research team, and influences its findings.

It is reported that though children work <u>seated</u> in groups, they seldom work together co-operatively. We are told with surprise that it is "exceptional" to find a group co-operate

> "to investigate a particular scientific problem, construct
> a model, write a play or engage on some other joint activity
> or enterprise".[2]

The incidence of teachers setting co-operative group work was, from the observer records, very low. If the rules for recording this are

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1 <u>Plowden</u>, § 755.

2 ORACLE(1), p.70.

consulted it is clear that the incidence of "co-operation" in the

normally understood sense is even lower than reported. If five children

are each, quite separately, painting different sea-creatures which

are then stuck onto the same freize, they have been doing "co-operative

group work" within the definition of the study, though they have

probably been operating independently throughout. In the context of

group work, the team go on to look at "pupil-pupil task-related

interactions".[1] From the finding that over one quarter of all pupil-

pupil interactions (for the "typical" pupil) are task-related, the

reader is tempted to wonder why teachers do not in fact exploit this

eager interest that children show in each others' work, by setting them

joint tasks. To illuminate this it is necessary to look at the

definition of a task-related pupil exchange. No such definition is to

be found in the reportage, and there is no mechanism on the Pupil Record

for recording what pupils talk to each other about - only to whom they

are talking, and their role in the exchange (Pupil Record sections

5 - 7c). That pupils are "talking with each other about their work"[2]

can only be inferred from the fact that they are coded as talking, at

the same signal as they are coded as "co-operating on task". It was

noted in Chapter Ten that a child telling a joke whilst putting on a

colourwash, or carrying on an intermittent conversation with his

neighbour about football if he continued to write or draw at the time

of the signal, would be coded COOP TK. It is true that a child having

an intellectual discussion with a neighbour would also be so coded,

but we cannot infer that all (or even most) talking whilst 'working'

is talking about one's work. Only the supposition that children are

really independently driven seekers after knowledge could lead one to

suppose this to be the norm. The related finding that "older children

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1 ibid., p.73.

2 ibid., p.73.

are less likely to talk with each other about their work than

younger children"[1] could lead one to suppose that children's natural

work-related co-operativeness atrophies when not exploited by adults.

Given the data from which this statement is inferred, an alternative

explanation presents itself. Younger children are more prone to do

two things at the same time, and as was noted in Chapter Ten the

chances of being coded as COOP TK whilst talking (about we know not

what) are inversely proportional to the difficulty of the task in hand.

The next section in the profile of the typical classroom will be

of interest to all concerned with the changing scene in primary education,

for it deals with the curriculum. The findings are immensely reassuring

and provide solid defence material against anti-progressivists who

suggest that (1) the basics are being neglected, and (2) if children's

activities are not directed they will, left to themselves, spend their

schoolday in an unbalanced and unprofitable way. It appears, however,

that 33.1 per cent of lesson time overall is devoted to varying sorts

of maths, 37.8 per cent to language work, and 29 per cent to art, craft

and general studies. Moreover

> "Although our 'typical' pupil worked on 'tasks of his own
>
> choice' for one third of his time (32 per cent - observers'
>
> records, S1, S2) he distributes his time overall roughly
>
> equally between the three main subject areas (if we lump art
>
> and craft with general subjects)."[2]

This is, of course, not a reflection of how the child spends his school

day, but of how he spends his "normal lesson time", since, as this

section scrupulously reminds us,

> "The observation instruments were designed to record those
>
> activities which take place in the classroom, and which involve

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1 ibid., p.73.

2 ibid., p.78.

interaction between the teacher and her pupils as well as

between the pupils themselves."[1]

The findings on the curriculum seem to be an example of how such con-

clusions can be unwittingly created as artefacts of the research

design, rather than empirically 'discovered' from observing the

situation.

In the opening instructions in the Observers Survival Kit for

the ORACLE project, observers are told what not to observe as follows:

"(a) <u>Observe all activities except</u>: swimming, music, P.E.,
     dance, play rehearsals, films, T.V., outdoor work, school
     test and examinations, French, teacher tests, e.g.,
     spelling and arithmetic, registration, dinner money
     collection.

  (b) <u>Specialist activities</u>: e.g., needlework, art and craft,
      drama, the following rule applies in deciding whether to
      observe or not:

      If the teacher under observation is with her register
      class or a group from the class or a team which includes
      all or some of her register class target pupils observe
      them (whether or not they are in the classroom or team
      area)."[2].

Thus children are never observed doing music, dance, play rehearsals,

T.V. sessions, working outdoors, doing foreign languages, and not

observed when they are not taught by the class teacher. The latter <u>does</u>

happen in some schools where the whole class is taken by other teachers

for specialist science, drama, R.E., history, needlework, or where

groups are withdrawn for pottery, cookery, or discussions, with

ancillaries or parent-helpers. If all these things are excluded, it

is hard to see what could possibly remain that would be likely to be

taught to children of primary school age, that would <u>not</u> fall under

the three headings of "maths, "language" and "arts, craft and general".

If we again recall that we are talking about the averaged aggregate

of all classrooms, unless most or all teachers offered a curriculum

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1 ibid., p.76.

2 <u>Observers' Survival Kit</u> - ORACLE project, unpublished.

unbalanced in the same direction, the overall average will necessarily

be balanced. If some teachers concentrate more on maths, others give

more time to language and some emphasise general and art and craft,

the profile of the typical teacher will necessarily iron out all these

differences.

Similarly with the second finding of this section, that pupils,

when choosing their own activities (which they do for one third of the

time), choose a curriculum balanced between the three main areas. The

first thing to note in this connection is what counts as 'choosing'.

When a pupil is working on "tasks of his own choice"[1] this does not

mean that he has devised a task for himself (though it might mean

this) but rather than he has selected his own activity. In many primary

classrooms children are allotted tasks for the day, or sometimes tasks

for the week, which are usually written on the board by the teacher,

or which may be laid out in different areas of the classroom, and the

child may tackle these tasks in any order he wishes. Thus on the one

day system he may choose whether he does his maths work card before

his SRA assignment, or whether he draws before he gets down to the

maths. On the one week system he may spend all Monday drawing if he

wishes, but will probably then find himself doing the week's maths

cards for much of Friday. There may be a great deal to be said both

for and against some of these systems, but given that they are

specifically devised to allow the child to exercise choice of pace

and attack within a balanced curriculum, observation of children

working within this strategy can tell us nothing about whether or not

an unguided child would choose a balanced curriculum. It is true that

children do, on occasion, in some classrooms, devise and carry out

their own tasks, but as a proportion of total pupil time this is

infinitesimally small, and is not the sort of activity to which these

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1 ORACLE(2), p.78.

statistics refer. Once again we are dealing in any case with the

typical classroom, so it would be mistaken to accept even the revised

picture of children choosing the order and pace of their work one

third of the time. If one classroom in three always operated on

this system, and two out of three never did so, the result would be

the same.

The chapter of the research report examined above concludes with

regret that classrooms fail to live up to the Plowden ideal:

"... the content of the work is seldom of the questing,

exploratory character prescribed by Plowden. This is for

two reasons. First, such an approach demands co-operative,

joint enterprise in the solution of problems or in joint

activities of various kinds. This we rarely find used;

many children do not experience it at all. Second, the

Plowden approach demands a change in the balance of the

curriculum; from a concentration on individualised work

in the restricted fields of number and language to a

greater focus on topic or project work, where integrated

approaches may be utilised."[1]

Criticisms in this chapter of the profile of the typical classroom

have been largely methodological. These problems could be mitigated

by (1) indicating which points were conceptual and which empirical,

(2) discounting the significance of artefacts of the reearch design,

and (3) greater circumspection in reportage where translation of

findings into ordinary language invites misunderstanding. There remain

more serious logical problems which are indicated by the conclusion

quoted above and by the explanation offerred for that conclusion. .

No statement can be made about whether or not work observed is of

1 ORACLE(1), p.82.

a "questing, exploratory character" unless some rudimentary con-

ceptual analysis is undertaken to establish what we mean by these

terms. Until we establish some of the defining characteristics of

"questing, exploratory work", and the necessary conditions for its

performance, we would not begin to be able to examine whether or not

it were taking place. Having established these defining characteristics

and necessary conditions, we would only be able to record them by

quantitative procedures if they were measurable. That this should be

the case seems prima facie implausible when we are dealing with overtly

evaluative concepts. In the unlikely event that this could be done,

and were we to discover that there was little or no evidence of the

characteristics and conditions we had isolated, we would only go on to

search in the content and structure of the learning situation for

reasons to explain their absence, if we had taken it for granted that

the average child was generally capable of, and naturally inclined to

spend much of his time engaged in"questing and exploratory work". Even

if we could establish this to be the case - and it is hard to imagine

how we would do so if our first premise were the lack of any widespread

evidence of this type of work to examine - we would be in no position

to offer reasons for its absence. There is no reason at all to suppose

that "questing and exploratory work" (of which there is hardly any

sign) can only flourish in "co-operative, joint enterprise" (of which

there is similarly little sign). This is rather like arguing that

because neither Julius Caesar nor I were present at the battle of

Agincourt, we were probably elsewhere together at the time. As to the

second reason proffered, notwithstanding the remarks above on curriculum

profiles, surely Einstein and Shakespeare would serve as paradigms

of questing and exploratory minds, though they would have been coded

as working entirely in restricted curricular areas.

So far, I have only examined in detail data collected from the

Pupil Record. That particular taxonomy was at least consistent in that

it recorded only the observable behaviour of pupils. When interacting with adults four items were recorded: the pupil's role (1), the identity of the interacting adult (2), the nature of the adult's interaction (3), and the setting (group, class etc.) in which it occurred (4). When the child was interacting with other pupils, observers classified the pupil's role (5), the mode of interaction (verbal, physical etc.) (6), and the task, sex, number and base of other pupils. These are all features of the scene which are open to observation and recording. The pupil-activity categories 9 and 10, dealing respectively with his and the teacher's positions at the time, are similarly unproblematic. Difficulties arose, as Chapter Ten explored, with the crucial category 8 - the twelve alternative ways of classifying what the pupil was doing. Since the categories are concerned with actions (or even more problematically for time-sampling, with <u>activities</u> which are sets of functionally related actions spread over time), the research designers had to decide what were the sterotypical outward accompaniments of inner conscious states. Thus these categories are/capable of recording action (1) to the extent that the relation between inner states and their outward manifestation <u>is</u> sterotypical and (2) to the extent that these relations, such as they are, are accurately reflected in the shared assumptions of the research designers. In so far as (1) belies the notion of individual parameters, it is somewhat at odds with a programme of research, one of whose core-assumptions is the uniqueness of the individual child. In so far as (2) is concerned, conceptual analysis of the sorts of activities deemed to be worth classifying would immeasurably improve the taxonomy. Firstly, it should be established which activities are plausibly sterotypically identifiable from outside (e.g. "waiting for teacher"), and which are least so (e.g. "responding to internal stimuli" or "fully involved in task"). Secondly, since this type of coding system consists of mutually discrete categories, it may not contain any items which are

defining characteristics or necessary accompaniments of others

(responding to internal stimuli, and fully involved in work). Thirdly,

where the category definition appears to be co-extensive with ordinary

language, when that item of language refers to non-observable concepts

(co-operating on task, working), inferences from the observable data

to mental operations must be eschewed. There will be room for debate

about the significance of the more restricted findings which could be

thus obtained, but as part of a process/product study they would

certainly be of some significance. To relate the amount of pupil

movement and talk to learning outcomes would of itself be interesting,

since it would reveal the extent to which different styles of classroom

management effect learning outcomes. Even a 'null' result can be as

informative in social research as it is in natural science enquiry.

The aims of ORACLE however, are more ambitious, and the researchers

are not satisfied with simply chronicling the movements of teachers

and pupils, and the occurrence of their interactions. The second

chapter on "Teachers and Pupils in the Junior School Classroom" opens

as follows:

> "There are two important aspects of life in junior school
>
> classrooms that deserve looking at in more detail than was
>
> possible in Chapter 4: first, the quality (or level) of
>
> teacher-pupil interaction, and second, the degree of
>
> 'involvement' by pupils in their work. Out data permits
>
> analysis of both these issues."[1]

Since these are explicitly qualitative questions, it is pertinent to

examine how the researchers propose to answer them by quantitative

procedures. Such answers are in fact inferred largely from the

Teacher Record, which is quite a different taxonomic instrument from

the Pupil Record examined up to now. To quote from the research report:

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1 ORALCE(1), p.84.

"Coding this instrument required the observer to determine

the type of <u>conversation</u> or the nature of the <u>silent inter-</u>

<u>action</u> taking place as well as certain other features."[1]

The original italics should perhaps be transposed from "conversation"

and "silent interaction" to the accompanying "type" and "nature".

It will become clear that assumptions of three kinds must necessarily

colour this data: those which govern the rules for establishing

categories (the research designers'); those which govern the

allocation of interactions to categories (the observers'); and those

which transmute the data into material for answering overtly qualitative

questions.

Coding of the "silence" categories is much more straightforward

than might be assumed, since the observer is required to respond only

to observable features, e.g. whether the teacher is gesturing, showing,

marking, waiting or reading a story. It is interesting, however, that

"story" is included in this list. On the one occasion when the

teacher is <u>necessarily</u> addressing the class globally, this activity is

excluded from the fourteen conversation categories which are sub-

sequently analysed to capture the "quality" of teacher-pupil interaction.

Presumably, on the Plowden paradigm,"telling" a story, to the class as

a whole, is not even a candidate for qualitative consideration. In

fact, one of the classroom areas where quality of interaction can most

easily be discerned by the non-systematic observer is precisely in the

fairly standard story session which ends the day or the week (for

younger and older children respectively) in primary classrooms. There

are classes in which a dull story, boringly read, is clearly a device

to keep the children quiet and allow the teacher to wind down before

home-time. In other classes fascinating, stimulating stories are spell-

bindingly told in a manner calculated to have considerable repercussions

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1 ibid., pp.16-17.

on both the child's mental furniture and his command of English.

Be that as it may, the research report accurately states that "The main part of the observation schedule, however, deals with the teacher's <u>conversation</u>"[1], for which there are six categories with subdivisions. Instructions for coding these categories are reproduced below from the report.

"The observer first has to decide whether the teacher posed a question or made a statement. He then has to decide whether the teacher was talking about the pupil's task supervision or dealing with matters of class routine. Each of these major categories was then further subdivided to give fourteen minor categories in all. <u>All questions were classified in terms of the answer that the pupil gave</u>. There were three kinds of task questions, namely those answered by recalling facts (Q1), those answered by offering closed solutions (Q2) and those which resulted in open solutions (Q3). The distinction between closed and open is an important one and in order to differentiate between these two categories the observer had to listen and see how the teacher handled the pupil's <u>high level imaginative or reasoned response</u>. This then revealed if, <u>despite outward appearances</u>, the teacher was only interested in one particular answer (Q2-closed), or whether she was prepared to accept a range of answers (Q3-open). The remaining two categories of questions referred to task supervision (Q4) and routine matters of classroom management (Q5).

Any utterances not coded as questions, including rhetorical ones, were coded as statements. Under task statements there were only two categories because it was not possible, as with questions, to differentiate between open and closed utterances <u>in the absence of a response from a pupil</u>. Statements were

1 ibid., p.18.

therefore either of facts (S1) or of ideas and problems (S2)."[1]

(my italics).

Coding the conversation categories on the Teacher Record and inter-preting the data so collected demands that assumptions external to the data of three kinds noted above will influence any findings built on this taxonomy.

First, the categories themselves must be examined. The first point to be noted, which reflects the Plowden assumption of teacher as facilitator "leading from behind", is that although this is designed as a record of the <u>teacher's</u> utterances, these are coded according to the response made to them <u>by pupils</u>. The research designers do not, as in the case of the Pupil Record, impute intentions to teachers according to "outward appearances", but infer them from the outward appearances of the <u>pupils'</u> perceptions of these intentions. The observer is explicitly instructed to <u>discount</u> the outward appearances of the teacher's verbal behaviour if the pupil interprets or responds in a manner inappropriate to those appearances. If the pupil does not answer, the teacher's apparent question is coded as a statement, and if the pupil does not offer an "imaginative and reasoned response" the teacher cannot be coded as asking the sort of question which invites this response. This is carrying child (or pupil)-centredness to the extreme, since it must be assumed that the teacher is <u>merely</u> a facilitator, simply providing pupils with opportunity to express what is naturally there provided the teacher does not nip it in the bud. It must further be assumed that pupils are capable of accurately imputing intention to teachers, or at least more accurately than can observers who are themselves teachers.

There is unfortunately insufficient space to give as close scrutiny to the Teacher Record as has been given to the Pupil Record (the

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1 ibid., p.18.

instrument of greater import to the overall findings, a fact which

is hardly surprising in view of the core-assumptions), but the categories

dealing with task statements and questions (Q1,2,3, S1,2 see p.323),

which are equivalent to what the layman would call "teaching" are

particularly important. Considering Q1-3 it must first be remembered

that this sub-section is only coded if there is a pupil response.

Then, according to the type of response, the observer decides what

kind of question was asked. Three categories are possible. A question

related to the child's task will be categorised either as (1) recalling

facts, (2) offering ideas, solutions but a "closed" question (where

only one answer is acceptable), or (3) offering ideas, solutions but

"open" (where more than one answer is acceptable). Just as the

analysis of "teacher activity in the classroom"[1] clearly lists such

activity in descending hierarchy of importance, viz. (1) questioning,

(2) making statements, (3) silent interaction, (4) no interaction, so

this list of three sorts of questions clearly represents a sliding

(descending) scale of value in the estimation of the research team.

To differentiate between recalling facts and asking for "ideas"

is possibly a useful distinction to make, but it is an unsubstantiated

valuation to assume that answers which make reference to what the

child has previously been taught - or told (Q1) - are inferior in

cognitive content to those which less obviously make such reference

(Q2 & 3). It must be assumed not only that this is the case, but that

"ideas" which do not apparently result from overt teaching are in some

sense (a) the child's own and (b) consequently more valuable. This is

an accurate reflection of the confused child-centred notion of fostering

children's interests (assumed to arise from within) in preference to

imposing interests on him from without. This same background assumption

of naive developmentalism, that non-interference is a sure promoter

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1 ibid., p.85.

of growth, that the full human being is 'all there' in the child,

allows questioning (the 'leading out' process) , to be sharply

distinguished from, and contrasted with, the making of informative

statements. If we do <u>not</u> presume that desirable cognitive outcomes

are somehow immanent in the child, we might suppose that in a teaching

situation, where by definition the object of the exercise is that the

pupil should know more at the end of the operation than he does at the

beginning, quite a substantial number of statements would seem to have

to be made before questions, particularly those which expected the

child to go beyond recall of the content of those statements, could

meaningfully or profitably be asked.

The 'highest' form of interaction - questions which seek to

elicit ideas (or are so interpreted by observers from the outward

appearance of the pupil's interpretation of the original teacher

utterance) - is further subdivided. Q2 (closed question) is coded

when the observer infers that the pupil interpreted that the teacher

"is only prepared to accept one answer or one of a very restricted

range".[1] This is differentiated from Q3 (open question) as follows in

The Observer Manual:

> "<u>Category Q2./Q3. difference</u>
>
> In order to differentiate between these two categories the
> observer must listen to how the teacher handles the pupil's
> high-level imaginative or reasoned response or solution. This
> will reveal if, despite outward appearances, the teacher is
> only interested in one particular answer (Q2. - <u>closed</u>) or
> whether she is prepared to accept a wide range, <u>even if they</u>
> are wrong or incomplete (Q3. - <u>open</u>)."[2]

There is a particular view of teaching, and a particular view of

knowledge, which is implied by the underlying supposition that (1) any

restriction in the range of acceptable responses is pedagogically

stultifying, and that (2) evaluation of "high-level imaginative or

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1 ORACLE,<u>Observer's Manual to the Teacher Record</u>, p.16.

2 ibid., p.17.

reasoned response or solution" can and should be totally divorced from its content in relation to the question. This is the view of 'creative thinking' put forward by proponents of the 'uses of a brick' and other similar exercises, where scoring the exercise (evaluating the child's performance) depends upon number rather than quality of suggestions.

In practice the coding of Q2 and Q3 are considerably less out-landish than they might be, but only because few teachers operate with these assumptions about teaching and knowledge (which may or may not be a matter for regret), and therefore consequently (or independently) few pupils assume that they do. Thus if a teacher holds up a fossil and asks "What's this?", that utterance will probably be coded as Q2, since the pupil will probably reply "A fossil" (one right answer) or "A stone" (one of a limited range). If the pupil replied "A cream doughnut" (either because he was "highly imaginative" or very short-sighted), the coding would depend on the teacher's response to this answer. If she says "Try again, Jimmy", or "When did you last have a sight-test?" the coding would be Q2. If she says "How interesting, any other suggestions", the coding would be Q3 if we guess her to be sincere, Q2 if she is thought to be sarcastic. It seems unnecessary to labour the varying inferences, extraneous to "outward appearances" which enter into any coding thus made.

I have examined this category in detail for the same reasons as the research team, who state:

> "We have gone into this matter in some detail because of its importance, the observational instrument having been designed to allow differentiation in questioning to be analysed in detail."[1]

They conclude that

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1 ORACLE(1), p.87.

"As Table 5.2 indicates, 'open questions', <u>the form of</u>
<u>questioning most closely related to encouraging enquiry</u>
<u>and discovery learning (promoting thought and imagination)</u>,
represent an extremely small proportion of all questioning
(5.0 per cent)(and, of course, an even smaller proportion
of all teacher-pupil interaction). 'Closed" questions do,
of course, also promote the pupil's thinking in relation to
his task; if the two are summed, the percentage they
represent of all questioning rises to 23.3 per cent (nearly
3 per cent of all observations). Nevertheless a higher
proportion are questions of fact and a still higher proportion
are concerned with supervising the child's work; that is,
generally making sure that the pupil has a clear grasp of his
materials and knows how to set about completing his task."[2]
(my italics).

Again, it seems unnecessary to labour the point that we have <u>no</u> reason
to suppose that the category Q3 is pre-eminently calculated to
promote "enquiry and discovery learning", even if we were disposed
to suppose that this were the royal road to the promotion of thought
and imagination, and we therefore have little reason to bewail the low
incidence of such questioning. We might rather be surprised that
5 per cent of task-related questions were such that the teacher was
prepared to accept an unlimited range of answers. We might similarly
be impressed (accepting the doubtful assumption that"ideas" are
superior to, and in some way independent of, "facts") that nearly one
question in four expected the child to anticipate or dispense with
information.

Task <u>statements</u> made by the teacher are similarly divided into
"task statements which provide factual information as distinct

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1 ibid., p.87.

from imaginative or reasoned ideas or problems."[1]

Examples offered in the research report are as follows:

"For example: T. 'Edinburgh is the capital of Scotland';

or again, T. 'This is called a fossil.' The second sub-

category consists of statements which are of a higher

cognitive order in terms of content. Included here are

all types of task statements which provide imaginative

or reasoned ideas or which pose problems not resulting in

the child working out a solution aloud on-the-spot. A

statement offering imaginative suggestions related,

perhaps, to an activity like creative writing, might run

as follows: T. 'Perhaps the story could end with something

sad happening, like the kitten disappearing'; or again,

T. 'The house might be old and creepy with cobwebs and dust

and a musty smell.' "[2]

The second type of statement is simply assumed to be "of a higher

cognitive order in terms of content" since ideas , however banal, are

supposed to be necessarily more thought-provoking than dull, boring

facts, and hence are more valuable. This is the sort of attitude

which promotes 'creative writing' exercises which result in thirty

'poems', untrammelled by the conventions of punctuation, spelling or

discernible versification, but which all make stereotypical 'imaginative'

reference to "the rustling russet leaves" and "the swirling silvery

mist". True, "Edinburgh is the capital of Scotland" is a pretty dull

fact, on its own, but not all statements of fact are of the same order.

The 'ideas' examples offered are hardly less dull, being no more than

the suggestion of appropriate clichés. On examination of the data

the same (supposedly regrettable) situation is reported here as with

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1 ibid., p.88.

2 ibid., p.88.

teacher questions:

> "Here again we find that the thought-provoking, stimulating,
> or enquiry-based type of statements (of ideas) forms only a
> small proportion of all teachers' statements and only 2.5 per
> cent of all observations."[1]

It would indeed be a sorry state of affairs if only 2.5 per cent of
teacher statements provoked thought. However, it seems reasonable to
suggest that such statements as "There are more people alive today
than have died since man evolved", or "No bit of the body you have
today was there seven years ago" are every bit as thought-provoking
as "Perhaps you could make everyone live happily ever after". At a
lower "level of cognitive content" statements like "2+2=4" or"C A T
spells cat" may well be prerequisites for subsequent enquiry and
imaginative expression. In the setting up of the teacher-talk categories
we find the commonest mistake of educational theory perpetrated:
the conditions necessary for the development of a desired capacity
are confused with the defining characteristics of its expression.

One final point about teacher talk should be made, since it
illustrates how preconceptions external to the research design, together
with preconceptions embodied in it, can together determine which
results are considered interesting and therefore worthy of further
investigation by sophisticated statistical procedures. The research
report lays considerable emphasis on what it refers to as the "striking"
and "unexpected" finding that

> "Higher level cognitive interactions, which average out at
> 9.3 per cent of all teacher-pupil interactions, are most
> likely to occur when the teacher is interacting with the
> class as a whole, and (paradoxically, perhaps), least likely
> to occur when she is interacting with a particular, individual

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1 ibid., p.89.

child."[1] (Original italics)

In the second volume it is stressed that

"This is a matter of some significance and interest,

especially if individualisation is seen, as the Plowden

Committee saw it, as the means of promoting independent

work and enquiry."[2]

This finding, with the help of those assumptions which go to make

it "of significance and interest" underpins important later conclusions

about teaching style and strategy.

If we have a mental picture of teachers divided into those

(traditional) who stand in front of the whole class stuffing kids with

facts all day and those (Plowden type) who "lead from behind" and

stimulate "questing and exploratory work" by facilitating the self-

propelled work of groups and individuals, this particular finding

would indeed appear paradoxical. If, however, we suppose that the

notion of teacher "leading from behind" is itself paradoxical, except

as a manipulative motivational strategy, it will seem quite forseeable.

Provided that we assume that the children must at some stage have been

taught the skills they exercise when working individually (see Chapter

Ten), and further assume that to internalise skills they must conversely

have opportunity to exercise what they are taught, we will expect that

pupils spend some of their time acquiring knowledge, skills and

information (through interaction with the teacher) and some of their

time using what they have acquired (without interacting). Whether the

teachers we observe choose to let us see predominantly one side of

the operation or predominantly the other, both must go on, unless we

suppose the teacher to be dispensable except in her role as classroom

manager. If we accept that overt teaching must go on for many sorts

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1. ibid., pp.93-94.

2 ibid., p.33.

of learning to take place, then given the asymmetric relation of teacher-pupil interaction referred to earlier in the report, teachers are extremely likely to _impart_ skills and knowledge to the class as a whole, for pure reasons of economy. It is therefore entirely to be expected that "higher level cognitive interactions" take place almost exclusively in the class teaching situation for three reasons, the first pedagogical, the second taxonomic, the third psychological.

Most of the teacher's individual attention will be when the child is _exercising_ skills or _using_ knowledge, and will therefore be of the "Do you understand why the plant turns to the window?" (Q1), or "Can you do another example like that?" (Q4), variety. The taxonomic reason is also clear. Since in practice teachers do not ask (and therefore pupils do not answer) questions where there is absolutely no restriction on the acceptability of the answer, "open" questions will tend to be requests for suggestions which _anticipate_ the content of her teaching. A teacher might well ask _the class_ "How do you think we could find out why this plant has turned to the window?" (Q3), because there is a chance that _at least one child_ will come up with a suggestion. In an individual setting it is thirty times more likely that no suggestion will be forthcoming during a pause of acceptable length, and the teacher will therefore be thirty times more likely to be coded as making a statement. Moreover in the class situation there is a strong chance that there will be a series of suggestions, and as there is no onus on the teacher to accept or reject them until she does so implicitly when the series is complete, she will be coded as asking an open question. That answers are _offered_ more readily to such questions in a whole class situation is due not only to the fact that there are thirty heads working on the problem, but also to the psychological commonplace that for one individual to ask another a completely "open" question, and to wait until a reply is received, is an exceptionally threatening ploy. As I do not subscribe to the

Plowden paradigm of the nature of the child, nor to the corresponding

paradigm of the ideal situation for promoting thought, a high

incidence of Q3 in an individual setting would seem to be no cause

for rejoicing, since I would interpret it as cognitive bullying. Thus

it becomes clear that (1) the questions we select to answer by empirical

means, (2) the answers we receive from the data, (3) the significance

we attach to these findings, and (4) our evaluation of the significance

of such findings, are all, in differing but related ways, coloured

by our assumptions about the nature of children, knowledge and learning,

and the value judgements we make on the basis of these assumptions.

All this is true whether the research approach is systematic and

avowedly scientific (where at least some of the assumptions are explicit

and open to questioning) or whether a non-systematic, qualitative

approach is employed.

Before this point is developed, a number of further remarks about

ORACLE must be made, lest it seem that less than justice has been done

to this detailed, complex and in many ways methodologically sophisticated

project. The critique offered in this thesis makes detailed reference

to only the first half of the process study; that half which deals

with the picture of "what happens in classrooms". The intention of

this critique is not to dissect one particular research project for

its own sake, but to examine it as perhaps the best British example

of its genre to data. The defining characteristic of the genre is the

method of data collection, and strengths and weaknesses of both a

logical and a methodological kind made evident by this examination

serve to illuminate the limitations of the genre, since no manipulation

of the raw data can increase (though it can always vitiate) the validity

of that data. Any unexamined assumptions which are incorporated in

the design of the observation instruments will colour the data obtained

by them (the process data) and hence any findings generated by statistical

manipulation of such data and its correlation with data obtained by

other means (product data). Thus a radical criticism of a process/

product study of the ORACLE type can rest upon a detailed critique

of the process data alone. Lest it be imagined, however, that techniques of

multi-variate analysis serve to launder the raw data, one or two points

about this procedure must be made.

At the second stage of the research, where various statistical

procedures are employed to generate correlational hypotheses from the

mass of observational data, the researchers must again import their

assumptions, this time to the data collected rather than to the object

of investigation. P. Croll, statistician on the research team, cautions

that statistical manipulation is itself not theory free:

> "It is sometimes mistakenly thought that multi-variate
>
> techniques such as cluster analysis and factor analysis
>
> are purely inductive methods which will 'make sense' of a
>
> mass of data in an 'untouched by human hand' fashion. In
>
> fact the choice of variables implies, as we have seen in
>
> the ORACLE research, a theory about the data being studied
>
> although not necessarily one that is precisely formulated.
>
> Consequently the usefulness of the groupings arrived at will
>
> be dependent on the precision and relevance of the variables
>
> selected for analysis. Moreover, the type of analysis
>
> chosen also implies assumptions about the nature of the
>
> variables and the kinds of groupings likely to be found."[1]

This is not, however, simply another instance of the inevitable theory-

laden nature of all scientific procedures; the matter of theory-

freedom is always relative, as noted earlier, and in this case the

statistical generation of findings will reinforce those assumptions

reflected in the raw data, whilst adding others which compound them.

Furthermore, in employing techniques chosen in accordance with a theory

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1 ibid., pp.178-9.

about the data which is "not necessarily one that is precisely

formulated", the entire advantage of collecting these data by a

means which purportedly made theory about the object of investigation

explicit, is negated.

It has been emphasised that the major advantage of systematic

observation - for which a high price is paid - is that the criteria

for recording happenings must be precisely (though not necessarily

usefully) formulated. This is an advantage simply because it is open

to the reader (provided he has access to the full definition of such

criteria) to accept or reject them. Similarly, any "theory about the

data being studied" must be both precisely formulated and explicitly

stated. If it is not precisely formulated, uninteresting, irrelevant

or meaningless questions will be asked, to yield "findings" which have

little basis in or bearing on the situation investigated. If the

theory is not explicitly stated, then we have no means of evaluating

such findings, except to question the validity of the data on which

they are based, and the techniques by which they are obtained.

The validity of the data on which these findings are based has been

sufficiently called into question; the choice of techniques employed

to obtain them itself reveals assumptions about the objects of

investigation which deserve some comment. Croll noted that the choice

of variables implied a theory: more fundamentally the choice of

multi-variate techniques in general to answer those questions considered

relevant by the ORACLE project raises serious conceptual problems. That

process/product study sought to trace, by quantitative means, the con-

tributary causal factors of a complex attainment. The researchers set

out to investigate, in the product study, how much of a child's

successful performance is due to teacher strategy, how much to the

child's personality, sex, interaction with peers etc. Even if we

disregard the evaluative basis of the concept of 'successful performance',

and the metaphysical basis of any personality theory, the procedure of

asking such a question at all is problematic. G. Ryle has some

caustic comments to make about the attempt to quantify the causal

factors of a qualitative attainment:

> "Comparable quantities, e.g. relative percentages, have to
>
> be homogeneous. Surely with a frailer inherited physique
>
> and/or with less mountaineering experience Hillary would not
>
> have climbed so high. But this does not permit us to say
>
> that Hillary's inherited physique got him up 15,000 feet,
>
> leaving the remaining 14,000 feet to be contributed by his
>
> acquired expertness. Incidentally, his expertness partly
>
> consisted in his skill in exploiting the special qualities
>
> of his own inherited physique; and it had been the qualities
>
> of his physique that had enabled or helped him to acquire
>
> some of his skills. Very likely Hillary would say that his
>
> success was due in part to luck - luck with the weather,
>
> luck in escaping any falling rocks, etc. And just how much
>
> was due to fitness? How much to ambition? What were the
>
> exact sizes of these parts? Well!"[1]

Ryle's basic point is that "if there could be measures of such things

at all, there could not conceivably be just one scale of such measures."[2]

Unless we assume that personality is independent of sex, or indeed that

teacher strategy is independent of pupil personality and response, to

analyse these contributory causes separately is to overlook the prior

questions (to be answered by conceptual analysis and practical knowledge)

that some factors may be dependent upon, or even defining characteristics

of, others.

Similarly, when sophisticated measures such as factor and cluster

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1. Ryle G., "Reply to J. White, 'Logic of the Nature/Nurture Issue.'"
   in Proceedings of the Philosophy of Education Society of Great
   Britain, Vol. VIII, No. 1, January, 1974, pp.56-57.

2. ibid., p.56.

analysis are employed to group teachers into types, by correlating

separately observed features of their outward behaviour, it must be

assumed not only that behaviour is stereotypical but that say, the

extent to which the teacher offers praise is independent of her attitude

to children as manifested in her grouping policies. It is true that

the cluster analysis (if the right questions are asked) should group

together those separately identified variables which are interrelated,

but this is not guaranteed. If classroom management is hypothesised

to be crucial, we will simply learn whether this is strongly or weakly

correlated with learning outcomes. We may also learn that the amount

of "silent marking" is similarly correlated with learning outcomes.

We will, however, have no reason to suppose that the forming of a group

characterised by these and similarly identified strategies is the

discovery of a "teaching style" which can be meaningfully related in a

global sense to outcomes. Not only is there no <u>necessarily</u> stereotypical

relation between behaviour and intention, there is no necessarily stereo-

typical relation between separately identified sets of behaviours.

There may well be <u>particular</u> relations between sets of behaviours, but

we need to be aware of these in order to <u>ask</u> questions by means of

cluster analysis. That procedure can check our answers, but cannot

itself generate them. It is perhaps interesting that the "most successful

style overall"[1] identified by ORACLE, namely the "infrequent changers"

consists of a group of teachers who have little in common except that

they alter their style (whatever it is) in the course of the research.

What this group has in common is not how its members behave (for we

are not told how they behave as a group, only that their behaviour,

individually, changes) but that they are confident and experienced

enough to handle a variety of types of classroom organisation, and to

vary their practice as changes in the situation demand. This

---

1 ORACLE(2), p.72.

explanatory hypothesis is not generated by the findings (for it is
simply a gloss we may choose to put on them), nor is it informative.
It is only because we would expect confidence and experience to be
defining characteristics (not causes) of 'good' teaching that we can
make this inference. The isolation of defining characteristics of a
normative state or performance could not conceivably be settled by
empirical means, though empirical considerations will have some bearing
on the matter.

There are of course factors in the learning situation which are
more obvious candidates for empirical investigation than pupil
personality or teaching style (on this revised notion of teaching style
as not separable from teacher personality, expertise and attitude).
ORACLE therefore selected a whole series of variables considered likely
to relate to pupil progress. These were subdivided into those external
to teaching style (class size, socio-economic background of pupils),
those associated with teaching style (average percentage of time spent
"working" average percentage of time spent on class or group work),
and those dubbed "problematic" (distribution of time devoted to "basics",
age of teachers, percentage of open-plan classes and percentage of
vertically grouped classes). Multi-variate analysis of these factors
cannot override, but rather must take account of, that practical
knowledge about the situation in question which we already possess.
To suppose that class-size and socio-economic background of pupils are
independent of teaching style is to assume that teacher A will exhibit
style M, teacher B style N etc., regardless of circumstance. In so far
as teaching style is not merely the behavioural expression of teacher
personality, attitude, competence etc. (though I have argued it is
partially this), but is also to varying degrees consciously adopted by
the teacher to suit variations in pupil expectations and norms, and in
the environment in which they learn, it cannot be presumed to be
independent of such variations. If such variations are supposed to be

quite external to teaching style, one of the necessary outcomes of
the product study will be that those teachers who adapt their style
(whatever it is), dubbed "the infrequent changers", will be identified
as using "the most successful style overall".

As for the second group of factors, those said to be "associated
with teaching style" (time spent "working", pupil-talk time, percentage
of time devoted to class/group/individual work), if the above points
are accepted about the association of the "external" factors with
teaching style, then all that is left to consider as characteristics
of any such style (apart from qualities intrinsic to the teacher as a
particular person) are precisely such factors. It is not legitimate
to examine the relation to pupil progress of factors A, B and C
(presumed external to teaching style) separately from teaching style
S, when S is partially constituted by A, B and C.

The final group of hypothesised factors, those dubbed "problematic"
(percentage of open-plan/vertically-grouped classes, teacher age etc.) are
problematic for differing reasons, so that this grouping does not
exhibit invalid defining characteristics: it has no such characteristics
at all. The factor related to open-plan/vertically-grouped classes is
problematic simply because such organisational factors (fashionably
supposed in the sixties to facilitate the implementation of the child-
centred approach) correlate more highly with teacher age than with
pupil progress. This point highlights Ryle's remarks about the
impossibility of measuring qualitatively different things according to
the same scale. Practical knowledge of schools ensures that any such
finding is far from puzzling. The correlation will work in a manner
precisely analogous to the extent to which teachers of various age-
ranges can be considered 'volunteers' in the research programme. In
general, as was argued in detail in Chapter 10, in innovative teaching
situations (whether open-plan classrooms or research projects) there
will be far fewer teachers over forty than under thirty, and those

that there are will probably be there from choice, with all that
that implies in terms of confidence and flexibility. We simply cannot
measure open-plan classrooms as a factor in learning outcomes if we
do not differentiate between those where the teacher concerned is
utilising a particular environment to put certain strategies into
operation, and those where room-dividers and bookshelves are arranged
so that - whatever it says on the architect's drawings - traditional
teaching is attempted under adverse physical circumstances.

Teacher age is considered problematic, not because it does not
appear to correlate with learning outcomes, but because there has been
considerable dispute among educational researchers as to whether it is
permissible to include in the investigation qualities intrinsic to the
teacher. It is clear that of all the factors listed by the research
team, only "age of teacher" makes direct reference to the teacher as
an individual, rather than to her as a manager of a particular sort of
physical environment, though it has been amply argued above that the
manner in which she manages cannot be considered as unrelated to her
personality, expertise and attitudes, which in turn affect what sort of
environment falls to her to manage. The research team is ambivalent
about the validity of treating teacher age as a variable, though they
were surprisingly sanguine in so treating the various other factors as
if they were independent of the teacher and her "style". They note
that Gray and Satterly criticise the Lancaster study of pupil progress
for omitting to control for this factor[1] but conversely they point out
that it has been argued that it is not appropriate to control for such
variables "as their influence is part of the teacher effects being
investigated".[2] I have argued above that it is not legitimate to treat

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1 Gray J. and Satterly D., "A Chapter of Errors: Teaching Styles
   and Pupil Progress in Retrospect" in Educational Research, 19,
   No.1, 1976, pp. 45-56.

2 ORACLE (2), p.90.
   See Youngman M.B., Analysing Social and Educational Research Data,
   Berkeley, 1979, pp.193-4.

qualities intrinsic to the teacher as if they were extrinsic. This
is not to say that such qualities, or factors, are not candidates
for examination. It must be pointed out that if the teacher's function
as a classroom manager (the facilitor of the Plowden paradigm) is not
her most crucial role, and is not necessarily related to her effectiveness
in teaching (as the research report reluctantly confirms[1]), we are
forced to conclude that it is largely qualities intrinsic to the
teacher which determine outcomes. Methodological refusal to investigate
these, as recommended by Youngman[2], leads to the rather strange situation
where the one factor of the learning situation which cannot be con-
sidered for analysis is what the teacher is like. To suppose that
this is independent of how she treats the children,and the content of
her teaching is misguided and confers a spurious methodological purity
at the superficial level, whilst leading to (and reflecting) deeper
confusions. Moreover, the belief that we can investigate the learning
situation the more validly in proportion as we can isolate factors
extrinsic to the teacher is directly dependent upon the progressive
paradigm which sees the child as the agent of his own learning and the
teacher as the remover of obstacles to his inevitable cognitive
development.

It is therefore clear that the background theory which determines
what factors are candidates for statistical analysis will be related to
and will reinforce those assumptions which coloured the process data
concerning the nature of children, the nature of learning and knowledge,
and hence the role of the teacher. It is important to state at this
point that none of these background questions are purely or even
predominantly the province of the empirical researcher or theorist.
Theories about the nature of children and their 'proper' development

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1 ORACLE(2), p.98.

2 Youngman, op. cit.

are partly metaphysical and strongly normative. Theories about the
nature of learning make reference to these two domains and to
epistemology as much as to any of the empirical findings of psychology.
And theories about the role (or rather the 'right' role) of the teacher
are dependent on all the foregoing, together with moral considerations
about how we would like children to be treated. It therefore becomes
increasingly clear that the empirical theorist cannot profitably study
the 'facts' of the educational situation without using the sort of
systematic thought about such issues which currently devolves
institutionally upon people employed as philosophers of education. I
am not here urging a takeover-bid by philosophers, but simply putting
the converse point to that argued in Chapter Five of this thesis.
There it was argued that to treat as part of a speculative theory,
those factual assumptions which could not be arrived at or supported
by pure speculation, was a sure recipe for fallacious or unfounded
reasoning. The same is equally true for empirical theorising which
treats as unproblematic (or leaves unformulated) those basic issues
which cannot as yet, or never could be, resolved by empirical means.

The traditional gulf between facts and values is by no means as
clear cut as is frequently supposed when we are dealing with the
development of children, and particularly with the development in them
of cognitive and emotional capacities which are prized. What we pick
out and define as a 'fact' is a matter hedged about by valuations and
theorising of the most speculative sort, frequently about moral and
epistemological matters. It will be argued in the conclusion to this
thesis that what we identify as a 'value' is correspondingly often
partially dependent upon factual considerations. These are the sort
of claims that Nagel overstates before dismissing when he examines the
problem of value bias in the social sciences:

"There is a more sophisticated argument for the view that
the social sciences cannot be value free. It maintains

that the distinction between fact and value assumed in

the preceding discussion is untenable when purposive

human behaviour is being analysed, since in this context

value judgements enter inextricably into what appear to

be "purely descriptive" (or factual) statements."[1]

I am not here arguing the extreme case that fact and value are "so

fused they cannot even be distinguished"[2], simply that the relation

between them is immeasurably more complex than the neat separation of

educational theory into the speculative and the empirical would lead

one to suppose. It will further be argued that it is this separation

which is partially responsible for the dead ends arrived at in much

of this field of enquiry. Very many questions pertinent to education

fall outside the scope of empirical enquiry. Of those which fall inside

that scope, some are _purely_ empirical. There remains a large number of

pertinent questions to whose solution both approaches can contribute,

though in different ways and at different stages in the enquiry. It

should finally be noted that speculative reasoning (of the systematic

sort institutionally hived off to philosophers) is not only pertinent

to the precise formulation and answering of many apparently empirical

questions: it is also pertinent to deciding what sorts of questions it

makes sense to ask, and to evaluating the legitimacy of procedures

proposed for answering them.

The sort of positivist research in education which is exemplified

by the ORACLE project is misconceived in three related ways. Conceptual

analysis and systematic speculation about our area of enquiry is as

essential a precondition for and accompaniment of empirical research

in the social field as it is in the field of natural scientific enquiry.

It will be the more complex in education since what we wish to investigate

---

1 Nagel, op. cit. (1961), p.491.

2 ibid., p.491.

may well be itself normative, and speculative inferences to non-observable features of behaviour will colour all our observations.

Secondly, as this critique has repeatedly stressed, whatever approach to social research is adopted, we can neither afford nor are we able to ignore what we have good grounds to believe, as embodied in our practical knowledge of our fellows and the concepts in which this is expressed. The adoption of the positivist paradigm is thus based upon fundamental confusions about purposive behaviour: the consequences of adopting this paradigm structure the pattern of research in a particular manner.

The adoption of positivist assumptions entails the belief that the most legitimate investigations are experimental, and in circumstances where experiment is impossible, an approximation to the experimental model should be pursued. When such an approximation is merely procedural mistakes will multiply. Indeed many of the mistakes of the ORACLE study can be seen to result from conducting an exploratory study (process) by the procedures suited to the testing of hypotheses, and from attempting to establish correlational and causal factors (product) on the basis of the unmodified exploratory data. That study looked to see "what happens in classrooms" on the basis of a set of unexamined assumptions about the nature of the child and of knowledge, and hence about what constitutes effective learning. Many of the confusions in this original (implicit) picture could have been clarified without any empirical procedures. In the absence of such clarification, some of the more "paradoxical" of the findings could themselves have served to demonstrate where some areas of confusion lay. At this stage a thorough reconceptualisation of the exploratory study should have taken place, before collecting modified data which could subsequently have been subjected to manipulation in order to generate hypotheses. This second study would necessarily have been rather different from the first, since the 'null' result from the study of teaching style, achieved

by the manipulation of "independent variables", treated as simple

components of style, would have indicated empirically what should have

been evident to reflection; namely that complex behaviour cannot be

assumed to be an additive function of simple behaviours.

It becomes evident that much empirical research in education is

vitiated by over-ambitiousness, given the state of the art of social

research. Within education, empirical methods can currently offer

answers to certain limited questions; we might wish to know the

relationship say, between socio-economic grouping and total years of

formal education, or between age within the class and performance in

examinations. They can also seek to provide part of the informational

data which we might use at some time in the future to generate hypotheses

about the larger issues within education. Thus we might wish to ask

whether pupils defined as 'anxious' (according to specific criteria)

performed more successfully (also defined according to specific,

limited, explicit criteria, say achievement of a reading age commensurate

with chronological age) in classes where content, order and pace of

work were directed rather than in classes where content only was directed.

One of the functions of asking such questions would be to discover

whether they are the sort of questions we ought to be asking. What

empirical research programmes are in no position to do is to ask the

global questions, such as "What makes children succeed in school?".

Just this over-ambitiousness was at the root of the particular project

examined in these chapters. It is simply not possible to discover,

at one fell swoop, just what is happening in classrooms, and what the

effect of these various happenings is on outcomes in terms of pupil

progress. It is not sensible for educational researchers to note that

conceptual problems abound, and then ignore them; that valuations

colour judgements, and then launder such valuations by computer; that

people have reasons for their actions, and then categorise those actions

as if they were sterotypically identifiable movements.

Limited, tentative answers to explicit questions of detail may generate less excitement (and prestige) than global questions, but these latter must wait upon three developments. Progress must be made in conceptualising the problems at issue, social theory must develop means of studying people as if they were human beings, and answers to limited questions will help to indicate what other questions it is sensible even to ask.

SUMMARY   AND   CONCLUSIONS

The stated aim of this thesis has been "to form a synoptic view
of theorising in education and to establish both the extent of what
we must demand, and the limits of what we may expect in a field of
study whose complexity is matched only by its importance."[1]   As a
preliminary to that enterprise the various ascriptions of "theory"
and "theorising" were discussed, and a normative concept of 'education'
together with a logically complex frame of reference for 'educational
studies', were adopted. It was argued that, educational studies being
more than a subsection of anthropology, we are interested in becoming
clearer about the workings of the educational process as a precondition
for critical evaluation of existing policies and procedures, and in
order to understand the practical applicability of alternative
recommendations. The notion that educational decisions could be derived
solely from statements about what is the case was shown to be fallacious,
and it was accordingly argued that the formation of a synoptic view of a
logically complex area of enquiry is a philosophical task.

The first task was to explore the controversy which surrounds the
notion of educational theory. The debate between O'Connor and Hirst
was first examined, for three reasons. That discussion has strongly
influenced and set the parameters for most subsequent treatments of
the question; the points of dispute between Hirst and O'Connor reveal
underlying shared assumptions about what makes educational theory
problematic; and questioning those shared assumptions points the way
for a redirection of emphasis in examining the problem. O'Connor
sees educational theory as particularly problematic on the grounds that
education is a field of practical activity which is peculiarly normative.

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1 Preface, p.4.

His final position - that we neither could have nor need 'theory' in education, of the systematic type worthy of the name - is based on three assumptions: (1) that any such theory would have to consist of (separable) empirical and normative components; (2) that the normative component is not susceptible to well-founded statements, since principles cannot be thoroughly justified; and (3) that the empirical component rests on the behavioural sciences which, though not logically problematic, are in an early stage of methodological development. In taking issue with O'Connor over his conclusions, Hirst concentrates his attack on O'Connor's second assumption, since he accepts the first, with its implicit suggestion that it is the status of normative reasoning only which is in question when the status of educational theory is at issue. Thus both disputants locate the problem solely in the question of prescription, O'Connor maintaining that prescription has no place in theorising, Hirst claiming that prescription relies on the logic of moral reasoning, which is grounded in moral knowledge. Both agree on what constitutes the key question in the debate, but differ diametrically in their answers to it.

This thesis takes issue with the shared choice of key question, and argues that although the status of normative reasoning must of course be examined, since its validity is essential to the formulation of well-founded directives in any practical sphere, so too the status of the empirical component in educational theorising cannot be taken for granted. Even if Hirst could establish (as I argued that he fails to do) a domain of moral knowledge, we would not be faced with a logically complex theory, both elements of which were firmly grounded. Conversely, Hirst's failure to establish this contra O'Connor does not mean that O'Connor's argument wins the day by default, since all three of his assumptions are debatable.

I do not take issue with his basic premise that the interesting questions in education are about what ought to be done, and that

therefore theorising would have to be logically complex and prescriptive. I do take issue with the related assumption that the factual and evaluative elements which precede rational prescription are not merely procedurally logically distinct, but are contextually independent of each other, and also with the implicit gloss put on 'prescription'. Throughout this thesis, in maintaining that we not only can have but cannot avoid theorising in education, and in accepting that theory for practice is prescriptive, I am not suggesting that unarguable prescriptions could be generated from proven factual statements and unassailable principles. I am merely insisting that there are criteria for the rational assessment of statements about what ought to be done in particular circumstances. Those statements which most closely meet the criteria for full rationality will constitute theoretically well-founded prescriptions. Thus Hirst's failure to establish 'moral knowledge' according to criteria appropriate to knowledge in pure science or axiomatic systems does not entail the admission that moral reasoning cannot be well-founded. Nor does the problematic nature of the normative component guarantee the validity of the factual element in theorising about education, unless we assume both that the behavioural sciences are continuous with the natural sciences, and that the two elements in prescriptive theory are functionally independent. Whether or not prescriptive theory, of the sort required for the well-founded evaluation of educational problems, can be soundly established depends upon three factors; that a logically complex argument can be cast which obeys the procedural laws of logic; that the factual premises in such an argument can be established on as firm a footing as we normally require for accepting the truth of empirical statements; that the evaluative premises can be rationally justified.

Before examining these three factors in turn, it was necessary to refute the charge that we can get along very nicely without theory

in education. This indeed was one of O'Connor's points, and has

generated a rash of writing extolling 'practice' in opposition to

'theory' - a viewpoint which harmonises conveniently with the current

(but incoherent) educational fashion for promoting 'knowing how' in

preference to 'knowing that'. It was argued that in so far as actions

are intentional and purposive, all decisions are at least implicitly

the implementation of prior theorising, whether or not this is

articulated or articulable by the agent. It is therefore pointless to

ask whether or not we need theorising in education; we have it, and

what remains to be asked is how securely it can be grounded.

Given, then, that all practice is theory laden, and that instances

of practice are implementations of prescriptions, can such prescriptions

have valid theoretical backing? Several currently popular grounds for

ruling any such validity out of court were dealt with in the closing

chapter of Part One. All three factors identified above as necessary

and sufficient conditions for the establishment of educational theory

have been adjudged by various writers to be, jointly or severally,

incapable of fulfilment. It is often stated that the 'facts' of

education are irredeemably normative, and therefore not candidates for

empirical investigation. In support of this it is asserted that ends

(such as 'literacy') cannot be fully specified and are hence inherently

nebulous. As a general objection to all empirical investigation of

educational matters this argument cannot be sustained, though it gains

its force in being necessarily true in some instances and contingently

applicable in most. However, the fact that it is difficult to dis-

tinguish between conceptual and empirical questions (and that many

empirical theorists fail to make the distinction) does not entail that

there are no questions which are suitable candidates for empirical

investigation. All empirical questions are conceptually fuzzy to some

degree, and we are presented in education with questions which range

from the almost exclusively empirical to the almost exclusively

conceptual. What matters is to establish where along this range a

particular question lies. Of a child in a classroom we might want

to ask whether (1) he is older or younger than his fellows, (2) he

is working at his sum, or (3) he is developing nicely. To take these

questions as all equally capable of empirical resolution would be

foolish: it would be no less foolish to suppose them to be equally

incapable of such solution.

As for the alternative substantive attack on prescriptive theory,

namely that it is vitiated by the regress in moral reasoning; that

can be deflected in the same manner. Just as the inability to specify

key terms in education is only globally and necessarily true in the

attenuated sense in which it is true of all empirical theorising, so

the impossibility of the complete justification of policies is a

function not merely of the normative regress, but also of the logical

impossibility of complete description in the empirical sphere. Since

a priori rejection of the notion of theory of a particular type must

be based formally on features which distinguish it from theory in

general, neither of these substantive attacks can be considered fatal.

The third standard objection to theory in education is based on

the claim that since any prescription for practice must have both

factual and evaluative elements, arguments issuing in such prescriptions

will violate the fact/value gap and flout the rules of logic. In this

connection I argued that whilst the modes of reasoning within the

factual and evaluative spheres are distinct and therefore must not be

confused, almost all questions within our field of enquiry are logically

mixed, and to refuse to bring these two distinct modes of reasoning

to bear conjointly on their solution can only result in reasoning

which is strictly irrational. As for the claim that no prescriptive

conclusion can be validly supported by logically disparate elements;

to accept this contention would be to admit the irrationality of all

deliberation and all action, and to deny the logical soundness of the

practical syllogism. Since all three canvassed objections fail to stand, there is no a priori reason to suggest that educational theory is impossible in principle. The validity of such theorising can only be examined by considering what sorts of rational grounding can be established for both the evaluative and the factual premises in educational argument.

Accordingly, Part Two was concerned with the part that philosophy of education has to play in the formation or justification of educational theory. In Chapter Four I considered the claim made by philosophers of education that it would be illegitimate for them to offer prescriptions. It was noted that in so far as prescription makes reference to both factual and evaluative propositions, this is obviously true if it simply means that philosophers cannot alone provide the rational grounding for such prescriptions. If, however, it means (as is usually intended) that philosophers of education can offer no sound backing for the normative element in prescription, then this disclaimer must be examined more closely. It is a plain fact of life that men do not have the option of abstaining from judgements about ends, and it therefore seems strange if those who specialise in the study of normative reasoning should pronounce themselves specially unequipped to further this enterprise. It was argued that substantive normative reasoning should not be eschewed on the grounds that principles cannot be validated and arguments are regressive in form, because 'ought' implies 'can'. We cannot operate in the world without employing principles, both substantive and procedural, nor without reference to norms. Rational support for such norms and principles cannot be obtained by appeals to the world of material objects (though it is a part of this thesis that such appeals partially underpin our norms) but by reference to coherence, compatibility and consistency within normative reasoning. It was suggested that philosophers' critical awareness of the logical difficulties connected with the bases of their discipline tends to obscure the

point that such difficulties are not peculiar to normative reasoning,
though they are especially acute within it. The fact that fundamental
norms are arbitrary is a function of the fact that they are fundamental,
not that they are norms. To take the normative regress seriously
would entail abstention from reasoning about practical affairs; to
take the arbitrariness of fundamentals seriously would be to abandon
rationality in all realms of enquiry.

Lest this should seem like a cavalier dismissal of the philosopher's
scruples, the following chapter examined that traditional type of
philosophy of education against which such scruples are partially a
reaction. Traditionally it was assumed that an elaborated philosophical
position or 'world-view' would have substantive implications for
educational practice, which could be deduced or derived from the premises
of that world view. It was clear that any such procedure is wholly
mistaken and rightly rejected. No comprehensive system of practical
policies can be derived deductively from philosophical first principles,
since these are solely normative, and no such comprehensive system of
policies can be justified by an argument which works back solely to those
first (normative or metaphysical) premises. This must not, however,
be taken to entail that no single policy statement can be justified,
nor that philosophers have nothing to say with substantive implications,
since prescription can never adequately be supported. Just as
justification must not be dismissed for failing to provide proof, so
rationality is not to be equated with deduction.

The philosopher's refusal to engage in substantive normative
reasoning in virtue of the arbitrariness of metaphysical positions and
of fundamental norms, though it would be fatal to educational theory
if it were both valid and sustainable, did not prove fatal to philosophy
of education. In conceptual analysis philosophers of education have
claimed expertise in a technique which not only contributes procedurally
to debate by ensuring that parties genuinely communicate, but which

they maintain is both non-empirical and value-free. I disputed this

latter claim, by means of an examination of the notion of conceptual

truth and its dependence upon the problematic concept of synonymy. I

rejected the claim that conceptual truths reveal to us facts about

the world which we ignore at the price of irrationality, and claimed

that they are no more than the codification of conceptual schemes,

and hence are no more immune from revision than are our norms and

empirical judgements, from which they are contextually inseparable.

My critique of the notion of conceptual truth was not intended as an

attack upon the procedure of conceptual analysis, but only upon the

suggestion that it is a legitimate end in itself (capable of revealing

logical relations, which are true no-matter-what), rather than simply

being a tool for refining and accurately communicating our valuations

and empirical judgements. Furthermore, the substance of this critique

implies that philosophers of education have an important role to play

in the formulation of both categories of premise in prescriptive

theorising.

If then, there is no procedure which has substantive implications

but is both non-empirical and value-free, what of the philosopher's

role in substantive normative reasoning? On the assumption that such

reasoning is radically vitiated unless fundamental normative questions

can be settled, many philosophers of education have turned their

attention to what they see as the central question in their field of

enquiry, namely the location of intrinsic value. I examined various

attempts to locate intrinsic value in order to establish what is

involved in approaching - and in failing to answer - that question.

It was apparent that no value or principle identified as ultimate could

itself be justified, since justification had been exhausted in its

identification. This is a function of the logic of justification, not

of the nebulous nature of norms. I rejected the popular corollary

that failure to locate intrinsic value renders all normative reasoning

Coventry Hood
the key.

What is force? distinction between
Relative & absolute Vorisity.

vacuous. It was argued that normative statements (like other types
of statements) must be considered well-founded if they have been
based on sound subsidiary statements, are part of a valid argument,
and do not conflict with any other statements at the same level of
generality which are more central to our conceptual scheme than the
statements at issue. This is not to ask less of moral reasoning than
we do of other sorts of rational enquiry: it is simply to refuse to
ask more.

In summing up the contribution to normative theorising that we
may expect from philosophy of education, Chapter Eight concluded that
it is mistaken and self-contradictory to see the philosopher of
education as a sort of educational backseat driver; specially qualified
to comment on the driver's mistakes, but also uniquely qualified to
explain that neither he nor anyone else should be driving the vehicle
at all. It is not defensible to argue that his role is solely to
promote clarity and coherence, for this function itself is defensible
only if it is seen as merely a part of his role. It is not consistent
to eschew substantive contributions on the grounds that principles are
arbitrary, and then to exempt procedural principles from such
arbitrariness. The manner in which the philosopher of education can
and should contribute to that area of research currently treated as
empirical will be detailed below. Even in that area his contribution
will be seen to be more than clarificatory and procedural since, for
example, studies of 'learning' cannot be wholly divorced from con-
siderations about the nature of knowledge. In the normative area it
is the more true that the philosopher's contribution is more than
procedural for the relative validity of normative judgements is
especially his concern, and their absolute validity is axiomatically
a chimera.

It is an important part of this thesis to establish, as I argued
in concluding the examination of the philosopher's role, that

judgements of value are no more uncontaminated by factual judgements than factual matters can be considered value-free.[1] This claim has important implications for theorising in education. Many philosophers' doubts about the legitimacy of moral reasoning arise from the assumption that our valuations inhabit a realm quite divorced from the material world, and that their validity therefore depends solely upon ultimate value judgements which are necessarily arbitrary. Hence they are deemed to be both unfounded and incorrigible. Their unfoundedness has already been dealt with; their incorrigibility is similarly fallacious. Some evaluative disagreements logically must be founded on ultimate disagreements, and hence there is no logical possibility of arbitrating towards their solution. Disagreements <u>in all spheres of thought</u> can be of this type, since we cannot pull ourselves up by our cognitive boot-straps. But in moral reasoning as elsewhere, simply because time is short and our individual horizons are limited, disagreements are seldom ultimate, though they may appear to present themselves in that guise. As moral reasoning is supported not only by reference to further moral principles, but thereby to further sets of statements about the world (which with the inclusion of further principles, become relevant to the discussion), rationality in morals is dependent not simply on those further principles, but upon criteria of relevance for picking out supporting factual statements, and upon the reliability of statements thus picked out.

To offer a crude example, moral arguments about the desirability of freedom are indeed dependent upon further principles such as autonomy and respect for persons. If it should transpire that those very persons we are trying to respect are inherently incapable of

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1 See (a) G.E.M. Anscombe, "Brute Facts" in <u>Analysis</u>,19, 1958.

(b) M. Midgely, "The Neutrality of the Moral Philosopher" in <u>Proceedings of the Aristotelian Society</u>, No. 74, 1974 .

tolerating personal freedom without suffering crippling stress, then
our moral judgements will be corrigible by observations of the world,
not simply by further moral considerations. It is conceivable that
if a society existed where 'personal freedom' had been the order of
the day for so long that adverse responses to it could not be ascribed
to prior conditioning, that the treatment and functioning of 'constraint'
in moral arguments about 'freedom' would be quite different. Currently,
relationships between 'constraints' and 'freedom' are discussed purely
in logical and conceptual terms, such that the former gives meaning to
the latter, and therefore demarcates the boundary of the intrinsically
desirable. Social experiment and increased knowledge could just con-
ceivably reveal that 'personal freedom' were an intolerable psychological
burden and thus empirically (rather than conceptually) incompatible with
those social relationships which make a human being a person. Were
this the case it would be shown, not just that freedom were not desirable
after all, nor that we should conceptually redefine 'freedom' to enable
it to remain desirable for purposes of moral argument. It would have
been shown that the principle itself was based on an incomplete under-
standing of human nature and society, and moreover did not make reference
to the more general principle of 'respect for persons'.

Traditional moral philosophy was well aware that what we recommend
as desirable for man is partially dependent upon how we conceive of
him. Bishop Butler declared that the Empiricist method in morals
begins

> "from a matter of fact, namely what the particular nature of
> man is, its several parts, their economy or constitution;
> from which it proceeds to determine what course of life it is,
> what is correspondent to this whole nature."[1]

Values can only be considered as utterly separate from facts if we

---

1 Bishop Butler, Preface to the _Sermons_, section 12.

assume - as philosophers of education repeatedly remind us we are
not entitled to assume[1] - that human nature is utterly plastic. If,
alternatively, we suppose that man's potential is at least to some
extent dependent upon his nature, then a fuller understanding of that
nature will necessarily inform our moral judgements. Midgely argues
that although the objects and situations which embody our wants are
culturally and individually various, certain basic desires (for security,
admiration, achievement) run through their diverse manifestations:

> "We are innately "programmed" to want and like such things.
>
> And those wants are not scattered loose, but must be held
>
> together as expressions of one personality. This is why it
>
> is wrong to say that we just establish the facts, and then,
>
> quite separately, take up an attitude to them, view them as
>
> good or bad. Thought and feeling must go together throughout.
>
> We all have to have a conceptual frame within which wants are
>
> related. We cannot treat them as chance particulars, which
>
> might be assigned any value and which we might decide to
>
> invent or discard."[2]

To press this point is neither to fall into utilitarianism, nor to
commit the naturalistic fallacy of confusing the desirable with the
desired. But an exaggerated horror of this fallacy should not lead us
to ignore the common-sense point that recommendations about the good
for man must at some point make reference to his subjective experience.

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1 See:-
   (1) Dearden, R.F., The Philosophy of Primary Education, Chapter 3.
   (2) Peters R.S., "Education and Human Development" in Dearden R.F.,
       Hirst P.H. and Peters R.S. (eds.), op. cit. (1972).
   (3) Hirst P.H. and Peters R.S., The Logic of Education, Chapter 3.
   (4) Hamlyn, D.W., "The Logical and Psychological Aspects of Learning"
       in Peters R.S. (ed), op. cit. (1967).
   (5) Bailey C., "The Notion of Development and Moral Education" in
       Proceedings of the Philosophy of Education Society of Great Britain
       Vol. III, January, 1969.

2 Midgely M., Beast and Man, 1978, p.183.

His subjective experience is in turn dependent not only on his
inherent nature (to whatever extent he has one) but on his conceptual-
isation of that nature and his understanding of the world in which he
lives.

Therefore, not only is normative reasoning not rendered arbitrary
by failure to establish grounding for ultimate judgements, it is
neither rendered arbitrary by some special quality of incorrigibility
which differentiates it from other types of reasoning. When moral
reasoning breaks down it is almost always either because we have not
taken it far enough through lack of persistence or relevant knowledge,
or because we have been persuaded in advance that the exercise is
doomed to failure. Midgely, again, makes the point that

> "We do not take the blank clash of attitudes as ultimate,
>
> except in the trivial, contingent sense that both sides
>
> may give up from sheer unwillingness to try. In this sense,
>
> of course, we certainly can say that we can get no further
>
> with a particular dispute, that the answer simply depends on
>
> where you start from. But this is obviously a fact about the
>
> disputants, not the dispute, and there is nothing in it peculiar
>
> to disputes about value. Exactly the same thing happens in
>
> "factual" disagreements - say, between two economists,
>
> psychologists, or historians of different schools, or between
>
> a Marxist and a Freudian account of motives. Nobody supposes
>
> that these failures are logically necessary, that the disputants
>
> are not really discussing the same world. They possess distinct
>
> conceptual schemes, which have not yet been properly related,
>
> but ought to be."[1]

If moral reasoning in educational matters founders, it is because we
are persuaded that this must necessarily be so, and also because

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1 ibid., p.187.

philosophers of education take care to confine themselves only to
'conceptual issues', seen as both non-empirical and value-free. Just
as empirical work cannot proceed without sufficient attention to
conceptual matters, so normative theorising must founder unless it
makes reference to factual considerations, not only about the nature
of knowledge, but also about the nature of man and of society. In so
far as these are not matters for pure speculation, the fruits of
empirical study are essential to progress in that normative theorising
which is the especial province of philosophers of education.

The third and final part of this thesis has been concerned to
consider what sort of a contribution empirical research in education
can make to educational theory. Chapter Nine opened that debate with
an examination of the arguments for and against the 'scientific' status
of the behavioural sciences. The success of natural science (together
with related philosophical, social and historical developments) led
people to assume that only knowledge obtained through procedures which
look like the procedures of natural science - but which in fact are
representative of only part of those procedures - could be relied on
in answering factual questions. This resulted in the early adoption
of a positivist paradigm for the behavioural sciences which, although
long since regarded as highly debatable within those parent disciplines,
is enthusiastically espoused within educational research. I argued
that the success of science is not due to the adoption of particular
procedures, but to the relation of appropriateness between particular
procedures of enquiry and particular objects of investigation. In so
far as "science" is an honorific term (since the English language
lacks any equivalent to "Wissenschaft" to designate systematically
organised knowledge of varying types), the paramount obstacle to any
"science" of behaviour is the application of inappropriate procedures
of enquiry to the study of purposive beings.

From that perspective the following chapters sought to demonstrate
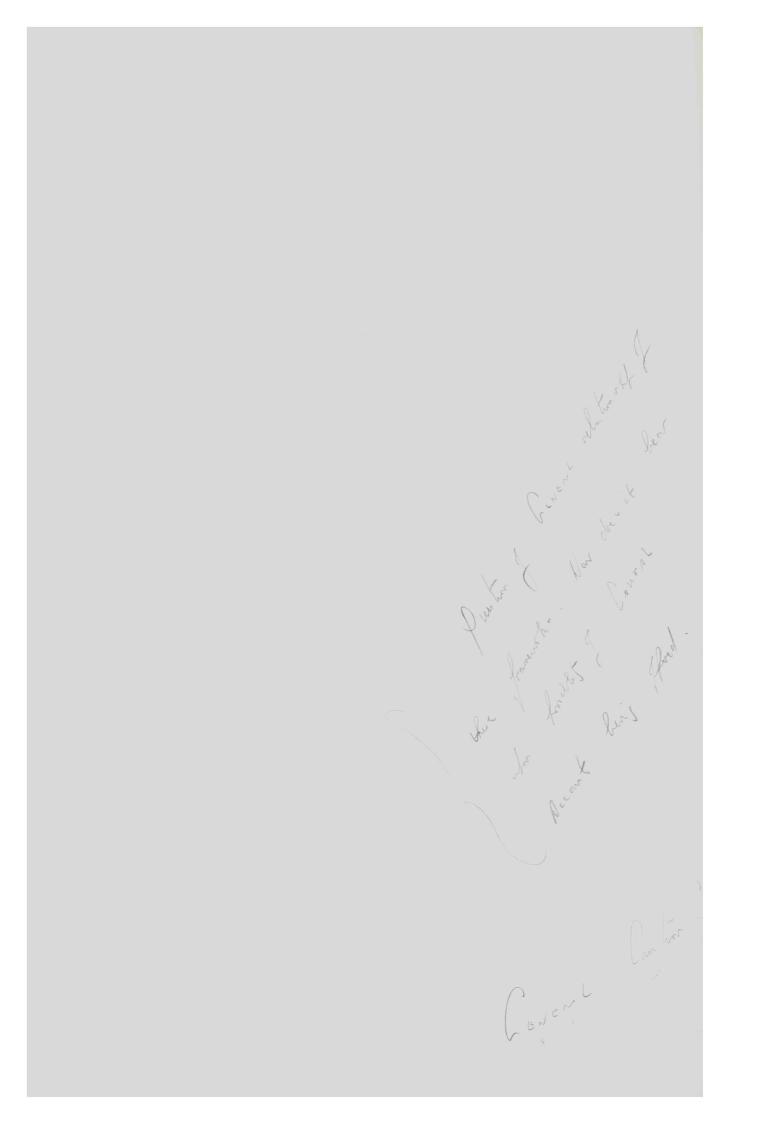
Harré and Secord's insistence that for the purposes of science we must treat people as if they were human beings. This implies that the 'objects' of our investigation 'know what they are doing', and that we cannot ignore their intentions nor discount their beliefs about their own and others' perceptions of their observable behaviour, though we should not, as the ethnomethodologists suggest, take these as complete descriptions. Nor must we discount the fact that we also, at least to some degree, know what they are doing, for to refuse to exploit our practical knowledge in the interests of 'scientific' objectivity leads only to its creeping in, unexamined, through the back door. The ORACLE project was chosen for examination as a paradigm example of the positivist, empirical methodology which characterises some social and most educational research. The actions and intentions of people are categorised and recorded <u>ostensibly</u> in terms of their observable movements and the forms of their utterances. Their 'bits' of behaviour are fragmented and aggregated in order to enable the manipulation of variables in pursuit of correlations presumed to be causally effective in the manner of Boyle's Law. Though such procedures are superficially analogous with the 'objective' procedures of science which they imitate, actions cannot of course be investigated in terms <u>only</u> of their observable features, if the investigation is to issue in findings couched in terms intelligible as action descriptions. In seeking to identify those constituents of action which are believed to be isolable as causally effective in producing desired outcomes, it is always overlooked that one cannot conceptualise separately from an action that part of it which is characterised as the reason for the action. Necessary relations are no candidates for empirical observation and to overlook this is a fundamental error, but it is equally mistaken to investigate empirical relations by inappropriate empirical procedures, or without that exploratory conceptual enquiry without which no empirical investigation can proceed.

This point must be briefly expanded in terms of the role that philosophy of education has to play in empirical research. This is not to say that the sort of procedures to be advocated can only be practised by people employed as philosophers. It is simply a regrettable fact that the serious study of education has been institutionally divided into the value judgement department (philosophers) and the factual department (psychologists, sociologists, classroom interaction analysts) to the detriment of all areas, with the policy makers picking up, from wherever is convenient, backing for policies adopted for other reasons. This rigid separation has been damaging to philosophy of education. When problems of principle are divorced from the contexts which make them relevant problems, a gap arises between those problems which interest philosophers, and those which interest educators. It has been seriously damaging to educational theory, since it reinforces the stultifying orthodoxy that fact and value should each be quarantined from the other. It has been catastrophic for educational research, where conceptual questions are studied empirically, and answers are laboriously sought to questions whose key terms are often unanalysed and sometimes unanalysable. The Open University basic course book on educational research reflects the received view. Bantock's article which makes criticisms of some empirical approaches[1] is reprinted in the course book. But the editors, having bowed in its direction, continue on their way as if these philosophical quibbles were a separate and unrelated issue. They write:

> "Science provides important guidelines, but here is the uneasy
>
> realization that social science may, after all, be different
>
> in kind from natural science. The article by Bantock (p.38)
>
> which is included in the supplementary reading for this
>
> block outlines this unease. The clearly defined paths of

1 Bantock G.H., op. cit. (1965).

Question of General relationship of
these frameworks. How does it bear
into faculties of General
Account his flood.

General Caution

causality, of prediction, of determinism may fail to

encapsulate human free will - but perhaps we had better

leave that problem to the philosophers. Our immediate

concern is with the strategies used in educational research

to provide factual evidence on which sound educational

decisions may be based."[1]

It simply will not do to note that social science may be different

from natural science and then proceed as if no such problem existed.

If the "strategies of educational research" are to provide the grounding

on which "sound educational decisions may be based", it is an unpromising

start to overlook the point that we are dealing with people, not with

inanimate objects. It is of course the case that 'meaning' 'intention'

'rule-following', and all the other concepts intrinsic to the object

of the educational researchers' enquiry make that enquiry more complex

and more prone to uncertainty than enquiries into inanimate nature.

The results of such studies will not, however, become more certain by

ignoring the very factors which are intrinsic to their point. Since

how we study something scientifically depends upon studying it by

procedures appropriate to what sort of a thing it is, we can hardly

brush aside the latter question and get on with the former. Thus

analyses of action and purpose are prerequisites to the designing of

empirical procedures whose point is to illuminate particular sets of

actions in particular situations. I am not suggesting that empirical

researchers should be philosophers, nor that empirical enquiry should

await the solution of problems in philosophy. I am simply suggesting

that work done in these areas by philosophers is relevant to empirical

enquiry, since a more comprehensive picture of a problem, even when

that problem has no agreed solution, though it may not be able to

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1 Entwistle N.J.et al. (eds.), The Nature of Educational Research,
   1973, 2.13.

prescribe what procedures are appropriate, can at least indicate

which are likely to be inappropriate, and why this is the case.

One of the procedures of philosophy which could most profitably

be brought to bear upon empirical studies is conceptual analysis.

In Chapter Six of this paper it was argued that this procedure answers

no questions definitively. What it does do, since it is concerned

with getting clearer about what we mean by certain concepts, is to

reveal what sorts of questions it makes sense to ask. Kept in

philosophical quarantine, conceptual analysis is impotent in playing

a part in prescription. But no factual elements of prescription can

be soundly established without it. In outlining a methodology for

what they call "the anthropomorphic model of man", Harré and Secord

make the point (amply illustrated in the critique above of the ORACLE

taxonomy) that in social research "precision of meaning corresponds to

accuracy of measurement in physical science"[1]. They recommend accordingly

that workers in this field should exploit the efforts made in that area:

> "Since accounts are given in ordinary language the starting
>
> point for developing a conceptual system for their analysis
>
> must be the analysis of the conceptual system of ordinary
>
> language. This has already been done by the linguistic
>
> school of philosophy and psychologists can draw upon the
>
> results of their painstaking and detailed researches."[1]

Empirical workers frequently attempt to avoid the problem of ordinary

language by constructing operational definitions, but this, far from

removing the problem simply moves it one stage further back, as J. Wilson

has argued[2] and this examination of ORACLE has amply demonstrated.

Conceptual analysis is required, not simply of those capacities,

skills or activities which a particular piece of research seeks to

---

1 Harré and Secord, op. cit., p.126.

2 Wilson, op. cit. (1972), pp.32-3.

examine, and thus attempts to operationally define (such as 'working',
'wasting time' 'concentrating') but also of those concepts which are
implicit in the research. The ORACLE project would have asked a
different set of questions if the key concepts of the Plowden Report
(cognitive and social 'development', 'discovery', 'imagination') had
been subjected to conceptual scrutiny. To pick the most obvious example,
a closer examination of the notion of the teacher 'leading from behind'
would suggest that 'behind' is not the place we should look for teachers,
if what we want to see them doing is 'leading'.

Moreover, our concepts are not simply tools we happen to have at
our disposal to describe our world: they are, more importantly, the
collected embodiment of our understanding of that world. Where what
we are dealing with is not open to observation or direct inspection
(our mental states, dispositions and motives), we have at least some
access to these through scrutiny of those concepts which we utilise
to describe behaviour from our priviledged position as agents. Ryan
notes that the social sciences are permeated by conceptual considerations
since,

> "when we elucidate concepts we are elucidating the possibilities
>
> of social life, and conversely when we explain social life
>
> we elucidate the concepts available to members of that society."[1]

Provided that conceptual analysis is made an integral part of our
attempts to explain social interaction, the logical differences between
people and things cease to be fatal to understanding. Molecules cannot
tell us what they are up to. We cannot examine the concepts they use
to express their behaviour in the light of our own conceptual under-
standing. We therefore have to settle for describing their behaviour
in terms of externally observable causal regularities. To confine
ourselves to equivalent remarks about human beings seems rather perverse.

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1 Ryan, op. cit. (1970), p.145.

Through conceptual understanding we have some access not only to non-observables intrinsic to our enquiries, but also access to that practical knowledge without which, it has been argued, such enquiries are unintelligible.

One of the functions of conceptual analysis is to indicate not simply what we think we know, but also how we evaluate those states or capacities to which we refer; to highlight not only the descriptive denotations of our terms, but their emotive aura. Whilst it is often argued that evaluation should be firmly confined to the value-judgement department, this is a misguided directive where empirical studies in education are concerned, for 'ought', here as elsewhere, implies 'can'. The shunning of value judgements often rests on a simple confusion. From the true statement that it is not scientific to allow one's emotions and valuations to colour one's enquiries, it is extrapolated that it is not scientific to enquire into emotions and valuations. It is true that enquiry into values themselves is the especial province of philosophy, which is contra-distinguished from empirical enquiry. But where many of the states and dispositions into whose promotion educational theory wishes to enquire (imagination, "questing and exploratory work") have clearly evaluative overtones, a theoretical stance which purports to ignore this will be misdirected. It is 'scientific' to study things as objectively as possible. It is not scientific to adopt a posture of objectivity which cannot be sustained.

Social scientists have constantly emphasised that the value judgements of the investigator (which operate in the selection of problems to be investigated and the selection of causal hypotheses to be tested) should be exposed and excised, so that the investigator can become a value-neutral social scientist. Even if we leave aside the problem that empiricism as a preferred approach to social under-standing depends upon a particular set of largely evaluative judgements

about man and society[1], the injunction to abjure values cannot be

sustained. Within the empirical approach, an examination of our

valuations plays a part in that enquiry if we are concerned to

investigate states presumed to be desirable. ORACLE asked, among

other things, to what extent 'discovery learning' is promoted in

primary classrooms. As this was treated as an unproblematically

descriptive concept, it could not be adequately investigated, since

only its external features (which are no part of its evaluative defining

characteristics) could be investigated. To heed the standard injunction

and expose in order to excise the value judgements surrounding the

concept, would solve no problems, for we would then be left with nothing

of interest to investigate. There has been much debate in the social

sciences on the question of making value-judgements explicit[2]. There

is no doubt that this injunction should be heeded, but the consequences

of heeding it are not necessarily what is assumed. If values are made

explicit where possible, they can be to that extent allowed for in

assessment of findings, but when the enquiry is concerned with matters

defined by our evaluation of them, a study of those valuations is the

core of the enquiry itself, rather than a preliminary to investigating

something quite other. It is the attempted elimination of values from

educational questions defined by them which leads to the study of their

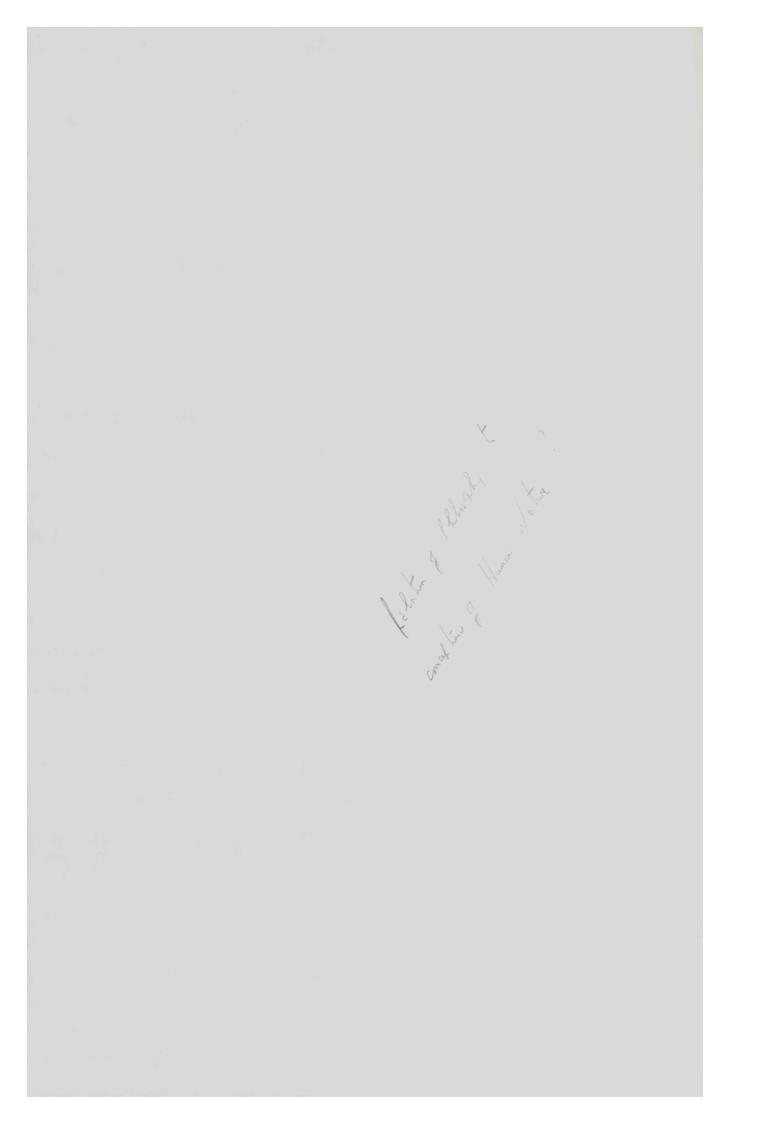conceptually irrelevant accompaniments. Wilson notes that

>"Chiefly because the social sciences have (incoherently)
>attempted a 'value-free' or purely 'descriptive' approach,
>they tend to offer information which may sidetrack rather
>than enlighten the educator. "[3]

1 See Harris K., Education and Knowledge, 1979, pp.17-18.

2 See Lessnoff M., The Structure of Social Science, 1974, chapter 6.
    Myrdal G., Value in Social Theory, 1958, pp.1-4, 138-9, 161-4.
    Myrdal G., Objectivity in Social Research, 1970, p.55 and passim.
    Weber, op. cit. (1949), passim.

3 Wilson, op. cit. (1975), p.60.

Relation of Philosophy to
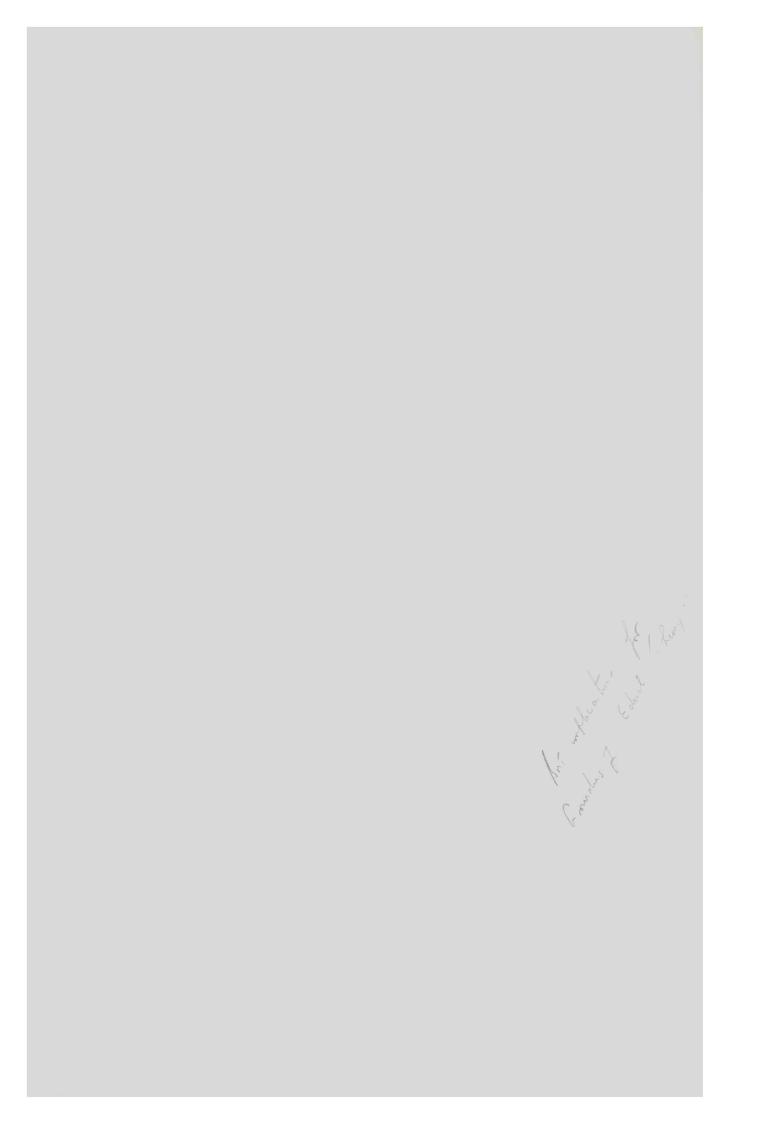
conception of Human Nature ?

Thus the project examined in this thesis was chiefly informative on questions of classroom management, and amounts of movement and talk. We need all the information we can get about the educational scene: but if approximations to positivist methods are employed, we do not get the information we need.

A final point remains concerning the relation of philosophy to empirical research in education. In that area we are centrally concerned with matters (the nature of the child, cognitive development, personality) about which we know extremely little. The 'facts' of psychology, on the basis of which researchers formulate their questions, are frequently based upon a model of man which has little or no empirical backing. The questions so formulated relate to educational objectives which in turn have been formulated in conformity with those 'facts' of psychology. The circularity of the enterprise is evident, issuing in a wholly a priori construction which appears to be empirically derived. Educational research is in dire need of a philosophical critique of the conceptions of human nature on which it appears to be empirically based. Developmental psychology, motivation theory and drive - reduction models of personality - to name just three such sets of beliefs implicit in much educational hypothesising, would all benefit from such a critique.

From all the foregoing, certain crucial points concerning the nature, scope and limits of educational theory should be clear. All those engaged in proposing or carrying out educational recommendations, in so far as they do so rationally, must necessarily theorise. Debates about whether or not we need educational theory, or whether it is possible in principle, are therefore otiose. What we should rather concern ourselves with is how far, and by what means, we can, in practice, establish a foundation for those empirical and normative judgements which conjointly inform our theorising. Currently, educational theory as a whole seems to be suffering from the legacies of positivism. Philosophers of education are loathe to advance systematic normative
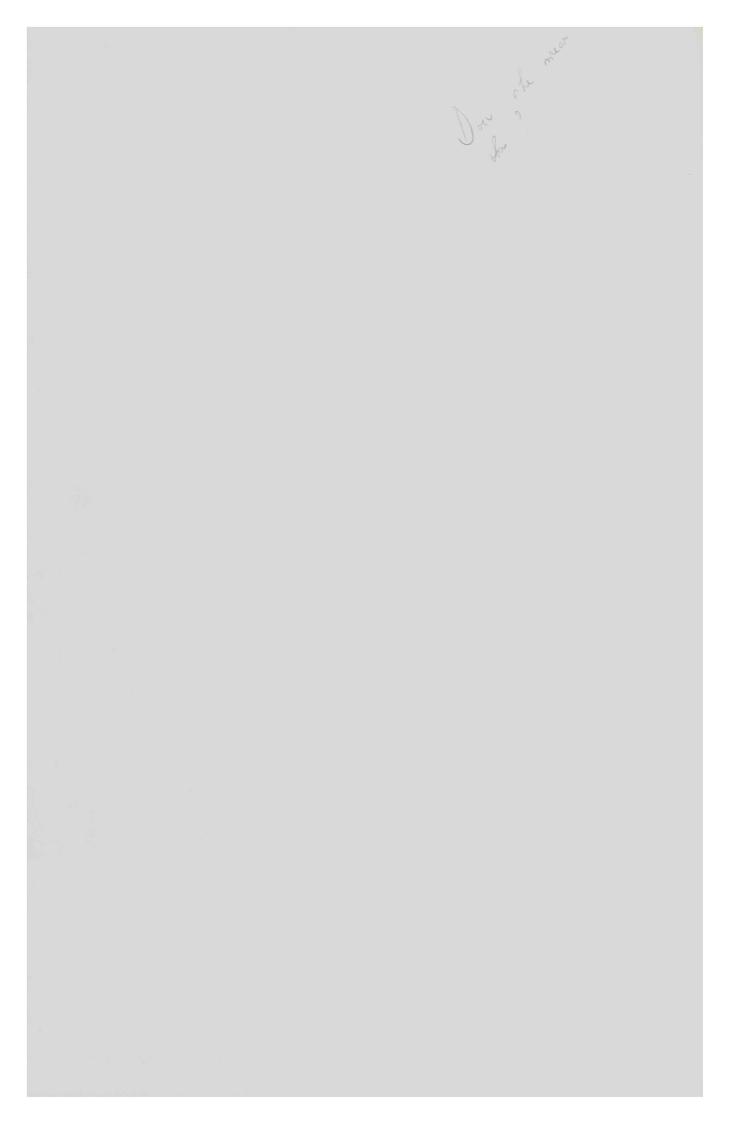
reasoning on the grounds - all disputed here - that ultimate evaluative

judgements are arbitrary; that this leaves all such subsidiary

judgements unsupported; that evaluative propositions are not corrigible

by factual propositions; and that conceptual analysis reveals truths

about the world which are non-empirical but value-free. Educational

researchers , bewitched by the nineteenth century assumptions of

natural science, either seek to study the actions of people as if they

were analogous to the movements of molecules, or alternatively assume

that meaningful behaviour is hermetic. Both these positions have been

similarly attacked in this thesis.

The potential contributions to be made to both normative and

empirical theorising by both empirical specialists and philosophers

have been sufficiently detailed above. Philosophers of education have

a particular contribution to make to the rational grounding of education

theory as a whole. It is clear that since one of the chief concerns of

philosophy is the distinction between facts and values, a major task

for philosophy of education must be to ensure that neither the

traditionally empirical area (to which valuations and conceptual enquiry

are basic) nor the traditionally speculative area (which makes reference

at all points to empirical considerations) proceed without cross-

fertilisation of insights. To be mindful of the fact/value gap is

essential: to suppose that facts and values can be studied not only

by separate procedures, but in isolation from each other, is simplistic.

To make this point is not simply to reiterate the commonplace

that educational questions are logically mixed. To be sure, the sort

of reasoning in which we engage in theorising about education is

practical reasoning. Practical reasoning is always <u>necessarily in-</u>

<u>conclusive</u> since any arguments which issue in practical judgements are

necessarily defeasible by the addition of further premises to the

argument, whether these additional premises be of fact or of value. It

is this necessary inconclusiveness which differentiates practical from

theoretical reasoning.| We therefore cannot ask of our educational
theorising that it be any more conclusive than can our reasoning
about any other of our practical affairs. What we must insist is
that it be equally rationally defensible. The chief barrier to this
at the moment is the naive supposition that philosophers (in isolation)
can examine pure value, and empiricists (in isolation) can study pure
fact, and that we can then all get together and combine our insights.
Any theoretic conclusions derived by this procedure will simply expose
a whole series of unanswered questions, for questions about the real
world and how we should act in it do not fall neatly on either side
of the demarcation lines drawn by positivism.

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